Human Behavior and the Social Environment I

Human Behavior and the Social Environment I

SUSAN TYLER

Contents

Part XII. Development in Late Adulthood

Why do people do the things they do?

That's what we are here to find out – **Human Behavior and the Social Environment (HBSE)** – How do they connect? How does it shape us? Why do we think and feel the way we do?

This will be explored throughout this course by examining human behavior throughout life stage developments and our interactions with the social environment. This course will explore theoretical perspectives in Social Work to help provide a foundation for organizing thoughts about client needs and issues they are seeking supports for. Theories will then be connected to important developmental, social, and cultural issues that present throughout each stage of life to create an overall picture of a client's experience and how we can use this information to have a better understanding of how people we work with are influenced and why. Knowledge of typical development in each stage of life will also inform the Social Worker if any other supports, resources, or services may be needed.

> "Social workers are knowledgeable about human behavior across the life course; the range of social systems in which people live; and the ways social systems promote or deter people in maintaining or achieving health and well-being. Social workers apply theories and knowledge from the liberal arts to understand biology, social, cultural, psychological and spiritual development." – CSWE (2008, p.6)

There is no single definition for HBSE. I encourage you to think about what it means to you. In Social Work, rarely do we work with people whose problems are straightforward. Typically, we

encounter problems that are complex and interconnected on several levels and require looking at the relationships between behaviors and environments. We like to explore as much as possible in Social Work and use of theories within various dimensions (biological, psychological, social, and spiritual) allows us to have a broader knowledge base in several different areas to have a better understanding and ability to "put it all together" to assess and intervene with client concerns.

We will utilize vignettes to work in connecting each theory, approach, perspective, and life stage of development throughout this course. Each section will begin with a vignette that will be incorporated throughout to demonstrate examples of each concept (that is not covered in your readings). Life stage development vignettes will be used as an "unfolding case" to allow you to work in critical thinking of how the theories, approaches, and perspectives connect throughout each life stage.

Social Work Values:

Service – engage in this by helping people address and hopefully resolve their problems/concerns – also engage in service through volunteering time to organizations within the community (boards, mentoring programs, etc).

Social Justice – advocate and fight against social injustices for individuals/groups – generally focusing in areas of poverty, discrimination, education, unemployment, etc.

Integrity – We must always work to be trustworthy,

honest, and responsible in our work and with our clients.

Competence – always strive to improve our knowledge and expertise through continuous learning and education.

Human relationships – connect as partners throughout the process – also work to improve relationships within the client's system to help improve overall functioning through increased connections/supports.

Dignity – value and respect each person we meet and engage with compassion and respect.

Critical Thinking Skills:

What is it?

- **Reasoning** – interest in the unknown – what's going?

- **Evaluating** – challenging appearances – what do you think you see vs what you actually see?

- **Problem-solving/decision making** – explore all sides and determine the best decision.

- **Analyzing** – how do they connect? What does it

Why is this important?

1. Theories, approaches, and perspectives help lay the foundation for any realistic and rational practice in any field. Our professional values lay the foundation on which social work's mission is based. They help guide us in decision making as they are directed towards a specific purpose and help us to grow and develop.

2. Justification for your decisions – we must use critical thinking skills to explore and process how decisions may impact our clients and we must be able to discuss how our decisions were determined.

About the Author:

Susan Tyler, MSW, LCSW – Clinical Assistant Professor, University of Arkansas, Fayetteville, AR

Professor Tyler has been teaching at the School of Social Work since Spring 2018. Before joining the School of Social Work, she worked in a community based mental health agency for over 10 years with a focus in Infant and Early Childhood Mental Health and School-Based Mental Health services revolving around issues related to trauma, abuse, attachment, anxiety, depression, domestic

violence, foster care, adjustments, disruptive behaviors, and ADHD, through use of play therapy techniques and dyadic interventions.

"Be the change you wish to see in the world" – Mahatma Gandhi
"You can do it" – Rob Schneider

References:

CSWE Commission on Accreditation. (2008). EPAS *Handbook*. Council on Social Work Education.

Attributions

The Meaning Behind This Book

I began my career in Social Work working in the mental health field with a focus in Infant and Early Childhood Mental Health. I realized during this time just how much a person's experiences and their environments impacted all aspects of their lives, including why they made the choices or responded the way they did. After a little over a decade of mental health work, I had an opportunity to make a change in my career and joined the world of academia. During my first semester teaching, I became aware of the Open Educational Resources at our university and immediately thought of the benefits of transitioning this course with providing a free, online accessible textbook that would support both students and instructors alike in exploring human behavior, social environment, and life stage development. I began working with the University library system to compile different chapters from different open and free textbooks from other disciplines and then added original content to support connection to Social Work foundations and practice in the first four sections, as well as creating vignettes to use throughout each section. This text will support the reader with a deeper understanding of Social Work theories, perspectives, and approaches, life stage development, and connection of how they are utilized in organizing, assessing, and planning for client support. It is my hope you will come away from this course seeing others through a lens of empathy, compassion, and curiosity, stopping to ask yourself, "what must they have experienced in their life?" to gain a better understanding before jumping to conclusions or assumptions of others.

"We are all unique. Don't judge, understand instead." ~ Roy T. Bennett

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PART I
THE PERSON IN ENVIRONMENT

Learning Objectives:

- Explore the Person in Environment Approach
- Describe the Micro, Mezzo, and Macro Approach
- Describe the Bio-Psycho-Social-Spiritual Approach
- Describe Systems Theory
- Describe Ecological Theory
- Describe Ecosystems Theory
- Introduce Strengths Perspective

Vignette

Jason's parents have been called by the school social worker to discuss concerns related to fighting with a peer and declining grades. His parents also report concerns at home with poor sibling relationships, anger issues, and "a bad attitude, always talking back, never listening or doing

Photo by [Christian Erfurt](#) on [Unsplash](#)

what we ask him to do". They report a long family history of substance abuse and mental health issues (anxiety and depression). They report increased concerns related to this as they recently found marijuana in Jason's room. Jason (14 y/o) reports "My parents don't know what they're talking about. My little brother and sister just get me in trouble because I don't let them touch my stuff, besides, my parents don't care, they don't listen to me, they just want me to do what they say. And I don't see what the big deal is with me smoking a little weed, it helps me feel better and not be so mad all the time."

What comes to mind when you hear Person-In-Environment?

This approach is the concept that people can be heavily influenced by their environment. It highlights the importance of understanding an individual and their behavior through their environment. A person's environment, along with their experiences, will help shape the way they view the world, how they think, and why they respond the way they do. In Social Work, gathering information from our clients is a foundation piece of the work we do and knowing what

information to seek and how to organize it is like gathering pieces of a puzzle and working to put them together to get the whole picture (or at least as much of it as we can). This lesson will begin to introduce some particular approaches, perspectives, and theories that help build the lens and foundation of the Social Work profession.

Micro, Mezzo, and Macro

We will first start with the **Micro, Mezzo, and Macro Approach**. This is simply looking at levels within a person's system, which will help give you some direction in what supports may be needed.

The **Micro-level** represents individual needs and involves direct interactions with clients, which is the most common type of social work. This level explores aspects related to biology, psychological needs, social (peer) and interpersonal (family) relationships or supports, and spiritual beliefs.

> *Jason's micro level* – *Biologically no physical health issues have been reported but some concerns may be related to how use of marijuana may affect his physical health. He is an adolescent which means his body continues to experience hormonal and physical changes. Family reports history of substance abuse issues as well as struggles with mental health issues, which may indicate possible genetic connections to be explored. This may also be connected to psychological needs as he may be experiencing anxiety or depressive symptoms or if he reports use of marijuana as a coping mechanism. He is*

> *also reported to present with anger, fighting with his siblings and struggling with strained family relationships. This connects us to social aspects, exploring how he identifies his relationships and supports. No spiritual beliefs were reported in the vignette but would need to be explored when meeting with Jason.*

The **Mezzo-level** represents connections or interactions with small groups, such as family, schools, churches, neighborhoods, community organizations, and peers/co-workers.

> **Jason's mezzo level** – *Here we would look further into how his relationships and interactions with various groups impact him – family, peers, school staff/faculty, possible spiritual affiliation/church, and any community groups or organizations he identifies being connected with.*

The **Macro-level** represents connections to systemic issues within large systems, such as laws/legislation, policy, healthcare systems, and international associations. This level also explores ethical frameworks, historical impacts of group experiences, and how discrimination and prejudice can impact marginalized populations.

> **Jason's macro level** – *Education/school policies, mental health policies, healthcare systems, culture and historical*

> *impacts of group experiences, drug laws and policies, and possible discrimination and prejudice impacts need to be explored.*

It is important to remember to explore the interconnectedness and interactions between what information is presenting on each level for the person and how this may have an impact on their functioning and development within their environment.

Bio-Psycho-Social-Spiritual

The **Bio-Psycho-Social-Spiritual Approach** assesses levels of functioning within biological, psychological, social, and spiritual dimensions (and how they are connected) to help understand human behavior. This approach includes much of the same information you will find in the Micro level but we are wanting to take a deeper look at how the individual is functioning in each dimension as well as how they can impact one another.

The **Biological component** includes aspects related to overall health, physical abilities, weight, diet, lifestyle, medication/substance use, gender, and genetic connections/vulnerabilities.

> ***Jason's biological aspects*** *– No concerns with overall physical health, developmental aspects of adolescence need to be considered, substance use concerns and impacts, identifies as male, and possible genetic*

connections/vulnerabilities (substance abuse, anxiety, depression, or any other family history of concern).

The **Psychological component** includes aspects related to mental health, self-esteem, attitudes/beliefs, temperament, coping skills, emotions, learning, memory, perceptions, and personality.

__Jason's psychological aspects__ – Anger, substance use concerns and impacts, possible esteem issues, poor coping skills and emotional regulation, cognitive development and any related concerns, personality and temperament characteristics, and explorations of how he perceives his world.

The **Social component** includes aspects related to peer and family relationships, social supports, cultural traditions, education, employment/job security, socioeconomic status, and societal messages.

__Jason's social aspects__ – Strained family relationships, school relationships/educational supports, exploration of socioeconomic impacts, exploration of cultural traditions,

> *and identification/exploration of peer relationships and supports.*

The **Spiritual component** includes aspects related to spiritual or religious beliefs, or belief in a "higher being" or higher power they feel connected to or supported by.

> ***Jason's spiritual aspects*** – *No spiritual aspects were reported but we would want to explore what this means to Jason. Does he identify with a church, religion, or higher power/being? What does it mean to him? Does it bring any support and comfort or is it causing increased stress as he is working to "figure out what it all means"?*

Looking at each dimension of the Bio-Psycho-Social-Spiritual Approach allows you to engage in a more holistic exploration and assessment of a person as it examines and connects four important domains of their life.

Systems Theory

Systems Theory states behavior is influenced by a result of factors that work together as a system and are interconnected – each part plays an important role in the function of the whole, and the whole in turn supports and sustains the parts. A person's family, friends, school, work, economic class, home environment, and other factors all influence how a person thinks and acts. A social worker must

observe and assess all of the systems a person experiences, as they contribute to their behavior and well-being, and work to strengthen those systems as they are connected and influence one another. This is used to develop a holistic view of individuals within their environment, which is then used to lead to the most appropriate practice intervention.

Within Systems Theory we will also explore roles (routine tasks and behaviors of people within a system). We all have roles and engage in them whether we recognize it or not. Some examples of roles are leader, caretaker, parent, child, sibling, enabler, scapegoat, citizen, spouse, and worker. Many people feel their roles identify them. This may reinforce behaviors when positive feelings or experiences are associated with the role(s) or maybe a motivator for change when the role(s) are connected to more negative feelings or experiences. Knowing what roles a person is engaged in, and how they perceive each role, will support your work in understanding their experiences and what needs are presenting.

Ecological Theory

Ecological Theory focuses on the interaction between the individual and their environment. It discusses the active involvement of people with their environments and development as well as both (environment/development) continuously changing.

"Thoughts become perception, Perception becomes reality. Alter your thoughts, Alter your reality." ~ William James

An important reminder of this theory is to remember the importance of perception – how people perceive or interpret their environment and experiences influences their overall functioning or well-being. This is also regardless of how problems or concerns may appear to the social worker. You will need to explore how the client views their situation before assuming certain situations are problematic. We need to try and see it through their eyes and get

an understanding of how they were feeling. It is their story and their reality. In social work practice, this can best be understood by looking at individuals, families, policies, communities, and cultures and identifying strengths and weaknesses in the transactional processes between the systems.

Bronfenbrenner's Ecological Systems Model used to explore Ecosystems Theory:

https://www.slideshare.net/CLMontecarlo/bronfenbrenner-ecological-theory-54149823

Bronfenbrenner believed an individual's development was affected by everything in their surrounding environment and divided the environment into five different levels: the microsystem, the mesosystem, the exosystem, the macrosystem, and the chronosystem.

The **microsystem** is the system closest to the individual and the one in which they have direct interactions. Some examples include home, school, or work. A microsystem typically includes family, peers, or caregivers. Relationships in a microsystem are bi-directional, meaning, how you respond and react to the people will affect their response and reaction to you. This is the most influential level within the theory.

The **mesosystem** is where a person's individual microsystems are interconnected and influence one another. These interactions have an indirect impact on the individual, which can be positive or negative depending on the elements of the system working together (positive) or working against each other (negative).

The **exosystem** refers to a setting in which the person is not an active participant, but still affects them. This includes decisions

that affect a person, but they have no decision-making abilities. An example of this would be a child affected by a parent losing a job.

The **macrosystem** is the cultural environment in which the person lives and all other systems that affect them such as economy, cultural values, and political systems.

The **chronosystem** encompasses transitions and shifts throughout a person's life. It looks at the timing of the event in relation to a person's development, such as how death affects children of different ages. Historical events that occur during a person's life are also explored such as the impacts of the September 11th attacks.

> ***Jason's story*** *– With use of Systems Theory, we will want to look at aspects of micro, mezzo, and macro levels as well as bio-psycho-social-spiritual dimensions above and how they interact and influence one another. Here we will also explore what roles Jason feels he engages in (son, brother, student, friend) as well as roles he may not recognize or identify (leader, caretaker (if he is asked to help with caring for younger siblings), or role model). We will also want to explore how Jason perceives each role (positive or negative) to gain a better understanding of his experience and work in supporting his needs. With use of Ecological Theory, we add the addition of looking at how development and environment continue to grow and change, and how this continues to impact our clients as they engage within their systems. Ecosystems Theory takes from both Systems Theory and Ecological Theory, combining major tenets from each and providing us the opportunity to look deeper into the complexity of each network a client experiences and gain a better*

understanding of how they interact and impact one another.

Strengths Perspective

A foundational perspective of Social Work is the **Strengths Perspective**. All people have strengths and abilities that allow them to grow and adapt. This perspective takes the focus off the problem and allows us to identify ways for clients to use their strengths in achieving their goals. Clients are seen as the experts of their experiences. We utilize their insights to explore times of resiliency and partner with them to identify supports and solutions and help support their ability to grow. It is also important to remember to evaluate the environment for possible barriers and impacts while assessing needs and strengths.

https://youtu.be/KCPC6BSSIX4

*   **Jason's Strengths** – *Family support, both biological parents in home and still together, awareness of family history, school supports, able bodied, no developmental delays reported (but should be explored if any concerns connected to this), has found a coping skills (even if it is not the most appropriate way, he is engaging in some self*

regulation work), and was able to engage with the school Social Worker during their meeting instead of remaining closed off and refusing to speak.

What other strengths can you identify?

How would you work to explore and identify strengths with Jason?

Exploration of Strengths: The following link will discuss strengths based practice values and explore the 5 types of questions Dennis Saleebey (University of Kansas, a pioneer in developing and promoting Strengths Based Practice) suggests to use to help assess strengths of our clients. The example questions have a focus on parental interactions but the examples and ideas can be expanded to working with any client population.

http://www.preventconnect.org/wp-content/uploads/2018/02/Strength-based-questions.pdf

Please continue on to Chapter 1: How We Use Our Expectations to explore more about our expectations, judgments, responses, and biases.

Key Takeaways:

- Think about a person's whole experience. What does that encompass? Childhood? Family? Friends? What else comes to mind?
- We need to look at their experiences at each level and within different systems, as well as how they interact, to get the whole picture (Person in Environment).
- The Strength's Perspective is a foundational perspective in the field of Social Work. It states all people have strengths and often times these strengths can be found within their struggles.

References:

The Audiopedia. (2017, May 1). What is STRENGTH-BASED

PRACTICE? What does STRENGTH-BASED PRACTICE mean? [Video file]. Youtube. https://www.youtube.com/watch?v=KCPC6BSSIX4

Chapter 1: How We Use Our Expectations

Once we have developed a set of schemas and attitudes, we naturally use that information to help us judge and respond to others. Our expectations help us think about, size up, and make sense of individuals, groups of people, and the relationships among people. If we have learned, for example, that someone is friendly and interested in us, we are likely to approach them; if we have learned that they are threatening or unlikable, we will be more likely to withdraw. And if we believe that a person has committed a crime, we may process new information in a manner that helps convince us that our judgment was correct. In this section, we will consider how we use our stored knowledge to come to accurate (and sometimes inaccurate) conclusions about our social worlds. Table 2.1 "How Expectations Influence Our Social Cognition" summarizes the

concepts that we will discuss, some of the many ways that our existing schemas and attitudes influence how we respond to the information around us.

Table 2.1 How Expectations Influence Our Social Cognition

Cognitive Process	Description	Example
Cognitive accessibility	Some schemas and attitudes are more accessible than others.	We may think a lot about our new haircut because it is important for us.
Salience	Some stimuli, such as those that are unusual, colorful, or moving, grab our attention.	We may base our judgments on a single unusual event and ignore hundreds of other events that are more usual.
Representativeness heuristic	We tend to make judgments according to how well the event matches our expectations.	After a coin has come up heads many times in a row, we may erroneously think that the next flip is more likely to be tails.
Availability heuristic	Things that come to mind easily tend to be seen as more common.	We may overestimate the crime statistics in our own area because these crimes are so easy to recall.
Anchoring and adjustment	Although we try to adjust our judgments away from them, our decisions are overly based on the things that are most highly accessible in memory.	We may buy more of a product when it is advertised in bulk than when it is advertised as a single item.
Counterfactual thinking	We may "replay" events such that they turn out differently—especially when only minor changes in the events leading up to them make a difference.	We may feel particularly bad about events that might not have occurred if only a small change might have prevented them.
False consensus bias	We tend to see other people as similar to us.	We are surprised when other people have different political opinions or values.
Overconfidence	We tend to have more confidence in our skills, abilities, and judgments than is objectively warranted.	Eyewitnesses are often extremely confident that their identifications are accurate, even when they are not.

Automatic Versus Controlled Cognition

A good part of both cognition and social cognition is spontaneous or automatic. Automatic cognition refers to *thinking that occurs out of our awareness, quickly, and without taking much effort* (Ferguson & Bargh, 2003; Ferguson, Hassin, & Bargh, 2008). The things that we do most frequently tend to become more automatic each time we do them until they reach a level where they don't really require us to think about them very much. Most of us can ride a bike and operate a television remote control in an automatic way. Even though it took some work to do these things when we were first learning them, it just doesn't take much effort anymore. And because we spend a lot of time making judgments about others, many of these judgments (and particularly those about people we don't know very well and who don't matter much to us) are made automatically (Willis & Todorov, 2006).

Because automatic thinking occurs outside of our conscious awareness, we frequently have no idea that it is occurring and influencing our judgments or behaviors. You might remember a time when you came back from your classes, opened the door to your dorm room, and 30 seconds later couldn't remember where you had put your keys! You know that you must have used the keys to get in, and you know you must have put them somewhere, but you simply don't remember a thing about it. Because many of our everyday judgments and behaviors are performed "on automatic," we may not always be aware that they are occurring or influencing us.

It is, of course, a good thing that many things operate automatically because it would be a real pain to have to think about them all the time. If you couldn't drive a car automatically, you wouldn't be able to talk to the other people riding with you or listen to the radio at the same time—you'd have to be putting most of your attention into driving. On the other hand, relying on our snap judgments about Bianca—that she's likely to be expressive, for instance—can be erroneous. Sometimes we need to—and

should—go beyond automatic cognition and consider people more carefully. *When we deliberately size up and think about something—for instance another person—*we call it thoughtful cognition or controlled cognition.

Although you might think that controlled cognition would be more common and that automatic thinking would be less likely, that is not always the case. The problem is that thinking takes effort and time, and we often don't have too many of those things available. As a result, we frequently rely on automatic cognition, and these processes—acting outside of our awareness—have a big effect on our behaviors. In the following Research Focus, we will consider an example of a study that uses a common social cognitive procedure known as priming — *a technique in which information is temporarily brought into memory through exposure to situational events—*and that shows that priming can influence judgments entirely out of awareness.

Research Focus

Behavioral Effects of Priming

In one demonstration of how automatic cognition can influence our behaviors without us being aware of them, John Bargh and his colleagues (Bargh, Chen, & Burrows, 1996) conducted two studies, each with the exact same

procedure. In the experiments, they showed college students sets of five scrambled words. The students were to unscramble the five words in each set to make a sentence. Furthermore, for half of the research participants, the words were related to the stereotype of the elderly. These participants saw words such as "in Florida retired live people" and "bingo man the forgetful plays."

The other half of the research participants also made sentences but did so out of words that had nothing to do with the elderly stereotype. The purpose of this task was to prime (activate) the schema of elderly people in memory for some of the participants but not for others.

The experimenters then assessed whether the priming of elderly stereotypes would have any effect on the students' behavior—and indeed it did. When each research participant had gathered all his or her belongings, thinking that the experiment was over, the experimenter thanked him or her for participating and gave directions to the closest elevator. Then, without the participant knowing it, the experimenters recorded the amount of time that the participant spent walking from the doorway of the experimental room toward the elevator. As you can see in the following figure, the same results were found in both experiments—the participants who had made sentences using words related to the elderly stereotype took on the behaviors of the elderly—they walked significantly more slowly (in fact, about 12% more slowly across the two studies) as they left the experimental room.
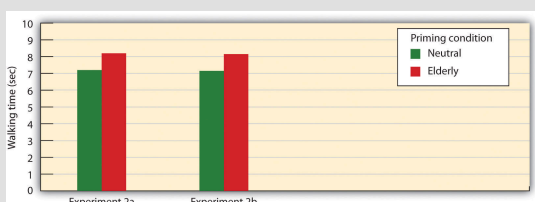
Figure 2.3 Automatic Priming and Behavior

In two separate experiments, Bargh, Chen, and Borroughs (1996) found that students who had been exposed to words related to the elderly stereotype walked more slowly than those who had been exposed to more neutral words.

To determine if these priming effects occurred out of the conscious awareness of the participants, Bargh and his colleagues asked the third group of students to complete the priming task and then to indicate whether they thought the words they had used to make the sentences had any relationship to each other or could possibly have influenced their behavior in any way. These students had no awareness of the possibility that the words might have been related to the elderly or could have influenced their behavior.

The point of these experiments, and many others like them, is clear—it is quite possible that our judgments and behaviors are influenced by our social situations, and this influence may be entirely outside of our conscious awareness. To return again to Bianca, it is even possible that we notice her nationality and that our beliefs about Italians influence our responses to her, even though we have no idea that they are doing so and really believe that they have not. It is in this way that our stereotypes may

have their insidious effects, and it is exactly these processes that may have led to a mistaken eyewitness account in the case of Rickie Johnson.

Salience and Accessibility Determine Which Expectations We Use

We each have a large number of schemas that we might bring to bear on any type of judgment we might make. When thinking about Bianca, for instance, we might focus on her nationality, her gender, her physical attractiveness, her intelligence, or any of many other possible features. And we will react to Bianca differently depending on which schemas we use. Schema activation is determined both by characteristics of the person we are judging—the *salience* of the characteristics—and by the current activation of the schema in the individual—the *cognitive accessibility* of the schema.

Salience

One determinant of which schemas are likely to be used in social justice is the extent to which we attend to particular features of the person or situation that we are responding to. We are more likely to judge people on the basis of characteristics that are salient, meaning that *they attract our attention when we see something or someone with them.* Things that are unusual, negative, colorful, bright and moving are more salient and thus more likely to be attended to than are things that do not have these characteristics (McArthur & Post, 1977; Taylor & Fiske, 1978).

Which of these people are more salient and therefore more likely to attract your attention? Erich Ferdinand – The Purger – CC BY 2.0; Hamad AL-Mohannna – Jump – CC BY-ND 2.0; LethaColleen – Session 5: Finished! – CC BY-NC-ND 2.0.

We are more likely to initially judge people on the basis of their sex, race, age, and physical attractiveness, rather than on, say, their religious orientation or their political beliefs, in part because these features are so salient when we see them (Brewer, 1988). Another thing that makes something particularly salient is its infrequency or unusualness. Because Bianca is from Italy and very few other people in our school are, that characteristic is something that we notice—it is salient, and we are therefore likely to attend to it. That she is also a woman is—at least in this context—less salient.

The salience of the stimuli in our social worlds may sometimes lead us to make judgments on the basis of information that is actually less informative than is other less salient information. Imagine, for instance, that you wanted to buy a new music player for yourself. You've been trying to decide whether to get the iPod or the Zune. You went online and checked out *Consumer Reports*, and you found that although the players differed on many dimensions, including price, battery life, ability to share music, and so forth, the Zune was nevertheless rated significantly higher by the owners than was the iPod. As a result, you decide to go purchase one the next day. That night, however, you go to a party, and a friend of yours

shows you her iPod. You check it out, and it seems really great. You tell her that you were thinking of buying a Zune, and she tells you that you are crazy. She says she knows someone who had one and had a lot of problems—it didn't download music right, the battery went out right after it went out of warranty, and so forth—and that she would never buy one. Would you still buy the Zune, or would you switch your plans?

If you think about this question logically, the information that you just got from your friend isn't really all that important—you now know the opinions of one more person, but that can't really change the overall consumer ratings of the two machines very much. On the other hand, the information your friend gives you and the chance to use her iPod is highly salient. The information is right there in front of you, in your hand, whereas the statistical information from *Consumer Reports* is only in the form of a table that you saw on your computer. The outcome in cases such as this is that people frequently ignore the less salient, but more important, information, such as *the likelihood that events occur across a large population*—these statistics are known as base rates — in favor of the actually less important, but nevertheless more salient, information.

Another case in which we ignore base-rate information occurs when we use the representativeness heuristic (remember that *heuristic* refers to a simplifying strategy that we use to make judgments). The representativeness heuristic occurs when we *base our judgments on information that seems to represent, or match, what we expect will happen while ignoring more informative base-rate information.* Consider, for instance, the following puzzle. Let's say that you went to a hospital, and you checked the records of the babies that were born today (Table 2.2 "Using the Representativeness Heuristic"). Which pattern of births do you think that you are most likely to find?

Table 2.2 Using the Representativeness Heuristic

List A		List B	
6:31 a.m.	Girl	6:31 a.m.	Boy
8:15 a.m.	Girl	8:15 a.m.	Girl
9:42 a.m.	Girl	9:42 a.m.	Boy
1:13 p.m.	Girl	1:13 p.m.	Girl
3:39 p.m.	Boy	3:39 p.m.	Girl
5:12 p.m.	Boy	5:12 p.m.	Boy
7:42 p.m.	Boy	7:42 p.m.	Girl
11:44 p.m.	Boy	11:44 p.m.	Boy

Most people think that list B is more likely, probably because list B looks more random and thus matches (is "representative of") our ideas about randomness. But statisticians know that any pattern of four girls and four boys is equally likely and thus that List B is no more likely than List A. The problem is that we have an image of what randomness should be, which doesn't always match what is rationally the case. Similarly, people who see a coin that comes up heads five times in a row will frequently predict (and perhaps even bet!) that tails will be next—it just seems like it has to be. But mathematically, this erroneous expectation (known as the gambler's fallacy) is simply not true: The base-rate likelihood of any single coin flip being tails is only 50%, regardless of how many times it has come up heads in the past.

To take one more example, consider the following information:

I have a friend who is short, shy and writes poetry. Which of the following is she? (Choose one.)

1.	A professor of psychology
2.	A professor of Chinese

Can you see how you might be led, potentially incorrectly, into thinking that my friend is a professor of Chinese? Why? Because the description ("short, shy, and writes poetry") just seems so representative or stereotypical of our expectations about Chinese people. But the base rates tell us something completely different, which might make us wary. For one, because I am a psychology professor, it's much more likely that I know more psychology professors than Chinese professors. And at least on my campus, the number of professors in the psychology department is much bigger than the number of professors of Chinese. Although base rates suggest that "psychology" would be the right answer, the use of the representative heuristic might lead us (probably incorrectly) to guess "Chinese" instead.

Cognitive Accessibility

Although which characteristics we use to think about objects or people is determined in part by the salience of their characteristics (our perceptions are influenced by our social situation), individual differences in the person who is doing the judging are also important (our perceptions are influenced by person variables). People vary in the schemas that they find important to use when judging others and when thinking about themselves. One way to consider this importance is in terms of the *cognitive accessibility* of the schema. Cognitive accessibility refers to *the extent to which a schema is activated in memory and thus likely to be used in information processing.*

You probably know people who are golf nuts (or maybe tennis or some other sports nuts). All they can talk about is golf. For them, we would say that golf is a highly accessible construct. Because they love golf, it is important to their self-concept; they set many of their goals in terms of the sport, and they tend to think about things and people in terms of it ("if he plays golf, he must be a good

person!"). Other people have highly accessible schemas about eating healthy food, exercising, environmental issues, or really good coffee, for instance. In short, when a schema is accessible, we are likely to use it to make judgments of ourselves and others.

Although accessibility can be considered a person variable (a given idea is more highly accessible for some people than for others), accessibility can also be influenced by situational factors. When we have recently or frequently thought about a given topic, that topic becomes more accessible and is likely to influence our judgments. This is, in fact, the explanation for the results of the priming study you read about earlier—people walked slower because the concept of the elderly had been primed and thus was currently highly accessible for them.

Because we rely so heavily on our schemas and attitudes—and particularly on those that are salient and accessible—we can sometimes be overly influenced by them. Imagine, for instance, that I asked you to close your eyes and determine whether there are more words in the English language that begin with the letter R or that have the letter R as the third letter. You would probably try to solve this problem by thinking of words that have each of the characteristics. It turns out that most people think there are more words that begin with R, even though there are in fact more words that have R as the third letter.

You can see that this error can occur as a result of cognitive accessibility. To answer the question, we naturally try to think of all the words that we know that begin with R and that have R in the third position. The problem is that when we do that, it is much easier to retrieve the former than the latter because we store words by their first, not by their third, letter. We may also think that our friends are nice people because we see them primarily when they are around us (their friends). And the traffic might seem worse in our own neighborhood than we think it is in other places, in part because nearby traffic jams are more accessible for us than are traffic jams that occur somewhere else. And do you think it is more likely that you will be killed in a plane crash or in a car crash?

Many people fear the former, even though the latter is much more likely: Your chances of being involved in an aircraft accident are about 1 in 11 million, whereas your chances of being killed in an automobile accident are 1 in 5,000—over 50,000 people are killed on U.S. highways every year. In this case, the problem is that plane crashes, which are highly salient, are more easily retrieved from our memory than are car crashes, which are less extreme.

The tendency to make judgments of the frequency of an event or the likelihood that an event will occur, on the basis of the ease with which the event can be retrieved from memory is known as the availability heuristic (Schwarz & Vaughn, 2002; Tversky & Kahneman, 1973). The idea is that things that are highly accessible (in this case, the term *availability* is used) come to mind easily and thus may overly influence our judgments. Thus, despite the clear facts, it may be easier to think of plane crashes than car crashes because the former are so highly salient. If so, the availability heuristic can lead to errors in judgments.

Still another way that the cognitive accessibility of constructs can influence information processing is through their effects on *processing fluency*. Processing fluency refers to *the ease with which we can process information in our environments*. When stimuli are highly accessible, they can be quickly attended to and processed, and they, therefore, have a large influence on our perceptions. This influence is due, in part, to the fact that our body reacts positively to information that we can process quickly, and we use this positive response as a basis of judgment (Reber, Winkielman, & Schwarz, 1998; Winkielman & Cacioppo, 2001).

In one study demonstrating this effect, Norbert Schwarz and his colleagues (Schwarz et al., 1991) asked one set of college students to list 6 occasions when they had acted either *assertively* or *unassertively* and asked another set of college students to list 12 such examples. Schwarz determined that for most students, it was pretty easy to list 6 examples but pretty hard to list 12.

The researchers then asked the participants to indicate how

assertive or unassertive they actually were. You can see from Figure 2.4 "Processing Fluency" that the ease of processing influenced judgments. The participants who had an easy time listing examples of their behavior (because they only had to list 6 instances) judged that they did in fact have the characteristics they were asked about (either assertive or unassertive), in comparison with the participants who had a harder time doing the task (because they had to list 12 instances). Other research has found similar effects—people rate that they ride their bicycles more often after they have been asked to recall only a few rather than many instances of doing so (Aarts & Dijksterhuis, 1999), and they hold an attitude with more confidence after being asked to generate few rather than many arguments that support it (Haddock, Rothman, Reber, & Schwarz, 1999).
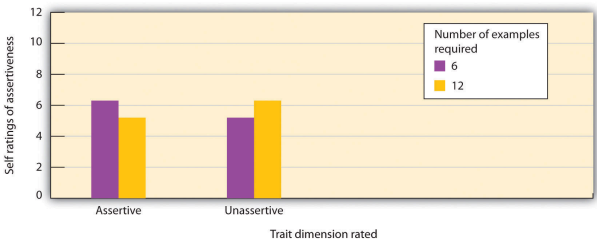
Figure 2.4 Processing Fluency

When it was relatively easy to complete the questionnaire (only 6 examples were required), the student participants rated that they had more of the trait than when the task was more difficult (12 answers were required). Data are from Schwarz et al. (1991).

We are likely to use this type of quick and "intuitive" processing, based on our feelings about how easy it is to complete a task when we don't have much time or energy for more in-depth processing, such as when we are under time pressure, tired, or unwilling to process the stimulus in sufficient detail. Of course, it is very adaptive to respond to stimuli quickly (Sloman, 2002; Stanovich & West, 2002; Winkielman, Schwarz, & Nowak, 2002), and it is not

impossible that in at least some cases, we are better off making decisions based on our initial responses than on a more thoughtful cognitive analysis (Loewenstein, Weber, Hsee, & Welch, 2001). For instance, Dijksterhuis, Bos, Nordgren, and van Baaren (2006) found that when participants were given tasks requiring decisions that were very difficult to make on the basis of cognitive analysis of the problem, they made better decisions when they didn't try to analyze the details carefully but simply relied on their unconscious intuition.

In sum, people are influenced not only by the information they get but by how they get it. We are more highly influenced by things that are salient and accessible and thus easily attended to, remembered, and processed. On the other hand, information that is harder to access from memory is less likely to be attended to, or takes more effort to consider is less likely to be used in our judgments, even if this information is statistically equally informative or even more informative.

The False Consensus Bias Makes Us Think That We Are More Like Others Than We Really Are

The tendency to base our judgments on the accessibility of social constructs can lead to still other errors in judgment. One such error is known as the false consensus bias: *the tendency to overestimate the extent to which other people are similar to us.* For instance, if you are in favor of abortion rights, opposed to gun control, and prefer rock music to jazz, then you are likely to think that other people share these beliefs (Ross, Greene, & House, 1977). In one demonstration of the false consensus bias, Joachim Krueger and his colleagues (Krueger & Clement, 1994) gave their research participants, who were college students, a personality test. Then they asked the same participants to estimate the percentage of other students in their school who would have answered the questions the same way that they did. The students who agreed

with the items thought that others would agree with them too, whereas the students who disagreed thought that others would also disagree. You can see that the false consensus bias also occurs through the operation of cognitive accessibility: Once we have indicated our own belief, it becomes highly accessible, and it colors our estimates about other people.

Although it is commonly observed, the false consensus bias does not occur in all dimensions. Specifically, the false consensus bias is not usually observed on judgments of positive personal traits that we highly value as important. People (falsely, of course) report that they have better personalities (e.g., a better sense of humor), that they engage in better behaviors (e.g., they are more likely to wear seat belts), and that they have brighter futures than almost everyone else (Chambers, 2008). These results suggest that although in most cases we assume that we are similar to others, in cases of valued personal characteristics the goals of self-concern lead us to see ourselves more positively than we see the average person.

Perceptions of What "Might Have Been" Lead to Counterfactual Thinking

In addition to influencing our judgments about ourselves and others, the salience and accessibility of information can have an important effect on our own emotions—for instance, our self-esteem. Our emotional reactions to events are often colored not only by what did happen but also by what *might have* happened. If we can easily imagine an outcome that is better than what actually happened, then we may experience sadness and disappointment; on the other hand, if we can easily imagine that a result might have been worse than what actually happened, we may be more likely to experience happiness and satisfaction. *The tendency to think about events according to what might have been* known as counterfactual thinking (Roese, 1997).

Imagine, for instance, that you were participating in an important contest, and you won the silver medal. How would you feel? Certainly, you would be happy that you won, but wouldn't you probably also be thinking a lot about what might have happened if you had been just a little bit better—you might have won the gold medal! On the other hand, how might you feel if you won the bronze medal (third place)? If you were thinking about the counterfactual (the "what might have been"), perhaps the idea of not getting any medal at all would have been highly accessible—you'd be happy that you got the medal you did get.

Medvec, Madey, and Gilovich (1995) investigated exactly this idea by videotaping the responses of athletes who won medals in the 1992 summer Olympic Games. They videotaped the athletes both as they learned that they had won a silver or a bronze medal and again as they were awarded the medal. Then they showed these videos, without any sound, to people who did not know which medal which athlete had won. The raters indicated how they thought the athlete was feeling, on a range from "agony" to "ecstasy." The results showed that the bronze medalists did indeed seem to be, on average, happier than were the silver medalists. Then in a follow-up study, raters watched interviews with many of these same athletes as they talked about their performance. The raters indicated what we would expect on the basis of counterfactual thinking—the silver medalists talked about their disappointments in having finished second rather than first, whereas the bronze medalists focused on how happy they were to have finished third rather than fourth.

Does the bronze medalist look happier to you than the silver medalist? Medvec, Madey, and Gilovich (1995) found that, on average, bronze medalists were happier than silver medalists. Wikimedia Commons – CC BY-SA 2.0.

You might have experienced counterfactual thinking in other situations. I remember once that I was driving across the country and my car was having some engine trouble. I really, really wanted to make it home when I got near the end of my journey because I could tell that I was going to be very disappointed if the car broke down only a few miles before I got home (it would have been really easy to have imagined making it the whole way, making it even more painful if I did not). Counterfactual thinking has even been observed on juries—people who are asked to award monetary damages to others who had been in an accident offered them substantially more in compensation if they were almost not injured than they did if the accident did not seem close to not occurring (Miller, Turnbull, & McFarland, 1988).

Again, the moral of the story is clear—our thinking is frequently influenced by processes that we are not aware of and that may lead us to make judgments that seem reasonable but are objectively

inaccurate. In the case of counterfactual thinking, the cognitive accessibility of the potential alternative outcome leads to some very paradoxical effects.

Anchoring and Adjustment Lead Us to Accept Ideas That We Should Revise

In some cases, we may be aware of the danger of acting on our expectations and attempt to adjust for them. Perhaps you have been in a situation where you are beginning a course with a new professor and you know that a good friend of yours does not like him. You may be thinking that you want to go beyond your negative expectations and prevent this knowledge from biasing your judgment. However, the accessibility of the initial information frequently prevents this adjustment from occurring—leading us to *anchor on the initial construct and not adjust sufficiently*. This is called the problem of anchoring and adjustment.

Tversky and Kahneman (1974) asked some of the student participants in one of their studies to solve this multiplication problem quickly and without using a calculator:

$1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8$

They asked other participants to solve this problem:

$8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$

They found that students who saw the first problem gave an estimated answer of about 512, whereas the students who saw the second problem estimated about 2,250. Tversky and Kahneman argued that the students couldn't solve the whole problem in their head, so they did the first few multiplications and then used the outcome of this preliminary calculation as their starting point, or anchor. Then the participants used their starting estimate to find an answer that sounded plausible. In both cases, the estimates were too low relative to the true value of the product (which is

40,320)—but the first set of guesses was even lower because they started from a lower anchor.

Of course, savvy marketers have long used the anchoring phenomenon to help them. You might not be surprised to hear that people are more likely to buy more products when they are listed as four for $1.00 than when they are listed as $0.25 each (leading people to anchor on the four and perhaps adjust only a bit away) and when a sign says "buy a dozen" rather than "buy one."

And it is no accident that a car salesperson always starts negotiating with a high price and then works down. The salesperson is trying to get the consumer anchored on the high price with the hope that it will have a big influence on the final sale value.

Overconfidence

Still another potential judgmental bias, and one that has powerful and often negative effects on our judgments, is the tendency to be overconfident in our own skills, abilities, and judgments. We often have little awareness of our own limitations, leading us to act as if we are more certain about things than we should be, particularly on tasks that are difficult. Adams and Adams (1960) found that for words that were difficult to spell, people were correct in spelling them only about 80% of the time, even though they indicated that they were "100% certain" that they were correct. David Dunning and his colleagues (Dunning, Griffin, Milojkovic, & Ross, 1990) asked college students to predict how another student would react in various situations. Some participants made predictions about a fellow student whom they had just met and interviewed, and others made predictions about their roommates. In both cases, participants reported their confidence in each prediction, and accuracy was determined by the responses of the target persons themselves. The results were clear: Regardless of whether they

judged a stranger or a roommate, the students consistently overestimated the accuracy of their own predictions (Figure 2.5).
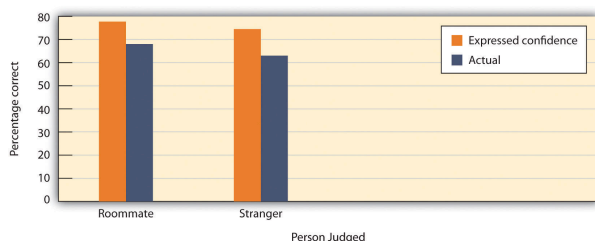
Figure 2.5

Dunning et al. (1990) found that, regardless of whether they were judging strangers or their roommates, students were overconfident. The percentage confidence that they assigned to their own predictions was significantly higher than the actual percentage of their predictions that were correct.

Making matters even worse, Kruger and Dunning (1999) found that people who scored low rather than high on tests of spelling, logic, grammar, and humor appreciation were also most likely to show overconfidence by overestimating how well they would do. Apparently, poor performers are doubly cursed—they not only are unable to predict their own skills but also are the most unaware that they can't do so (Dunning, Johnson, Ehrlinger, & Kruger, 2003).

The tendency to be overconfident in our judgments can have some very negative effects. When eyewitnesses testify in courtrooms regarding their memories of a crime, they often are completely sure that they are identifying the right person. But their confidence doesn't correlate much with their actual accuracy. This is, in part, why so many people have been wrongfully convicted on the basis of inaccurate eyewitness testimony given by overconfident witnesses (Wells & Olson, 2003).

The Importance of Cognitive Biases in Everyday

Life

Perhaps you are thinking that the use of heuristics and the tendency to be influenced by salience and accessibility don't seem that important—who really cares if we buy an iPod when the Zune is better, or if we think there are more words that begin with the letter R than there actually are? These aren't big problems in the overall scheme of things. But it turns out that what seems perhaps to be pretty small errors and biases on the surface can have profound consequences for people.

For one, if the errors occur for a lot of people, they can really add up. Why would so many people continue to buy lottery tickets or to gamble their money in casinos when the likelihood of them ever winning is so low? One possibility, of course, is the representative heuristic—people ignore the low base rates of winning and focus their attention on the salient likelihood of winning a huge prize. And the belief in astrology, which all scientific evidence suggests is not accurate, is probably driven in part by the salience of the occasions when the predictions do occur—when a horoscope is correct (which it will, of course, be sometimes), the correct prediction is highly salient and may allow people to maintain the (overall false) belief.

People may also take more care to prepare for unlikely events than for more likely ones because the unlikely ones are more salient or accessible. For instance, people may think that they are more likely to die from a terrorist attack or as a result of homicide than they are from diabetes, stroke, or tuberculosis. But the odds are much greater of dying from the health problems than from terrorism or homicide. Because people don't accurately calibrate their behaviors to match the true potential risks, the individual and societal costs are quite large (Slovic, 2000).

Salience and accessibility also color how we perceive our social worlds, which may have a big influence on our behavior. For instance, people who watch a lot of violent television shows also tend to view the world as more dangerous in comparison to those

who watch less violent TV (Doob & Macdonald, 1979). This follows from the idea that our judgments are based on the accessibility of relevant constructs. We also overestimate our contribution to joint projects (Ross & Sicoly, 1979), perhaps in part because our own contributions are so obvious and salient, whereas the contributions of others are much less so. And the use of cognitive heuristics can even affect our views about global warming. Joireman, Barnes, Truelove, and Duell (2010) found that people were more likely to believe in the existence of global warming when they were asked about it on hotter rather than colder days and when they had first been primed with words relating to heat. Thus the principles of salience and accessibility, because they are such an important part of our social judgments, can create a series of biases that can make a difference.

Research has found that even people who should know better—and who need to know better—are subject to cognitive biases. Economists, stock traders, managers, lawyers, and even doctors have been found to make the same kinds of mistakes in their professional activities that people make in their everyday lives (Byrne & McEleney, 2000; Gilovich, Griffin, & Kahneman, 2002; Hilton, 2001). And the use of cognitive heuristics is increased when people are under time pressure (Kruglanski & Freund, 1983) or when they feel threatened (Kassam, Koslov, & Mendes, 2009), exactly the situations that may occur when professionals are required to make their decisions.

Although biases are common, they are not impossible to control, and psychologists and other scientists are working to help people make better decisions. One possibility is to provide people with better feedback. Weather forecasters, for instance, are quite accurate in their decisions, in part because they are able to learn from the clear feedback that they get about the accuracy of their predictions. Other research has found that accessibility biases can be reduced by leading people to consider multiple alternatives rather than focusing only on the most obvious ones, and particularly by leading people to think about exactly the opposite possible

outcomes than the ones they are expecting (Hirt, Kardes, & Markman, 2004). And people can also be trained to make better decisions. For instance, Lehman, Lempert, and Nisbett (1988) found that graduate students in medicine, law, and chemistry, but particularly those in psychology, all showed significant improvement in their ability to reason correctly over the course of their graduate training.

Social Psychology in the Public Interest

The Validity of Eyewitness Testimony

As we have seen in the story of Rickie Johnson that opens this chapter, one social situation in which the accuracy of our person-perception skills is vitally important in the area of eyewitness testimony (Charman & Wells, 2007; Toglia, Read, Ross, & Lindsay, 2007; Wells, Memon, & Penrod, 2006). Every year, thousands of individuals such as Rickie Johnson are charged with and often convicted of crimes based largely on eyewitness evidence. In fact, more than 100 people who were convicted prior to the existence of forensic DNA have now been exonerated by DNA tests, and more than 75% of these people were victims of mistaken

eyewitness identification (Wells, Memon, & Penrod, 2006; Fisher, 2011).

The judgments of eyewitnesses are often incorrect, and there is only a small correlation between how accurate and how confident an eyewitness is. Witnesses are frequently overconfident, and one who claims to be absolutely certain about his or her identification is not much more likely to be accurate than one who appears much less sure, making it almost impossible to determine whether a particular witness is accurate or not (Wells & Olson, 2003).

To accurately remember a person or an event at a later time, we must be able to accurately see and store the information in the first place, keep it in memory over time, and then accurately retrieve it later. But the social situation can influence any of these processes, causing errors and biases.

In terms of initial encoding of the memory, crimes normally occur quickly, often in situations that are accompanied by a lot of stress, distraction, and arousal. Typically, the eyewitness gets only a brief glimpse of the person committing the crime, and this may be under poor lighting conditions and from far away. And the eyewitness may not always focus on the most important aspects of the scene. Weapons are highly salient, and if a weapon is present during the crime, the eyewitness may focus on the weapon, which would draw his or her attention away from the individual committing the crime (Steblay, 1997). In one relevant study, Loftus, Loftus, and Messo (1987) showed people slides of a customer walking up to a bank teller and pulling out either a pistol or a checkbook. By tracking eye movements, the researchers determined that people were more likely to look at the gun than at the checkbook and

that this reduced their ability to accurately identify the criminal in a lineup that was given later.

People may be particularly inaccurate when they are asked to identify members of a race other than their own (Brigham, Bennett, Meissner, & Mitchell, 2007). In one field study, for example, Meissner and Brigham (2001) sent White, Black, and Hispanic students into convenience stores in El Paso, Texas. Each of the students made a purchase, and the researchers came in later to ask the clerks to identify photos of the shoppers. Results showed that the White, Black, and Mexican American clerks demonstrated the own-race bias: They were all more accurate at identifying customers belonging to their own racial or ethnic group than they were at identifying people from other groups. There seems to be some truth to the adage that "They all look alike"—at least if an individual is looking at someone who is not of his or her race.

One source of error in eyewitness testimony is the relative difficulty of accurately identifying people who are not of one's own race. Kira Westland – sisters – CC BY-NC-ND 2.0; Dillan K – Sisters – CC BY-NC-ND 2.0; Bill Lile – Robertos Brothers – CC BY-NC-ND 2.0.

Even if information gets encoded properly, memories may become distorted over time. For one thing, people might discuss what they saw with other people, or they

might read the information relating to it from other bystanders or in the media. Such postevent information can distort the original memories such that the witnesses are no longer sure what the real information is and what was provided later. The problem is that the new, inaccurate information is highly cognitively accessible, whereas the older information is much less so. Even describing a face makes it more difficult to recognize the face later (Dodson, Johnson, & Schooler, 1997).

In an experiment by Loftus and Palmer (1974), participants viewed a film of a traffic accident and then, according to random assignment to experimental conditions, answered one of three questions:

1. "About how fast were the cars going when they hit each other?"
2. "About how fast were the cars going when they smashed each other?"
3. "About how fast were the cars going when they contacted each other?"

As you can see in the following figure, although all the participants saw the same accident, their estimates of the speed of the cars varied by condition. People who had seen the "smashed" question estimated the highest average speed, and those who had seen the "contacted" question estimated the lowest.

Question	Verb	Estimated miles per hour
About how fast were the cars going when they _____ each other?	smashed	40.8
	hit	34.0
	contacted	30.8
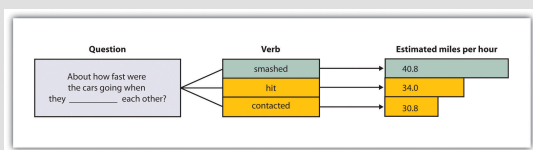
Figure 2.6 Reconstructive Memory

Participants viewed a film of a traffic accident and then answered a question about the accident. According to random assignment, the blank was filled by either "hit," "smashed," or "contacted" each other. The wording of the question influenced the participants' memory of the accident. Data are from Loftus and Palmer (1974).

The situation is particularly problematic when the eyewitnesses are children because research has found that children are more likely to make incorrect identifications than are adults (Pozzulo & Lindsay, 1998) and are also subject to the own-race identification bias (Pezdek, Blandon-Gitlin, & Moore, 2003). In many cases, when sex abuse charges have been filed against babysitters, teachers, religious officials, and family members, the children are the only source of evidence. The likelihood that children are not accurately remembering the events that have occurred to them creates substantial problems for the legal system.

Another setting in which eyewitnesses may be inaccurate is when they try to identify suspects from mug shots or lineups. A lineup generally includes the suspect and five to seven other innocent people (the fillers), and the eyewitness must pick out the true perpetrator. The problem is that eyewitnesses typically feel pressured to pick a suspect out of the lineup, which increases the

likelihood that they will mistakenly pick someone (rather than no one) as the suspect.

Research has attempted to better understand how people remember and potentially misremember the scenes of and people involved in crimes and to attempt to improve how the legal system makes use of eyewitness testimony. In many states, efforts are being made to better inform judges, juries, and lawyers about how inaccurate eyewitness testimony can be. Guidelines have also been proposed to help ensure those child witnesses are questioned in a nonbiased way (Poole & Lamb, 1998). Steps can also be taken to ensure that lineups yield more accurate eyewitness identifications. Lineups are fairer when the fillers resemble the suspect when the interviewer makes it clear that the suspect might or might not be present (Steblay, Dysart, Fulero, & Lindsay, 2001), and when the eyewitness has not been shown the same pictures in a mug-shot book prior to the lineup decision. And several recent studies have found that witnesses who make accurate identifications from a lineup reach their decision faster than do witnesses who make mistaken identifications, suggesting that authorities must take into consideration not only the response but how fast it is given (Dunning & Perretta, 2002).

In addition to distorting our memories for events that have actually occurred, misinformation may lead us to falsely remember information that never occurred. Loftus and her colleagues asked parents to provide them with descriptions of events that did (e.g., moving to a new house) and did not (e.g., being lost in a shopping mall) happen to their children. Then (without telling the children which events were real or made-up) the researchers asked the

children to imagine both types of events. The children were instructed to "think real hard" about whether the events had occurred (Ceci, Huffman, Smith, & Loftus, 1994). More than half of the children generated stories regarding at least one of the made-up events, and they remained insistent that the events did in fact occur even when told by the researcher that they could not possibly have occurred (Loftus & Pickrell, 1995). Even college students are susceptible to manipulations that make events that did not actually occur seem as if they did (Mazzoni, Loftus, & Kirsch, 2001).

The ease with which memories can be created or implanted is particularly problematic when the events to be recalled have important consequences. Therapists often argue that patients may repress memories of traumatic events they experienced as children, such as childhood sexual abuse, and then recover the events years later as the therapist leads them to recall the information—for instance, by using dream interpretation and hypnosis (Brown, Scheflin, & Hammond, 1998).

But other researchers argue that painful memories such as sexual abuse are usually very well remembered, that few memories are actually repressed and that even if they are, it is virtually impossible for patients to accurately retrieve them years later (McNally, Bryant, & Ehlers, 2003; Pope, Poliakoff, Parker, Boynes, & Hudson, 2007). These researchers have argued that the procedures used by the therapists to "retrieve" the memories are more likely to actually implant false memories, leading the patients to erroneously recall events that did not actually occur. Because hundreds of people have been accused, and even imprisoned, on the basis of claims about "recovered

memory" of child sexual abuse, the accuracy of these memories has important societal implications. Many psychologists now believe that most of these claims of recovered memories are due to implanted, rather than real, memories (Loftus & Ketcham, 1994).

Taken together, then, the problems of eyewitness testimony represent another example of how social cognition—the processes that we use to size up and remember other people—may be influenced, sometimes in a way that creates inaccurate perceptions, by the operation of salience, cognitive accessibility, and other information-processing biases.

End-of-Chapter Summary

Key Takeaways

- We use our schemas and attitudes to help us judge and respond to others. In many cases, this is appropriate, but our expectations can also lead to biases in our judgments of ourselves and others.
- A good part of our social cognition is spontaneous

or automatic, operating without much thought or effort. On the other hand, when we have the time and the motivation to think about things carefully, we may engage in thoughtful, controlled cognition.

- Which expectations we use to judge others are based on both the situational salience of the things we are judging and the cognitive accessibility of our own schemas and attitudes.

- Variations in the accessibility of schemas lead to biases such as the availability heuristic, the representativeness heuristic, the false consensus bias, and biases caused by counterfactual thinking.

- The potential biases that are the result of everyday social cognition can have important consequences, both for us in our everyday lives but even for people who make important decisions affecting many other people. Although biases are common, they are not impossible to control, and psychologists and other scientists are working to help people make better decisions.

- The operation of cognitive biases, including the potential for new information to distort information already in memory, can help explain the tendency for eyewitnesses to be overconfident and frequently inaccurate in their recollections of what occurred at crime scenes.

Exercises & Critical Thinking

1.   Give an example of a time when you may have committed one of the cognitive errors listed in Table 2.1 "How Expectations Influence Our Social Cognition". What factors (e.g., availability? salience?) caused the error, and what was the outcome of your use of the shortcut or heuristic?
2.   Go to the website http://thehothand.blogspot.com, which analyzes the extent to which people accurately perceive "streakiness" in sports. Consider how our sports perceptions are influenced by our expectations and the use of cognitive heuristics.

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Attribution

THE BIOPSYCHOSOCIAL DIMENSION

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Learning Objectives:

- Describe the Disease and Medical Models
- Describe Social Learning Theory
- Explore how biological functioning impacts our overall health

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Vignette

Jason's parents have been called by the school social worker to discuss concerns related to fighting with a peer and declining grades. His parents report concerns at home with poor sibling relationships, anger issues, and "a bad attitude, always talking back, never listening or doing what we ask him to do". They report a long family history of substance abuse and

Photo by Christian Erfurt on Unsplash

mental health issues (anxiety and depression). They report increased concerns related to this as they recently found marijuana in Jason's room. Jason (14 y/o) reports "My parents don't know what they're talking about. My little brother and sister just get me in trouble because I don't let them touch my stuff, besides, my parents don't care, they don't listen to me, they just want me to do what they say. And I don't see what the big deal is with me smoking a little weed, it helps me feel better and not be so mad all the time."

We will continue use of this vignette for this section as well.

The BioPsychoSocial Dimension allows us to take a more specific look into theories and models as we explore client issues or concerns.

The Disease Model is a problem-oriented approach concerned with identifying a problem or dysfunction and providing an intervention to "cure" the behavioral or physiological problem. Focusing on the problem first is how many people are used to working when trying to find a solution. While we work in a strengths-based approach, the disease model is popular in many health care settings, and having understanding of use of this model allows for communication and collaboration with other professionals that may also be involved in the client's care.

The Medical Model is a disease-based model focused on identifying a disease based on symptoms, and then curing or alleviating the problem through scientific examination and intervention. An example of this would be use of the Diagnostic and Statistical of Mental Disorders (DSM-5) in clinical social work to assess symptoms reported by a client and then determine the correct diagnosis, which leads to chosen treatment modalities. This model has been widely used in social work and other professions to help conceptualize problems and interventions.

Observational Learning:

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Social Learning Theory states people learn by observing others and are active in their learning.

> ***Jason's story*** *– We can utilize Social Learning Theory to explore how Jason may have learned to express his emotions (how did/do parents or other influential people in his life express their emotions), use of different coping skills or trying out new behaviors (drug use by peers/ other family members, isolation/withdrawal), communication style, and problem-solving skills to discover and understand where behaviors were learned, how they impact, and in determining how to best provide needed supports.*

We will take a deeper look at some key elements of human biology in the following videos with an exploration of the brain, neurological functions, and genetics and their connection to wellness and how they can contribute/impact disease and issues related to this.

The Brain: The first two videos are short videos that

explore the brain, different ways it may function, and how stress can impact brain functions. The second two videos are a bit longer and will explore how we perceive others and increasing our own self awareness for a healthy mind.

Human Brain: Major Structures and their Functions.

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The Neurobiology of Stress on Brain Function.

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What do others think of you? How the brain perceives other people:

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What is a Healthy Mind?:

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Executive Function and Self Regulation skills are the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully. The brain needs this skill set to filter distractions, prioritize tasks, set and achieve goals, and control impulses.

> **3 types of brain functions:**
>
> 1. *Working memory* governs our ability to retain and manipulate distinct pieces of information over short periods of time.
> 2. *Mental flexibility* helps us to sustain or shift attention in response to different demands or to apply different rules in different settings.
> 3. *Self-control* enables us to set priorities and resists impulsive actions

These functions are highly interrelated, and the successful application of executive function skills requires them to operate in coordination with each other.

Children are not born with these skills—they are born with the potential to develop them. If children do not receive appropriate and healthy responses to their needs from their relationships with adults and the conditions in their environments, their skill development can be seriously delayed or impaired.

> *It would be important to explore executive functioning and self-regulation skills with Jason to determine if a referral to other supports such as developmental therapy (possible cognitive delays) or occupational therapy (possible sensory issues) are needed.*

Functions of the Nervous System:

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It is important to recognize our internal systems are interconnected and are affected by one another. Ex: how chronic stress can impact our physical health, emotional health, and functioning.

> *How might Jason's physical and mental health be impacted by increased stress?*

Genetics:

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Here we look at the exploration of genetics and environment and come back to the age old question – nature vs nurture? Does one have a stronger impact than the other in shaping who we are and how we respond to our world? As in most cases, you will need to look at both and determine which may be impacting your client more.

> *Jason may be influenced more strongly to explore drug*

> *use and experience mental health issues due to his family genetics and history. He may also be influenced more strongly at this time due to his stage of development where peer approval/acceptance is the driving factor in many of his choices.*

Please continue on to Chapter 3: Lifespan Theories to learn more about Erikson's Psychosocial development, Piaget's Cognitive development, Frued's Psychosexual development, and Kohlberg's Theory of Moral development.

Key Takeaways:

- Social Learning Theory explores how observations of others and their responses to us shape our learning and responses to various feelings, situations, and others.
- Piaget's Theories of Cognitive Development states people develop cognitively from birth through teenage years in universal stages.
- Erikson's Theories of Psychosocial Development includes 8 stages we engage in throughout our lifetime with the goal of learning to trust others, to be independent, to pursue goals and interests, to be productive and successful, to develop a sense of identity, to look for closeness and

intimacy in relationships, to begin investing in work, families, and communities and focus on others, and finally to reflect on lives to either develop a sense of well-being or of despair.

- Freud's Theory of Psychosexual Development states our moral self is shaped by society's morals and values which gives us our sense of right and wrong. Anxiety or guilt is used to keep the ego and id in check.

- We took a deeper look at biological functioning with the brain, nervous system, and genetics and impacts they have on our overall health and functioning.

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Chapter 2: Lifespan Theories

- Discuss Freud's Theory of psychosexual development.
- Describe the major tasks of child and adult psychosocial development according to Erikson.
- Discuss Piaget's view of cognitive development and apply the stages to understanding childhood cognition.
- Describe Kohlberg's theory of moral development.

Freud

Psychosexual Theory of Development

Sigmund **Freud** (1856–1939) believed that personality develops during early childhood. For Freud, childhood experiences shape our personalities and behavior as adults. Freud viewed development as discontinuous; he believed that each of us must pass through a serious of stages during childhood and that if we lack proper

nurturance and parenting during a stage, we may become stuck, or fixated, in that stage. Freud's stages are called the stages of psychosexual development. According to Freud, children's pleasure-seeking urges are focused on a different area of the body, called an erogenous zone, at each of the five stages of development: oral, anal, phallic, latency, and genital.

While most of Freud's ideas have not found support in modern research, we cannot discount the contributions that Freud has made to the field of psychology. Psychologists, today dispute Freud's psychosexual stages as a legitimate explanation for how one's personality develops, but what we can take away from Freud's theory is that personality is shaped, in some part, by experiences we have in childhood. These stages are discussed in detail in the chapter on personality.

Erikson

Psychosocial Theory of Development

Erik **Erikson** (1902–1994) (Figure 1), another stage theorist, took Freud's theory and modified it as psychosocial theory. Erikson's psychosocial development theory emphasizes the social nature of our development rather than its sexual nature. While Freud believed that personality is shaped only in childhood, Erikson proposed that personality development takes place all through the lifespan. Erikson suggested that how we interact with others is what affects our sense of self, or what he called the ego identity.

Erik Erikson proposed the psychosocial theory of development. In each stage of Erikson's theory, there is a psychosocial task that we must master in order to feel a sense of competence. (Figure 1).

Erikson proposed that we are motivated by a need to achieve competence in certain areas of our lives. According to psychosocial theory, we experience eight stages of development over our lifespan, from infancy through late adulthood. At each stage, there is a conflict, or task, that we need to resolve. Successful completion of each developmental task results in a sense of competence and a healthy personality. Failure to master these tasks leads to feelings of inadequacy.

According to Erikson (1963), trust is the basis of our development during infancy (birth to 12 months). Therefore, the primary task of this stage is trust versus mistrust. Infants are dependent upon their caregivers, so caregivers who are responsive and sensitive to their infant's needs help their baby to develop a sense of trust; their baby will see the world as a safe, predictable place. Unresponsive caregivers who do not meet their baby's needs can engender

feelings of anxiety, fear, and mistrust; their baby may see the world as unpredictable.

As toddlers (ages 1–3 years) begin to explore their world, they learn that they can control their actions and act on the environment to get results. They begin to show clear preferences for certain elements of the environment, such as food, toys, and clothing. A toddler's main task is to resolve the issue of autonomy versus shame and doubt, by working to establish independence. This is the "me do it" stage. For example, we might observe a budding sense of autonomy in a 2-year-old child who wants to choose her clothes and dress herself. Although her outfits might not be appropriate for the situation, her input in such basic decisions has an effect on her sense of independence. If denied the opportunity to act on her environment, she may begin to doubt her abilities, which could lead to low self-esteem and feelings of shame.

Once children reach the preschool stage (ages 3–6 years), they are capable of initiating activities and asserting control over their world through social interactions and play. According to Erikson, preschool children must resolve the task of initiative versus guilt. By learning to plan and achieve goals while interacting with others, preschool children can master this task. Those who do will develop self-confidence and feel a sense of purpose. Those who are unsuccessful at this stage—with their initiative misfiring or stifled—may develop feelings of guilt. How might over-controlling parents stifle a child's initiative?

During the elementary school stage (ages 6–12), children face the task of industry versus inferiority. Children begin to compare themselves to their peers to see how they measure up. They either develop a sense of pride and accomplishment in their schoolwork, sports, social activities, and family life, or they feel inferior and inadequate when they don't measure up. What are some things parents and teachers can do to help children develop a sense of competence and a belief in themselves and their abilities?

In adolescence (ages 12–18), children face the task of identity versus role confusion. According to Erikson, an adolescent's main

task is developing a sense of self. Adolescents struggle with questions such as "Who am I?" and "What do I want to do with my life?" Along the way, most adolescents try on many different selves to see which ones fit. Adolescents who are successful at this stage have a strong sense of identity and are able to remain true to their beliefs and values in the face of problems and other people's perspectives. What happens to apathetic adolescents, who do not make a conscious search for identity, or those who are pressured to conform to their parents' ideas for the future? These teens will have a weak sense of self and experience role confusion. They are unsure of their identity and confused about the future.

People in early adulthood (i.e., the 20s through early 40s) are concerned with intimacy versus isolation. After we have developed a sense of self in adolescence, we are ready to share our life with others. Erikson said that we must have a strong sense of self before developing intimate relationships with others. Adults who do not develop a positive self-concept in adolescence may experience feelings of loneliness and emotional isolation.

When people reach their 40s, they enter the time known as middle adulthood, which extends to the mid-60s. The social task of middle adulthood is generativity versus stagnation. Generativity involves finding your life's work and contributing to the development of others, through activities such as volunteering, mentoring, and raising children. Those who do not master this task may experience stagnation, having little connection with others and little interest in productivity and self-improvement.

From the mid-60s to the end of life, we are in a period of development known as late adulthood. Erikson's task at this stage is called integrity versus despair. He said that people in late adulthood reflect on their lives and feel either a sense of satisfaction or a sense of failure. People who feel proud of their accomplishments feel a sense of integrity, and they can look back on their lives with few regrets. However, people who are not successful at this stage may feel as if their life has been wasted. They focus on what "would have," "should have," and "could have" been. They face the end of

their lives with feelings of bitterness, depression, and despair. Table 1 summarizes the stages of Erikson's theory.

Erikson's Psychosocial Stages of Development – Table 1

Stage	Age (years)	Developmental Task	Description
1	0–1	Trust vs. mistrust	Trust (or mistrust) that basic needs, such as nourishment and affection, will be met
2	1–3	Autonomy vs. shame/doubt	Develop a sense of independence in many tasks
3	3–6	Initiative vs. guilt	Take initiative on some activities—may develop guilt when unsuccessful or boundaries overstepped
4	7–11	Industry vs. inferiority	Develop self-confidence in abilities when competent or sense of inferiority when not
5	12–18	Identity vs. confusion	Experiment with and develop identity and roles
6	19–29	Intimacy vs. isolation	Establish intimacy and relationships with others
7	30–64	Generativity vs. stagnation	Contribute to society and be part of a family
8	65–	Integrity vs. despair	Assess and make sense of life and meaning of contributions

Piaget

Cognitive Theory of Development

Jean **Piaget** (1896–1980) is another stage theorist who studied childhood development (Figure 2). Instead of approaching development from a psychoanalytical or psychosocial perspective, Piaget focused on children's cognitive growth. He believed that thinking is a central aspect of development and that children are

naturally inquisitive. However, he said that children do not think and reason like adults (Piaget, 1930, 1932). His theory of cognitive development holds that our cognitive abilities develop through specific stages, which exemplifies the discontinuity approach to development. As we progress to a new stage, there is a distinct shift in how we think and reason.

Jean Piaget spent over 50 years studying children and how their minds develop. (Figure 2).

Piaget said that children develop schemata to help them understand the world. **Schemata** are concepts (mental models) that are used to help us categorize and interpret information. By the time children have reached adulthood, they have created schemata for almost

everything. When children learn new information, they adjust their schemata through two processes: assimilation and accommodation. First, they assimilate new information or experiences in terms of their current schemata: assimilation is when they take in information that is comparable to what they already know. **Accommodation** describes when they change their schemata based on new information. This process continues as children interact with their environment.

For example, 2-year-old Blake learned the schema for dogs because his family has a Labrador retriever. When Blake sees other dogs in his picture books, he says, "Look mommy, dog!" Thus, he has assimilated them into his schema for dogs. One day, Blake sees a sheep for the first time and says, "Look mommy, dog!" Having a basic schema that a dog is an animal with four legs and fur, Blake thinks all furry, four-legged creatures are dogs. When Blake's mom tells him that the animal he sees is a sheep, not a dog, Blake must accommodate his schema for dogs to include more information based on his new experiences. Blake's schema for a dog was too broad since not all furry, four-legged creatures are dogs. He now modifies his schema for dogs and forms a new one for sheep.

Like Freud and Erikson, Piaget thought development unfolds in a series of stages approximately associated with age ranges. He proposed a theory of cognitive development that unfolds in four stages: sensorimotor, preoperational, concrete operational, and formal operational (Table 2).

Piaget's Stages of Cognitive Development – Table 2

Age (years)	Stage	Description	Developmental issues
0–2	Sensorimotor	The world experienced through senses and actions	Object permanence Stranger anxiety
2–6	Preoperational	Use words and images to represent things, but lack logical reasoning	Pretend play Egocentrism Language development
7–11	Concrete operational	Understand concrete events and analogies logically; perform arithmetical operations	Conservation Mathematical transformations
12–	Formal operational	Formal operations Utilize abstract reasoning	Abstract logic Moral reasoning

The first stage is the **sensorimotor** stage, which lasts from birth to about 2 years old. During this stage, children learn about the world through their senses and motor behavior. Young children put objects in their mouths to see if the items are edible, and once they can grasp objects, they may shake or bang them to see if they make sounds. Between 5 and 8 months old, the child develops object permanence, which is the understanding that even if something is out of sight, it still exists (Bogartz, Shinskey, & Schilling, 2000). According to Piaget, young infants do not remember an object after it has been removed from sight. Piaget studied infants' reactions when a toy was first shown to an infant and then hidden under a blanket. Infants who had already developed object permanence would reach for the hidden toy, indicating that they knew it still existed, whereas infants who had not developed object permanence would appear confused.

Please take a few minutes to view this [brief video]() above

demonstrating different children's ability to understand object permanence.

In Piaget's view, around the same time children develop object permanence, they also begin to exhibit stranger anxiety, which is a fear of unfamiliar people. Babies may demonstrate this by crying and turning away from a stranger, by clinging to a caregiver, or by attempting to reach their arms toward familiar faces such as parents. Stranger anxiety results when a child is unable to assimilate the stranger into an existing schema; therefore, she can't predict what her experience with that stranger will be like, which results in a fear response.

Piaget's second stage is the preoperational stage, which is from approximately 2 to 7 years old. In this stage, children can use symbols to represent words, images, and ideas, which is why children in this stage engage in pretend play. A child's arms might become airplane wings as he zooms around the room, or a child with a stick might become a brave knight with a sword. Children also begin to use language in the preoperational stage, but they cannot understand adult logic or mentally manipulate information (the term *operational* refers to logical manipulation of information, so children at this stage are considered to be *pre*-operational). Children's logic is based on their own personal knowledge of the world so far, rather than on conventional knowledge. For example, dad gave a slice of pizza to 10-year-old Keiko and another slice to her 3-year-old brother, Kenny. Kenny's pizza slice was cut into five pieces, so Kenny told his sister that he got more pizza than she did. Children in this stage cannot perform mental operations because they have not developed an understanding of conservation, which is the idea that even if you change the appearance of something, it is still equal in size as long as nothing has been removed or added.

During this stage, we also expect children to display egocentrism, which means that the child is not able to take the perspective of others. A child at this stage thinks that everyone sees, thinks, and feels just as they do. Let's look at Kenny and Keiko again. Keiko's birthday is coming up, so their mom takes Kenny to the toy store

to choose a present for his sister. He selects an Iron Man action figure for her, thinking that if he likes the toy, his sister will too. An egocentric child is not able to infer the perspective of other people and instead attributes his own perspective.

Piaget's third stage is the concrete operational stage, which occurs from about 7 to 11 years old. In this stage, children can think logically about real (concrete) events; they have a firm grasp on the use of numbers and start to employ memory strategies. They can perform mathematical operations and understand transformations, such as addition is the opposite of subtraction, and multiplication is the opposite of division. In this stage, children also master the concept of conservation: Even if something changes shape, its mass, volume, and number stay the same. For example, if you pour water from a tall, thin glass to a short, fat glass, you still have the same amount of water. Remember Keiko and Kenny and the pizza? How did Keiko know that Kenny was wrong when he said that he had more pizza?

Children in the concrete operational stage also understand the principle of reversibility, which means that objects can be changed and then returned back to their original form or condition. Take, for example, water that you poured into the short, fat glass: You can pour water from the fat glass back to the thin glass and still have the same amount (minus a couple of drops).

The fourth, and last, stage in Piaget's theory is the formal operational stage, which is from about age 11 to adulthood. Whereas children in the concrete operational stage are able to think logically only about concrete events, children in the formal operational stage can also deal with abstract ideas and hypothetical situations. Children in this stage can use abstract thinking to problem solve, look at alternative solutions, and test these solutions. In adolescence, a renewed egocentrism occurs. For example, a 15-year-old with a very small pimple on her face might think it is huge and incredibly visible, under the mistaken impression that others must share her perceptions.

Beyond Formal Operational Thought

As with other major contributors to theories of development, several of Piaget's ideas have come under criticism based on the results of further research. For example, several contemporary studies support a model of development that is more continuous than Piaget's discrete stages (Courage & Howe, 2002; Siegler, 2005, 2006). Many others suggest that children reach cognitive milestones earlier than Piaget describes (Baillargeon, 2004; de Hevia & Spelke, 2010).

According to Piaget, the highest level of cognitive development is formal operational thought, which develops between 11 and 20 years old. However, many developmental psychologists disagree with Piaget, suggesting a fifth stage of cognitive development, known as the post formal stage (Basseches, 1984; Commons & Bresette, 2006; Sinnott, 1998). In post formal thinking, decisions are made based on situations and circumstances, and logic is integrated with emotion as adults develop principles that depend on contexts. One way that we can see the difference between an adult in post formal thought and an adolescent in formal operations is in terms of how they handle emotionally charged issues.

It seems that once we reach adulthood our problem-solving abilities change: As we attempt to solve problems, we tend to think more deeply about many areas of our lives, such as relationships, work, and politics (Labouvie-Vief & Diehl, 1999). Because of this, post formal thinkers are able to draw on past experiences to help them solve new problems. Problem-solving strategies using post formal thought vary, depending on the situation. What does this mean? Adults can recognize, for example, that what seems to be an ideal solution to a problem at work involving a disagreement with a colleague may not be the best solution to a disagreement with a significant other.

Kohlberg

Theory of Moral Development

A major task beginning in childhood and continuing into adolescence is discerning right from wrong. Psychologist Lawrence **Kohlberg** (1927–1987) extended upon the foundation that Piaget built regarding cognitive development. Kohlberg believed that moral development, like cognitive development, follows a series of stages. To develop this theory, Kohlberg posed moral dilemmas to people of all ages, and then he analyzed their answers to find evidence of their particular stage of moral development. Before reading about the stages, take a minute to consider how you would answer one of Kohlberg's best-known moral dilemmas, commonly known as the Heinz dilemma:

> In Europe, a woman was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about $1,000, which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said: "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife. Should the husband have done that? (Kohlberg, 1969, p. 379)

How would you answer this dilemma? Kohlberg was not interested

in whether you answer yes or no to the dilemma: Instead, he was interested in the reasoning behind your answer.

After presenting people with this and various other moral dilemmas, Kohlberg reviewed people's responses and placed them in different **stages of moral reasoning** (Figure 3). According to Kohlberg, an individual progresses from the capacity for pre-conventional mortality (before age 9) to the capacity for conventional morality (early adolescence), and toward attaining post-conventional morality (once formal operational thought is attained), which only a few fully achieve. Kohlberg placed in the highest stage responses that reflected the reasoning that Heinz should steal the drug because his wife's life is more important than the pharmacist making money. The value of human life overrides the pharmacist's greed.

Level 1 Pre-conventional morality	**Stage 1** Obedience and punishment: behavior driven by avoiding punishment	**Stage 2** Individual interest: behavior driven by self-interest and rewards
Level 2 Conventional morality	**Stage 3** Interpersonal: behavior driven by social approval	**Stage 4** Authority: behavior driven by obeying authority and conforming to social order
Level 3 Post-conventional morality	**Stage 5** Social contract: behavior driven by balance of social order and individual rights	**Stage 6** Universal ethics: behavior driven by internal moral principles

Kohlberg identified three levels of moral reasoning: pre-conventional, conventional, and post-conventional: Each level is associated with increasingly complex stages of moral development. (Figure 3).

It is important to realize that even those people who have the most sophisticated, post-conventional reasons for some choices may make other choices for the simplest of pre-conventional reasons. Many psychologists agree with Kohlberg's theory of moral

development but point out that moral reasoning is very different from moral behavior. Sometimes what we say we would do in a situation is not what we actually do in that situation. In other words, we might "talk the talk," but not "walk the walk."

How does this theory apply to males and females? Kohlberg (1969) felt that more males than females move past stage four in their moral development. He went on to note that women seem to be deficient in their moral reasoning abilities. These ideas were not well received by Carol Gilligan, a research assistant of Kohlberg, who consequently developed her own ideas of moral development. In her groundbreaking book, *In a Different Voice: Psychological Theory and Women's Development*, Gilligan (1982) criticized her former mentor's theory because it was based only on upper-class White men and boys. She argued that women are not deficient in their moral reasoning—she proposed that males and females reason differently. Girls and women focus more on staying connected and the importance of interpersonal relationships. Therefore, in the Heinz dilemma, many girls and women respond that Heinz should not steal the medicine. Their reasoning is that if he steals the medicine, is arrested, and is put in jail, then he and his wife will be separated, and she could die while he is still in prison.

Additional Resources

This brief video demonstrates different children's ability to understand object permanence according to Jean Piaget's Stages of Cognitive Development in stage one: sensorimotor stage.

> *One or more interactive elements has been excluded*

This video shows a 4.5-year-old boy in the preoperational stage as he responds to Piaget's conservation tasks in the Stages of Cognitive Development.

Piaget developed the Three-Mountain Task to determine the level of egocentrism displayed by children. Children view a 3-dimensional mountain scene from one viewpoint and are asked what another person at a different viewpoint would see in the same scene. Watch the Three-Mountain Task in action in this short video from the University of Minnesota and the Science Museum of Minnesota which represents Piaget's preoperational stage.

End-of-Chapter Summary

There are many theories regarding how babies and children grow and develop into happy, healthy adults. Sigmund Freud suggested that we pass through a series of psychosexual stages in which our energy is focused on certain erogenous zones on the body. Eric Erikson modified Freud's ideas and suggested a theory of psychosocial development. Erikson said that our social interactions and successful completion of social tasks shape our sense of self. Jean Piaget proposed a theory of cognitive development that explains how children think and reason as they move through various stages. Finally, Lawrence Kohlberg turned his attention to moral development. He said that we pass through three levels of moral thinking that build on our cognitive development.

Attribution

Adapted from Chapter 9.2: Lifespan Theories in OpenStax, Psychology. OpenStax CNX. Oct 2, 2019 http://cnx.org/contents/4abf04bf-93a0-45c3-9cbc-2cefd46e68cc@12.2. Download for free athttp://cnx.org/contents/4abf04bf-93a0-45c3-9cbc-2cefd46e68cc@12.2.

THE SOCIOCULTURAL DIMENSION

Learning Objectives:

- Describe Critical Practice Theory
- Describe Feminist Theory
- Describe the Sociocultural Perspective
- Define Cultural Concepts in Social Work

Vignette

James is a 16 y/o Latino American whose parents migrated to the United States from Guatemala before he was born. His family has always valued the traditional customs of their culture, his father being the head of the house and his mother staying home to run the household and raise the children. They have often discussed plans for an arranged marriage with a girl back in Guatemala throughout his life, but he had never really given it much thought until recently when his mother mentioned they would begin plans for his

Photo by Jennifer Marquez on Unsplash

wedding within the next year. James is struggling with the thought of an arranged marriage as he has grown up in the United States where this is not a tradition that is practiced. On top of this, his father has recently lost his job and his mother has been struggling with some health issues. His family is experiencing increased stressors as his father is struggling to find a new job and his mother is unable to afford healthcare until his father begins working again. He has begun to demonstrate struggles at school due to the stress and anxiety he is experiencing with plans of his arranged marriage as well as increased financial struggles his family is experiencing. He has been reported to be getting into fights with peers, talking back to teachers, and refusing to turn in his work. James has been referred to the school social worker regarding his academic problems and his parents have encouraged him to meet with the priest at their church.

The Sociocultural Dimension

This dimension will continue introductions of theories and perspectives and exploration of how our environment teaches, influences, and changes (or reinforces) our behaviors and responses.

   Critical Practice Theory states social problems are caused by an oppressive society and maintained by dominate groups. It is similar to Conflict Theory but expands further past the focus of unequal power distribution to explore social change views within social work practice. The goal is to help clients overcome limits of existing social order through empowerment.

   Feminist Theory is based on the advocacy of social, economic, and political equality between both sexes and is often expanded to apply equal rights to all minority groups.

> **James' story** – *Within Critical Practice theory, we would examine dominant groups he is connected with and explore any oppression he or his family may be experiencing that are causing increased struggles with his father's attempts to find a job, access to healthcare, academic supports, or basic needs. We want to explore how he is impacted by dominant groups and work to support him in connecting to his experiences, recognizing how he is being impacted, and empowering him in his work to make change at all levels (micro, mezzo, and macro). Feminist theory joins in with work in advocating for equality in all areas of his life.*

Sociocultural Perspective states that much of your behavior and

feelings are dictated by the culture you live in. Think about how your culture greets one another – can you think of a way another culture might do this differently? Does your culture value the individual or the group?

> When working with James it will also be important to consider the cultural aspects he is connected to and how this may be impacting his life. He reports feeling part of both Guatemalan and American cultures but feels some conflict as his parents stay strongly connected to their culture with minimal thoughts of incorporating American culture into their home and expectations of behaviors. What struggles might this conflict cause? How would having an understanding of his family's culture help you in providing supports for James?

Cultural Concepts in Social Work:

Cultural relativism – the idea that different cultures should be treated equally and not judged against the criteria of another.

Ethnic identity – how people form their identity/ sense of belonging in relation to their ancestry and cultural heritage.

Ethnicity – how people associate themselves with a group that has a common national or cultural tradition.

Ethnocentrism – belief that one's ethnic group or

culture is superior to another and is the standard of how other cultures should be evaluated.

Ethos – the set of beliefs, morals, ethics, and values a person or community lives by.

Ideology – a person's principal ideas of what is correct and the way things should be.

Social class – a division of a society based on social and economic status.

Worldview – a particular philosophy of life or conception of the world – how you look at the world or your personal philosophy.

Please continue to Chapter 4: Theoretical Perspectives which will cover Conflict Theory, Functionalism, and Symbolic Interactionist Theory (also known as Social Constructionism Theory). I would encourage you to continue thinking about how each of these theories connects to James' story. And Chapter 5: The Elements of Culture for further exploration of cultural competence.

Key Takeaways:

- Conflict Theory attempts to understand behaviors through exploration of conflicts/ tensions.

- Critical Practice Theory states social problems are caused by an oppressive society and maintained by dominate groups.
- Functionalist Theory sees society as a complex system whose parts work together to promote solidarity and stability.
- Social Constructionism or Symbolic Interaction Theory states people attach meaning to communications and interactions they have with their environments. This is experienced differently for each individual and they create their reality based on their experiences.
- Feminist Theory is based on the advocacy of social, economic, and political equality between both sexes and is often expanded to apply equal rights to all minority groups.
- Culture can be defined as the customs, arts, social institutions, and achievements of a particular nation, people, or other social group.
- Defined cultural concepts in Social Work.

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Chapter 3: Theoretical Perspectives

Chapter 3 Learning Objectives

- Explain what sociological theories are and how they are used.
- Understand the similarities and differences between structural functionalism, conflict theory, and symbolic interactionism.

Sociologists develop theories to explain social occurrences such as protest rallies. (Photo courtesy of voanews.com/Wikimedia Commons)

Sociologists study social events, interactions, and patterns, and they develop a theory in an attempt to explain why things work as they do. In sociology, a theory is a way to explain different aspects of social interactions and to create a testable proposition, called a hypothesis, about society (Allan 2006).

For example, although suicide is generally considered an individual phenomenon, Émile Durkheim was interested in studying the social factors that affect it. He studied social ties within a group, or social solidarity, and hypothesized that differences in suicide rates might be explained by religion-based differences. Durkheim gathered a large amount of data about Europeans who had ended their lives, and he did indeed find differences based on religion. Protestants were more likely to commit suicide than Catholics in Durkheim's society, and his work supports the utility of theory in sociological research.

Theories vary in scope depending on the scale of the issues that they are meant to explain. Macro-level theories relate to large-scale issues and large groups of people, while micro-level theories look at very specific relationships between individuals or small groups. Grand theories attempt to explain large-scale relationships and answer fundamental questions such as why societies form and why they change. Sociological theory is constantly evolving and should never be considered complete. Classic sociological theories are still considered important and current, but new sociological theories build upon the work of their predecessors and add to them (Calhoun 2002).

In sociology, a few theories provide broad perspectives that help explain many different aspects of social life, and these are called paradigms. Paradigms are philosophical and theoretical frameworks used within a discipline to formulate theories, generalizations, and the experiments performed in support of them. Three paradigms have come to dominate sociological thinking because they provide useful explanations: structural functionalism, conflict theory, and symbolic interactionism.

Sociological Theories or Perspectives Different sociological perspectives enable sociologists to view social issues through a variety of useful lenses.

Sociological Paradigm	Level of Analysis	Focus
Structural Functionalism	Macro or mid	The way each part of society functions together to contribute to the whole
Conflict Theory	Macro	The way inequalities contribute to social differences and perpetuate differences in power
Symbolic Interactionism	Micro	One-to-one interactions and communications

Functionalism

Functionalism also called structural-functional theory, sees society as a structure with interrelated parts designed to meet the biological and social needs of the individuals in that society. Functionalism grew out of the writings of English philosopher and biologist, Hebert Spencer (1820–1903), who saw similarities between society and the human body; he argued that just as the various organs of the bodywork together to keep the body functioning, the various parts of society work together to keep society functioning (Spencer 1898). The parts of society that Spencer referred to were the social institutions, or patterns of beliefs and behaviors focused on meeting social needs, such as government, education, family, healthcare, religion, and the economy.

Émile Durkheim, another early sociologist, applied Spencer's theory to explain how societies change and survive over time. Durkheim believed that society is a complex system of interrelated and interdependent parts that work together to maintain stability (Durkheim 1893), and that society is held together by shared values, languages, and symbols. He believed that to study society, a sociologist must look beyond individuals to social facts such as laws, morals, values, religious beliefs, customs, fashion, and rituals, which all serve to govern social life. Alfred Radcliff-Brown (1881–1955) defined the function of any recurrent activity as the part it played in social life as a whole, and therefore the contribution it makes to social stability and continuity (Radcliff-Brown 1952). In a healthy society, all parts work together to maintain stability, a state called dynamic equilibrium by later sociologists such as Parsons (1961).

Durkheim believed that individuals may make up society, but in order to study society, sociologists have to look beyond individuals to social facts. Social facts are the laws, morals, values, religious beliefs, customs, fashions, rituals, and all of the cultural rules that govern social life (Durkheim 1895). Each of these social facts serves one or more functions within a society. For example, one function

of a society's laws may be to protect society from violence, while another is to punish criminal behavior, while another is to preserve public health.

Another noted structural-functionalist, Robert Merton (1910–2003), pointed out that social processes often have many functions. Manifest functions are the consequences of a social process that are sought or anticipated, while latent functions are the unsought consequences of a social process. A manifest function of college education, for example, includes gaining knowledge, preparing for a career, and finding a good job that utilizes that education. The latent functions of your college years include meeting new people, participating in extracurricular activities, or even finding a spouse or partner. Another latent function of education is creating a hierarchy of employment based on the level of education attained. Latent functions can be beneficial, neutral, or harmful. Social processes that have undesirable consequences for the operation of society are called dysfunctions. In education, examples of dysfunction include getting bad grades, truancy, dropping out, not graduating, and not finding suitable employment.

Criticism

One criticism of the structural-functional theory is that it can't adequately explain social change. Also problematic is the somewhat circular nature of this theory; repetitive behavior patterns are assumed to have a function, yet we profess to know that they have a function only because they are repeated. Furthermore, dysfunctions may continue, even though they don't serve a function, which seemingly contradicts the basic premise of the theory. Many sociologists now believe that functionalism is no longer useful as a macro-level theory, but that it does serve a useful purpose in some mid-level analyses.

Global Culture?
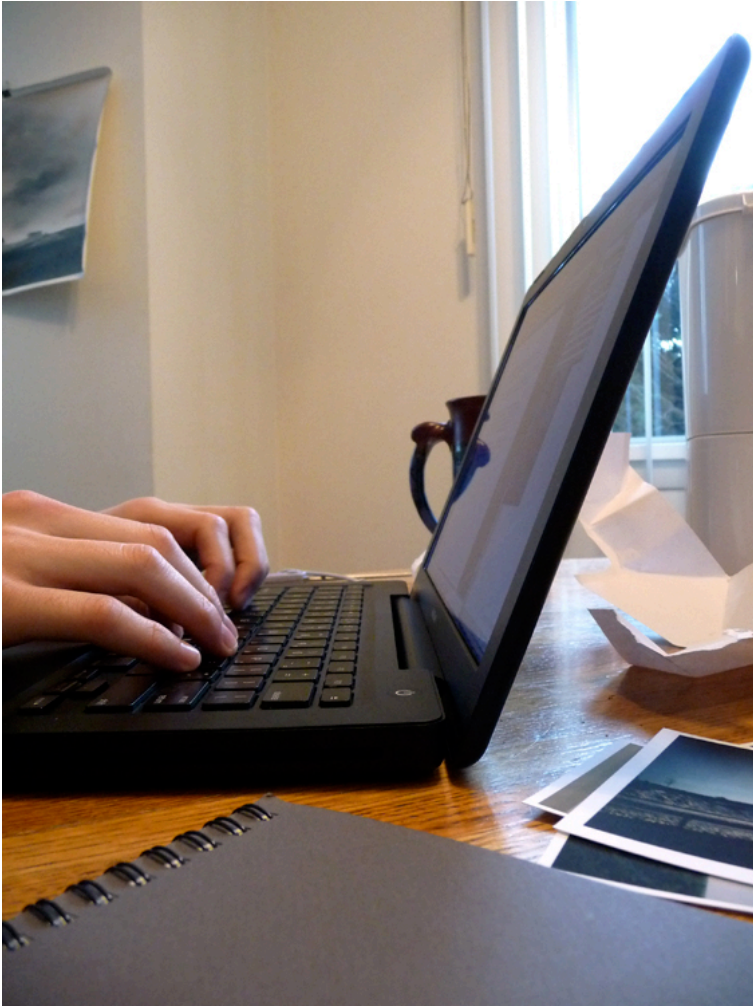
Some sociologists see the online world contributing to the creation of an emerging global culture. Are you a part of any global communities? (Photo courtesy of quasireversible/flickr)

Sociologists around the world look closely for signs of what would be an unprecedented event: the emergence of a global culture. In the past, empires such as those that existed in China, Europe, Africa, and Central and South America linked people from many different countries, but those people rarely became part of a common culture. They lived too far from each other, spoke different languages, practiced different religions, and traded few goods. Today, increases in communication, travel, and trade have made the world a much smaller place. More and more people are able to communicate with each other instantly—wherever they are located—by telephone, video, and text. They share movies, television shows, music, games, and information over the Internet. Students can study with teachers and pupils from the other side of the globe. Governments find it harder to hide conditions inside their countries from the rest of the world.

Sociologists research many different aspects of this potential global culture. Some explore the dynamics involved in the social interactions of global online communities, such as when members feel a closer kinship to other group members than to people residing in their own countries. Other sociologists study the impact this growing international culture has on smaller, less-powerful local cultures. Yet other researchers explore how international markets and the outsourcing of labor impact social inequalities. Sociology can play a key role in people's abilities to understand the nature of this emerging global culture and how to respond to it.

Conflict Theory

Conflict theory looks at society as a competition for limited resources. This perspective is a macro-level approach most identified with the writings of German philosopher and sociologist Karl Marx (1818–1883), who saw society as being made up of individuals in different social classes who must compete for social,

material, and political resources such as food and housing, employment, education, and leisure time. Social institutions like government, education, and religion reflect this competition in their inherent inequalities and help maintain the unequal social structure. Some individuals and organizations are able to obtain and keep more resources than others, and these "winners" use their power and influence to maintain social institutions. Several theorist suggested variations on this basic theme.

Polish-Austrian sociologist Ludwig Gumplowicz (1838–1909) expanded on Marx's ideas by arguing that war and conquest are the basis of civilizations. He believed that cultural and ethnic conflicts led to states being identified and defined by a dominant group that had power over other groups (Irving 2007).

German sociologist Max Weber agreed with Marx but also believed that, in addition to economic inequalities, inequalities of political power and social structure cause conflict. Weber noted that different groups were affected differently based on education, race, and gender, and that people's reactions to inequality were moderated by class differences and rates of social mobility, as well as by perceptions about the legitimacy of those in power.

German sociologist Georg Simmel (1858–1918) believed that conflict can help integrate and stabilize a society. He said that the intensity of the conflict varies depending on the emotional involvement of the parties, the degree of solidarity within the opposing groups, and the clarity and limited nature of the goals. Simmel also showed that groups work to create internal solidarity, centralize power, and reduce dissent. Resolving conflicts can reduce tension and hostility and can pave the way for future agreements.

In the 1930s and 1940s, German philosophers, known as the Frankfurt School, developed critical theory as an elaboration on Marxist principles. Critical theory is an expansion of conflict theory and is broader than just sociology, including other social sciences and philosophy. A critical theory attempts to address structural issues causing inequality; it must explain what's wrong in current

social reality, identify the people who can make changes, and provide practical goals for social transformation (Horkeimer 1982).

More recently, inequality based on gender or race has been explained in a similar manner and has identified institutionalized power structures that help to maintain inequality between groups. Janet Saltzman Chafetz (1941–2006) presented a model of feminist theory that attempts to explain the forces that maintain gender inequality as well as a theory of how such a system can be changed (Turner 2003). Similarly, critical race theory grew out of a critical analysis of race and racism from a legal point of view. Critical race theory looks at structural inequality based on white privilege and associated wealth, power, and prestige.

Criticism

Farming and Locavores: How Sociological Perspectives Might View Food Consumption

The consumption of food is a commonplace, daily occurrence, yet it can also be associated with important moments in our lives. Eating can be an individual or a group action, and eating habits and customs are influenced by our cultures. In the context of society, our nation's food system is at the core of numerous social movements, political issues, and economic debates. Any of these factors might become a topic of sociological study.

A structural-functional approach to the topic of food consumption might be interested in the role of the agriculture industry within the nation's economy and how this has changed from the early days of manual-labor farming to modern mechanized production. Another examination might study the different functions that occur in food production: from farming and harvesting to flashy packaging and mass consumerism.

A conflict theorist might be interested in the power differentials present in the regulation of food, by exploring where people's right to information intersects with corporations' drive for profit and how the government mediates those interests. Or a conflict theorist might be interested in the power and powerlessness experienced by local farmers versus large farming conglomerates, such as the documentary *Food Inc.* depicts as resulting from Monsanto's patenting of seed technology. Another topic of study might be how nutrition varies between different social classes.

A sociologist viewing food consumption through a symbolic interactionist lens would be more interested in micro-level topics, such as the symbolic use of food in religious rituals, or the role it plays in the social interaction of a family dinner. This perspective might also study the interactions among group members who identify themselves based on their sharing a particular diet, such as vegetarians (people who don't eat meat) or locavores (people who strive to eat locally produced food).

Just as structural functionalism was criticized for focusing too much on the stability of societies, conflict theory has been criticized because it tends to focus on conflict to the exclusion of recognizing stability. Many social structures are extremely stable or have gradually progressed over time rather than changing abruptly as conflict theory would suggest.

Symbolic Interactionist Theory

Symbolic interactionism is a micro-level theory that focuses on the relationships among individuals within a society. Communication—the exchange of meaning through language and symbols—is believed to be the way in which people make sense of their social worlds. Theorists Herman and Reynolds (1994) note that this perspective sees people as being active in shaping the social world rather than simply being acted upon.

George Herbert Mead (1863–1931) is considered a founder of symbolic interactionism though he never published his work on it (LaRossa and Reitzes 1993). Mead's student, Herbert Blumer, coined the term "symbolic interactionism" and outlined these basic premises: humans interact with things based on meanings ascribed to those things; the ascribed meaning of things comes from our interactions with others and society; the meanings of things are interpreted by a person when dealing with things in specific circumstances (Blumer 1969). If you love books, for example, a symbolic interactionist might propose that you learned that books are good or important in the interactions you had with family, friends, school, or church; maybe your family had a special reading time each week, getting your library card was treated as a special event, or bedtime stories were associated with warmth and comfort.

Social scientists who apply symbolic-interactionist thinking look for patterns of interaction between individuals. Their studies often involve observation of one-on-one interactions. For example, while a conflict theorist studying a political protest might focus on class difference, a symbolic interactionist would be more interested in how individuals in the protesting group interact, as well as the signs and symbols protesters use to communicate their message. The focus on the importance of symbols in building a society led sociologists like Erving Goffman (1922–1982) to develop a technique called dramaturgical analysis. Goffman used theater as an analogy for social interaction and recognized that people's interactions showed patterns of cultural "scripts." Because it can be unclear what part a person may play in a given situation, he or she has to improvise his or her role as the situation unfolds (Goffman 1958).

Studies that use the symbolic interactionist perspective are more likely to use qualitative research methods, such as in-depth interviews or participant observation, because they seek to understand the symbolic worlds in which research subjects live.

Constructivism is an extension of symbolic interaction theory which proposes that reality is what humans cognitively construct it to be. We develop social constructs based on interactions with

others, and those constructs that last over time are those that have meanings which are widely agreed-upon or generally accepted by most within the society. This approach is often used to understand what's defined as deviant within a society. There is no absolute definition of deviance, and different societies have constructed different meanings for deviance, as well as associating different behaviors with deviance. One situation that illustrates this is what you believe you're to do if you find a wallet in the street. In the United States, turning the wallet in to local authorities would be considered the appropriate action, and to keep the wallet would be seen as deviant. In contrast, many Eastern societies would consider it much more appropriate to keep the wallet and search for the owner yourself; turning it over to someone else, even the authorities, would be considered deviant behavior.

Criticism

Research done from this perspective is often scrutinized because of the difficulty of remaining objective. Others criticize the extremely narrow focus on symbolic interaction. Proponents, of course, consider this one of its greatest strengths.

Sociological Theory Today

These three approaches are still the main foundation of modern sociological theory, but some evolution has been seen. Structural-functionalism was a dominant force after World War II and until the 1960s and 1970s. At that time, sociologists began to feel that structural-functionalism did not sufficiently explain the rapid social changes happening in the United States at that time.

Conflict theory then gained prominence, as there was a renewed

emphasis on institutionalized social inequality. Critical theory, and the particular aspects of feminist theory and critical race theory, focused on creating social change through the application of sociological principles, and the field saw a renewed emphasis on helping ordinary people understand sociology principles, in the form of public sociology.

The postmodern social theory attempts to look at society through an entirely new lens by rejecting previous macro-level attempts to explain social phenomena. Generally considered as gaining acceptance in the late 1970s and early 1980s, postmodern social theory is a micro-level approach that looks at small, local groups and individual reality. Its growth in popularity coincides with the constructivist aspects of symbolic interactionism.

End-of-Chapter Summary

Sociologists develop theories to explain social events, interactions, and patterns. A theory is a proposed explanation of those social interactions. Theories have different scales. Macro-level theories, such as structural functionalism and conflict theory, attempt to explain how societies operate as a whole. Micro-level theories, such as symbolic interactionism, focus on interactions between individuals.

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Attribution

Chapter 4: The Elements of Culture

Culture is as the symbols, language, beliefs, values, and artifacts that are part of any society. As this definition suggests, there are two basic components of culture: ideas and symbols on the one hand and artifacts (material objects) on the other. The first type, called nonmaterial culture, includes the values, beliefs, symbols, and language that define a society. The second type, called material culture, includes all the society's physical objects, such as its tools and technology, clothing, eating utensils, and means of transportation. These elements of culture are discussed next.

Symbols

Every culture is filled with <u>symbols</u>, or things that stand for something else and that often evoke various reactions and emotions. Some symbols are actually types of nonverbal communication, while other symbols are in fact material objects. As the symbolic interactionist perspective discussed in [Chapter 1 "Sociology and the Sociological Perspective"](#) emphasizes, shared symbols make social interaction possible.

Let's look at nonverbal symbols first. A common one is shaking hands, which is done in some societies but not in others. It commonly conveys friendship and is used as a sign of both greeting and departure. Probably all societies have nonverbal symbols we call <u>gestures</u>, movements of the hands, arms, or other parts of the body that are meant to convey certain ideas or emotions. However, the same gesture can mean one thing in one society and something quite different in another society (Axtell, 1998). In the United States, for example, if we nod our head up and down, we mean yes, and if we shake it back and forth, we mean no. In Bulgaria, however, nodding means no, while shaking our head back and forth means yes! In the United States, if we make an "O" by putting our thumb and forefinger together, we mean "OK," but the same gesture in certain parts of Europe signifies an obscenity. "Thumbs up" in the United States means "great" or "wonderful," but in Australia it means the same thing as extending the middle finger in the United States. Certain parts of the Middle East and Asia would be offended if they saw you using your left hand to eat, because they use their left hand for bathroom hygiene.
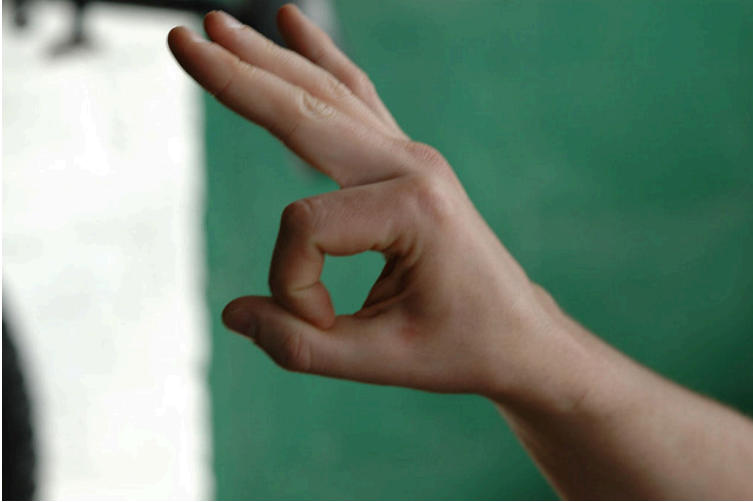
The meaning of a gesture may differ from one society to another. This familiar gesture means "OK" in the United States, but in certain parts of Europe it signifies an obscenity. An American using this gesture might very well be greeted with an angry look. d Wang – ok – CC BY-NC-ND 2.0.

Some of our most important symbols are objects. Here the U.S. flag is a prime example. For most Americans, the flag is not just a piece of cloth with red and white stripes and white stars against a field of blue. Instead, it is a symbol of freedom, democracy, and other American values and, accordingly, inspires pride and patriotism. During the Vietnam War, however, the flag became to many Americans a symbol of war and imperialism. Some burned the flag in protest, prompting angry attacks by bystanders and negative coverage by the news media.

Other objects have symbolic value for religious reasons. Three of the most familiar religious symbols in many nations are the cross, the Star of David, and the crescent moon, which are widely understood to represent Christianity, Judaism, and Islam, respectively. Whereas many cultures attach no religious significance to these shapes, for many people across the world they

evoke very strong feelings of religious faith. Recognizing this, hate groups have often desecrated these symbols.

As these examples indicate, shared symbols, both nonverbal communication and tangible objects, are an important part of any culture but also can lead to misunderstandings and even hostility. These problems underscore the significance of symbols for social interaction and meaning.

Language

Perhaps our most important set of symbols is language. In English, the word *chair* means something we sit on. In Spanish, the word *silla* means the same thing. As long as we agree how to interpret these words, a shared language and thus society are possible. By the same token, differences in languages can make it quite difficult to communicate. For example, imagine you are in a foreign country where you do not know the language and the country's citizens do not know yours. Worse yet, you forgot to bring your dictionary that translates their language into yours, and vice versa, and your iPhone battery has died. You become lost. How will you get help? What will you do? Is there any way to communicate your plight?

As this scenario suggests, language is crucial to communication and thus to any society's culture. Children learn language from their culture just as they learn about shaking hands, about gestures, and about the significance of the flag and other symbols. Humans have a capacity for language that no other animal species possesses.

Our capacity for language in turn helps make our complex culture possible.

Language is a key symbol of any culture. Humans have a capacity for language that no other animal species has, and children learn the language of their society just as they learn other aspects of their culture. Bill Benzon – IMGP3639 – talk – CC BY-SA 2.0.

In the United States, some people consider a common language so important that they advocate making English the official language of certain cities or states or even the whole country and banning bilingual education in the public schools (Ray, 2007). Critics acknowledge the importance of English but allege that this movement smacks of anti-immigrant prejudice and would help destroy ethnic subcultures. In 2009, voters in Nashville, Tennessee, rejected a proposal that would have made English the city's official language and required all city workers to speak in English rather than their native language (R. Brown, 2009).

Language, of course, can be spoken or written. One of the most important developments in the evolution of society was the creation

of written language. Some of the preindustrial societies that anthropologists have studied have written language, while others do not, and in the remaining societies the "written" language consists mainly of pictures, not words. Figure 3.1 "The Presence of Written Language (Percentage of Societies)" illustrates this variation with data from 186 preindustrial societies called the Standard Cross-Cultural Sample (SCCS), a famous data set compiled several decades ago by anthropologist George Murdock and colleagues from information that had been gathered on hundreds of preindustrial societies around the world (Murdock & White, 1969). In Figure 3.1 "The Presence of Written Language (Percentage of Societies)", we see that only about one-fourth of the SCCS societies have a written language, while about equal proportions have no language at all or only pictures.

Figure 3.1 The Presence of Written Language (Percentage of Societies)

Legend:
- No Writing
- Pictures Only
- Writing

Source: Data from Standard Cross-Cultural Sample.
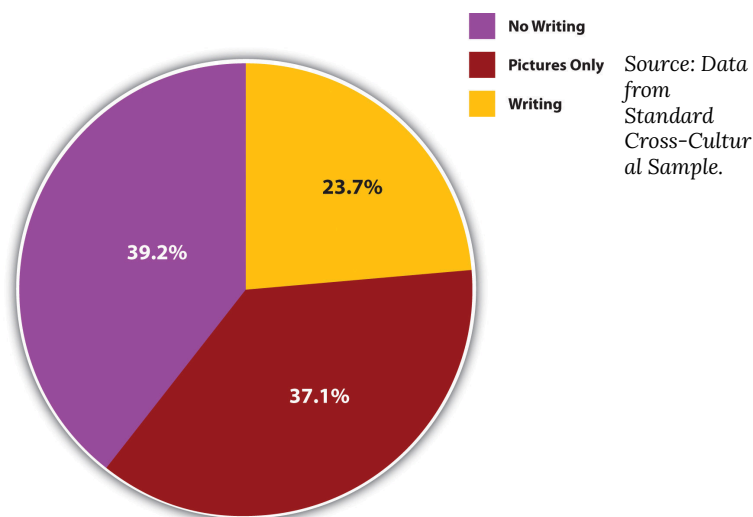
To what extent does language influence how we think and how we perceive the social and physical worlds? The famous but controversial Sapir-Whorf hypothesis, named after two linguistic anthropologists, Edward Sapir and Benjamin Lee Whorf, argues that people cannot easily understand concepts and objects unless their language contains words for these items (Whorf, 1956). Language thus influences how we understand the world around us. For example, people in a country such as the United States that has many terms for different types of kisses (e.g. buss, peck, smack, smooch, and soul) are better able to appreciate these different types than people in a country such as Japan, which, as we saw earlier, only fairly recently developed the word *kissu* for kiss.

Another illustration of the Sapir-Whorf hypothesis is seen in sexist language, in which the use of male nouns and pronouns shapes how we think about the world (Miles, 2008). In older children's books, words like fire*man* and mail*man* are common, along with pictures of men in these jobs, and critics say they send a message to children that these are male jobs, not female jobs.

If a teacher tells a second-grade class, "Every student should put his books under his desk," the teacher obviously means students of both sexes but may be sending a subtle message that boys matter more than girls. For these reasons, several guidebooks promote the use of nonsexist language (Maggio, 1998). Table 3.1 "Examples of Sexist Terms and Nonsexist Alternatives" provides examples of sexist language and nonsexist alternatives.

Table 3.1 Examples of Sexist Terms and Nonsexist Alternatives

Term	Alternative
Businessman	Businessperson, executive
Fireman	Fire fighter
Chairman	Chair, chairperson
Policeman	Police officer
Mailman	Letter carrier, postal worker
Mankind	Humankind, people
Man-made	Artificial, synthetic
Waitress	Server
He (as generic pronoun)	He or she; he/she; s/he
"A professor should be devoted to his students"	"Professors should be devoted to their students"

The use of racist language also illustrates the Sapir-Whorf

hypothesis. An old saying goes, "Sticks and stones may break my bones, but names will never hurt me." That may be true in theory but not in reality. Names can hurt, especially names that are racial slurs, which African Americans growing up before the era of the civil rights movement routinely heard. According to the Sapir-Whorf hypothesis, the use of these words would have affected how whites perceived African Americans. More generally, the use of racist terms may reinforce racial prejudice and racial stereotypes.

Sociology Making a Difference

Overcoming Cultural and Ethnic Differences

People from many different racial and ethnic backgrounds live in large countries such as the United States. Because of cultural differences and various prejudices, it can be difficult for individuals from one background to interact with individuals from another background. Fortunately, a line of research, grounded in *contact theory* and conducted by sociologists and social psychologists, suggests that interaction among individuals from different backgrounds can indeed help overcome tensions arising from their different cultures and any

prejudices they may hold. This happens because such contact helps disconfirm stereotypes that people may hold of those from different backgrounds (Dixon, 2006; Pettigrew & Tropp, 2005).

Recent studies of college students provide additional evidence that social contact can help overcome cultural differences and prejudices. Because many students are randomly assigned to their roommates when they enter college, interracial roommates provide a "natural" experiment for studying the effects of social interaction on racial prejudice. Studies of such roommates find that whites with black roommates report lowered racial prejudice and greater numbers of interracial friendships with other students (Laar, Levin, Sinclair, & Sidanius, 2005; Shook & Fazio, 2008).

It is not easy to overcome cultural differences and prejudices, and studies also find that interracial college roommates often have to face many difficulties in overcoming the cultural differences and prejudices that existed before they started living together (Shook & Fazio, 2008). Yet the body of work supporting contact theory suggests that efforts that increase social interaction among people from different cultural and ethnic backgrounds in the long run will reduce racial and ethnic tensions.

Norms

Cultures differ widely in their <u>norms</u>, or standards and expectations for behaving. We already saw that the nature of drunken behavior depends on society's expectations of how people should behave when drunk. Norms of drunken behavior influence how we behave when we drink too much.

Norms are often divided into two types, <u>formal norms</u> and <u>informal norms</u>. Formal norms, also called *mores* (MOOR-ayz) and *laws*, refer to the standards of behavior considered the most important in any society. Examples in the United States include traffic laws, criminal codes, and, in a college context, student behavior codes addressing such things as cheating and hate speech. Informal norms, also called *folkways* and *customs*, refer to standards of behavior that are considered less important but still influence how we behave. Table manners are a common example of informal norms, as are such everyday behaviors as how we interact with a cashier and how we ride in an elevator.

Many norms differ dramatically from one culture to the next. Some of the best evidence for cultural variation in norms comes from the study of sexual behavior (Edgerton, 1976). Among the Pokot of East Africa, for example, women are expected to enjoy sex, while among the Gusii a few hundred miles away, women who enjoy sex are considered deviant. In Inis Beag, a small island off the coast of Ireland, sex is considered embarrassing and even disgusting; men feel that intercourse drains their strength, while women consider it a burden. Even nudity is considered terrible, and people on Inis Beag keep their clothes on while they bathe. The situation is quite different in Mangaia, a small island in the South Pacific. Here sex is considered very enjoyable, and it is the major subject of songs and stories.

While many societies frown on homosexuality, others accept it.

Among the Azande of East Africa, for example, young warriors live with each other and are not allowed to marry. During this time, they often have sex with younger boys, and this homosexuality is approved by their culture. Among the Sambia of New Guinea, young males live separately from females and engage in homosexual behavior for at least a decade. It is felt that the boys would be less masculine if they continued to live with their mothers and that the semen of older males helps young boys become strong and fierce (Edgerton, 1976).

Although many societies disapprove of homosexuality, other societies accept it. This difference illustrates the importance of culture for people's attitudes. philippe leroyer – Lesbian & Gay Pride – CC BY-NC-ND 2.0.

Other evidence for cultural variation in norms comes from the study of how men and women are expected to behave in various societies. For example, many traditional societies are simple hunting-and-gathering societies. In most of these, men tend to hunt and women tend to gather. Many observers attribute this gender difference to at least two biological differences between the sexes. First, men tend to be bigger and stronger than women and are thus better suited

for hunting. Second, women become pregnant and bear children and are less able to hunt. Yet a different pattern emerges in some hunting-and-gathering societies. Among a group of Australian aborigines called the Tiwi and a tribal society in the Philippines called the Agta, both sexes hunt. After becoming pregnant, Agta women continue to hunt for most of their pregnancy and resume hunting after their child is born (Brettell & Sargent, 2009).

Some of the most interesting norms that differ by culture govern how people stand apart when they talk with each other (Hall & Hall, 2007). In the United States, people who are not intimates usually stand about three to four feet apart when they talk. If someone stands more closely to us, especially if we are of northern European heritage, we feel uncomfortable. Yet people in other countries—especially Italy, France, Spain, and many of the nations of Latin America and the Middle East—would feel uncomfortable if they were standing three to four feet apart. To them, this distance is too great and indicates that the people talking dislike each other. If a U.S. native of British or Scandinavian heritage were talking with a member of one of these societies, they might well have trouble interacting, because at least one of them will be uncomfortable with the physical distance separating them.

Rituals

Different cultures also have different rituals, or established procedures and ceremonies that often mark transitions in the life course. As such, rituals both reflect and transmit a culture's norms and other elements from one generation to the next. Graduation

ceremonies in colleges and universities are familiar examples of time-honored rituals. In many societies, rituals help signify one's gender identity. For example, girls around the world undergo various types of initiation ceremonies to mark their transition to adulthood. Among the Bemba of Zambia, girls undergo a month-long initiation ceremony called the *chisungu*, in which girls learn songs, dances, and secret terms that only women know (Maybury-Lewis, 1998). In some cultures, special ceremonies also mark a girl's first menstrual period. Such ceremonies are largely absent in the United States, where a girl's first period is a private matter. But in other cultures the first period is a cause for celebration involving gifts, music, and food (Hathaway, 1997).

Boys have their own initiation ceremonies, some of them involving circumcision. That said, the ways in which circumcisions are done and the ceremonies accompanying them differ widely. In the United States, boys who are circumcised usually undergo a quick procedure in the hospital. If their parents are observant Jews, circumcision will be part of a religious ceremony, and a religious figure called a *moyel* will perform the circumcision. In contrast, circumcision among the Maasai of East Africa is used as a test of manhood. If a boy being circumcised shows signs of fear, he might well be ridiculed (Maybury-Lewis, 1998).

Are rituals more common in traditional societies than in industrial ones such as the United States? Consider the Nacirema, studied by anthropologist Horace Miner more than 50 years ago (Miner, 1956). In this society, many rituals have been developed to deal with the culture's fundamental belief that the human body is ugly and in danger of suffering many diseases. Reflecting this belief, every household has at least one shrine in which various rituals are performed to cleanse the body. Often these shrines contain magic potions acquired from medicine men. The Nacirema are especially concerned about diseases of the mouth. Miner writes, "Were it not for the rituals of the mouth, they believe that their teeth would fall out, their gums bleed, their jaws shrink, their friends desert them,

and their lovers reject them" (p. 505). Many Nacirema engage in "mouth-rites" and see a "holy-mouth-man" once or twice yearly.

Spell Nacirema backward and you will see that Miner was describing American culture. As his satire suggests, rituals are not limited to preindustrial societies. Instead, they function in many kinds of societies to mark transitions in the life course and to transmit the norms of the culture from one generation to the next.

Changing Norms and Beliefs

Our examples show that different cultures have different norms, even if they share other types of practices and beliefs. It is also true that norms change over time within a given culture. Two obvious examples here are hairstyles and clothing styles. When the Beatles first became popular in the early 1960s, their hair barely covered their ears, but parents of teenagers back then were aghast at how they looked. If anything, clothing styles change even more often than hairstyles. Hemlines go up, hemlines go down. Lapels become wider, lapels become narrower. This color is in, that color is out. Hold on to your out-of-style clothes long enough, and eventually they may well end up back in style.

Some norms may change over time within a given culture. In the early 1960s, the hair of the four members of the Beatles barely covered their ears, but many parents of U.S. teenagers were very critical of the length of their hair. U.S. Library of Congress – public domain.

A more important topic on which norms have changed is abortion and birth control (Bullough & Bullough, 1977). Despite the controversy surrounding abortion today, it was very common in the ancient world. Much later, medieval theologians generally felt that abortion was not murder if it occurred within the first several weeks after conception. This distinction was eliminated in 1869, when Pope Pius IX declared abortion at any time to be murder. In the United States, abortion was not illegal until 1828, when New York state banned it to protect women from unskilled abortionists, and most other states followed suit by the end of the century. However, the sheer number of unsafe, illegal abortions over the next several decades helped fuel a demand for repeal of abortion

laws that in turn helped lead to the *Roe v. Wade* Supreme Court decision in 1973 that generally legalized abortion during the first two trimesters.

Contraception was also practiced in ancient times, only to be opposed by early Christianity. Over the centuries, scientific discoveries of the nature of the reproductive process led to more effective means of contraception and to greater calls for its use, despite legal bans on the distribution of information about contraception. In the early 1900s, Margaret Sanger, an American nurse, spearheaded the growing birth-control movement and helped open a birth-control clinic in Brooklyn in 1916. She and two other women were arrested within 10 days, and Sanger and one other defendant were sentenced to 30 days in jail. Efforts by Sanger and other activists helped to change views on contraception over time, and finally, in 1965, the U.S. Supreme Court ruled in *Griswold v. Connecticut* that contraception information could not be banned. As this brief summary illustrates, norms about contraception changed dramatically during the last century.

Other types of cultural beliefs also change over time ([Figure 3.2 "Percentage of People Who Say They Would Vote for a Qualified African American for President"](#) and [Figure 3.3 "Percentage of People Who Agree Women Should Take Care of Running Their Homes"](#)). Since the 1960s, the U.S. public has changed its views about some important racial and gender issues. [Figure 3.2 "Percentage of People Who Say They Would Vote for a Qualified African American for President"](#), taken from several years of the General Social Survey (GSS), shows that the percentage of Americans who would vote for a qualified black person as president rose almost 20 points from the early 1970s to the middle of 1996, when the GSS stopped asking the question. If beliefs about voting for an African American had not changed, Barack Obama would almost certainly not have been elected in 2008. [Figure 3.3 "Percentage of People Who Agree Women Should Take Care of Running Their Homes"](#), also taken from several years of the GSS, shows that the percentage saying that women should take care of

running their homes and leave running the country to men declined from almost 36% in the early 1970s to only about 15% in 1998, again, when the GSS stopped asking the question. These two figures depict declining racial and gender prejudice in the United States during the past quarter-century.

Figure 3.2 Percentage of People Who Say They Would Vote for a Qualified African American for President

Source: Data from General Social Surveys, 1972–1996.
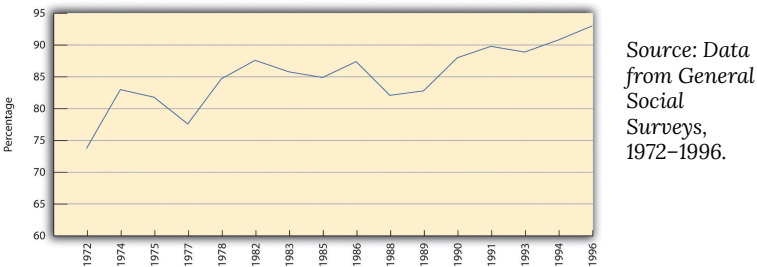
Figure 3.3 Percentage of

People Who Agree Women Should Take Care of Running Their Homes
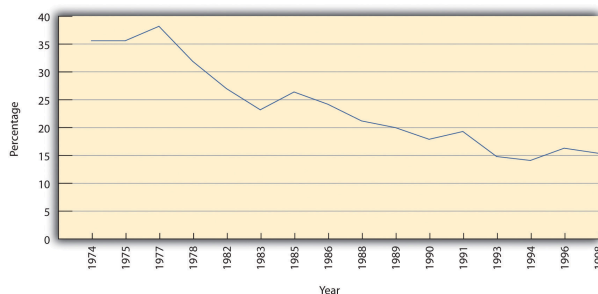
Source: Data from General Social Surveys, 1974–1998.

Values

<u>Values</u> are another important element of culture and involve judgments of what is good or bad and desirable or undesirable. A culture's values shape its norms. In Japan, for example, a central value is group harmony. The Japanese place great emphasis on harmonious social relationships and dislike interpersonal conflict. Individuals are fairly unassertive by American standards, lest they be perceived as trying to force their will on others (Schneider & Silverman, 2010). When interpersonal disputes do arise, Japanese do their best to minimize conflict by trying to resolve the disputes amicably. Lawsuits are thus uncommon; in one case involving

disease and death from a mercury-polluted river, some Japanese who dared to sue the company responsible for the mercury poisoning were considered bad citizens (Upham, 1976).

Individualism in the United States

American culture promotes competition and an emphasis on winning in the sports and business worlds and in other spheres of life. Accordingly, lawsuits over frivolous reasons are common and even expected. Clyde Robinson – Courtroom – CC BY 2.0.

In the United States, of course, the situation is quite different. The American culture extols the rights of the individual and promotes competition in the business and sports worlds and in other areas of life. Lawsuits over the most frivolous of issues are quite common and even expected. Phrases like "Look out for number one!" abound. If the Japanese value harmony and group feeling, Americans value competition and individualism. Because the Japanese value harmony, their norms frown on self-assertion in interpersonal relationships and on lawsuits to correct perceived wrongs. Because Americans value and even thrive on competition, our norms promote assertion in relationships and certainly promote the use of the law to address all kinds of problems.

Figure 3.4 "Percentage of People Who Think Competition Is Very Beneficial" illustrates this difference between the two nations' cultures with data from the 2002 World Values Survey (WVS), which was administered to random samples of the adult populations of more than 80 nations around the world. One question asked in these nations was, "On a scale of one ('competition is good; it stimulates people to work hard and develop new ideas') to ten ('competition is harmful; it brings out the worst in people'), please indicate your views on competition." Figure 3.4 "Percentage of People Who Think Competition Is Very Beneficial" shows the percentages of Americans and Japanese who responded with a "one" or "two" to this question, indicating they think competition is very beneficial. Americans are about three times as likely as Japanese to favor competition.

Figure 3.4 Percentage of

People Who Think Competition Is Very Beneficial
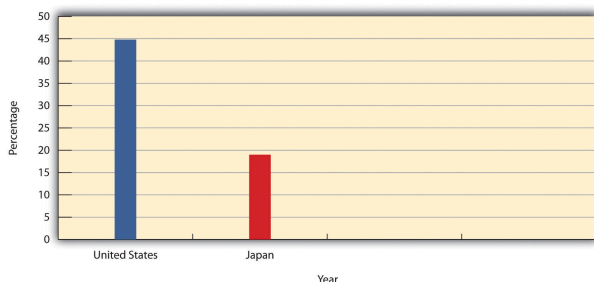
The Japanese value system is a bit of an anomaly, because Japan is an industrial nation with very traditional influences. Its emphasis on group harmony and community is more usually thought of as a value found in traditional societies, while the U.S. emphasis on individuality is more usually thought of as a value found in industrial cultures. Anthropologist David Maybury-Lewis (1998, p. 8) describes this difference as follows: "The heart of the difference between the modern world and the traditional one is that in traditional societies people are a valuable resource and the interrelations between them are carefully tended; in modern society things are the valuables and people are all too often treated as disposable." In industrial societies, continues Maybury-Lewis, individualism and the rights of the individual are celebrated and any one person's obligations to the larger community are weakened. Individual achievement becomes more important than values such as kindness, compassion, and generosity.

Other scholars take a less bleak view of industrial society, where they say the spirit of community still lives even as individualism

is extolled (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985). In American society, these two simultaneous values sometimes create tension. In Appalachia, for example, people view themselves as rugged individuals who want to control their own fate. At the same time, they have strong ties to families, relatives, and their neighbors. Thus their sense of independence conflicts with their need for dependence on others (Erikson, 1976).

The Work Ethic

Another important value in the American culture is the work ethic. By the 19th century, Americans had come to view hard work not just as something that had to be done but as something that was morally good to do (Gini, 2000). The commitment to the work ethic remains strong today: in the 2008 General Social Survey, 72% of respondents said they would continue to work even if they got enough money to live as comfortably as they would like for the rest of their lives.

Cross-cultural evidence supports the importance of the work ethic in the United States. Using earlier World Values Survey data, Figure 3.5 "Percentage of People Who Take a Great Deal of Pride in Their Work" presents the percentage of people in United States and three other nations from different parts of the world—Mexico, Poland, and Japan—who take "a great deal of pride" in their work. More than 85% of Americans feel this way, compared to much lower proportions of people in the other three nations.

Figure 3.5 Percentage of People Who Take a Great Deal of Pride in Their Work
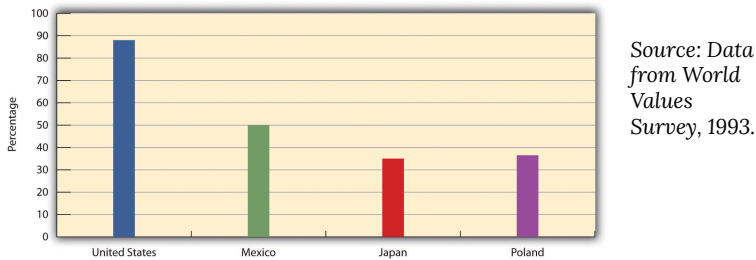
Closely related to the work ethic is the belief that if people work hard enough, they will be successful. Here again the American culture is especially thought to promote the idea that people can pull themselves up by their "bootstraps" if they work hard enough. The WVS asked whether success results from hard work or from luck and connections. Figure 3.6 "Percentage of People Who Think Hard Work Brings Success" presents the proportions of people in the four nations just examined who most strongly thought that hard work brings success. Once again we see evidence of an important aspect of the American culture, as U.S. residents were especially likely to think that hard work brings success.

Figure 3.6 Percentage of

People Who Think Hard Work Brings Success
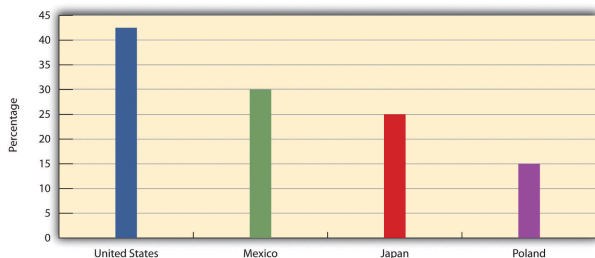
Source: Data from World Values Survey, 1997.

If Americans believe hard work brings success, then they should be more likely than people in most other nations to believe that poverty stems from not working hard enough. True or false, this belief is an example of the blaming-the-victim ideology introduced in Chapter 1 "Sociology and the Sociological Perspective". Figure 3.7 "Percentage of People Who Attribute Poverty to Laziness and Lack of Willpower" presents WVS percentages of respondents who said the most important reason people are poor is "laziness and lack of willpower." As expected, Americans are much more likely to attribute poverty to not working hard enough.

Figure 3.7 Percentage of People Who Attribute

Poverty to Laziness and Lack of Willpower
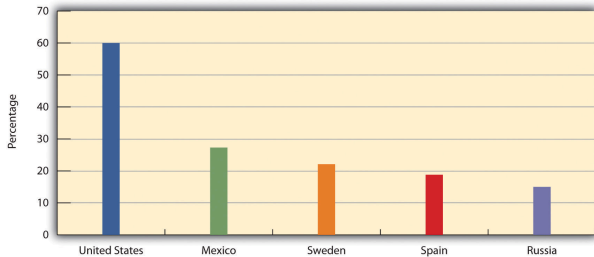
We could discuss many other values, but an important one concerns how much a society values women's employment outside the home. The WVS asked respondents whether they agree that "when jobs are scarce men should have more right to a job than women." [Figure 3.8 "Percentage of People Who Disagree That Men Have More Right to a Job Than Women When Jobs Are Scarce"](#) shows that U.S. residents are more likely than those in nations with more traditional views of women to *disagree* with this statement.

Figure 3.8 Percentage of People Who Disagree That Men Have More Right to a

Job Than Women When Jobs Are Scarce
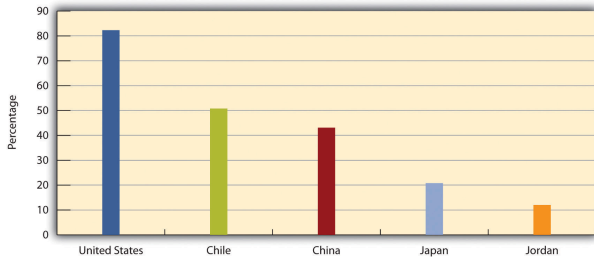
Source: Data from World Values Survey, 2002.

Artifacts

The last element of culture is the <u>artifacts</u>, or material objects, that constitute a society's material culture. In the most simple societies, artifacts are largely limited to a few tools, the huts people live in, and the clothing they wear. One of the most important inventions in the evolution of society was the wheel. <u>Figure 3.9 "Primary Means of Moving Heavy Loads"</u> shows that very few of the societies in the SCCS use wheels to move heavy loads over land, while the majority use human power and about one-third use pack animals.

Figure 3.9 Primary Means of Moving Heavy Loads

Human Bearers
Pack Animals
Wheel

Source: Data from Standard Cross-Cultural Sample.

30.6%

57.5%

11.8%
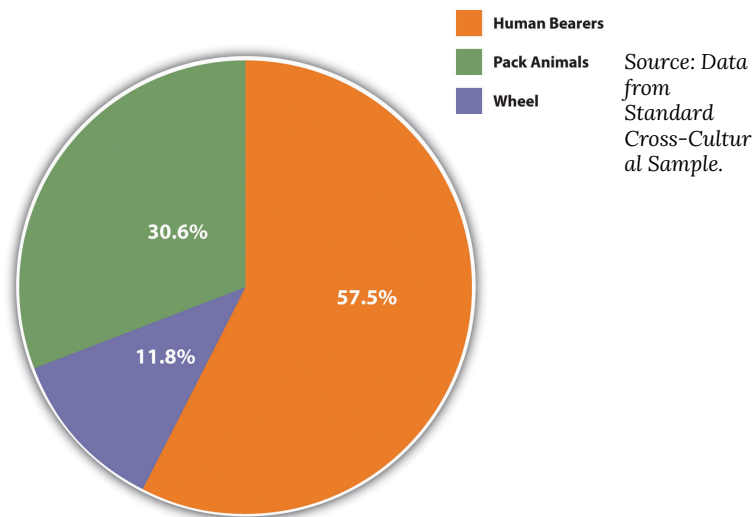
Although the wheel was a great invention, artifacts are much more numerous and complex in industrial societies. Because of technological advances during the past two decades, many such societies today may be said to have a *wireless* culture, as smartphones, netbooks and laptops, and GPS devices now dominate so much of modern life. The artifacts associated with this culture were unknown a generation ago. Technological development created these artifacts and new language to describe them and the functions they perform. Today's wireless artifacts in turn help reinforce our own commitment to wireless technology as a way of life, if only because children are now growing up with them, often even before they can read and write.

The iPhone is just one of the many notable cultural artifacts in today's wireless world. Technological development created these artifacts and new language to describe them and their functions—for example, "There's an app for that!" Philip Brooks – iPhone – CC BY-NC-ND 2.0.

Sometimes people in one society may find it difficult to understand the artifacts that are an important part of another society's culture. If a member of a tribal society who had never seen a cell phone, or who had never even used batteries or electricity, were somehow to visit the United States, she or he would obviously have no idea of what a cell phone was or of its importance in almost everything we do these days. Conversely, if we were to visit that person's society, we might not appreciate the importance of some of its artifacts.

In this regard, consider once again India's cows, discussed in the news article that began this chapter. As the article mentioned, people from India consider cows holy, and they let cows roam the streets of many cities. In a nation where hunger is so rampant, such cow worship is difficult to understand, at least to Americans, because a ready source of meat is being ignored.

Anthropologist Marvin Harris (1974) advanced a practical explanation for India's cow worship. Millions of Indians are peasants who rely on their farms for their food and thus their existence. Oxen and water buffalo, not tractors, are the way they plow their fields. If

their ox falls sick or dies, farmers may lose their farms. Because, as Harris observes, oxen are made by cows, it thus becomes essential to preserve cows at all costs. In India, cows also act as an essential source of fertilizer, to the tune of 700 million tons of manure annually, about half of which is used for fertilizer and the other half of which is used as fuel for cooking. Cow manure is also mixed with water and used as flooring material over dirt floors in Indian households. For all of these reasons, cow worship is not so puzzling after all, because it helps preserve animals that are very important for India's economy and other aspects of its way of life.

According to anthropologist Marvin Harris, cows are worshipped in India because they are such an important part of India's agricultural economy. Francisco Martins – Cow in Mumbai – CC BY-NC 2.0.

If Indians exalt cows, many Jews and Muslims feel the opposite about pigs: they refuse to eat any product made from pigs and so obey an injunction from the Old Testament of the Bible and from the Koran. Harris thinks this injunction existed because pig farming in

ancient times would have threatened the ecology of the Middle East. Sheep and cattle eat primarily grass, while pigs eat foods that people eat, such as nuts, fruits, and especially grains. In another problem, pigs do not provide milk and are much more difficult to herd than sheep or cattle. Next, pigs do not thrive well in the hot, dry climate in which the people of the Old Testament and Koran lived. Finally, sheep and cattle were a source of food back then because beyond their own meat they provided milk, cheese, and manure, and cattle were also used for plowing. In contrast, pigs would have provided only their own meat. Because sheep and cattle were more "versatile" in all of these ways, and because of the other problems pigs would have posed, it made sense for the eating of pork to be prohibited.

In contrast to Jews and Muslims, at least one society, the Maring of the mountains of New Guinea, is characterized by "pig love." Here pigs are held in the highest regard. The Maring sleep next to pigs, give them names and talk to them, feed them table scraps, and once or twice every generation have a mass pig sacrifice that is intended to ensure the future health and welfare of Maring society. Harris explains their love of pigs by noting that their climate is ideally suited to raising pigs, which are an important source of meat for the Maring. Because too many pigs would overrun the Maring, their periodic pig sacrifices help keep the pig population to manageable levels. Pig love thus makes as much sense for the Maring as pig hatred did for people in the time of the Old Testament and the Koran.

Key Takeaways

- The major elements of culture are symbols, language, norms, values, and artifacts.
- Language makes effective social interaction possible and influences how people conceive of concepts and objects.
- Major values that distinguish the United States include individualism, competition, and a commitment to the work ethic.

For Your Review

1. How and why does the development of language illustrate the importance of culture and provide evidence for the sociological perspective?
2. Some people say the United States is too individualistic and competitive, while other people say these values are part of what makes America

great. What do you think? Why?

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THE SOCIAL CHANGE DIMENSION

Learning Objectives:

- Explore Theories of Racism, Discrimination, and Oppression on the macro level and how it impacts on the micro/mezzo levels
- Describe Attribution Theory
- Describe the Vicious Cycle
- Describe Social and Economic Perspectives
- Describe Social Action and Social Change Perspectives
- Define Community
- Describe Community Organization Theory

Vignette

Otis, a 9 y/o African American boy, has been in the foster care system for just over one year, after his mother was arrested and convicted of prostitution. No relatives were found to care for Otis and his younger brother, and they were separated into different foster homes. Otis experienced placement in a few different foster homes (all Caucasian families) before being placed with an African American family, where he has been for the past 6 months. He was observed to be adjusting fairly well despite the continued

Photo by nana o. on Unsplash

inconsistencies of visits with his mother and his mother's shortcomings in completing the plan to reunite their family. He was making friends and enjoyed his visits with his younger brother. His mother's parental rights were recently terminated, and Otis experienced another move when placed with his new adoptive family.

The Johnson family have adopted Otis. His adoptive parents are an older, wealthy Caucasian couple, Bill and Christina, who have 2 other daughters, both older than Otis. They are trying their best to make Otis feel welcome and a part of their family but have noticed Otis does not seem to be adjusting well, even though he has been with them for almost 6 months. He rarely looks them in the eye, hardly responds when his adoptive sisters try to engage him, and has hardly been eating or sleeping. His teachers report Otis is typically withdrawn each day, demonstrating little interactions with his teachers and peers. The Johnson's have decided to begin family therapy with Otis as

they do not know what to do and want to do their best in supporting him. Otis is able to report feeling out of place within his new environments as he has been the only African American person present in most of his new settings and is not sure how he fits into his new life.

The Social Change Dimension

This dimension explores theories of racism, discrimination, oppression, and privilege on the macro level and explores how it impacts individuals on the micro/mezzo levels. We will also explore Social and Economic Justice perspectives, Social Change and Social Action perspectives, and Community Organization theories.

But first, let's start with some vocabulary words:

Social Change Dimension Vocabulary Words:

Stereotypes – an over-generalized belief about a particular group of people.

Prejudice – preconceived opinion that is not based on reason or actual experience.

Discrimination – the unjust or prejudicial treatment of different categories of people or things, especially on the grounds of race, age, or sex.

Race – a class or kind of people unified by shared interests, habits, or characteristics.

Racism – prejudice, discrimination, or antagonism directed against someone of a different race based on the belief that one's own race is superior.

Oppression – prolonged cruel or unjust treatment or control.

> *Primary Oppression* – Active and purposeful. Use of force or deprivation through laws, policies, or regulations that discriminate against people perceived to be inferior to the dominant group.
>
> *Secondary Oppression* – Not active, but still benefit from it. An example would be staying silent when oppressive acts are occurring such as extending a job offer to a person of the dominant group but not to an equally qualified member of a minority group.
>
> *Tertiary Oppression* – When members of an oppressed group seek acceptance by supporting oppressive acts of the dominant group – abandoning their own group or "selling out" to seek approval and admission with the dominant group.

Attribution Theory explores how we observe and make judgments about others.

Dispositional attributions – judges behavior due to inherent qualities, motivations, or characteristics of a person (lazy, careless, rude, impatient, unmotivated).

Situational attributions – judges behavior through situational factors that are often outside of a person's control (bad weather, poor economy, bad luck).

This theory also suggests we tend to have more positive thoughts about people like us (and connect more to situational attributions) and tend to place blame on people/groups that are different from us (and connect more to dispositional attributions).

The Vicious Cycle states when certain conditions (prejudices) are assumed to be true, forces may be set in motion to create and perpetuate the assumed condition (leading to discrimination). This allows the dominant group to limit opportunities for the group in the secondary position and continue holding the power position

within their group.

Social Learning Theory and **Conflict Theory** can also offer help in understanding the origins and structures of prejudice and discrimination.

> *Otis' story* – *Within Theories of Racism, Discrimination, and Oppression we would first want to explore how societal or historical beliefs have impacted Otis and his family. As an African American family living in poverty, it may be easy for people to believe stereotypes and prejudices about his family and why they were in their situation, connecting more to dispositional attributions rather than situational attributions. His mother's arrest may reinforce stereotypes/prejudices and he may feel the effects of the vicious cycle and begin to internalize these thoughts/feelings. We then move to the foster care system, exploring possible issues connected to systemic racism and how this may impact his experience on the micro level. He was first placed with a few different families, all Caucasian, before being placed in a family of same the race, where he was reported to be adjusting well in that environment. He was then placed in his adoptive home with a family of different race and much higher socioeconomic status than his family of origin. Here Otis is reported to struggle with adjustment in all areas (family, school, peers).*
>
> *What issues do you imagine he is facing in his new home? Macro level concerns could be connected to polices related to foster care and adoption, historical impacts of group experiences, and how discrimination and prejudice can impact marginalized populations. Mezzo level concerns could be connected to interactions with his*

> *adoptive family, school, peers, teachers, as well as his*
> *family of origin. Micro level concerns could be connected*
> *to his mental health needs as he has experienced trauma*
> *with removal from his family of origin, adjustments to his*
> *foster homes and now adoptive home, possible physical*
> *health issues due to chronic stressors, or feeling lack of a*
> *support system.*

Social and Economic Justice perspectives:
The promotion of social justice is a core value and ethical principle of the social work profession.

Social Justice – justice in terms of the distribution of wealth, opportunities, and privileges within a society.

   Distributive Justice – concept that addresses the ownership of goods in a society. It assumes that there is a large amount of fairness in the distribution of goods. Equal work should provide individuals with an equal outcome in terms of goods acquired or the ability to acquire goods.

> **Think About It:** *I encourage you to think about these*
> *perspectives. Do you believe this is something we can*
> *actually achieve? Is it fair? Why or why not? What are*
> *barriers that interfere with this?*

Social Change and Social Action perspectives:
Social Action – people coming together to help improve their lives and solve the problems that are important in their communities.
Social Movement – a type of group action which typically focuses on political or social issues.

Advocacy – any action that speaks in favor of, recommends, argues for a cause, supports or defends, or pleads on behalf of others that lack the skills, resources, or power to represent themselves.

> *Advocacy is another foundation intervention utilized in Social Work. Our goal is to teach others the skills of how to advocate for themselves but there are times we as Social Workers must step in and provide this support for our clients that cannot do so for themselves. We also support work in Social Action within our communities and across our country to lead to Social Movements to work in making change on the macro level.*

Community – can be defined as a group of people living in the same place or having a particular characteristic in common or a feeling of fellowship with others, as a result of sharing common attitudes, interests, and goals.

Territorial Community – geographical type of community.

Relational Community – people, groups, and organizations whose connections are based upon commonalities or identification and are not limited by place or geography.

> **Community Organization Theory** explores 3 contexts Social Workers use to understand community from a *macro-based perspective*. Please see below:

1. Community as the milieu in which practice actually occurs.

Social Workers help define the weaknesses and/or needs of a community, and what resources or interventions may benefit the community.

Locality Development Model: Social Workers uses the skills of community members to create change. Community members are recruited and organized to discuss issues, possible solutions, and ways to implement interventions.

2. Community as the change target.

Assessments and interventions completed by outside parties, rather than members of the community.

Social Planning Model: Social Workers, or other professionals, take lead on determining community issues, and what

interventions should be used.

Community members "Contract" with outside Social Workers.

3. Community as a mechanism for change.

Community members have the skills and abilities to create change; the Social Worker helps members identify and use their strengths.

Social Action Model: Social Workers empower community members to create change. Social Workers organize and guide the community, but the community must effect the desired change in the end.

> *It is important to explore the needs of the community to determine which course of action is best to provide the supports for their needs. It is also important to remember to utilize the Strength's Perspective when working with a community as their strengths will often help determine the supports and solutions needed.*

Please continue on to Chapter 6: Social Categorizations and Stereotypes, Chapter 7: In Group Favoritism and Prejudice, Chapter 8: Reducing Discrimination, and Chapter 9: Racism for further exploration and learning.

Key Takeaways:

- Theories of Racism, Discrimination, and Oppression explores how people are impacted on each level and within their systems.
- The promotion of social justice is a core value and ethical principle of the social work profession.
- Territorial Community – geographical type of community.
- Relational Community – people, groups, and organizations whose connections are based upon commonalities or identification and are not

limited by place or geography.
- Community Organization Theory – 3 Contexts Social Workers use to understand community from a macro-based perspective.
- Check out this case study, [Exploring Unintentional Racism: The Case of Tim Hanks,](#) designed to help you explore your attitudes about race and learn about the complexity of the concept of racism.

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Chapter 5: Social Categorization & Stereotyping

Chapter 5 Learning Objectives

- Describe the fundamental process of social categorization and its influence on thoughts, feelings, and behavior.
- Define *stereotypes* and describe the ways that stereotypes are measured.
- Review the ways that stereotypes influence our behavior.

Thinking about others in terms of their group memberships is known as <u>social categorization</u>—*the natural cognitive process by which we place individuals into social groups.* Social categorization occurs when we think of someone as a man (versus a woman), an old person (versus a young person), a Black person (versus an Asian or White person), and so on (Allport, 1954/1979). Just as we categorize objects into different types, so we categorize people according to their social group memberships. Once we do so, we begin to respond to those people more as members of a social group than as individuals.

Imagine for a moment that two college students, John and Sarah, are talking at a table in the student union at your college or university. At this point, we would probably not consider them to be acting as group members, but rather as two individuals. John is expressing his opinions, and Sarah is expressing hers. Imagine, however, that as the conversation continues, Sarah brings up an assignment that she is completing for her women's studies class. It turns out that John does not think there should be a women's studies program at the college, and he tells Sarah so. He argues that if there is a women's studies program, then there should be a men's studies program too. Furthermore, he argues that women are getting too many breaks in job hiring and that qualified men are the targets of discrimination. Sarah feels quite the contrary—arguing that women have been the targets of sexism for many, many years and even now do not have the same access to high-paying jobs that men do.

You can see that an interaction that began at individual level, as two individuals conversing, has now turned to the group level, in which John has begun to consider himself as a man, and Sarah has begun to consider herself as a woman. In short, Sarah is now arguing her points not so much for herself as she is as a representative of one of her ingroups—namely, women—and John is acting as a representative of one of his ingroups—namely, men. Sarah feels that her positions are correct, and she believes they are true not only for her but for women in general. And the same is true of John. You can see that these social categorizations may create some potential for misperception, and perhaps even hostility. And John and Sarah may even change their opinions about each other, forgetting that they really like each other as individuals, because they are now responding more as group members with opposing views.

Imagine now that while John and Sarah are still talking, some students from another college, each wearing the hats and jackets of that school, show up in the student union. The presence of these outsiders might change the direction of social categorization entirely, leading both John and Sarah to think of themselves as

students at their own college. And this social categorization might lead them to become more aware of the positive characteristics of their college (the excellent basketball team, lovely campus, and intelligent students) in comparison with the characteristics of the other school. Now, rather than perceiving themselves as members of two different groups (men versus women), John and Sarah might suddenly perceive themselves as members of the same social category (students at their college).

Perhaps this example will help you see the flexibility of social categorization. We sometimes think of our relationships with others at the individual level and sometimes at the group level. And which groups we use in social categorization can change over time and in different situations. I think you would agree that you are more likely to categorize yourself as a member of your college or university when your basketball or football team has just won a really important game, or at your commencement day ceremony, than you would on a normal evening out with your family. In these cases, your membership as a university student is simply more salient and important than it is every day, and you are more likely to categorize yourself accordingly.

Spontaneous Social Categorization

Social categorization occurs spontaneously, without much thought on our part (Crisp & Hewstone, 2007). Shelley Taylor and her

colleagues (Taylor, Fiske, Etcoff, & Ruderman, 1978) showed their research participants a slide and tape presentation of three male and three female college students who had supposedly participated in a discussion group. During the presentation, each member of the discussion group made a suggestion about how to advertise a college play. The statements were controlled so that across all the research participants, the statements made by the men and the women were of equal length and quality. Furthermore, one half of the participants were told that when the presentation was over, they would be asked to remember which person had made which suggestion, whereas the other half of the participants were told merely to observe the interaction without attending to anything in particular.

After they had viewed all the statements made by the individuals in the discussion group, the research participants were given a memory test (this was entirely unexpected for the participants who had not been given memory instructions). The participants were shown the list of all the statements that had been made, along with the pictures of each of the discussion group members, and were asked to indicate who had made each of the statements. The research participants were not very good at this task, and yet when they made mistakes, these errors were very systematic.

As you can see in Table 12.1 "Name Confusions", the mistakes were such that the statements that had actually been made by a man were more frequently wrongly attributed to another man in the group than to another woman, and the statements actually made by a woman were more frequently attributed to other women in the group than to a man. The participants evidently categorized the speakers by their gender, leading them to make more within-gender than across-gender confusions.

Interestingly, and suggesting that categorization is occurring all the time, the instructions that the participants had been given made absolutely no difference. There was just as much categorization for those who were not given any instructions as for those who were told to remember who said what. Other research using this

technique has found that we spontaneously categorize each other on the basis of many other group memberships, including race, academic status (student versus teacher), social roles, and other social categories (Fiske, Haslam, & Fiske, 1991; Stangor, Lynch, Duan, & Glass, 1992).

Table 12.1 Name Confusions

Instructions	Within race errors	Between race errors
Memory	5.78	4.29
No memory	6.57	4.36

Taylor, Fiske, Etcoff, and Ruderman (1978) demonstrated that people categorized others spontaneously. Even without any instructions to categorize, people nevertheless confused others by their sex.

The conclusion is simple, if perhaps obvious: Social categorization is occurring all around us all the time. Indeed, social categorization occurs so quickly that people may have difficulty *not* thinking about others in terms of their group memberships (see Figure 12.3).

Figure 12.3 If you are like most people, you will have a strong desire to categorize this person as either male or female. drburtoni – Transgenders March, Portland 2015 SERIES – CC BY-NC-ND 2.0.

The Benefits of Social

Categorization

The tendency to categorize others is normally quite useful. In some cases, we categorize because doing so provides us with information about the characteristics of people who belong to certain social groups (Lee, Jussim, & McCauley, 1995). If you found yourself lost in a city, you might look for a police officer or a taxi driver to help you find your way. In this case, social categorization would probably be useful because a police officer or a taxi driver might be particularly likely to know the layout of the city streets. Of course, using social categories will only be informative to the extent that the stereotypes held by the individual about that category are accurate. If police officers were actually not that knowledgeable about the city layout, then using this categorization would not be informative.

It has been argued that there is a kernel of truth in most stereotypes, and this seems to be the case. There is a correlation between how group members perceive the stereotypes of their own groups and how people from other groups perceive those same stereotypes (Judd & Park, 1993; Swim, 1994). This truth may come in part from the roles that individuals play in society. For instance, the stereotypes (which are held by many people) that women are "nurturing" and that men are "dominant" may occur in part because, on average, men and women find themselves in different social roles within a culture (Eagly & Steffen, 1984). In most cultures, men are more likely to be in higher-status occupations, such as doctors and lawyers, whereas women are more likely to play the role of homemakers and child-care workers. In this sense, the stereotypes are at least partly true for many of the members of the social category, in terms of their actual behaviors. Because men are more likely to be leaders than are women, they may well be, on average, more dominant; and because women are more likely to take care of children, they may, on average, act in a more nurturing way than do men.

On the other hand, we sometimes categorize others not because it seems to provide more information about them but because we may not have the time (or the motivation) to do anything more thorough. Using our stereotypes to size up another person might simply make our life easier (Macrae, Bodenhausen, Milne, & Jetten, 1994). According to this approach, thinking about other people in terms of their social category memberships is a functional way of dealing with the world—things are complicated, and we reduce complexity by relying on our stereotypes.

The Negative Outcomes of Social Categorization

Although thinking about others in terms of their social category memberships has some potential benefits for the person who does the categorizing, categorizing others, rather than treating them as unique individuals with their own unique characteristics, has a wide variety of negative, and often very unfair, outcomes for those who are categorized.

One problem is that social categorization distorts our perceptions such that we tend to exaggerate the differences between people from different social groups while at the same time perceiving members of groups (and particularly outgroups) as more similar to each other than they actually are. This overgeneralization makes it more likely that we will think about and treat all members of a group the same way. Tajfel and Wilkes (1963) performed a simple

experiment that provided a picture of the potential outcomes of categorization. As you can see in Figure 12.4 "Perceptual Accentuation", the experiment involved having research participants judge the length of six lines. In one of the experimental conditions, participants simply saw six lines, whereas in the other condition, the lines were systematically categorized into two groups—one comprising the three shorter lines and one comprising the three longer lines.
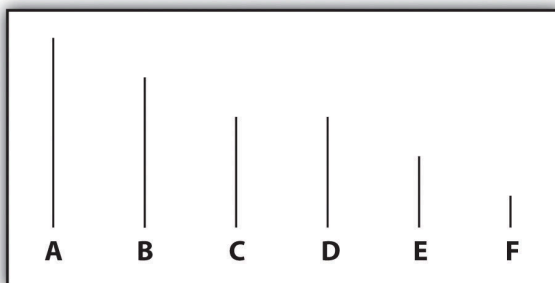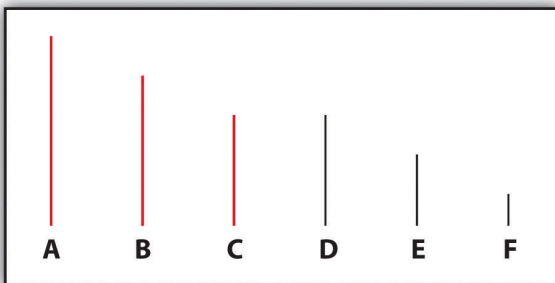
No categorization condition:

Figure 12.4 Perceptual Accentuation

Categorization condition:

Lines C and D were seen as the same length in the noncategorized condition, but line C was perceived as longer than line D when the lines were categorized into two groups. From Tajfel (1970).

Tajfel found that the lines were perceived differently when they

were categorized, such that the differences between the groups and the similarities within the groups were emphasized. Specifically, he found that although lines C and D (which are actually the same length) were perceived as equal in length when the lines were not categorized, line D was perceived as being significantly longer than line C in the condition in which the lines were categorized. In this case, categorization into two groups—the "short lines group" and the "long lines group"—produced a perceptual bias such that the two groups of lines were seen as more different than they really were.

Similar effects occur when we categorize other people. We tend to see people who belong to the same social group as more similar than they actually are, and we tend to judge people from different social groups as more different than they actually are. The tendency to see members of social groups as similar to each other is particularly strong for members of outgroups, resulting in <u>outgroup homogeneity</u>—*the tendency to view members of outgroups as more similar to each other than we see members of ingroups* (Linville, Salovey, & Fischer, 1986; Ostrom & Sedikides, 1992; Meissner & Brigham, 2001). I'm sure you've had this experience yourself, when you found yourself thinking or saying, "Oh, them, they're all the same!"

Patricia Linville and Edward Jones (1980) gave research participants a list of trait terms and asked them to think about either members of their own group (e.g., Blacks) or members of another group (e.g., Whites) and to place the trait terms into piles that represented different types of people in the group. The results of these studies, as well as other studies like them, were clear: People perceive outgroups as more homogeneous than the ingroup. Just as White people used fewer piles of traits to describe Blacks than Whites, young people used fewer piles of traits to describe elderly people than they did young people, and students used fewer piles for members of other universities than they did for members of their own university.

Outgroup homogeneity occurs in part because we don't have as

much contact with outgroup members as we do with ingroup members, and the quality of interaction with outgroup members is often more superficial. This prevents us from really learning about the outgroup members as individuals, and as a result, we tend to be unaware of the differences among the group members. In addition to learning less about them because we see and interact with them less, we routinely categorize outgroup members, thus making them appear more cognitively similar (Haslam, Oakes, & Turner, 1996).

Once we begin to see the members of outgroups as more similar to each other than they actually are, it then becomes very easy to apply our stereotypes to the members of the groups without having to consider whether the characteristic is actually true of the particular individual. If men think that women are all alike, then they may also think that they all have the same characteristics—they're all "emotional" and "weak." And women may have similarly simplified beliefs about men (they're "insensitive," "unwilling to commit," etc.). The outcome is that the stereotypes become linked to the group itself in a set of mental representations ([Figure 12.5](#)). The stereotypes are "pictures in our heads" of the social groups (Lippman, 1922). These beliefs just seem right and natural, even though they are frequently distorted overgeneralizations (Hirschfeld, 1996; Yzerbyt, Schadron, Leyens, & Rocher, 1994).
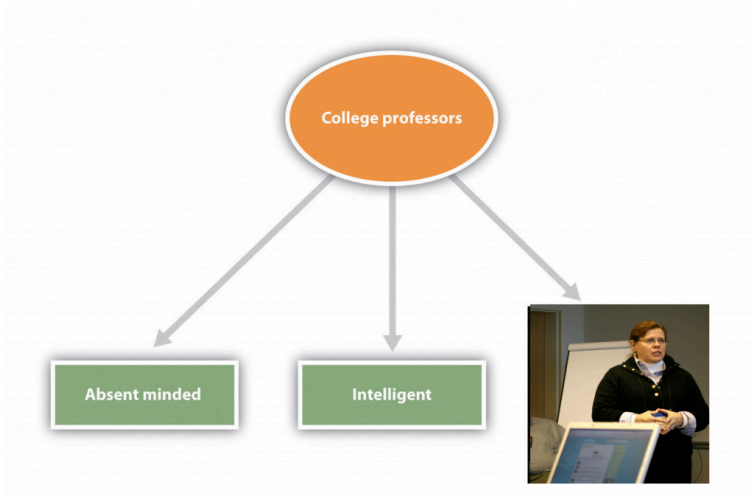
Figure 12.5 opacity – [oral histories presenter](#) – CC BY-NC-ND 2.0.

Stereotypes are the beliefs associated with social categories. The figure shows links between the social category of college professors and its stereotypes as a type of neural network or schema. The representation also includes one image (or exemplar) of a particular college professor whom the student knows.

Our stereotypes and prejudices are learned through many different processes. This multiplicity of causes is unfortunate because it makes stereotypes and prejudices even more likely to form and harder to change. For one, we learn our stereotypes in part through our communications with parents and peers (Aboud & Doyle, 1996) and from the behaviors we see portrayed in the media (Brown, 1995). Even 5-year-old children have learned cultural norms about the appropriate activities and behaviors for boys and girls and also have developed stereotypes about age, race, and physical attractiveness (Bigler & Liben, 2006). And there is often good agreement about the stereotypes of social categories among the individuals within a given culture. In one study assessing stereotypes, Stephanie Madon

and her colleagues (Madon et al., 2001) presented U.S. college students with a list of 84 trait terms and asked them to indicate for which groups each trait seemed appropriate ([Figure 12.6 "Current Stereotypes Held by College Students"](#)). The participants tended to agree about what traits were true of which groups, and this was true even for groups of which the respondents were likely to never have met a single member (Arabs and Russians). Even today, there is good agreement about the stereotypes of members of many social groups, including men and women and a variety of ethnic groups.

Figure 12.6 Current Stereotypes Held by College Students

Americans	%	Blacks	%	Italians	%
Materialistic	53.6	Musical	27.6	Loyal to family ties	62.7
Lazy	30.4	Pleasure loving	26	Tradition loving	47.5
Individualistic	28.6	Loud	20.7	Passionate	39
Pleasure loving	28	Aggressive	15.5	Religious	37.3
Industrious	23.2	Artistic	13.8	Quick tempered	35.6
Germans	**%**	**Jews**	**%**	**Chinese**	**%**
Intelligent	45.8	Very religious	52.5	Intelligent	60.3
Industrious	37.3	Intelligent	49.2	Loyal to family ties	41.4
Nationalistic	30.5	Tradition loving	32.2	Reserved	36.2
Scientifically minded	27.1	Shrewd	30.5	Industrious	32.8
Methodical	20.3	Loyal to family ties	28.8	Tradition loving	31

Once they become established, stereotypes (like any other cognitive representation) tend to persevere. We begin to respond to members of stereotyped categories as if we already knew what they were like. Yaacov Trope and Eric Thompson (1997) found that individuals addressed fewer questions to members of categories about which they had strong stereotypes (as if they already knew what these people were like) and that the questions they did ask were likely to confirm the stereotypes they already had.

In other cases, stereotypes are maintained because information that confirms our stereotypes is better remembered than information that disconfirms them. When we see members of social groups perform behaviors, we tend to better remember information that confirms our stereotypes than we remember information that disconfirms our stereotypes (Fyock & Stangor, 1994). If we believe that women are bad drivers and we see a woman driving poorly, then we tend to remember it, but when we see a woman who drives particularly well, we tend to forget it. This is of course another example of the general principle of assimilation—we tend to

perceive the world in ways that make it fit our existing beliefs more easily than we change our beliefs to fit the reality around us.

And stereotypes become difficult to change because they are so important to us—they become an integral and important part of our everyday lives in our culture. Stereotypes are frequently expressed on TV, in movies, and in chat rooms and blogs, and we learn a lot of our beliefs from these sources. Our friends also tend to hold beliefs similar to ours, and we talk about these beliefs when we get together with them (Schaller & Conway, 1999). In short, stereotypes and prejudice are powerful largely because they are important social norms that are part of our culture (Guimond, 2000).

Because they are so highly cognitively accessible, and because they seem so "right," our stereotypes easily influence our judgments of and responses to those we have categorized. The social psychologist John Bargh once described stereotypes as "cognitive monsters" because their activation was so powerful and because the activated beliefs had such insidious influences on social judgment (Bargh, 1999). Making things even more difficult, stereotypes are strongest for the people who are in most need of change—the people who are most prejudiced (Lepore & Brown, 1997).

Because stereotypes and prejudice often operate out of our awareness, and also because people are frequently unwilling to admit that they hold them, social psychologists have developed methods for assessing them indirectly. In the next section we will consider two of these approaches—the bogus pipeline procedure and the Implicit Association Test (IAT).

Research Focus

Measuring Stereotypes Indirectly

One difficulty in measuring stereotypes and prejudice is that people may not tell the truth about their beliefs. Most people do not want to admit—either to themselves or to others—that they hold stereotypes or that they are prejudiced toward some social groups. To get around this problem, social psychologists make use of a number of techniques that help them measure these beliefs more subtly and indirectly.

One indirect approach to assessing prejudice is called the *bogus pipeline procedure* (Jones & Sigall, 1971). In this procedure, the experimenter first convinces the participants that he or he has access to their "true" beliefs, for instance, by getting access to a questionnaire that they completed at a prior experimental session. Once the participants are convinced that the researcher is able to assess their "true" attitudes, it is expected that they will be more honest in answering the rest of the questions they are asked because they want to be sure that the researcher does not catch them lying. The bogus pipeline procedure suggests that people may frequently mask their negative

beliefs in public—people express more prejudice when they are in the bogus pipeline than they do when they are asked the same questions more directly.

Other indirect measures of prejudice are also frequently used in social psychological research, for instance—assessing nonverbal behaviors such as speech errors or physical closeness. One common measure involves asking participants to take a seat on a chair near a person from a different racial or ethnic group and measuring how far away the person sits (Sechrist & Stangor, 2001; Word, Zanna, & Cooper, 1974). People who sit farther away are assumed to be more prejudiced toward the members of the group.

Because our stereotypes are activated spontaneously when we think about members of different social groups, it is possible to use reaction-time measures to assess this activation and thus to learn about people's stereotypes and prejudices. In these procedures, participants are asked to make a series of judgments about pictures or descriptions of social groups and then to answer questions as quickly as they can, but without making mistakes. The speed of these responses is used to determine an individual's stereotypes or prejudice.

The most popular reaction-time implicit measure of prejudice—the *Implicit Association Test (IAT)*—is frequently used to assess stereotypes and prejudice (Nosek, Greenwald, & Banaji, 2007). In the IAT, participants are asked to classify stimuli that they view on a computer screen into one of two categories by pressing one of two computer keys, one with their left hand and one with their right hand. Furthermore, the categories are arranged such that the responses to be answered with the left and right

buttons either "fit with" (match) the stereotype or do not "fit with" (mismatch) the stereotype. For instance, in one version of the IAT, participants are shown pictures of men and women and also shown words related to gender stereotypes (e.g., *strong*, *leader*, or *powerful* for men and *nurturing*, *emotional*, or *weak* for women). Then the participants categorize the photos ("Is this picture a picture of a man or a woman?") and answer questions about the stereotypes ("Is this the word *strong*?") by pressing either the Yes button or the No button using either their left hand or their right hand.

When the responses are arranged on the screen in a "matching" way, such that the male category and the "strong" category are on the same side of the screen (e.g., on the right side), participants can do the task very quickly and they make few mistakes. It's just easier, because the stereotypes are matched or associated with the pictures in a way that makes sense. But when the images are arranged such that the women and the strong categories are on the same side, whereas the men and the weak categories are on the other side, most participants make more errors and respond more slowly. The basic assumption is that if two concepts are associated or linked, they will be responded to more quickly if they are classified using the same, rather than different, keys.

Implicit association procedures such as the IAT show that even participants who claim that they are not prejudiced do seem to hold cultural stereotypes about social groups. Even Black people themselves respond more quickly to positive words that are associated with White rather than Black faces on the IAT, suggesting that they have subtle racial prejudice toward Blacks.

Because they hold these beliefs, it is possible—although not guaranteed—that they may use them when responding to other people, creating a subtle and unconscious type of discrimination. Although the meaning of the IAT has been debated (Tetlock & Mitchell, 2008), research using implicit measures does suggest that—whether we know it or not, and even though we may try to control them when we can—our stereotypes and prejudices are easily activated when we see members of different social categories (Barden, Maddux, Petty, & Brewer, 2004).

Do you hold implicit prejudices? Try the IAT yourself, here: https://implicit.harvard.edu/implicit

Although in some cases the stereotypes that are used to make judgments might actually be true of the individual being judged, in many other cases they are not. Stereotyping is problematic when the stereotypes we hold about a social group are inaccurate overall, and particularly when they do not apply to the individual who is being judged (Stangor, 1995). Stereotyping others is simply unfair. Even if many women are more emotional than are most men, not all are, and it is not right to judge any one woman as if she is.

In the end, stereotypes become self-fulfilling prophecies, such that our expectations about the group members make the stereotypes come true (Snyder, Tanke, & Berscheid, 1977; Word, Zanna, & Cooper, 1974). Once we believe that men make better leaders than women, we tend to behave toward men in ways that makes it easier for them to lead. And we behave toward women in ways that makes it more difficult for them to lead. The result? Men find it easier to excel in leadership positions, whereas women have to work hard to overcome the false beliefs about their lack of leadership abilities (Phelan & Rudman, 2010). And self-fulfilling prophecies are ubiquitous—even teachers' expectations about their

students' academic abilities can influence the students' school performance (Jussim, Robustelli, & Cain, 2009).

Of course, you may think that you personally do not behave in these ways, and you may not. But research has found that stereotypes are often used out of our awareness, which makes it very difficult for us to correct for them. Even when we think we are being completely fair, we may nevertheless be using our stereotypes to condone discrimination (Chen & Bargh, 1999). And when we are distracted or under time pressure, these tendencies become even more powerful (Stangor & Duan, 1991).

Furthermore, attempting to prevent our stereotype from coloring our reactions to others takes effort. We experience more negative affect (particularly anxiety) when we are with members of other groups than we do when we are with people from our own groups, and we need to use more cognitive resources to control our behavior because of our anxiety about revealing our stereotypes or prejudices (Butz & Plant, 2006; Richeson & Shelton, 2003). When we know that we need to control our expectations so that we do not unintentionally stereotype the other person, we may try to do so—but doing so takes effort and may frequently fail (Macrae, Bodenhausen, Milne, & Jetten, 1994).

Social Psychology in the

Public Interest

Stereotype Threat

Our stereotypes influence not only our judgments of others but also our beliefs about ourselves, and even our own performance on important tasks. In some cases, these beliefs may be positive, and they have the effect of making us feel more confident and thus better able to perform tasks. Because Asian students are aware of the stereotype that "Asians are good at math," reminding them of this fact before they take a difficult math test can improve their performance on the test (Walton & Cohen, 2003). On the other hand, sometimes these beliefs are negative, and they create negative self-fulfilling prophecies such that we perform more poorly just because of our knowledge about the stereotypes.

One of the long-standing puzzles in the area of academic performance concerns why Black students perform more poorly on standardized tests, receive lower grades, and are less likely to remain in school in comparison with White students, even when other factors such as family income, parents' education, and other relevant variables are controlled. Claude Steele and Joshua Aronson (1995) tested

the hypothesis that these differences might be due to the activation of negative stereotypes. Because Black students are aware of the (inaccurate) stereotype that "Blacks are intellectually inferior to Whites," this stereotype might create a negative expectation, which might interfere with their performance on intellectual tests through fear of confirming that stereotype.

In support of this hypothesis, Steele and Aronson's research revealed that Black college students performed worse (in comparison with their prior test scores) on math questions taken from the Graduate Record Examination (GRE) when the test was described to them as being "diagnostic of their mathematical ability" (and thus when the stereotype was relevant) but that their performance was not influenced when the same questions were framed as "an exercise in problem solving." And in another study, Steele and Aronson found that when Black students were asked to indicate their race before they took a math test (again activating the stereotype), they performed more poorly than they had on prior exams, whereas the scores of White students were not affected by first indicating their race.

Steele and Aronson argued that thinking about negative stereotypes that are relevant to a task that one is performing creates stereotype threat—*performance decrements that are caused by the knowledge of cultural stereotypes*. That is, they argued that the negative impact of race on standardized tests may be caused, at least in part, by the performance situation itself. Because the threat is "in the air," Black students may be negatively influenced by it.

Research has found that the experience of stereotype

threat can help explain a wide variety of performance decrements among those who are targeted by negative stereotypes. For instance, when a math task is described as diagnostic of intelligence, Latinos and particularly Latinas perform more poorly than do Whites (Gonzales, Blanton, & Williams, 2002). Similarly, when stereotypes are activated, children with low socioeconomic status perform more poorly in math than do those with high socioeconomic status, and psychology students perform more poorly than do natural science students (Brown, Croizet, Bohner, Fournet, & Payne, 2003). Even groups who typically enjoy advantaged social status can be made to experience stereotype threat. White men performed more poorly on a math test when they were told that their performance would be compared with that of Asian men (Aronson, Lustina, Good, Keough, & Steele, 1999), and Whites performed more poorly than Blacks on a sport-related task when it was described to them as measuring their natural athletic ability (Stone, 2002).

Stereotype threat is created in situations that pose a significant threat to self-concern, such that our perceptions of ourselves as important, valuable, and capable individuals are threatened. In these situations, there is a discrepancy between our positive concept of our skills and abilities and the negative stereotypes suggesting poor performance. When our stereotypes lead us to be believe that we are likely to perform poorly on a task, we experience a feeling of unease and status threat.

Research has found that stereotype threat is caused by both cognitive and affective factors. On the cognitive side, individuals who are experiencing stereotype threat show an impairment in cognitive processing that is caused by

increased vigilance toward the environment and attempts to suppress their stereotypical thoughts. On the affective side, stereotype threat creates stress as well as a variety of affective responses including anxiety (Schmader, Johns, & Forbes, 2008).

Stereotype threat is not, however, absolute—we can get past it if we try. What is important is to reduce the self-concern that is engaged when we consider the relevant negative stereotypes. Manipulations that affirm positive characteristics about oneself or one's group are successful at reducing stereotype threat (Alter, Aronson, Darley, Rodriguez, & Ruble, 2010; Greenberg et al., 2003; McIntyre, Paulson, & Lord, 2003). In fact, just knowing that stereotype threat exists and may influence performance can help alleviate its negative impact (Johns, Schmader, & Martens, 2005).

End-of-Chapter Summary

Key Takeaways

- Beliefs about the characteristics of the groups and

the members of those groups are known as stereotypes.
- Prejudice refers to an unjustifiable negative attitude toward an outgroup.
- Stereotypes and prejudice may create discrimination.
- Stereotyping and prejudice begin from social categorization—the natural cognitive process by which we place individuals into social groups.
- Social categorization influences our perceptions of groups—for instance, the perception of outgroup homogeneity.
- Once our stereotypes and prejudices become established, they are difficult to change and may lead to self-fulfilling prophecies, such that our expectations about the group members make the stereotypes come true.
- Stereotypes may influence our performance on important tasks through stereotype threat.

Exercises and Critical Thinking

1. Look again at the pictures in Figure 12.2, and consider your thoughts and feelings about each

person. What are your stereotypes and prejudices about them? Do you think your stereotypes are accurate?

2.   On which (if any) social categories do you categorize others? Why do you (or don't you) categorize? Is your behavior fair or unfair to the people you are categorizing?

3.   Think of a task that one of the social groups to which you belong is considered to be particularly good (or poor) at. Do you think the cultural stereotypes about your group have ever influenced your performance on a task?

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Attribution

Adapted from Chapter 12.1 from [Principles of Social Psychology](#) by

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Chapter 6: In-group Favoritism & Prejudice

Chapter 6 Learning Objectives

- Review the causes and outcomes of ingroup favoritism.
- Summarize the results of Henri Tajfel's research on minimal groups.
- Outline the personality and cultural variables that influence ingroup favoritism.

We have now seen that social categorization occurs whenever we think about others in terms of their category memberships rather than on the basis of other, more personal information about the individual. And we have seen that social categorization can have a variety of negative consequences for the people who are the targets of our stereotypes. But social categorization becomes even more important, and has even more powerful effects upon our reactions to others, when the categorization becomes more emotionally involving, and particularly when the categorization involves categorization into liked ingroups and potentially disliked outgroups (Amodio & Devine, 2006).

Because our ancestors lived in small social groups that were frequently in conflict with other groups, it was evolutionarily functional for them to view members of other groups as different and potentially dangerous (Brewer & Caporael, 2006; Navarrete, Kurzban, Fessler, & Kirkpatrick, 2004). Differentiating between "us" and "them" probably helped keep us safe and free from disease, and as a result, the human brain became very efficient in making these

distinctions (Mahajan et al., 2011; Phelps et al., 2000; Van Vugt & Schaller, 2008; Zaraté, Stoever, MacLin, & Arms-Chavez, 2008). The problem is that these naturally occurring tendencies may lead us to prefer people who are like us, and in some cases even to unfairly reject people from outgroups.

Liking "Us" More Than "Them": Ingroup Favoritism

In his important research on group perceptions, Henri Tajfel and his colleagues (Tajfel, Billig, Bundy, & Flament, 1971) demonstrated how incredibly powerful the role of self-concern is in group perceptions. He found that just dividing people into arbitrary groups produces ingroup favoritism – *the tendency to respond more positively to people from our ingroups than we do to people from outgroups.*

In Tajfel's research, small groups of high school students came to his laboratory for a study supposedly concerning "artistic tastes." The students were first shown a series of paintings by two contemporary artists, Paul Klee and Wassily Kandinsky. Supposedly on the basis of their preferences for each painting, the students were divided into two groups (they were called the X group and the Y group). Each boy was told which group he had been assigned to and that different boys were assigned to different groups. But none of them were told the group memberships of any of the other boys.

The boys were then given a chance to allocate points to other boys in their own group and to boys in the other group (but never to

themselves) using a series of payoff matrices, such as those shown in Figure 12.7 "Examples of Matrices Used in the Minimal Intergroup Studies of Tajfel and His Colleagues". The charts divided a given number of rewards between two boys, and the boys thought that the rewards would be used to determine how much each boy would be paid for his participation. In some cases, the division was between two boys in the boy's own group (the ingroup); in other cases, the division was between two boys who had been assigned to the other group (the outgroup); and in still other cases, the division was between a boy in the ingroup and a boy in the outgroup. Tajfel then examined the goals that the boys used when they divided up the points.

Ingroup	19	18	17	16	15	14	13	12	11	10	9	8	7
Outgroup	1	3	5	7	9	11	13	15	17	19	31	23	25
Ingroup	23	22	21	20	19	18	17	16	15	14	13	12	11
Outgroup	5	7	9	11	13	15	17	19	21	23	25	27	29
Ingroup	7	8	9	10	11	12	13	14	15	16	17	18	19
Outgroup	1	3	5	7	9	11	13	15	17	19	21	23	25
Ingroup	11	12	13	14	15	16	17	18	19	20	21	22	23
Outgroup	5	7	9	11	13	15	17	19	21	23	25	27	29

Figure 12.7 Examples of Matrices Used in the Minimal Intergroup Studies of Tajfel and His Colleagues From Tajfel (1970).

A comparison of the boys' choices in the different matrices showed that they allocated points between two boys in the ingroup or between two boys in the outgroup in an essentially fair way, so that each boy got the same amount. However, fairness was not the predominant approach when dividing points between ingroup and outgroup. In this case, rather than exhibiting fairness, the boys displayed ingroup favoritism, such that they gave more points to other members of their own group in relationship to boys in the other group. For instance, the boys might assign 8 points to the ingroup boy and only 3 points to the outgroup boy, even though

the matrix also contained a choice in which they could give the ingroup and the outgroup boys 13 points each. In short, the boys preferred to maximize the gains of the other boys in their own group in comparison with the boys in the outgroup, even if doing so meant giving their own group members fewer points than they could otherwise have received.

Perhaps the most striking part of Tajfel's results is that ingroup favoritism was found to occur on the basis of such arbitrary and unimportant groupings. In fact, ingroup favoritism occurs even when the assignment to groups is on such trivial things as whether people "overestimate" or "underestimate" the number of dots shown on a display, or on the basis of a completely random coin toss (Billig & Tajfel, 1973; Locksley, Ortiz, & Hepburn, 1980). Tajfel's research, as well other research demonstrating ingroup favoritism, provides a powerful demonstration of a very important social psychological process: Groups exist simply because individuals perceive those groups as existing. Even in a case where there really is no group (at least no meaningful group in any real sense), we still perceive groups and still demonstrate ingroup favoritism.

The Outcomes of Ingroup Favoritism

The tendency to favor their ingroup develops quickly in young children, beginning at the age of 3 years and increasing up to about 6 years of age, and almost immediately begins to influence their

behavior (Aboud, 2003; Aboud & Amato, 2001). Young children show greater liking for peers of their own sex and race and typically play with same-sex others after the age of 3. And there is a norm that we should favor our ingroups: People like people who express ingroup favoritism better than those who are more egalitarian (Castelli & Carraro, 2010). Ingroup favoritism is found for many different types of social groups, in many different settings, on many different dimensions, and in many different cultures (Bennett et al., 2004; Pinter & Greenwald, 2011). Ingroup favoritism also occurs on trait ratings, such that ingroup members are rated as having more positive characteristics than are outgroup members (Hewstone, 1990). People also take credit for the successes of other ingroup members, remember more positive than negative information about ingroups, are more critical of the performance of outgroup than of ingroup members, and believe that their own groups are less prejudiced than are outgroups (Shelton & Richeson, 2005).

People also talk differently about their ingroups than their outgroups, such that they describe the ingroup and its members as having broad positive traits ("We are *generous* and *friendly*") but describe negative ingroup behaviors in terms of the specific behaviors of single group members ("Our group member, Bill, hit someone") (Maass & Arcuri, 1996; Maass, Ceccarielli, & Rudin, 1996; von Hippel, Sekaquaptewa, & Vargas, 1997). These actions allow us to spread positive characteristics to all members of our ingroup but reserve negative aspects for individual group members, thereby protecting the group's image.

People *also make trait attributions in ways that benefit their ingroups, just as they make trait attributions that benefit themselves.* This general tendency, known as the ultimate attribution error, results in the tendency for each of the competing groups to perceive the other group extremely and unrealistically negatively (Hewstone, 1990). When an ingroup member engages in a positive behavior, we tend to see it as a stable internal characteristic of the group as a whole. Similarly, negative behaviors on the part of the outgroup are seen as caused by stable negative group

characteristics. On the other hand, negative behaviors from the ingroup and positive behaviors from the outgroup are more likely to be seen as caused by temporary situational variables or by behaviors of specific individuals and are less likely to be attributed to the group.

Ingroup Favoritism Has Many Causes

Ingroup favoritism has a number of causes. For one, it is a natural part of social categorization—we categorize into ingroups and outgroups because it helps us simplify and structure our environment. It is easy, and perhaps even natural, to believe in the simple idea that "we are better than they are." People who report that they have strong needs for simplifying their environments also show more ingroup favoritism (Stangor & Leary, 2006).

Ingroup favoritism also occurs at least in part because we belong to the ingroup and not the outgroup (Cadinu & Rothbart, 1996). We like people who are similar to ourselves, and we perceive other ingroup members as similar to us. This also leads us to favor other members of our ingroup, particularly when we can clearly differentiate them from members of outgroups. We may also prefer ingroups because they are more familiar to us (Zebrowitz, Bronstad, & Lee, 2007).

But the most important determinant of ingroup favoritism is simple self-enhancement. We want to feel good about ourselves,

and seeing our ingroups positively helps us do so (Brewer, 1979). Being a member of a group that has positive characteristics provides us with the feelings of social identity – *the positive self-esteem that we get from our group memberships*. When we can identify ourselves as a member of a meaningful social group (even if it is a relatively trivial one), we can feel better about ourselves.

We are particularly likely to show ingroup favoritism when we are threatened or otherwise worried about our self-concept (Maner et al., 2005; Solomon, Greenberg, & Pyszczynski, 2000). And people express higher self-esteem after they have been given the opportunity to derogate outgroups, suggesting that ingroup favoritism does make us feel good (Lemyre & Smith, 1985; Rubin & Hewstone, 1998). Furthermore, when individuals feel that the value of their ingroup is being threatened, they respond as if they are trying to regain their own self-worth—by expressing more positive attitudes toward ingroups and more negative attitudes toward outgroups (Branscombe, Wann, Noel, & Coleman, 1993; Spears, Doosje, & Ellemers, 1997). Fein and Spencer (1997) found that participants expressed less prejudice after they had been given the opportunity to affirm and make salient an important and positive part of their own self-concept. In short, when our group seems to be good, we feel good; when our group seems to be bad, we feel bad.

In some cases, we may be able to feel good about our group memberships even when our own individual outcomes are not so positive. Schmitt, Silvia, and Branscombe (2000) had groups of female college students perform a creativity task and then gave them feedback indicating that although they themselves had performed very poorly, another woman in their group had performed very well. Furthermore, in some experimental conditions, the women were told that the research was comparing the scores of men and women (which was designed to increase categorization by gender). In these conditions, rather than being saddened by the upward comparison with the other woman, participants used the successful performance of the other woman to feel good about themselves, as women.

When Ingroup Favoritism Does Not Occur

Although people have a general tendency to show ingroup favoritism, there are least some cases in which it does not occur. One situation in which ingroup favoritism is unlikely is when the members of the ingroup are clearly inferior to other groups on an important dimension. The players on a baseball team that has not won a single game all season are unlikely to be able to feel very good about themselves as a team and are pretty much forced to concede that the outgroups are better, at least as far as playing baseball is concerned. Members of low-status groups show less ingroup favoritism than do members of high-status groups and may even display outgroup favoritism, in which they admit that the other groups are better than they are (Clark & Clark, 1947).

Another case in which people judge other members of the ingroup very negatively occurs when a member of one's own group behaves in a way that threatens the positive image of the ingroup. A student who behaves in a way unbecoming to university students, or a teammate who does not seem to value the importance of the team, is disparaged by the other group members, often more than the same behavior from an outgroup member would be. *The strong devaluation of ingroup members who threaten the positive image and identity of the ingroup* is known as the black sheep effect.

Personality and Cultural Determinants of Ingroup Favoritism

To this point, we have considered ingroup favoritism as a natural part of everyday life. Because the tendency to favor the ingroup is a normal byproduct of self-concern, most people do, by and large, prefer their ingroups over outgroups. And yet not everyone is equally ingroup-favoring in all situations. There are a number of individual difference measures that predict prejudice, and these differences become particularly likely to show up under circumstances in which the desire to protect the self becomes important (Guimond, Dambrun, Michinov, & Duarte, 2003).

Some people are more likely than others to show ingroup favoritism because they are particularly likely to rely on their group memberships to create a positive social identity. These differences in group identification can be measured through self-report measures such as the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). The scale assesses the extent to which the individual values his or her memberships in groups in public and private ways, as well as the extent to which he or she gains social identity from those groups. People who score higher on the scale show more ingroup favoritism in comparison with those who score lower on it (Stangor & Thompson, 2002). The scale, from Luhtanen and Crocker (1992), is shown in [Table 12.2 "The Collective Self-Esteem Scale"](#).

Table 12.2 The Collective Self-Esteem Scale

Membership	I am a worthy member of the social groups I belong to.
	I feel I don't have much to offer to the social groups I belong to [R].
	I am a cooperative participant in the social groups I belong to.
	I often feel I'm an unclean member of my social group [R].
Private	I often regret that I belong to some of the social groups I do [R].
	In general, I'm glad to be a member of the social groups I belong to.
	Overall, I often feel that the social groups of which I am a member are not worthwhile [R].
	I feel good about the social groups I belong to.
	Overall, my social groups are considered good by others.
Public	Most people consider my social groups, on the average, to be more ineffective than other social groups [R].
	In general, others respect the social groups that I am a member of.
	In general, others think that the social groups I am a member of are unworthy [R].
	Overall, my group memberships have very little to do with how I feel about myself [R].
Identity	The social groups I belong to are an important reflection of who I am.
	The social groups I belong to are unimportant in my sense of what kind of a person I am [R].
	In general, belonging to social groups is an important part of my self-image.

[R] = Item is reversed before scoring.

Another personality dimension that relates to the desires to protect and enhance the self and the ingroup and thus also relates to

greater ingroup favoritism, and in some cases prejudice toward outgroups, is the personality dimension of authoritarianism (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Altemeyer, 1988). Authoritarianism is *a personality dimension that characterizes people who prefer things to be simple rather than complex and who tend to hold traditional and conventional values.* Authoritarians are ingroup-favoring in part because they have a need to self-enhance and in part because they prefer simplicity and thus find it easy to think simply: "We are all good and they are all less good." Political conservatives tend to show more ingroup favoritism than do political liberals, perhaps because the former are more concerned with protecting the ingroup from threats posed by others (Jost, Glaser, Kruglanski, & Sulloway, 2003; Stangor & Leary, 2006).

People with strong goals toward other-concern display less ingroup favoritism and less prejudice. People who view it as particularly important to connect with and respect other people—those who are more focused on tolerance and fairness toward others—are less ingroup-favoring and more positive toward the members of groups other than their own. The desire to be fair and to accept others can be assessed by individual difference measures such as desire to control one's prejudice (Plant & Devine, 1998) and humanism (Katz & Hass, 1988).

Social dominance orientation (SDO) is *a personality variable that refers to the tendency to see and to accept inequality among different groups* (Pratto, Sidanius, Stallworth, & Malle, 1995). People who score high on measures of SDO believe that there are and should be status differences among social groups, and they do not see these as wrong. High SDO individuals agree with statements such as "Some groups of people are simply inferior to other groups," "In getting what you want, it is sometimes necessary to use force against other groups," and "It's OK if some groups have more of a chance in life than others." Those who are low on SDO, on the other hand, believe that all groups are relatively equal in status and tend to disagree with these statements. People who score higher on SDO also show greater ingroup favoritism.

Stereotyping and prejudice also varies across cultures. Spencer-Rodgers, Williams, Hamilton, Peng, and Wang (2007) tested the hypothesis that Chinese participants, because of their collectivist orientation, would find social groups more important than would Americans (who are more individualistic) and that as a result, they would be more likely to infer personality traits on the basis of group membership—that is, to stereotype. Supporting the hypothesis, they found that Chinese participants made stronger stereotypical trait inferences than Americans did on the basis of a target's membership in a fictitious group.

End-of-Chapter Summary

Key Takeaways

- Ingroup favoritism is a fundamental and evolutionarily functional aspect of human perception, and it occurs even in groups that are not particularly meaningful.
- Ingroup favoritism is caused by a variety of variables, but particularly important is self-concern: We experience positive social identity as a result of our membership in valued social groups.
- Ingroup favoritism develops early in children and influences our behavior toward ingroup and outgroup

members in a variety of ways.
- • Personality dimensions that relate to ingroup favoritism include authoritarianism and social dominance orientation—dimensions that relate to less ingroup favoritism include a desire to control one's prejudice and humanism.
- • There are at least some cultural differences in the tendency to show ingroup favoritism and to stereotype others.

Exercises and Critical Thinking

1. Consider some of the important social groups to which you belong. Do your group memberships lead to ingroup favoritism or even prejudice?
2. Describe a time when the members of one of your important social groups behaved in a way that increased group identity (e.g., showing the black sheep effect). What was the outcome of the actions?

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Attribution

Chapter 7: Reducing Discrimination

Chapter 7 Learning Objectives

- Review the causes of discrimination and the ways that we can reduce it.
- Summarize the conditions under which intergroup contact does or does not reduce prejudice and discrimination.

We have seen that social categorization is a basic part of human nature and one that helps us to simplify our social worlds, to draw quick (if potentially inaccurate) conclusions about others, and to feel good about ourselves. In many cases, our preferences for ingroups may be relatively harmless—we may prefer to socialize with people who share our race or ethnicity, for instance, but without particularly disliking the others. But categorizing others may also lead to prejudice and discrimination, and it may even do so without our awareness. Because prejudice and discrimination are so harmful to so many people, we must all work to get beyond them.

Discrimination influences the daily life of its victims in areas such as employment, income, financial opportunities, housing and educational opportunities, and medical care. Discrimination has been blamed for the large percentage of Blacks living in poverty

and for their lack of access to high-paying jobs (Williams & Rucker, 1996). Blacks have higher mortality rates than Whites for 8 of the 10 leading causes of death in the United States (Williams, 1999) and have less access to and receive poorer-quality health care, even controlling for other variables such as level of health insurance. Suicide rates among lesbians and gays are substantially higher than rates for the general population, and it has been argued that this in part due to the negative outcomes of prejudice, including negative attitudes and resulting social isolation (Halpert, 2002). And in some rare cases, discrimination even takes the form of hate crimes such as gay bashing.

More commonly, members of minority groups also face a variety of small hassles, such as bad service in restaurants, being stared at, and being the target of jokes (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). But even these everyday "minor" forms of discrimination can be problematic because they may produce anger and anxiety among stigmatized group members and may lead to stress and other psychological problems (Klonoff, Landrine, & Campbell, 2000; Klonoff, Landrine, & Ullman, 1999). Stigmatized individuals who report experiencing more exposure to discrimination or other forms of unfair treatment also report more depression, anger, and anxiety and lower levels of life satisfaction and happiness (Swim, Hyers, Cohen, & Ferguson, 2001).

Of course most of us do try to keep our stereotypes and our prejudices out of mind, and we work hard to avoid discriminating (Richeson & Shelton, 2007). But even when we work to keep our negative beliefs under control, this does not mean that they easily disappear. Neil Macrae and his colleagues (Macrae, Bodenhausen, Milne, & Jetten, 1994) asked British college students to write a paragraph describing a skinhead (a member of a group that is negatively stereotyped in England). One half of the participants were asked to be sure to not use their stereotypes when they were judging him, whereas the other half simply wrote whatever came to mind. Although the participants who were asked to suppress their thoughts were able to do it, this suppression didn't last very long.

After they had suppressed their stereotypes, these beliefs quickly popped back into mind, making it even more likely that they would be used immediately later.

But stereotypes are not always and inevitably activated when we encounter people from other groups. We can and we do get past them, although doing so may take some effort on our part (Blair, 2002). There are a number of techniques that we can use to try to improve our attitudes toward outgroups, and at least some of them have been found to be effective. Kawakami, Dovidio, Moll, Hermsen, and Russin (2000) found that students who practiced responding in nonstereotypical ways to members of other groups became better able to avoid activating their negative stereotypes on future occasions. And a number of studies have found that we become less prejudiced when we are exposed to and think about group members who have particularly positive or nonstereotypical characteristics. For instance, Blair, Ma, and Lenton (2001) asked their participants to imagine a woman who was "strong" and found that doing so decreased stereotyping of women. Similarly, Bodenhausen, Schwarz, Bless, and Wanke (1995) found that when White students thought about positive Black role models—such as Oprah Winfrey and Michael Jordan—they became less prejudiced toward Blacks.

Reducing Discrimination by Changing Social Norms

One variable that makes us less prejudiced is education. People who are more educated express fewer stereotypes and prejudice in general. This is true for students who enroll in courses that are related to stereotypes and prejudice, such as a course on gender and ethnic diversity (Rudman, Ashmore, & Gary, 2001), and is also true more generally—education reduces prejudice, regardless of what particular courses you take (Sidanius, Sinclair, & Pratto, 2006).

The effects of education on reducing prejudice are probably due in large part to the new social norms that people are introduced to in school. Social norms define what is appropriate and inappropriate, and we can effectively change stereotypes and prejudice by changing the relevant norms about them. Jetten, Spears, and Manstead (1997) manipulated whether students thought that the other members of their university favored equal treatment of others or believed that others thought it was appropriate to favor the ingroup. They found that perceptions of what the other group members believed had an important influence on the beliefs of the individuals themselves. The students were more likely to show ingroup favoritism when they believed that the norm of their ingroup was to do so, and this tendency was increased for students who had high social identification with the ingroup.

Sechrist and Stangor (2001) selected White college students who were either high or low in prejudice toward Blacks and then provided them with information indicating that their prejudiced or unprejudiced beliefs were either shared or not shared by the other students at their university. Then the students were asked to take a seat in a hallway to wait for the next part of the experiment. A Black confederate was sitting in one seat at the end of the row, and the dependent measure was how far away the students sat from her.

As you can see in , high prejudice students who learned that other students were also prejudiced sat farther away from the Black confederate in comparison with high prejudice individuals who were led to believe that their beliefs were not shared. On the other hand, students who were initially low in prejudice and who believed these views were shared sat closer to the Black confederate in comparison with low prejudice individuals who were led to believe that their beliefs were not shared. These results demonstrate that our perceptions of relevant social norms can strengthen or weaken our tendencies to engage in discriminatory behaviors.
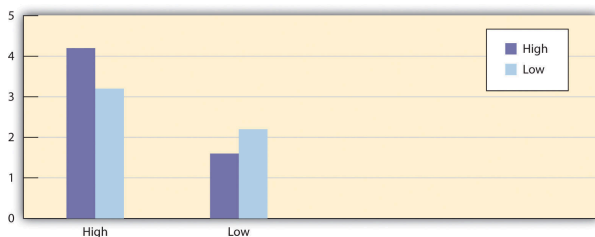
Figure 12.8 The Role of Norms in Intergroup Behavior

White college students who were low in prejudice toward Blacks sat closer to the Black confederate when they had been told that their beliefs were shared with other group members at their university. On the other hand, White college students who were high in prejudice sat farther away from the Black confederate when they had been told that their beliefs were shared with other group members at their university. Data are from Sechrist and Stangor (2001).

The influence of social norms is powerful, and long-lasting changes in beliefs about outgroups will occur only if they are supported by changes in social norms. Prejudice and discrimination thrive in environments in which they are perceived to be the norm, but they die when the existing social norms do not allow it. And because social norms are so important, the behavior of individuals can help

create or reduce prejudice and discrimination. Discrimination, prejudice, and even hate crimes such as gay bashing will be more likely to continue if people do not respond to or confront them when they occur.

What this means is that if you believe that prejudice is wrong, you must confront it when you see it happening. Czopp, Monteith, and Mark (2006) had White participants participate in a task in which it was easy to unintentionally stereotype a Black person, and as a result, many of the participants did so. Then, confederates of the experimenter confronted the students about their stereotypes, saying things such as "Maybe it would be good to think about Blacks in other ways that are a little more fair?" or "It just seems that you sound like some kind of racist to me. You know what I mean?" Although the participants who had been confronted experienced negative feelings about the confrontation and also expressed negative opinions about the person who confronted them, the confrontation did work. The students who had been confronted expressed less prejudice and fewer stereotypes on subsequent tasks than did the students who had not been confronted.

As this study concluded, taking steps to reduce prejudice is everyone's duty—having a little courage can go a long way in this regard. Confronting prejudice can lead other people to think that we are complaining and therefore to dislike us (Kaiser & Miller, 2001; Shelton & Stewart, 2004), but confronting prejudice is not all negative for the person who confronts. Although it is embarrassing to do so, particularly if we are not completely sure that the behavior was in fact prejudice, when we fail to confront, we may frequently later feel guilty that we did not (Shelton, Richeson, Salvatore, & Hill, 2006).

Reducing Prejudice Through Intergroup Contact

One of the reasons that people may hold stereotypes and prejudices is that they view the members of outgroups as different from them. We may become concerned that our interactions with people from different racial groups will be unpleasant, and these anxieties may lead us to avoid interacting with people from those groups (Mallett, Wilson, & Gilbert, 2008). What this suggests is that a good way to reduce prejudice is to help people create closer connections with members of different groups. People will be more favorable toward others when they learn to see those other people as more similar to them, as closer to the self, and to be more concerned about them.

The idea that intergroup contact will reduce prejudice, known as the <u>contact hypothesis</u>, is simple: If children from different ethnic groups play together in school, their attitudes toward each other should improve. And if we encourage college students to travel abroad, they will meet people from other cultures and become more positive toward them.

One important example of the use of intergroup contact to influence prejudice came about as a result of the important U.S. Supreme Court case *Brown v. Board of Education* in 1954. In this case, the Supreme Court agreed, based in large part on the testimony of psychologists, that busing Black children to schools attended primarily by White children, and vice versa, would produce positive outcomes on intergroup attitudes, not only because it would provide Black children with access to better schools, but also because the resulting intergroup contact would reduce prejudice between Black and White children. This strategy seemed particularly appropriate at the time it was implemented because most schools in the United States then were highly segregated by race.

The strategy of busing was initiated after the Supreme Court decision, and it had a profound effect on schools in the United States. For one, the policy was very effective in changing school makeup—the number of segregated schools decreased dramatically during the 1960s after the policy was begun. Busing also improved the educational and occupational achievement of Blacks and increased the desire of Blacks to interact with Whites, for instance, by forming cross-race friendships (Stephan, 1999). Overall, then, the case of desegregating schools in the United States supports the expectation that intergroup contact, at least in the long run, can be successful in changing attitudes. Nevertheless, as a result of several subsequent U.S. Supreme Court decisions, the policy of desegregating schools via busing was not continued past the 1990s.

Although student busing to achieve desegregated schools represents one prominent example of intergroup contact, such contact occurs in many other areas as well. Taken together, there is substantial support for the effectiveness of intergroup contact in improving group attitudes in a wide variety of situations, including schools, work organizations, military forces, and public housing. Pettigrew and Tropp (2006) conducted a meta-analysis in which they reviewed over 500 studies that had investigated the effects of intergroup contact on group attitudes. They found that attitudes toward groups that were in contact became more positive over time. Furthermore, positive effects of contact were found on both stereotypes and prejudice and for many different types of contacted groups.

The positive effects of intergroup contact may be due in part to increases in other-concern. Galinsky and Moskowitz (2000) found that leading students to take the perspective of another group member—which increased empathy and closeness to the person—also reduced prejudice. And the behavior of students on college campuses demonstrates the importance of connecting with others and the dangers of not doing so. Sidanius, Van Laar, Levin, and Sinclair (2004) found that students who joined exclusive campus groups, including fraternities, sororities, and minority ethnic

organizations (such as the African Student Union), were more prejudiced to begin with and became even less connected and more intolerant of members of other social groups over the time that they remained in the organizations. It appears that memberships in these groups focused the students on themselves and other people who were very similar to them, leading them to become less tolerant of others who are different.

Although intergroup contact does work, it is not a panacea because the conditions necessary for it to be successful are frequently not met. Contact can be expected to work only in situations that create the appropriate opportunities for change. For one, contact will only be effective if it provides information demonstrating that the existing stereotypes held by the individuals are incorrect. When we learn more about groups that we didn't know much about before, we learn more of the truth about them, leading us to be less biased in our beliefs. But if our interactions with the group members do not allow us to learn new beliefs, then contact cannot work.

When we first meet someone from another category, we are likely to rely almost exclusively on our stereotypes (Brodt & Ross, 1998). However, when we get to know the individual well (e.g., as a student in a classroom learns to know the other students over a school year), we may get to the point where we ignore that individual's group membership almost completely, responding to him or her entirely at the individual level (Madon et al., 1998). Thus contact is effective in part because it leads us to get past our perceptions of others as group members and to individuate them.

When we get past group memberships and focus more on the individuals in the groups, we begin to see that there is a great deal of variability among the group members and that our global and undifferentiating group stereotypes are actually not that informative (Rothbart & John, 1985). Successful intergroup contact tends to reduce the perception of outgroup homogeneity. Contact also helps us feel more positively about the members of the other group, and this positive affect makes us like them more.

Intergroup contact is also more successful when the people involved in the contact are motivated to learn about the others. One factor that increases this motivation is *interdependence*—a state in which the group members depend on each other for successful performance of the group goals (Neuberg & Fiske, 1987). The importance of interdependence can be seen in the success of cooperative learning techniques, such as the *jigsaw classroom* (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978; Aronson, 2004).

The jigsaw classroom is an approach *to learning in which students from different racial or ethnic groups work together, in an interdependent way, to master material.* The class is divided into small learning groups, where each group is diverse in ethnic and gender composition. The assigned material to be learned is divided into as many parts as there are students in the group, and members of different groups who are assigned the same task meet together to help develop a strong report. Each student then learns his or her own part of the material and presents this piece of the puzzle to the other members of his or her group. The students in each group are therefore interdependent in learning all the material. A wide variety of techniques, based on principles of the jigsaw classroom, are in use in many schools around the United States and the world, and research studying these approaches has found that cooperative, interdependent experiences among students from different social groups are effective in reducing negative stereotyping and prejudice (Stephan, 1999).

In sum, we can say that contact will be most effective when it is easier to get to know, and become more respectful of, the members of the other group and when the social norms of the situation promote equal, fair treatment of all groups. If the groups are treated unequally, for instance, by a teacher or leader who is prejudiced and who therefore treats the different groups differently, or if the groups are in competition rather than cooperation, there will be no benefit. In cases when these conditions are not met, contact may not be effective and may in fact increase prejudice,

particularly when it confirms stereotypical expectations (Stangor, Jonas, Stroebe, & Hewstone, 1996). Finally, it is important that enough time be allowed for the changes to take effect. In the case of busing in the United States, for instance, the positive effects of contact seemed to have been occurring, but they were not happening particularly fast.

Let's consider in the next section still another way that intergroup contact can reduce prejudice—the idea that prejudice can be reduced for people who have friends who are friends with members of the outgroup—the extended-contact hypothesis.

Research Focus

The Extended-Contact Hypothesis

Although the contact hypothesis proposes that direct contact between people from different social groups will produce more positive attitudes between them, recent evidence suggests that *prejudice can also be reduced for people who have friends who are friends with members of the outgroup*, even if the individual does not have direct contact with the outgroup members himself or herself. This hypothesis is known as the *extended-contact hypothesis*. Supporting this prediction, Wright, Aron, McLaughlin-Volpe, and Ropp (1997) found in two correlational studies

that college students who reported that their own friends had friends who were from another ethnic group reported more positive attitudes toward that outgroup than did students who did not have any friends who had outgroup friends, even controlling for the participants' own outgroup friendships.

Wright et al. (1997) also tested the extended-contact hypothesis experimentally. Participants were four groups of 14 students, and each group spent a whole day in the lab. On arrival, 7 participants were assigned to the "green" group, and 7 to the "blue" group, supposedly on the basis of similar interests. To create strong ingroup identity and to produce competition between the groups, the group members wore blue and green t-shirts and engaged in a series of competitive tasks. Participants then expressed their initial thoughts and feelings about the outgroup and its members.

Then, supposedly as part of an entirely different study, one participant was randomly selected from each group, and the two were taken to a separate room in which they engaged in a relationship-building task that has been shown to quickly create feelings of friendship between two strangers. Then the two members from each team were then reunited with their original groups, where they were encouraged to describe their experience with the other group member in the friendship-building task.

In the final phase, the groups then engaged in another competitive task, and participants rated their thoughts and feelings about the outgroup and its members again. As you can see in the following figure, and supporting the extended-contact hypothesis, results showed that the participants (including those who did not participate in the

closeness task themselves) were more positive toward the outgroup after than before the two team members had met. This study, as well as many other studies, supports the importance of cross-group friendships in promoting favorable outgroup attitudes (Page-Gould, Mendoza-Denton, & Tropp, 2008; Shook & Fazio, 2008).
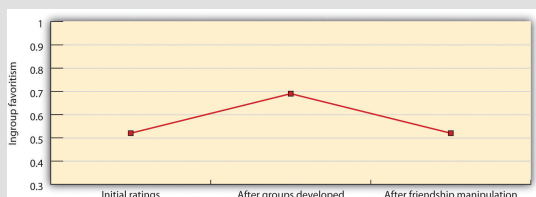
Figure 12.9 The Extended-Contact Hypothesis

This figure shows how members of the two groups, which were in competition with each other, rated each other before and after the experimental manipulation of friendship. You can see that group relationships, which were becoming more negative, changed to being more positive after the intervention. Data are from Wright, Aron, McLaughlin-Volpe, and Ropp (1997).

Moving Others Closer to Us: The Benefits of

Recategorization

The research on intergroup contact suggests that although contact may improve prejudice, it may make it worse if it is not implemented correctly. Improvement is likely only when the contact moves the members of the groups to feel that they are closer to each other rather than further away from each other. In short, groups are going to have better attitudes toward each other when they see themselves more similarly to each other—when they feel more like one large group than a set of smaller groups.

This fact was demonstrated in a very convincing way in one of the most well known of all social psychological studies. In the "Robbers' Cave Experiment," Sherif, Harvey, White, Hood, and Sherif (1961) studied the group behavior of 11-year-old boys at a summer camp. Although the boys did not know it, the researchers carefully observed the behaviors of the children during the camp session, with the goal of learning about how group conflict developed and how it might be resolved among the children.

During the first week of the camp, the boys were divided into two groups that camped at two different campsites. During this time, friendly relationships developed among the boys within each of the two groups. Each group developed its own social norms and group structure and became quite cohesive, with a strong positive social identity. The two groups chose names for themselves (the Rattlers and the Eagles), and each made their own group flag and participated in separate camp activities.

At the end of this one-week baseline period, it was arranged that the two groups of boys would become aware of each other's presence. Furthermore, the researchers worked to create conditions that led to increases in each group's social identity and at the same time created negative perceptions of the other group. The researchers arranged baseball games, a tug-of-war, and a treasure hunt and offered prizes for the group that won the competitions.

Almost immediately, this competition created ingroup favoritism and prejudice, and discrimination quickly followed. By the end of the second week, the Eagles had sneaked up to the Rattlers' cabin and stolen their flag. When the Rattlers discovered the theft, they in turn raided the Eagles' cabin, stealing things. There were food fights in the dining room, which was now shared by the groups, and the researchers documented a substantial increase in name-calling and stereotypes of the outgroup. Some fistfights even erupted between members of the different groups.

The researchers then intervened by trying to move the groups closer to each other. They began this third stage of the research by setting up a series of situations in which the boys had to work together to solve a problem. These situations were designed to create interdependence by presenting the boys with *superordinate goals*—goals that were both very important to them and yet that required the cooperative efforts and resources of both the Eagles and the Rattlers to attain. These goals involved such things as the need to pool money across both groups in order to rent a movie that all the campers wanted to view, or the need to pull together on ropes to get a food truck that had become stuck back onto the road. As the children worked together to meet these goals, the negative perceptions of the group members gradually improved; there was a reduction of hostility between the groups and an emergence of more positive intergroup attitudes.

This strategy was effective because it led the campers to perceive both the ingroup and the outgroup as one large group ("we") rather than as two separate groups ("us" and "them"). As differentiation between the ingroup and the outgroup decreases, so should ingroup favoritism, prejudice, and conflict. The differences between the original groups are still present, but they are potentially counteracted by perceived similarities in the second superordinate group. *The attempt to reduce prejudice by creating a superordinate categorization* is known as the goal of creating a common ingroup identity (Gaertner & Dovidio, 2008), and we can diagram the relationship as follows:

interdependence and cooperation → common ingroup identity → favorable intergroup attitudes.

A substantial amount of research has supported the predictions of the common ingroup identity model. For instance, Samuel Gaertner and his colleagues (Gaertner, Mann, Murrell, & Dovidio, 1989) tested the hypothesis that interdependent cooperation in groups reduces negative beliefs about outgroup members because it leads people to see the others as part of the ingroup (by creating a common identity). In this research, college students were brought to a laboratory where they were each assigned to one of two teams of three members each, and each team was given a chance to create its own unique group identity by working together. Then, the two teams were brought into a single room to work on a problem. In one condition, the two teams were told to work together as a larger, six-member team to solve the problem, whereas in the other condition, the two teams worked on the problem separately.

Consistent with the expected positive results of creating a common group identity, the interdependence created in the condition where the teams worked together increased the tendency of the team members to see themselves as members of a single, larger team, and this in turn reduced the tendency for each group to show ingroup favoritism.

But the benefits of recategorization are not confined to laboratory settings—they also appear in our everyday interactions with other people. Jason Neir and his colleagues (Neir et al., 2001) had Black and White interviewers approach White students who were attending a football game. The dependent measure was whether or not they agreed to help the interviewer by completing a questionnaire. However, the interviewers also wore hats representing either one of the two universities who were playing in the game. As you can see in Figure 12.10 "Recategorization and Helping Behavior", the data were analyzed both by whether the interviewer and the student were of the same race (either both White or one White and one Black) and also by whether they wore hats from the same or

different universities. As expected on the basis of recategorization and the common ingroup identity approach, the White students were significantly more likely to help the Black interviewers when they wore a hat of the same university as that worn by the interviewee. The hat evidently led the White students to recategorize the interviewer as part of the university ingroup, leading to more helping. However, whether the individuals shared university affiliation did not influence helping for the White participants, presumably because they already saw the interviewer as a member of the ingroup (the interviewer was also White).
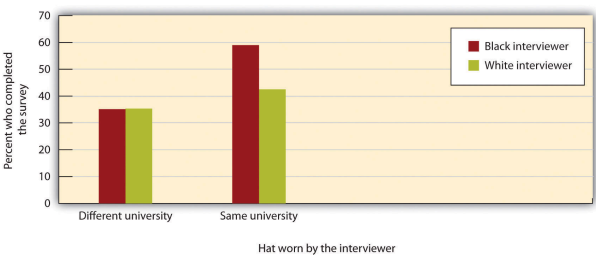
Figure 12.10 Recategorization and Helping Behavior

In this field study, White and Black interviewers asked White students attending a football game to help them by completing a questionnaire. The data were analyzed both by whether the request was to a White (ingroup) or Black (outgroup) student and also by whether the individual whose help was sought wore the same hat that they did or a different hat. Results supported the common ingroup identity model. Helping was much greater for outgroup members when hats were the same. Data are from Neir et al. (2001).

Again, the implications of these results are clear and powerful. If we want to improve attitudes among people, we must get them to see each other as more similar and less different. And even relatively simple ways of doing so, such as wearing a hat that suggests an ingroup identification, can be successful.

End-of-Chapter Summary

Key Takeaways

- Changing our stereotypes and prejudices is not easy, and attempting to suppress them may backfire. However, with appropriate effort, we can reduce our tendency to rely on our stereotypes and prejudices.
- One approach to changing stereotypes and prejudice is by changing social norms—for instance, through education and laws enforcing equality.
- Prejudice will change faster when it is confronted by people who see it occurring. Confronting prejudice may be embarrassing, but it also can make us feel that we have done the right thing.
- Intergroup attitudes will be improved when we can lead people to focus more on their connections with others. Intergroup contact, extended contact with others who share friends with outgroup members, and a common ingroup identity are all examples of this process.

Exercises and Critical Thinking

1. Does your college or university support efforts to increase intergroup contact? If so, do the efforts seem to be successful in reducing prejudice?
2. Have you ever confronted or failed to confront a person who you thought was expressing prejudice or discriminating? Why did you confront (or not confront) that person, and how did doing so make you feel?
3. Imagine you are a teacher in a classroom and you see that some children expressing prejudice or discrimination toward other children on the basis of their race. What techniques would you use to attempt to reduce these negative behaviors?

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Chapter 8: Racial & Ethnic Inequality

- Describe the targets of nineteenth-century mob violence in U.S. cities.
- Discuss why the familiar saying "The more things change, the more they stay the same" applies to the history of race and ethnicity in the United States.
- Critique the biological concept of race.
- Discuss why race is a social construction.
- Explain why ethnic heritages have both good and bad consequences.
- Describe any two manifestations of racial and ethnic inequality in the United States.
- Explain how and why racial inequality takes a hidden toll on people of color.
- Provide two examples of white privilege.
- Understand cultural explanations for racial and ethnic inequality.
- Describe structural explanations for racial and ethnic inequality.
- Summary of the debate over affirmative action.
- Describe any three policies or practices that could

Introduction

Social Problems in the News

"Anger, Shock over Cross Burning in Calif. Community," the headline said. This cross burning took place next to a black woman's home in Arroyo Grande, California, a small, wealthy town about 170 miles northwest of Los Angeles. The eleven-foot cross had recently been stolen from a nearby church.

This hate crime shocked residents and led a group of local ministers to issue a public statement that said in

part, "Burning crosses, swastikas on synagogue walls, hateful words on mosque doors are not pranks. They are hate crimes meant to frighten and intimidate." The head of the group added, "We live in a beautiful area, but it's only beautiful if every single person feels safe conducting their lives and living here."

Four people were arrested four months later for allegedly burning the cross and charged with arson, hate crime, terrorism, and conspiracy. Arroyo Grande's mayor applauded the arrests and said in a statement, "Despite the fact that our city was shaken by this crime, it did provide an opportunity for us to become better educated on matters relating to diversity."

Sources: (Jablon, 2011; Lerner, 2011; Mann, 2011)

Cross burnings like this one recall the Ku Klux Klan era between the 1880s and 1960s, when white men dressed in white sheets and white hoods terrorized African Americans in the South and elsewhere and lynched more than 3,000 black men and women. Thankfully, that era is long gone, but as this news story reminds us, racial issues continue to trouble the United States.

In the wake of the 1960s urban riots, the so-called Kerner Commission (Kerner Commission, 1968)[1] appointed by President Lyndon Johnson to study the riots famously warned, "Our nation is moving toward two societies, one black, one white—separate and

1. Kerner Commission. (1968). *Report of the National Advisory Commission on civil disorders*. New York, NY: Bantam Books.

unequal." The commission blamed white racism for the riots and urged the government to provide jobs and housing for African Americans and to take steps to end racial segregation.

More than four decades later, racial inequality in the United States continues to exist and in many ways has worsened. Despite major advances by African Americans, Latinos, and other people of color during the past few decades, they continue to lag behind non-Hispanic whites in education, income, health, and other social indicators. The faltering economy since 2008 has hit people of color especially hard, and the racial wealth gap is deeper now than it was just two decades ago.

Why does racial and ethnic inequality exist? What forms does it take? What can be done about it? This chapter addresses all these questions. We shall see that, although racial and ethnic inequality has stained the United States since its beginnings, there is hope for the future as long as our nation understands the structural sources of this inequality and makes a concerted effort to reduce it. Later chapters in this book will continue to highlight various dimensions of racial and ethnic inequality. Immigration, a very relevant issue today for Latinos and Asians and the source of much political controversy, receives special attention in [Chapter 15 "Population and the Environment"](#)'s discussion of population problems.

A Historical Prelude

Race and ethnicity have torn at the fabric of American society ever since the time of Christopher Columbus when an estimated 1 million Native Americans populated the eventual United States. By 1900, their numbers had dwindled to about 240,000, as tens of thousands were killed by white settlers and US troops and countless others died from disease contracted from people with European backgrounds. Scholars say this mass killing of Native Americans amounted to genocide (Brown, 2009).

African Americans also have a history of maltreatment that began during the colonial period, when Africans were forcibly transported from their homelands to be sold as slaves in the Americas. Slavery, of course, continued in the United States until the North's victory in the Civil War ended it. African Americans outside the South were not slaves but were still victims of racial prejudice. During the 1830s, white mobs attacked free African Americans in cities throughout the nation, including Philadelphia, Cincinnati, Buffalo, and Pittsburgh. The mob violence stemmed from a "deep-seated racial prejudice…in which whites saw blacks as 'something less than human'" (Brown, 1975) and continued well into the twentieth century, when white mobs attacked African Americans in several cities, with at least seven antiblack riots occurring in 1919 that left dozens dead. Meanwhile, an era of Jim Crow racism in the South led to the lynching of thousands of African Americans, segregation in all facets of life, and other kinds of abuses (Litwack, 2009).

During the era of Jim Crow racism in the South, several thousand African Americans were lynched. US Library of Congress – public domain.

African Americans were not the only targets of native-born white mobs back then (Dinnerstein & Reimers, 2009). As immigrants from Ireland, Italy, Eastern Europe, Mexico, and Asia flooded into the United States during the nineteenth and early twentieth centuries, they, too, were beaten, denied jobs, and otherwise mistreated. During the 1850s, mobs beat and sometimes killed Catholics in cities such as Baltimore and New Orleans. During the 1870s, whites rioted against Chinese immigrants in cities in California and other states. Hundreds of Mexicans were attacked and/or lynched in California and Texas during this period.

Nazi racism in the 1930s and 1940s helped awaken Americans to the evils of prejudice in their own country. Against this backdrop, a

monumental two-volume work by Swedish social scientist Gunnar Myrdal (Myrdal, 1944) attracted much attention when it was published. The book, *An American Dilemma: The Negro Problem and Modern Democracy*, documented the various forms of discrimination facing blacks back then. The "dilemma" referred to by the book's title was the conflict between the American democratic ideals of egalitarianism and liberty and justice for all and the harsh reality of prejudice, discrimination, and lack of equal opportunity.

The Kerner Commission's 1968 report reminded the nation that little, if anything, had been done since Myrdal's book to address this conflict. Sociologists and other social scientists have warned since then that the status of people of color has actually been worsening in many ways since this report was issued (Massey, 2007; Wilson, 2009). Evidence of this status appears in the remainder of this chapter.

The Meaning of Race and Ethnicity

To begin our understanding of racial and ethnic inequality, we first need to understand what *race* and *ethnicity* mean. These terms may seem easy to define but are much more complex than their definitions suggest.

Race

Let's start first with race, which refers to a category of people who

share certain inherited physical characteristics, such as skin color, facial features, and stature. A key question about race is whether it is more of a biological category or a social category. Most people think of race in biological terms, and for more than three hundred years, or ever since white Europeans began colonizing nations filled with people of color, people have been identified as belonging to one race or another based on certain biological features.

It is certainly easy to see that people in the United States and around the world differ physically in some obvious ways. The most noticeable difference is skin tone: Some groups of people have very dark skin, while others have very light skin. Other differences also exist. Some people have very curly hair, while others have very straight hair. Some have thin lips, while others have thick lips. Some groups of people tend to be relatively tall, while others tend to be relatively short. Using such physical differences as their criteria, scientists at one point identified as many as nine races: African, American Indian or Native American, Asian, Australian Aborigine, European (more commonly called "white"), Indian, Melanesian, Micronesian, and Polynesian (Smedley, 2007).

Although people certainly do differ in these kinds of physical features, anthropologists, sociologists, and many biologists question the value of these categories and thus the value of the biological concept of race (Smedley, 2007). For one thing, we often see more physical differences *within* a race than *between* races. For example, some people we call "white" (or European), such as those with Scandinavian backgrounds, have very light skins, while others, such as those from some Eastern European backgrounds, have much darker skins. In fact, some "whites" have darker skin than some "blacks," or African Americans. Some whites have very straight hair, while others have very curly hair; some have blonde hair and blue eyes, while others have dark hair and brown eyes. Because of interracial reproduction going back to the days of slavery, African Americans also differ in the darkness of their skin and in other physical characteristics. In fact, it is estimated that at least 30 percent of African Americans have some white (i.e., European)

ancestry and that at least 20 percent of whites have African or Native American ancestry. If clear racial differences ever existed hundreds or thousands of years ago (and many scientists doubt such differences ever existed), in today's world these differences have become increasingly blurred.

President Barack Obama had an African father and a white mother. Although his ancestry is equally black and white, Obama considers himself an African American, as do most Americans. In several Latin American nations, however, Obama would be considered white because of his white ancestry. Steve Jurvetson – [Barak Obama on the Primary](#) – CC BY 2.0.

Another reason to question the biological concept of race is that

an individual or a group of individuals is often assigned to a race arbitrarily. A century ago, for example, Irish, Italians, and Eastern European Jews who left their homelands were not regarded as white once they reached the United States but rather as a different, inferior (if unnamed) race (Painter, 2010). The belief in their inferiority helped justify the harsh treatment they suffered in their new country. Today, of course, we call people from all three backgrounds white or European.

In this context, consider someone in the United States who has a white parent and a black parent. What race is this person? American society usually calls this person black or African American, and the person may adopt this identity (as does President Barack Obama, who had a white mother and African father). But where is the logic for doing so? This person, as well as President Obama, is as much white as black in terms of parental ancestry.

Or consider someone with one white parent and another parent who is the child of one black parent and one white parent. This person thus has three white grandparents and one black grandparent. Even though this person's ancestry is thus 75 percent white and 25 percent black, she or he is likely to be considered black in the United States and may well adopt this racial identity. This practice reflects the traditional *one-drop rule* in the United States that defines someone as black if she or he has at least one drop of *black blood*, and that was used in the antebellum South to keep the slave population as large as possible (Staples, 2005). Yet in many Latin American nations, this person would be considered white (see [Note 3.7 "Lessons from Other Societies"](#)). With such arbitrary designations, the race is more of a social category than a biological one.

Lessons from Other Societies

The Concept of Race in Brazil

As the text discusses, race was long considered a fixed, biological category, but today it is now regarded as a social construction. The experience of Brazil provides very interesting comparative evidence for this more accurate way of thinking about race.

When slaves were first brought to the Americas almost four hundred years ago, many more were taken to Brazil, where slavery was not abolished until 1888, than to the land that eventually became the United States. Brazil was then a colony of Portugal, and the Portuguese used Africans as slave labor. Just as in the United States, a good deal of interracial reproduction has occurred since those early days, much of it initially the result of the rape of women slaves by their owners, and Brazil over the centuries has had many more racial intermarriages than the United States. Also like the United States, then, much of Brazil's population has multiracial ancestry. But in a significant

departure from the United States, Brazil uses different criteria to consider the race to which a person belongs.

Brazil uses the term *preto*, or *black*, for people whose ancestry is solely African. It also uses the term *Branco*, or *white*, to refer to people whose ancestry is both African and European. In contrast, as the text discusses, the United States commonly uses the term *black* or *African American* to refer to someone with even a small amount of African ancestry and *white* for someone who is thought to have solely European ancestry or at least "looks" white. If the United States were to follow Brazil's practice of reserving the term *black* for someone whose ancestry is solely African and the term *white* for someone whose ancestry is both African and European, many of the Americans commonly called "black" would no longer be considered black and instead would be considered white.

As sociologist Edward E. Telles (2006, p. 79) summarizes these differences, "[Blackness is differently understood in Brazil than in the United States. A person considered black in the United States is often not so in Brazil. Indeed, some U.S. blacks may be considered white in Brazil. Although the value given to blackness is similarly low [in both nations], who gets classified as black is not uniform." The fact that someone can count on being considered "black" in one society and not "black" in another society underscores the idea that race is best considered a social construction rather than a biological category.

Sources: Barrionuevo & Calmes, 2011; Klein & Luno, 2009; Telles, 2006

A third reason to question the biological concept of race comes from the field of biology itself and more specifically from the studies

of genetics and human evolution. Starting with genetics, people from different races are more than 99.9 percent the same in their DNA (Begley, 2008). To turn that around, less than 0.1 percent of all DNA in our bodies accounts for the physical differences among people that we associate with racial differences. In terms of DNA, then, people with different racial backgrounds are much, much more similar than dissimilar.

Even if we acknowledge that people differ in the physical characteristics we associate with race, modern evolutionary evidence reminds us that we are all, really, of one human race. According to evolutionary theory, the human race began thousands and thousands of years ago in sub-Saharan Africa. As people migrated around the world over the millennia, natural selection took over. It favored dark skin for people living in hot, sunny climates (i.e., near the equator), because the heavy amounts of melanin that produce dark skin protect against severe sunburn, cancer, and other problems. By the same token, natural selection favored light skin for people who migrated farther from the equator to cooler, less sunny climates, because dark skins there would have interfered with the production of vitamin D (Stone & Lurquin, 2007). Evolutionary evidence thus reinforces the common humanity of people who differ in the rather superficial ways associated with their appearances: We are one human species composed of people who happen to look different.

Race as a Social Construction

The reasons for doubting the biological basis for racial categories

suggest that race is more of a social category than a biological one. Another way to say this is that race is a <u>social construction</u>, a concept that has no objective reality but rather is what people decide it is (Berger & Luckmann, 1963). In this view, the race has no real existence other than what and how people think of it.

This understanding of race is reflected in the problems, outlined earlier, in placing people with multiracial backgrounds into any one racial category. We have already mentioned the example of President Obama. As another example, golfer Tiger Woods was typically called an African American by the news media when he burst onto the golfing scene in the late 1990s, but in fact, his ancestry is one-half Asian (divided evenly between Chinese and Thai), one-quarter white, one-eighth Native American, and only one-eighth African American (Leland & Beals, 1997).

Historical examples of attempts to place people in racial categories further underscore the social constructionism of race. In the South during the time of slavery, the skin tone of slaves lightened over the years as babies were born from the union, often in the form of rape, of slave owners and other whites with slaves. As it became difficult to tell who was "black" and who was not, many court battles over people's racial identity occurred. People who were accused of having black ancestry would go to court to prove they were white in order to avoid enslavement or other problems (Staples, 1998).

Although race is a social construction, it is also true that race has real consequences because people *do* perceive race as something real. Even though so little of DNA accounts for the physical differences we associate with racial differences, that low amount leads us not only to classify people into different races but also to treat them differently—and, more to the point, unequally—based on their classification. Yet modern evidence shows there is little if any, scientific basis for the racial classification that is the source of so much inequality.

Ethnicity

Because of the problems in the meaning of *race*, many social scientists prefer the term *ethnicity* in speaking of people of color and others with distinctive cultural heritages. In this context, ethnicity refers to the shared social, cultural, and historical experiences, stemming from common national or regional backgrounds, that make subgroups of a population different from one another. Similarly, an ethnic group is a subgroup of a population with a set of shared social, cultural, and historical experiences; with relatively distinctive beliefs, values, and behaviors; and with some sense of identity of belonging to the subgroup. So conceived, the terms *ethnicity* and *ethnic group* avoid the biological connotations of the terms *race* and *racial group*.

At the same time, the importance we attach to ethnicity illustrates that it, too, is in many ways a social construction, and our ethnic membership thus has important consequences for how we are treated. In particular, history and current practice indicate that it is easy to become prejudiced against people with different ethnicities from our own. Much of the rest of this chapter looks at the prejudice and discrimination operating today in the United States against people whose ethnicity is not white and European. Around the world today, ethnic conflict continues to rear its ugly head. The 1990s and 2000s were filled with ethnic cleansing and pitched battles among ethnic groups in Eastern Europe, Africa, and elsewhere. Our ethnic heritages shape us in many ways and fill many of us with pride, but they also are the source of much conflict, prejudice, and even hatred, as the hate crime story that began this chapter so sadly reminds us.

Dimensions of Racial and Ethnic Inequality

Racial and ethnic inequality manifests itself in all walks of life. The individual and institutional discrimination just discussed is one manifestation of this inequality. We can also see stark evidence of racial and ethnic inequality in various government statistics. Sometimes statistics lie, and sometimes they provide all too true a picture; statistics on racial and ethnic inequality fall into the latter category. Table 3.2 "Selected Indicators of Racial and Ethnic Inequality in the United States" presents data on racial and ethnic differences in income, education, and health.

Table 3.2 Selected Indicators of Racial and Ethnic Inequality in the United States

	White	African American	Latino	Asian	Native American
Median family income, 2010 ($)	68,818	39,900	41,102	76,736	39,664
Persons who are college educated, 2010 (%)	30.3	19.8	13.9	52.4	14.9 (2008)
Persons in poverty, 2010 (%)	9.9 (non-Latino)	27.4	26.6	12.1	28.4
Infant mortality (number of infant deaths per 1,000 births), 2006	5.6	12.9	5.4	4.6	8.3

Sources: Data from US Census Bureau. (2012). *Statistical abstract of the United States: 2012.* Washington, DC: US Government Printing Office. Retrieved from http://www.census.gov/compendia/statab; US Census Bureau. (2012). American FactFinder. Retrieved from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml; MacDorman, M., & Mathews, T. J. (2011). Infant Deaths—United States, 2000–2007. *Morbidity and Mortality Weekly Report, 60*(1), 49–51.

Asian Americans have higher family incomes than whites on the average. Although Asian Americans are often viewed as a "model minority," some Asians have been less able than others to achieve economic success, and stereotypes of Asians and discrimination against them remain serious problems. LindaDee2006 – CC BY-NC-ND 2.0.

The picture presented by Table 3.2 "Selected Indicators of Racial and Ethnic Inequality in the United States" is clear: US racial and ethnic groups differ dramatically in their life chances. Compared to whites, for example, African Americans, Latinos, and Native Americans have much lower family incomes and much higher rates of poverty; they are also much less likely to have college degrees. In addition, African Americans and Native Americans have much higher infant mortality rates than whites: Black infants, for example, are more than twice as likely as white infants to die. Later chapters in this book will continue to highlight various dimensions of racial and ethnic inequality.

Although Table 3.2 "Selected Indicators of Racial and Ethnic Inequality in the United States" shows that African Americans, Latinos, and Native Americans fare much worse than whites, it presents a more complex pattern for Asian Americans. Compared to

whites, Asian Americans have higher family incomes and are more likely to hold college degrees, but they also have a higher poverty rate. Thus many Asian Americans do relatively well, while others fare relatively worse, as just noted. Although Asian Americans are often viewed as a "model minority," meaning that they have achieved economic success despite not being white, some Asians have been less able than others to climb the economic ladder. Moreover, stereotypes of Asian Americans and discrimination against them remain serious problems (Chou & Feagin, 2008). Even the overall success rate of Asian Americans obscures the fact that their occupations and incomes are often lower than would be expected from their educational attainment. They thus have to work harder for their success than whites do (Hurh & Kim, 1999).

The Increasing Racial/Ethnic Wealth Gap

At the beginning of this chapter, we noted that racial and ethnic inequality has existed since the beginning of the United States. We also noted that social scientists have warned that certain conditions have actually worsened for people of color since the 1960s (Hacker, 2003; Massey & Sampson, 2009).

Recent evidence of this worsening appeared in a report by the Pew Research Center (2011). The report focused on racial disparities in wealth, which includes a family's total assets (income, savings, and investments, home equity, etc.) and debts (mortgage, credit

cards, etc.). The report found that the wealth gap between white households on the one hand and African American and Latino households, on the other hand, was much wider than just a few years earlier, thanks to the faltering US economy since 2008 that affected blacks more severely than whites.

According to the report, whites' median wealth was ten times greater than blacks' median wealth in 2007, a discouraging disparity for anyone who believes in racial equality. By 2009, however, whites' median wealth had jumped to twenty times greater than blacks' median wealth and eighteen times greater than Latinos' median wealth. White households had a median net worth of about $113,000, while black and Latino households had a median net worth of only $5,700 and $6,300, respectively (see Figure 3.5 "The Racial/Ethnic Wealth Gap (Median Net Worth of Households in 2009)"). This racial and ethnic difference is the largest since the government began tracking wealth more than a quarter-century ago.

Figure 3.5 The Racial/Ethnic Wealth Gap (Median Net Worth of Households in 2009)
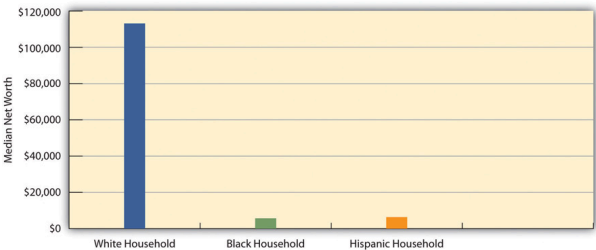
Source: Pew Research Center, 2011.

A large racial/ethnic gap also existed in the percentage of families with negative net worth—that is, those whose debts exceed their assets. One-third of black and Latino households had negative net worth, compared to only 15 percent of white households. Black and Latino's households were thus more than twice as likely as white households to be in debt.

The Hidden Toll of Racial and Ethnic Inequality

An increasing amount of evidence suggests that being black in a society filled with racial prejudice, discrimination, and inequality takes what has been called a "hidden toll" on the lives of African Americans (Blitstein, 2009). As we shall see in later chapters, African Americans on the average have worse health than whites and die at younger ages. In fact, every year there are an additional 100,000 African American deaths than would be expected if they lived as long as whites do. Although many reasons probably explain all these disparities, scholars are increasingly concluding that the stress of being black is a major factor (Geronimus et al., 2010).

In this way of thinking, African Americans are much more likely than whites to be poor, to live in high-crime neighborhoods, and to live in crowded conditions, among many other problems. As this chapter discussed earlier, they are also more likely, whether or not they are poor, to experience racial slights, refusals to be interviewed for jobs, and other forms of discrimination in their everyday lives.

All these problems mean that African Americans from their earliest ages grow up with a great deal of stress, far more than what most whites experience. This stress, in turn, has certain neural and physiological effects, including hypertension (high blood pressure), that impair African Americans' short-term and long-term health and that ultimately shorten their lives. These effects accumulate over time: black and white hypertension rates are equal for people in their twenties, but the black rate becomes much higher by the time people reach their forties and fifties. As a recent news article on evidence of this "hidden toll" summarized this process, "The long-term stress of living in a white-dominated society 'weathers' blacks, making them age faster than their white counterparts" (Blitstein, 2009, p. 48).

Although there is less research on other people of color, many Latinos and Native Americans also experience the various sources of stress that African Americans experience. To the extent this is true, racial and ethnic inequality also takes a hidden toll on members of these two groups. They, too, experience racial slights, live under disadvantaged conditions, and face other problems that result in high levels of stress and shorten their life spans.

White Privilege: The Benefits of Being White

American whites enjoy certain privileges merely because they are white. For example, they usually do not have to fear that a police officer will stop them simply because they are white, and they also generally do not have to worry about being mistaken for a bellhop, parking valet, or maid. Loren Kerns – [Day 73](#) – CC BY 2.0.

Before we leave this section, it is important to discuss the advantages that US whites enjoy in their daily lives simply because they are white. Social scientists term these advantages white privilege and say that whites benefit from being white whether or not they are aware of their advantages (McIntosh, 2007).

This chapter's discussion of the problems facing people of color points to some of these advantages. For example, whites can usually drive a car at night or walk down a street without having to fear

that a police officer will stop them simply because they are white. Recalling the Trayvon Martin tragedy, they can also walk down a street without having to fear they will be confronted and possibly killed by a neighborhood watch volunteer. In addition, whites can count on being able to move into any neighborhood they desire to as long as they can afford the rent or mortgage. They generally do not have to fear being passed up for a promotion simply because of their race. White students can live in college dorms without having to worry that racial slurs will be directed their way. White people, in general, do not have to worry about being the victims of hate crimes based on their race. They can be seated in a restaurant without having to worry that they will be served more slowly or not at all because of their skin color. If they are in a hotel, they do not have to think that someone will mistake them for a bellhop, parking valet, or maid. If they are trying to hail a taxi, they do not have to worry about the taxi driver ignoring them because the driver fears he or she will be robbed.

Social scientist Robert W. Terry (1981, p. 120) once summarized white privilege as follows: "*To be white in America is not to have to think about it.* Except for hard-core racial supremacists, the meaning of being white is having the choice of attending to or ignoring one's own whiteness" (emphasis in original). For people of color in the United States, it is not an exaggeration to say that race and ethnicity are a daily fact of their existence. Yet whites do not generally have to think about being white. As all of us go about our daily lives, this basic difference is one of the most important manifestations of racial and ethnic inequality in the United States.

Perhaps because whites do not have to think about being white, many studies find they tend to underestimate the degree of racial inequality in the United States by assuming that African Americans and Latinos are much better off than they really are. As one report summarized these studies' overall conclusion, "Whites tend to have a relatively rosy impression of what it means to be a black person in America. Whites are more than twice as likely as blacks to believe that the position of African Americans has improved a great deal"

(Vedantam, 2008, p. A3). Because whites think African Americans and Latinos fare much better than they really do, that perception probably reduces whites' sympathy for programs designed to reduce racial and ethnic inequality.

Explaining Racial and Ethnic Inequality

Why does racial and ethnic inequality exist? Why do African Americans, Latinos, Native Americans, and some Asian Americans fare worse than whites? In answering these questions, many people have some very strong opinions.

Biological Inferiority

One long-standing explanation is that blacks and other people of color are *biologically inferior*: They are naturally less intelligent and have other innate flaws that keep them from getting a good education and otherwise doing what needs to be done to achieve the American Dream. As discussed earlier, this racist view is no longer common today. However, whites historically used this belief to justify slavery, lynchings, the harsh treatment of Native Americans in the 1800s, and lesser forms of discrimination. In 1994, Richard J. Herrnstein and Charles Murray revived this view in their controversial book, *The Bell Curve* (Herrnstein & Murray, 1994), in which they argued that the low IQ scores of African Americans, and of poor people more generally, reflect their genetic inferiority in the

area of intelligence. African Americans' low innate intelligence, they said, accounts for their poverty and other problems. Although the news media gave much attention to their book, few scholars agreed with its views, and many condemned the book's argument as a racist way of "blaming the victim" (Gould, 1994).

Cultural Deficiencies

Another explanation of racial and ethnic inequality focuses on the supposed *cultural deficiencies* of African Americans and other people of color (Murray, 1984). These deficiencies include a failure to value hard work and, for African Americans, a lack of strong family ties, and are said to account for the poverty and other problems facing these minorities. This view echoes the culture-of-poverty argument presented in [Chapter 2 "Poverty"](#) and is certainly popular today. As we saw earlier, more than half of non-Latino whites think that blacks' poverty is due to their lack of motivation and willpower. Ironically some scholars find support for this cultural deficiency view in the experience of many Asian Americans, whose success is often attributed to their culture's emphasis on hard work, educational attainment, and strong family ties (Min, 2005). If that is true, these scholars say, then the lack of success of other people of color stems from the failure of their own cultures to value these attributes.

How accurate is the cultural deficiency argument? Whether people of color have "deficient" cultures remains hotly debated (Bonilla-Silva, 2009). Many social scientists find little or no evidence of cultural problems in minority communities and say the belief in

cultural deficiencies is an example of symbolic racism that blames the victim. Citing survey evidence, they say that poor people of color value work and education for themselves and their children at least as much as wealthier white people do (Holland, 2011; Muhammad, 2007). Yet other social scientists, including those sympathetic to the structural problems facing people of color, believe that certain cultural problems do exist, but they are careful to say that these cultural problems arise out of the structural problems. For example, Elijah Anderson (1999) wrote that a "street culture" or "oppositional culture" exists among African Americans in urban areas that contribute to high levels of violent behavior, but he emphasized that this type of culture stems from the segregation, extreme poverty, and other difficulties these citizens face in their daily lives and helps them deal with these difficulties. Thus even if cultural problems do exist, they should not obscure the fact that structural problems are responsible for the cultural ones.

Structural Problems

A third explanation for US racial and ethnic inequality is based on conflict theory and reflects the blaming-the-system approach outlined in [Chapter 1 "Understanding Social Problems"](). This view attributes racial and ethnic inequality to *structural problems*, including institutional and individual discrimination, a lack of opportunity in education and other spheres of life, and the absence of jobs that pay an adequate wage (Feagin, 2006). Segregated housing, for example, prevents African Americans from escaping the inner city and from moving to areas with greater employment

opportunities. Employment discrimination keeps the salaries of people of color much lower than they would be otherwise. The schools that many children of color attend every day are typically overcrowded and underfunded. As these problems continue from one generation to the next, it becomes very difficult for people already at the bottom of the socioeconomic ladder to climb up it because of their race and ethnicity (see [Note 3.33 "Applying Social Research"](#)).

Applying Social Research

The Poor Neighborhoods of Middle-Class African Americans

In a society that values equal opportunity for all, scholars have discovered a troubling trend: African American children from middle-class families are much more likely than white children from middle-class families to move down the socioeconomic ladder by the time they become adults. In fact, almost half of all African American children born during the 1950s and 1960s to middle-class parents ended up with lower incomes than their parents by adulthood. Because these children had parents who had evidently succeeded despite all the obstacles facing them in a society filled with racial inequality, we have to assume

they were raised with the values, skills, and aspirations necessary to stay in the middle class and even to rise beyond it. What, then, explains why some end up doing worse than their parents?

According to a recent study written by sociologist Patrick Sharkey for the Pew Charitable Trusts, one important answer lies in the neighborhoods in which these children are raised. Because of continuing racial segregation, many middle-class African American families find themselves having to live in poor urban neighborhoods. About half of African American children born between 1955 and 1970 to middle-class parents grew up in poor neighborhoods, but hardly any middle-class white children grew up in such neighborhoods. In Sharkey's statistical analysis, neighborhood poverty was a much more important factor than variables such as parents' education and marital status in explaining the huge racial difference in the eventual socioeconomic status of middle-class children. An additional finding of the study underscored the importance of neighborhood poverty for adult socioeconomic status: African American children raised in poor neighborhoods in which the poverty rate declined significantly ended up with higher incomes as adults than those raised in neighborhoods where the poverty rate did not change.

Why do poor neighborhoods have this effect? It is difficult to pinpoint the exact causes, but several probable reasons come to mind. In these neighborhoods, middle-class African American children often receive inadequate schooling at run-down schools, and they come under the influence of youths who care much less about schooling and who get into various kinds of trouble. The various problems associated with living in poor neighborhoods also

likely cause a good deal of stress, which, as discussed elsewhere in this chapter, can cause health problems and impair learning ability.

Even if the exact reasons remain unclear, this study showed that poor neighborhoods make a huge difference. As a Pew official summarized the study, "We've known that neighborhood matters…but this does it in a new and powerful way. Neighborhoods become a significant drag not just on the poor, but on those who would otherwise be stable." Sociologist Sharkey added, "What surprises me is how dramatic the racial differences are in terms of the environments in which children are raised. There's this perception that after the civil rights period, families have been more able to seek out any neighborhood they choose and that…the racial gap in neighborhoods would whittle away over time, and that hasn't happened."

Data from the 2010 Census confirm that the racial gap in neighborhoods persists. A study by sociologist John R. Logan for the Russell Sage Foundation found that African American and Latino families with incomes above $75,000 are more likely to live in poor neighborhoods than non-Latino white families with incomes below $40,000. More generally, Logan concluded, "The average affluent black or Hispanic household lives in a poorer neighborhood than the average lower-income white household."

One implication of this neighborhood research is clear: to help reduce African American poverty, it is important to do everything possible to improve the quality and economy of the poor neighborhoods in which many African American children, middle-class or poor, grow up.

Sources: Logan, 2011; MacGillis, 2009; Sharkey, 2009

As we assess the importance of structure versus culture in explaining why people of color have higher poverty rates, it is interesting to consider the economic experience of African Americans and Latinos since the 1990s. During that decade, the US economy thrived. Along with this thriving economy, unemployment rates for African Americans and Latinos declined and their poverty rates also declined. Since the early 2000s and especially since 2008, the US economy has faltered. Along with this faltering economy, unemployment and poverty rates for African Americans and Latinos increased.

To explain these trends, does it make sense to assume that African Americans and Latinos somehow had fewer cultural deficiencies during the 1990s and more cultural deficiencies since the early 2000s? Or does it make sense to assume that their economic success or lack of it depended on the opportunities afforded them by the US economy? Economic writer Joshua Holland (2011) provides the logical answer by attacking the idea of cultural deficiencies: "That's obviously nonsense. It was exogenous economic factors and changes in public policies, not manifestations of 'black culture' [or 'Latino culture'], that resulted in those widely varied outcomes...While economic swings this significant can be explained by economic changes and different public policies, it's simply impossible to fit them into a cultural narrative."

Reducing Racial and Ethnic Inequality

Now that we have examined race and ethnicity in the United States, what have we found? Where do we stand in the second decade of the twenty-first century? Did the historic election of Barack Obama as president in 2008 signify a new era of equality between the races, as many observers wrote, or did his election occur despite the continued existence of pervasive racial and ethnic inequality?

On the one hand, there is cause for hope. Legal segregation is

gone. The vicious, "old-fashioned" racism that was so rampant in this country into the 1960s has declined dramatically since that tumultuous time. People of color have made important gains in several spheres of life, and African Americans and other people of color occupy some important elected positions in and outside the South, a feat that would have been unimaginable a generation ago. Perhaps most notably, Barack Obama has African ancestry and identifies as an African American, and on his 2008 election night, people across the country wept with joy at the symbolism of his victory. Certainly, progress has been made in US racial and ethnic relations.

On the other hand, there is also cause for despair. Old-fashioned racism has been replaced by modern, symbolic racism that still blames people of color for their problems and reduces public support for government policies to deal with their problems. Institutional discrimination remains pervasive, and hate crimes, such as the cross-burning that began this chapter, remain all too common. So does suspicion of people based solely on the color of their skin, as the Trayvon Martin tragedy again reminds us.

If adequately funded and implemented, several types of programs and policies show a strong promise of reducing racial and ethnic inequality. We turn to these in a moment, but first let's discuss affirmative action, an issue that has aroused controversy since its inception.

People Making a Difference

College Students and the Southern Civil Rights Movement

The first chapter of this book included this famous quotation by anthropologist Margaret Mead: "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has." The beginnings of the Southern civil rights movement provide an inspirational example of Mead's wisdom and remind us that young people can make a difference.

Although there had been several efforts during the 1950s by African Americans to end legal segregation in the South, the start of the civil rights movement is commonly thought to have begun on February 1, 1960. On that historic day, four brave African American students from the Agricultural and Technical College of North Carolina, dressed in coats and ties, sat down quietly at a segregated lunch counter in a Woolworth's store in the city of Greensboro and asked to be served. When they were refused service, they stayed until the store closed at the end of the day, and then went

home. They returned the next day and were joined by some two dozen other students. They were again refused service and sat quietly for the rest of the day. The next day some sixty students and other people joined them, followed by some three hundred on the fourth day. Within a week, sit-ins were occurring at lunch counters in several other towns and cities inside and outside of North Carolina. In late July 1960, the Greensboro Woolworth's finally served African Americans, and the entire Woolworth's chain desegregated its lunch counters a day later. Although no one realized it at the time, the civil rights movement had "officially" begun thanks to the efforts of a small group of college students.

During the remaining years of the heyday of the civil rights movement, college students from the South and North joined thousands of other people in sit-ins, marches, and other activities to end legal segregation. Thousands were arrested, and at least forty-one were murdered. By risking their freedom and even their lives, they made a difference for millions of African Americans. And it all began when a small group of college students sat down at a lunch counter in Greensboro and politely refused to leave until they were served.

Sources: Branch, 1988; Southern Poverty Law Center, 2011

Affirmative Action

<u>Affirmative action</u> refers to special consideration for minorities and women in employment and education to compensate for the discrimination and lack of opportunities they experience in the larger society. Affirmative action programs were begun in the 1960s to provide African Americans and, later, other people of color and women access to jobs and education to make up for past discrimination. President John F. Kennedy was the first known official to use the term, when he signed an executive order in 1961 ordering federal contractors to "take affirmative action" in ensuring that applicants are hired and treated without regard to their race and national origin. Six years later, President Lyndon B. Johnson added sex to race and national origin as demographic categories for which affirmative action should be used.

Although many affirmative action programs remain in effect today, court rulings, state legislation, and other efforts have limited their number and scope. Despite this curtailment, affirmative action continues to spark much controversy, with scholars, members of the public, and elected officials all holding strong views on the issue.

One of the major court rulings just mentioned was the US Supreme Court's decision in *Regents of the University of California v. Bakke*, 438 US 265 (1978). Allan Bakke was a 35-year-old white man who had twice been rejected for admission into the medical school at the University of California, Davis. At the time he applied, UC–Davis had a policy of reserving sixteen seats in its entering class of one hundred for qualified people of color to make up for their underrepresentation in the medical profession. Bakke's college grades and scores on the Medical College Admission Test were higher than those of the people of color admitted to UC–Davis either time Bakke applied. He sued for admission on the grounds that his rejection amounted to reverse racial discrimination on the basis of his being white (Stefoff, 2005).

The case eventually reached the Supreme Court, which ruled 5–4 that Bakke must be admitted into the UC–Davis medical school because he had been unfairly denied admission on the basis of his race. As part of its historic but complex decision, the Court thus rejected the use of strict racial quotas in admission, as it declared that no applicant could be excluded based solely on the applicant's race. At the same time, however, the Court also declared that race may be used as one of the several criteria that admissions committees consider when making their decisions. For example, if an institution desires racial diversity among its students, it may use race as an admissions criterion along with other factors such as grades and test scores.

Two more recent Supreme Court cases both involved the University of Michigan: *Gratz v. Bollinger*, 539 US 244 (2003), which involved the university's undergraduate admissions, and *Grutter v. Bollinger*, 539 US 306 (2003), which involved the university's law school admissions. In *Grutter* the Court reaffirmed the right of institutions of higher education to take race into account in the admissions process. In *Gratz*, however, the Court invalidated the university's policy of awarding additional points to high school students of color as part of its use of a point system to evaluate applicants; the Court said that consideration of applicants needed to be more individualized than a point system allowed.

Drawing on these Supreme Court rulings, then, affirmative action in higher education admissions on the basis of race/ethnicity is permissible as long as it does not involve a rigid quota system and as long as it does involve an individualized way of evaluating candidates. Race may be used as one of several criteria in such an individualized evaluation process, but it must not be used as the only criterion.

The Debate over Affirmative Action

Opponents of affirmative action cite several reasons for opposing it (Connors, 2009). Affirmative action, they say, is reverse discrimination and, as such, is both illegal and immoral. The people benefiting from affirmative action are less qualified than many of the whites with whom they compete for employment and college admissions. In addition, opponents say, affirmative action implies that the people benefiting from it need extra help and thus are indeed less qualified. This implication stigmatizes the groups benefiting from affirmative action.

In response, proponents of affirmative action give several reasons for favoring it (Connors, 2009). Many say it is needed to make up not just for past discrimination and a lack of opportunities for people of color but also for ongoing discrimination and a lack of opportunity. For example, because of their social networks, whites are much better able than people of color to find out about and to get jobs (Reskin, 1998). If this is true, people of color are automatically at a disadvantage in the job market, and some form of affirmative action is needed to give them an equal chance at employment. Proponents also say that affirmative action helps add diversity to the workplace and to the campus. Many colleges, they note, give some preference to high school students who live in a distant state in order to add needed diversity to the student body; to "legacy" students—those with a parent who went to the same institution—to reinforce alumni loyalty and to motivate alumni to donate to the institution; and to athletes, musicians, and other applicants with certain specialized talents and skills. If all these forms of preferential admission make sense, proponents say, it also makes sense to take students' racial and ethnic backgrounds into account as admissions officers strive to have a diverse student body.

Proponents add that affirmative action has indeed succeeded in expanding employment and educational opportunities for people of color and that individuals benefiting from affirmative action have generally fared well in the workplace or on the campus. In this regard, research finds that African American students graduating from selective US colleges and universities after being admitted under affirmative action guidelines are slightly *more* likely than their white counterparts to obtain professional degrees and to become involved in civic affairs (Bowen & Bok, 1998).

As this brief discussion indicates, several reasons exist for and against affirmative action. A cautious view is that affirmative action may not be perfect but that some form of it is needed to make up for past and ongoing discrimination and lack of opportunity in the workplace and on the campus. Without the extra help that affirmative action programs give disadvantaged people of color, the discrimination and other difficulties they face are certain to continue.

Other Programs and Policies

As indicated near the beginning of this chapter, one message from DNA evidence and studies of evolution is that we are all part of one human race. If we fail to recognize this lesson, we are doomed to repeat the experiences of the past, when racial and ethnic hostility overtook good reason and subjected people who happened to look different from the white majority to legal, social, and violent oppression. In the democracy that is America, we must try to do better so that there will truly be "liberty and justice for all."

As the United States attempts, however haltingly, to reduce racial and ethnic inequality, sociology has much insight to offer in its emphasis on the structural basis for this inequality. This emphasis strongly indicates that racial and ethnic inequality has much less to do with any personal faults of people of color than with the structural obstacles they face, including ongoing discrimination and lack of opportunity. Efforts aimed at such obstacles, then, are in the long run essential to reducing racial and ethnic inequality (Danziger, Reed, & Brown, 2004; Syme, 2008; Walsh, 2011). Some of these efforts resemble those for reducing poverty discussed in Chapter 2 "Poverty", given the greater poverty of many people of color, and include the following:

1. Adopt a national "full employment" policy involving federally funded job training and public works programs.
2. Increase federal aid for the working poor, including earned income credits and child-care subsidies for those with children.
3. Establish and expand well-funded early childhood intervention programs, including home visitation by trained professionals, for poor families, as well as adolescent intervention programs, such as Upward Bound, for low-income teenagers.
4. Improve the schools that poor children attend and the schooling they receive, and expand early childhood education programs for poor children.
5. Provide better nutrition and health services for poor families with young children.
6. Strengthen efforts to reduce teenage pregnancies.
7. Strengthen affirmative action programs within the limits imposed by court rulings.
8. Strengthen legal enforcement of existing laws forbidding racial and ethnic discrimination in hiring and promotion.
9. Strengthen efforts to reduce residential segregation.

Key Takeaways

- Racial and ethnic prejudice and discrimination have been an "American dilemma" in the United States ever since the colonial period. Slavery was only the ugliest manifestation of this dilemma. The urban riots of the 1960s led to warnings about the racial hostility and discrimination confronting African Americans and other groups, and these warnings continue down to the present.
- Social scientists today tend to consider race more of a social category than a biological one for several reasons. Race is thus best considered a social construction and not a fixed biological category.
- Ethnicity refers to a shared cultural heritage and is a term increasingly favored by social scientists over race. Membership in ethnic groups gives many people an important sense of identity and pride but can also lead to hostility toward people in other ethnic groups.
- Prejudice, racism, and stereotypes all refer to negative attitudes about people based on their membership in racial or ethnic categories. Social-psychological explanations of prejudice focus on scapegoating and authoritarian personalities, while sociological explanations focus on conformity and socialization or on economic and political competition. Jim Crow racism has given way to

modern or symbolic racism that considers people of color to be culturally inferior.

- Discrimination and prejudice often go hand in hand, but not always. People can discriminate without being prejudiced, and they can be prejudiced without discriminating. Individual and institutional discrimination both continue to exist in the United States.
- Racial and ethnic inequality in the United States is reflected in income, employment, education, and health statistics. In their daily lives, whites enjoy many privileges denied to their counterparts in other racial and ethnic groups.
- On many issues Americans remain sharply divided along racial and ethnic lines. One of the most divisive issues is affirmative action. Its opponents view it among other things as reverse discrimination, while its proponents cite many reasons for its importance, including the need to correct past and present discrimination against racial and ethnic minorities.

Critical Thinking

After graduating from college, you obtain a job in a

medium-sized city in the Midwest and rent an apartment in a house in a nearby town. A family with an African American father and white mother has recently moved into a house down the street. You think nothing of it, but you begin to hear some of the neighbors expressed concern that the neighborhood "has begun to change." Then one night a brick is thrown through the window of the new family's home, and around the brick is wrapped the message, "Go back to where you came from!" Since you're new to the neighborhood yourself, you don't want to make waves, but you are also shocked by this act of racial hatred. You can speak up somehow or you can stay quiet. What do you decide to do? Why?

What You Can Do

- To help reduce racial and ethnic inequality, you may wish to do any of the following:

    1. Contribute money to a local, state, or national organization that tries to help youths of color at their schools, homes, or other venues.
    2. Volunteer for an organization that focuses on policy issues related to race and ethnicity.

> 3. Volunteer for any programs at your campus that aim at enhancing the educational success of new students of color; if no such programs exist, start one.

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PART V
PRE-PREGNANCY & PRENATAL DEVELOPMENT

Learning Objectives:

- Explore and connect a Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Explore important aspects of a person's experience and ability to justify why they are important

<u>Vignette</u>

Sabrina is a 28 y/o Caucasian female. She has chosen to share some of her journal entries to provide information with the Family Planning worker she is meeting with.

Sept 11th: Why is this so hard?!? 4 miscarriages before we had Carly, I got through that and

Photo by freestocks on Unsplash

have so loved being a mom – why does it have to keep happening? 3 more miscarriages since trying again – will it always be this way? Will I ever get to have anymore children? What's wrong with me????

Oct 31st: PREGNANT!!!! I know it's early but I still get SO excited!!! I haven't told Mark yet since it's only 5 weeks – I don't want him to get his hopes up and get disappointed AGAIN. Keeping my fingers crossed!!!

Nov 21st: 8 weeks and everything is going great! I finally told Mark and he was SO excited too – we both want a big family and we get to add another baby!!! Even though I've been feeling good we've decided to keep the news to ourselves for a while longer, just to make sure...

Dec 12th: 11 weeks and OF COURSE something had to go wrong. We had the First Trimester Combined test done and the news isn't great. Why do bad things have to keep happening when I try and have a baby?!? Why is it so hard??? They said the baby is at risk of having Trisomy 13 – severe development delays, that's all I keep hearing in my head over and over – I'm so scared of what's going to happen... They said not to worry, we still have more testing to do, but how can I not worry?!? I'm not even sure what it all means! I'm trying to tell myself to stay calm and hope for the best but with all that's happened before, how can I not worry???

Dec 22nd: It's Christmas time but how can I be happy? We just got the results back yesterday. 50% chance the baby will have Trisomy 18. WHY??? Why can't it be easy and normal??? I'm heartbroken and SO SO angry!!! And I have no idea what Mark's thinking. I know he's said before he doesn't believe in abortion and neither do I, but how can we take care of a baby that will have so many severe needs? I know how awful that sounds and maybe I'm an awful person. I've prayed for another baby for so long and God's finally answered my prayers, but how am I supposed to handle all of this? Taking care of Carly, the house, the dogs, EVERYTHING!!! What if I have to quit my job to stay home and take care of this baby? How will we make it? We can't afford for me to stop working – we barely make it as it is now!!! And what would our friends and family think? They would never allow it, or never talk to us again – but they're not the ones who will have to take

care of this baby!!! I feel so alone in this right now and just don't know what to do...

Critical Thinking:

- What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
- What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 9: Heredity, Prenatal Development, & Birth

Heredity

As you recall from chapter one, nature refers to the contribution of genetics to one's development. The basic building block of the nature perspective is the gene. **Genes** are a specific sequence of nucleotides and are recipes for making proteins. Proteins are responsible for influencing the structure and functions of cells. Genes are located on the chromosomes and there are an estimated 20,500 genes for humans, according to the Human Genome Project (NIH, 2015).

Figure 2.1

Cell
Nucleus   Chromosome
DNA

Source
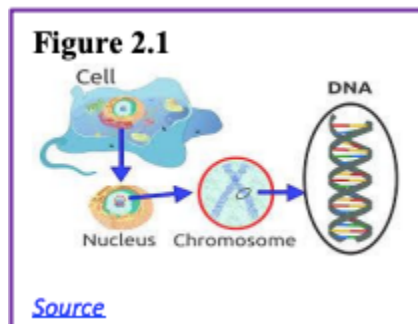
Normal human cells contain 46 chromosomes (or 23 pairs; one from each parent) in the nucleus of the cells. After conception, most cells of the body are created by a process called mitosis. **Mitosis** is defined as the cell's nucleus making an exact copy of all the chromosomes and splitting into two new cells. However, the cells used in sexual reproduction, called the gametes (sperm or ova), are formed in a process called meiosis. In meiosis, the gamete's chromosomes duplicate and then divide twice resulting in four cells containing only half the genetic material of the original gamete. Thus, each sperm and egg possesses only 23 chromosomes and combine to produce the normal 46. Given the amount of genes present and the unpredictability of the meiosis process, the likelihood of having offspring that are genetically identical (and not twins) is one in trillions (Gould & Keeton, 1997).

Of the 23 pairs of chromosomes created at conception, 22 pairs are similar in length. These are called autosomes. The remaining pair, or sex chromosomes, may differ in length. If a child receives the combination of XY the child will be genetically male. If the child receives the combination XX the child will be genetically female.

Figure 2.2 Mitosis vs. Meiosis

Mitosis – all cells, except those used in sexual reproduction, are created by mitosis

Chromosomes make a duplicate copy   Two identical cells are created

Meiosis – cells used in sexual reproduction are created by meiosis

Step 1: exchange of genes between   Step 2: chromosomes
the chromosomes (crossing over)   make a duplicate

Step 3: first cell division   Step 4: second cell division

For simplification only 2 chromosomes are being used!

Genotypes and Phenotypes

The word **genotype** refers to the sum total of all the genes a person inherits. The word **phenotype** refers to the features that are actually expressed. Look in the mirror. What do you see, your genotype or your phenotype? What determines whether or not genes are expressed? Because genes are inherited in pairs on the chromosomes, we may receive
either the same version of a gene from our mother and father, that

is, be **homozygous** for that characteristic the gene influences. If we receive a different version of the gene from each parent, that is referred to as **heterozygous**. In the homozygous situation, we will display that characteristic. It is in the heterozygous condition that it becomes clear that not all genes are created equal. Some genes are **dominant,** meaning they express themselves in the phenotype even when paired with a different version of the gene, while their silent partner is called recessive. **Recessive** genes express themselves only when paired with a similar version gene. Geneticists refer to different versions of a gene as **alleles.** Some dominant traits include having facial dimples, curly hair, normal vision, and dark hair. Some recessive traits include red hair, being nearsighted, and straight hair.

Most characteristics are not the result of a single gene; they are **polygenic**, meaning they are the result of several genes. In addition, the dominant and recessive patterns described above are usually not that simple either. Sometimes the dominant gene does not completely suppress the recessive gene; this is called **incomplete dominance**. An example of this can be found in the recessive gene disorder sickle cell disease. The gene that produces healthy round-shaped red blood cells is dominant. The recessive gene causes an abnormality in the shape of red blood cells; they take on a sickle form, which can clog the veins and deprive vital organs of oxygen and increase the risk of stroke. To inherit the disorder a person must receive the recessive gene from both parents. Those who have inherited only one recessive-gene are called carriers and should be unaffected by this recessive trait. Yet, carriers of the sickle cell have some red blood cells that take on the c-shaped sickle pattern. Under circumstances of oxygen deprivation, such as high altitudes or physical exertion, carriers for the sickle cell gene may experience some of the symptoms of sickle cell (Berk, 2004).

Many students are interested in twins. Monozygotic or identical twins occur when a fertilized egg splits apart in the first two weeks of development. The result is the creation of two separate, but genetically identical offspring. That is, they possess the same

genotype and often the same phenotype. About one-third of twins are monozygotic twins. Sometimes, however, two eggs or ova are released and fertilized by two separate sperm. The result is dizygotic or fraternal twins. These two individuals share the same amount of genetic material as would any two children from the same mother and father. In other words, they possess a different genotype and phenotype. Older mothers are more likely to have dizygotic twins than are younger mothers, and couples who use fertility drugs are also more likely to give birth to dizygotic twins. Consequently, there has been an increase in the number of fraternal twins recently (Bortolus et al., 1999).

Genetic Disorders

Most of the known genetic disorders are dominant gene-linked; however, the vast majority of dominant gene linked disorders are not serious or debilitating. For example, the majority of those with Tourette's Syndrome suffer only minor tics from time to time and can easily control their symptoms. Huntington's Disease is a dominant gene linked disorder that affects the nervous system and is fatal, but does not appear until midlife. Recessive gene disorders, such as cystic fibrosis and sickle-cell anemia, are less common, but may actually claim more lives because they are less likely to be detected as people are unaware that they are carriers of the disease. Some genetic disorders are **sex-linked**; the defective gene is found on the X-chromosome. Males have only one X chromosome so are at greater risk for sex-linked disorders due to a recessive gene, such as hemophilia, color-blindness, and baldness. For females to be affected by the genetic defects, they need to inherit the recessive gene on both X-chromosomes, but if the defective gene is dominant, females can be equally at risk.

Recessive Disorders (Homozygous): The individual inherits a gene change from both parents. If the gene is inherited from just one parent, the person is a carrier and does not have the condition.	Cases per Birth
• **Sickle Cell Disease** (SCD) is a condition in which the red blood cells in the body are shaped like a sickle (like the letter C) and affect the ability of the blood to transport oxygen. Carriers may experience some effects, but do not have the full condition.	1 in 500 Black births 1 in 36,000 Hispanic births
• **Cystic Fibrosis** (CF) is a condition that affects breathing and digestion due to thick mucus building up in the body, especially the lungs and digestive system. In CF, the mucus is thicker than normal and sticky.	1 in 3500
• **Phenylketonuria** (PKU) is a metabolic disorder in which the individual cannot metabolize phenylalanine, an amino acid. Left untreated intellectual deficits occur. PKU is easily detected and is treated with a special diet.	1 in 10,000
• **Tay Sachs Disease** is caused by enzyme deficiency resulting in the accumulation of lipids in the nerve cells of the brain. This accumulation results in progressive damage to the cells and a decrease in cognitive and physical development. Death typically occurs by age five.	1 in 4000 1 in 30 American Jews is a carrier 1 in 20 French Canadians is a carrier
• **Albinism** is when the individual lacks melanin and possesses little to no pigment in the skin, hair, and eyes. Vision problems can also occur.	Fewer than 20,000 US cases per year
Autosomal Dominant Disorders (Heterozygous): In order to have the disorder, the individual only needs to inherit the gene change from one parent.	Cases per Birth
• **Huntington's Disease** is a condition that affects the individual's nervous system. Nerve cells become damaged, causing various parts of the brain to deteriorate. The disease affects movement, behavior and cognition. It is fatal, and occurs at midlife.	1 in 10,000
• **Tourette Syndrome** is a tic disorder which results in uncontrollable motor and vocal tics as well as body jerking.	1 in 250
• **Achondroplasia** is the most common form of disproportionate short stature. The individual has abnormal bone growth resulting in short stature, disproportionately short arms and legs, short fingers, a large head, and specific facial features.	1 in 15,000-40,000
Sex-Linked Disorders: When the X chromosome carries the mutated gene, the disorder is referred to as an X-linked disorder. Males are more affected than females because they possess only one X chromosome without an additional X chromosome to counter the harmful gene.	Cases per Birth
• **Fragile X Syndrome** occurs when the body cannot make enough of a protein it needs for the brain to grow and problems with learning and behavior can occur. Fragile X syndrome is caused from an abnormality in the X chromosome, which then breaks. If a female has fragile X, her second X chromosome usually is healthy, but males with fragile X don't have a second healthy X chromosome. This is why symptoms of fragile X syndrome usually are more serious in males.	1 in 4000 males 1 in 8000 females
• **Hemophilia** occurs when there are problems in blood clotting causing both internal and external bleeding.	1 in 10,000 males
• **Duchenne Muscular Dystrophy** is a weakening of the muscles resulting in an inability to move, wasting away, and possible death.	1 in 3500 males

Chromosomal Abnormalities

A **chromosomal abnormality** occurs when a child inherits too many or too few chromosomes. The most common cause of chromosomal abnormalities is the age of the mother. As the mother ages, the ovum is more likely to suffer abnormalities due to longer-term exposure to environmental factors. Consequently, some gametes

do not divide evenly when they are forming. Therefore, some cells have more than 46 chromosomes. In fact, it is believed that close to half of all zygotes have an odd number of chromosomes. Most of these zygotes fail to develop and are spontaneously aborted by the mother's body.

One of the most common chromosomal abnormalities is on pair 21. **Trisomy 21 or Down syndrome** occurs when there are three rather than two 21st chromosomes. A person with Down syndrome typically exhibits an intellectual disability and possesses certain physical features, such as short fingers and toes, folds of skin over the eyes, and a protruding tongue. There is as much variation in people with Down syndrome as in most populations, and those differences need to be recognized and appreciated. Other less common chromosomal abnormalities of live-born infants occur on chromosome 13 and chromosome 18.

Table 2.2: Illinois Prevalence Rates (2002-2014) for Down Syndrome (Trisomy 21) based on Maternal Age

Source
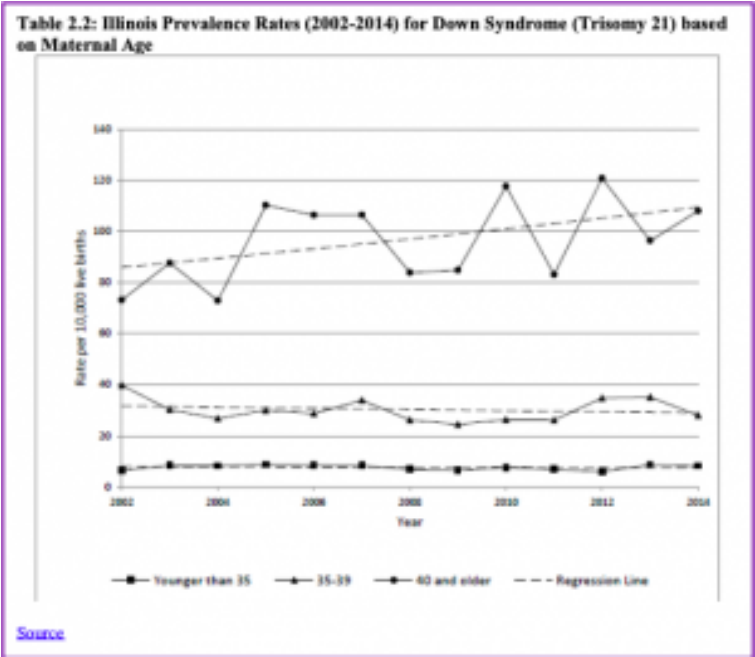
When the abnormality is on the 23rd pair the result is a **sex-linked chromosomal abnormality**. A person might have XXY, XYY, XXX, XO. Two of the more common sex-linked chromosomal disorders are Turner syndrome and Klinefelter syndrome. **Turner syndrome** occurs when part or all of one of the X chromosomes is lost and the resulting zygote has an XO composition. This occurs in 1 of every 2,500 live female births (Carroll, 2007) and affects the individual's cognitive functioning and sexual maturation. The external genitalia appears normal, but breasts and ovaries do not develop fully and the woman does not menstruate. Turner's syndrome also results in short stature and other physical characteristics. **Klinefelter syndrome** (XXY) results when an extra X chromosome is present in the cells of a male and occurs in 1 out of 650 live male births. The Y chromosome stimulates the growth of male genitalia, but the additional X chromosome inhibits this development. An individual with Klinefelter syndrome typically has small testes, some breast development, infertility, and low levels of testosterone (National Institutes of Health, 2019).

Autosomal Chromosome Disorders: The individual inherits too many or two few chromosomes.		Cases per Birth
•	**Down Syndrome/Trisomy 21** is caused by an extra chromosome 21 and includes a combination of birth defects. Affected individuals have some degree of intellectual disability, characteristic facial features, often heart defects, and other health problems. The severity varies greatly among affected individuals.	1 in 691 1 in 300 births at age 35
•	**Trisomy 13** is caused by an extra chromosome 13. Affected individuals have multiple birth defects and generally die in the first weeks or months of life.	1 in 7,906
•	**Trisomy 18** is caused by an extra chromosome 18 and the affected individual also has multiple birth defects and early death.	1 in 3,762
Sex-Linked Chromosomal Disorders: The disorder occurs on chromosome pair #23 or the sex chromosomes.		Cases per Birth
•	**Turner Syndrome** is caused when all or part of one of the X chromosomes is lost before or soon after conception due to a random event. The resulting zygote has an XO composition. Turner Syndrome affects cognitive functioning and sexual maturation in girls. Infertility and a short stature may be noted.	1 in 2500 females
•	**Klinefelter Syndrome** is caused when an extra X chromosome is present in the cells of a male due to a random event. The Y chromosome stimulates the growth of male genitalia, but the additional X chromosome inhibits this development. The male can have some breast development, infertility, and low levels of testosterone.	1 in 650 males

Genetic Counseling: A service that assists individuals identify, test for, and explain potential genetic conditions that could adversely affect themselves or their offspring is referred to as genetic counseling (CDC, 2015b). The common reasons for genetic counseling include:

- Family history of a genetic condition
- Membership in a certain ethnic group with a higher risk of a genetic condition
- Information regarding the results of genetic testing, including blood tests, amniocentesis, or ultra sounds
- Learning about the chances of having a baby with a genetic condition if the parents are older, have had several miscarriages, have offspring with birth defects, experience infertility, or have a medical condition

Behavioral Genetics

Behavioral Genetics is the scientific study of the interplay between the genetic and environmental contributions to behavior. Often referred to as nature/nurture debate, Gottlieb (1998, 2000, 2002) suggests an analytic framework for this debate that recognizes the interplay between the environment, behavior, and genetic expression. This bidirectional interplay suggests that the environment can affect the expression of genes just as genetic predispositions can impact a person's potentials. Additionally, environmental circumstances can trigger symptoms of a genetic disorder. For example, a person who has sickle cell anemia, a recessive gene linked disorder, can experience a sickle cell crisis under conditions of oxygen deprivation. Someone predisposed genetically for type-two diabetes can trigger the disease through poor diet and little exercise.

Research has shown how the environment and genotype interact in several ways. **Genotype- Environment Correlations** refer to the processes by which genetic factors contribute to variations in the environment (Plomin, DeFries, Knopik, & Niederhiser, 2013). There are three types of genotype-environment correlations:

Figure 2.3

Passive genotype-environment correlation occurs when children passively inherit the genes and the environments their family provides. Certain behavioral characteristics, such as being athletically inclined, may run in families. The children have inherited both the genes that would enable success at these activities, and given the environmental encouragement to engage in these actions.

Evocative genotype-environment correlation refers to how the social environment reacts to individuals based on their inherited characteristics. For example, whether one has a more outgoing or shy temperament will affect how he or she is treated by others.

Active genotype-environment correlation occurs when individuals seek out environments that support their genetic tendencies. This is also referred to as niche picking. For example, children who are musically inclined seek out music instruction and opportunities that facilitate their natural musical ability.

Conversely, **Genotype-Environment Interactions** involve genetic susceptibility to the environment. Adoption studies provide evidence for genotype-environment interactions. For example, the Early Growth and Development Study (Leve, Neiderhiser,

Scaramella, & Reiss, 2010) followed 360 adopted children and their adopted and biological parents in a longitudinal study. Results have shown that children whose biological parents exhibited psychopathology, exhibited significantly fewer behavior problems when their adoptive parents used more structured parenting than unstructured. Additionally, elevated psychopathology in adoptive parents increased the risk for the children's development of behavior problems, but only when the biological parents' psychopathology was high. Consequently, the results show how environmental effects on behavior differ based on the genotype, especially stressful environments on genetically at-risk children.

Lastly, **Epigenetics** studies modifications in DNA that affect gene expression and are passed on when the cells divide. Environmental factors, such as nutrition, stress, and teratogens are thought to change gene expression by switching genes on and off. These gene changes can then be inherited by daughter cells. This would explain why monozygotic or identical twins may increasingly differ in gene expression with age. For example, Fraga et al. (2005) found that when examining differences in DNA, a group of monozygotic twins were indistinguishable during the early years. However, when the twins were older there were significant discrepancies in their gene expression, most likely due to different experiences. These differences included susceptibilities to disease and a range of personal characteristics.

The Human Genome Project: In 1990 the Human Genome Project (HGP), an international scientific endeavor, began the task of sequencing the 3 billion base pairs that make up the human genome. In April of 2003, more than two years ahead of schedule, scientists gave us the genetic blueprint for building a human. Since then, using the information from the HGP, researchers have discovered the genes involved in over 1800 diseases. In 2005 the HGP amassed a large database called HapMap that catalogs the genetic variations in 11 global populations. Data on genetic variation can improve our understanding of differential risk for disease and reactions to medical treatments, such as drugs. Pharmacogenomic researchers

have already developed tests to determine whether a patient will respond favorably to certain drugs used in the treatment of breast cancer, lung cancer or HIV by using information from HapMap (NIH, 2015).

Future directions for the HGP include identifying the genetic markers for all 50 major forms of cancer (The Cancer Genome Atlas), continued use of the HapMap for creating more effective drugs for the treatment of disease, and examining the legal, social and ethical implications of genetic knowledge (NIH, 2015).

From the outset, the HGP made ethical issues one of their main concerns. Part of the HGP's budget supports research and holds workshops that address these concerns. Who owns this information, and how the availability of genetic information may influence healthcare and its impact on individuals, their families, and the greater community are just some of the many questions being addressed (NIH, 2015).

Prenatal Development

Now we turn our attention to prenatal development which is divided into three periods: The germinal period, the embryonic period, and the fetal period. The following is an overview of some of the changes that take place during each period.

The Germinal Period

Figure 2.4

Sperm and Ovum at Conception
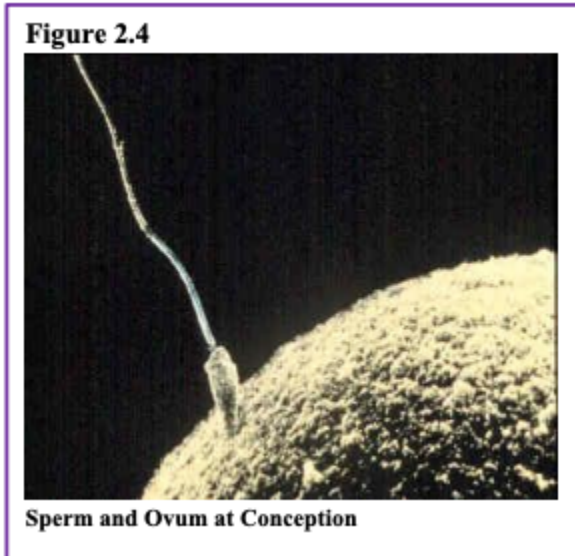
The germinal period (about 14 days in length) lasts from conception to implantation of the fertilized egg in the lining of the uterus. At ejaculation, millions of sperm are released into the vagina, but only a few reach the egg and typically only one fertilizes the egg. Once a single sperm has entered the wall of the egg, the wall becomes hard and prevents other sperm from entering. After the sperm has entered the egg, the tail of the sperm breaks off and the head of the sperm, containing the genetic information from the father, unites with the nucleus of the egg. It is typically fertilized in the top section of the fallopian tube and continues its journey to the uterus. As a result, a new cell is formed. This cell, containing the combined genetic information from both parents, is referred to as a **zygote**.

During this time, the organism begins cell division through mitosis. After five days of mitosis, there are 100 cells, which is now

called a **blastocyst**. The blastocyst consists of both an inner and an outer group of cells. The inner group of cells or **embryonic disk** will become the embryo, while the outer group of cells, or **trophoblast**, becomes the support system that nourishes the developing organism. This stage ends when the blastocyst fully implants into the uterine wall (U.S. National Library of Medicine, 2015a). Approximately 50-75% of blastocysts do not implant in the uterine wall (Betts et al., 2019).

Mitosis is a fragile process and fewer than one-half of all zygotes survive beyond the first two weeks (Hall, 2004). Some of the reasons for this include the egg and sperm do not join properly, thus their genetic material does not combine, there is too little or damaged genetic material, the zygote does not replicate, or the blastocyst does not implant into the uterine wall. The failure rate is higher for in vitro conceptions.

Figure 2.5 Germinal Period

"Human Fertilization" by Ttrue12 Source
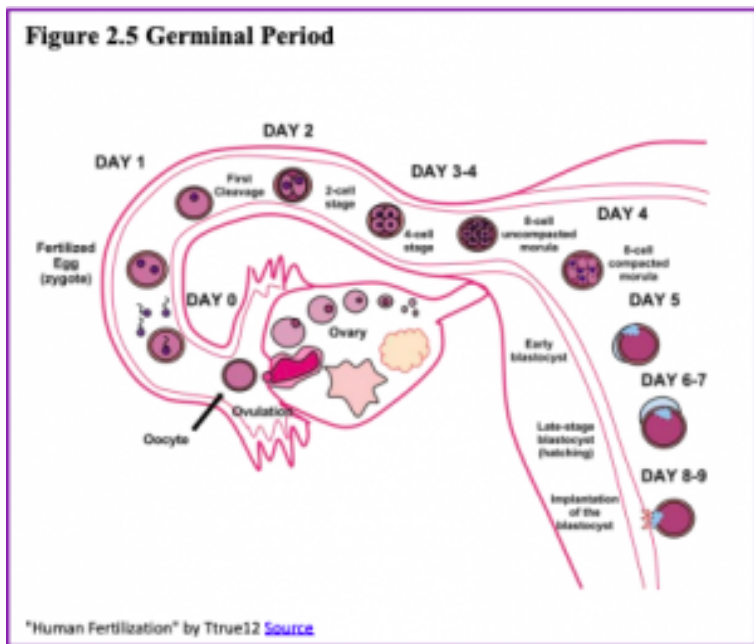
The Embryonic Period

Starting the third week the blastocyst has implanted in the uterine wall. Upon implantation, this multi-cellular organism is called an **embryo**. Now blood vessels grow forming the **placenta**. The placenta is a structure connected to the uterus that provides nourishment and oxygen from the mother to the developing embryo via the umbilical cord. During this period, cells continue to differentiate. Growth during prenatal development occurs in two major directions: from head to tail called **cephalocaudal development** and from the midline outward referred to as **proximodistal development**. This means that those structures nearest the head develop before those nearest the feet and those structures nearest the torso develop before those away from the center of the body (such as hands and fingers). The head develops in the fourth week and the precursor to the heart begins to pulse. In the early stages of the embryonic period, gills and a tail are apparent. However, by the end of this stage, they disappear and the organism takes on a more human appearance. Some organisms fail during the embryonic period, usually due to gross chromosomal abnormalities. As in the case of the germinal period, often the mother does not yet know that she is pregnant. It is during this stage that the major structures of the body are taking form making the embryonic period the time when the organism is most vulnerable to the greatest amount of damage if exposed to harmful substances. Potential mothers are not often aware of the risks they introduce to the developing embryo during this time. The embryo is approximately 1 inch in length and weighs about 8 grams at the end of eight weeks (Betts et al., 2019). The embryo can move and respond to touch at this time.

Figure 2.6 The Embryo

Photo by Lunar Caustic

The Fetal Period

From the ninth week until birth, the organism is referred to as a **fetus.** During this stage, the major structures are continuing to develop. By the third month, the fetus has all its body parts including external genitalia. In the following weeks, the fetus will develop hair, nails, teeth and the excretory and digestive systems will continue to develop. The fetus is about 3 inches long and weighs about 28 grams.

During the 4th – 6th months, the eyes become more sensitive to light and hearing develops. The respiratory system continues to develop, and reflexes such as sucking, swallowing and hiccupping, develop during the 5th month. Cycles of sleep and wakefulness are present at this time as well. The first chance of survival outside the womb, known as the **age of viability** is reached at about 24 weeks (Morgan, Goldenberg, & Schulkin, 2008). Many practitioners hesitate to resuscitate before 24 weeks. The majority of the neurons in the brain have developed by 24 weeks, although they are still

rudimentary, and the glial or nurse cells that support neurons continue to grow. At 24 weeks the fetus can feel pain (Royal College of Obstetricians and Gynecologists, 1997).

Figure 2.7 Fetus

Source

Between the 7th – 9th months, the fetus is primarily preparing for birth. It is exercising its muscles and its lungs begin to expand and contract. The fetus gains about 5 pounds and 7 inches during this last trimester of pregnancy, and during the 8th month, a layer of fat develops under the skin. This layer of fat serves as insulation and helps the baby regulate body temperature after birth.

At around 36 weeks the fetus is almost ready for birth. It weighs about 6 pounds and is about 18.5 inches long. By week 37 all of the fetus's organ systems are developed enough that it could survive outside the mother's uterus without many of the risks associated

with premature birth. The fetus continues to gain weight and grow in length until approximately 40 weeks. By then the fetus has very little room to move around and birth becomes imminent.

Figure 2.8 Prenatal Development Age Milestones

9 weeks
Fetal stage begins

12 weeks
Sex organs differentiate

16 weeks
Fingers and toes develop

20 weeks
Hearing begins

24 weeks
Lungs begin to develop

28 weeks
Brain grows rapidly

32 weeks
Bones fully develop

36 weeks
Muscles fully develop

40 weeks
Full-term development

Source

Prenatal Brain Development

Prenatal brain development begins in the third gestational week with the differentiation of stem cells, which are capable of producing all the different cells that make up the brain (Stiles &

Jernigan, 2010). The location of these stem cells in the embryo is referred to as the **neural plate**. By the end of the third week, two ridges appear along the neural plate first forming the neural groove and then the neural tube. The open region in the center of the neural tube forms the brain's ventricles and spinal canal. By the end of the embryonic period, or week eight, the neural tube has further differentiated into the forebrain, midbrain, and hindbrain.

Brain development during the fetal period involves neuron production, migration, and differentiation. From the early fetal period until midgestation, most of the 85 billion neurons have been generated and many have already migrated to their brain positions. **Neurogenesis**, or the formation of neurons, is largely completed after five months of gestation. One exception is in the hippocampus, which continues to develop neurons throughout life. Neurons that form the neocortex, or the layer of cells that lie on the surface of the brain, migrate to their location in an orderly way. Neural migration is mostly completed in the cerebral cortex by 24 weeks (Poduri & Volpe, 2018). Once in position, neurons begin to produce dendrites and axons that begin to form the neural networks responsible for information processing. Regions of the brain that contain the cell bodies are referred to as the **gray matter** because they look gray in appearance. The axons that form the neural pathways make up the **white matter** because they are covered in myelin, a fatty substance that is white in appearance. Myelin aids in both the insulation and efficiency of neural transmission. Although cell differentiation is complete at birth, the growth of dendrites, axons, and synapses continue for years.

Teratogens

Good prenatal care is essential. The developing child is most at risk for some of the severe problems during the first three months of development. Unfortunately, this is a time at which many mothers

are unaware that they are pregnant. Today, we know many of the factors that can jeopardize the health of the developing child. The study of factors that contribute to birth defects is called teratology. **Teratogens** are environmental factors that can contribute to birth defects, and include some maternal diseases, pollutants, drugs and alcohol.

Factors influencing prenatal risks: There are several considerations in determining the type and amount of damage that might result from exposure to a particular teratogen (Berger, 2005). These include:

- **The timing of the exposure:** Structures in the body are vulnerable to the most severe damage when they are forming. If a substance is introduced during a particular structure's critical period (time of development), the damage to that structure may be greater. For example, the ears and arms reach their critical periods at about 6 weeks after conception. If a mother exposes the embryo to certain substances during this period, the arms and ears may be malformed.
- **The amount of exposure:** Some substances are not harmful unless the amounts reach a certain level. The critical level depends in part on the size and metabolism of the mother.
- **The number of teratogens:** Fetuses exposed to multiple teratogens typically have more problems than those exposed to only one.
- **Genetics:** Genetic make-up also plays a role in the impact a particular teratogen might have on the child. This is suggested by fraternal twins exposed to the same prenatal environment, but they do not experience the same teratogenic effects. The genetic make- up of the mother can also have an effect; some mothers may be more resistant to teratogenic effects than others.
- **Being male or female:** Males are more likely to experience damage due to teratogens than are females. It is believed that the Y chromosome, which contains fewer genes than the X,

may have an impact.

Figure 2.9 Critical Periods of Prenatal Development
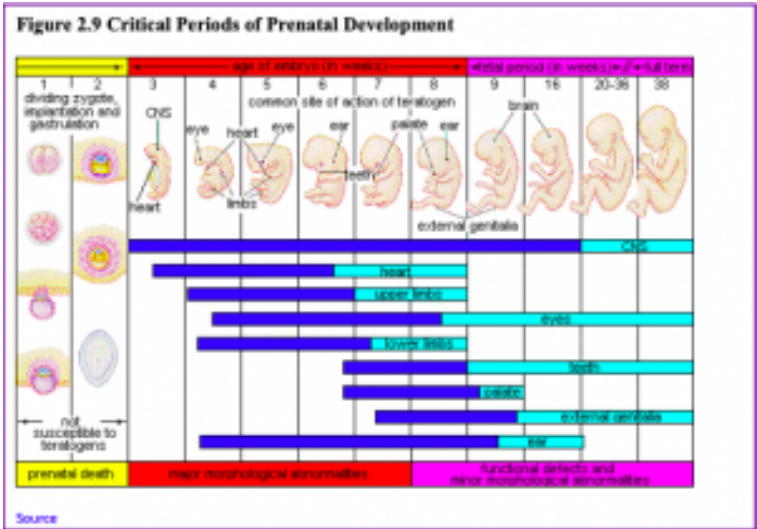
Alcohol: One of the most commonly used teratogens is alcohol, and because half of all pregnancies in the United States are unplanned, it is recommended that women of child-bearing age take great caution against drinking alcohol when not using birth control or when pregnant (CDC, 2005). Alcohol use during pregnancy is the leading preventable cause of intellectual disabilities in children in the United States (Maier & West, 2001). Alcohol consumption, particularly during the second month of prenatal development but at any point during pregnancy, may lead to neurocognitive and behavioral difficulties that can last a lifetime.

In extreme cases, alcohol consumption during pregnancy can lead to fetal death, but also can result in **Fetal Alcohol Spectrum Disorders (FASD)**, which is an umbrella term for the range of effects that can occur due to alcohol consumption during pregnancy (March of Dimes, 2016a). The most severe form of FASD is Fetal Alcohol Syndrome (FAS). Children with FAS share certain physical

features such as flattened noses, small eye holes, and small heads. Cognitively, these children have poor judgment, poor impulse control, higher rates of ADHD, learning issues, and lower IQ scores. These developmental problems and delays persist into adulthood (Streissguth, Barr, Kogan, & Bookstein, 1996) and can include criminal behavior, psychiatric problems, and unemployment (CDC, 2016a). Based on animal studies, it has been hypothesized that a mother's alcohol consumption during pregnancy may predispose her child to like alcohol (Youngentob, Molina, Spear, & Youngentob, 2007). **Binge drinking**, or 4 or more drinks in 2 to 3 hours, during pregnancy increases the chance of having a baby with FASD (March of Dimes, 2016a).

Figure 2.10 Fetal Alcohol Spectrum Disorders

FAS Facial Characteristics

Fetal Alcohol Spectrum Disorder Facial Features	
Facial Feature	**Potential Effect of Fetal Alcohol**
Head size	Below-average head circumference
Eyes skin	Smaller than average eye opening.
Nose	Low nasal bridge, short nose
Midface	Smaller than average midface size
Lip and philtrum	Thin upper lip, indistinct philtrum

Source

Tobacco: Another widely used teratogen is tobacco as more than 7% of pregnant women smoked in 2016 (Someji & Beltrán-Sánchez, 2019). According to Tong et al. (2013) in conjunction with the Centers for Disease Control and Prevention, data from 27 sites in 2010 representing 52% of live births, showed that among women with recent live births:

- About 23% reported smoking in the 3 months prior to pregnancy.
- Almost 11% reported smoking during pregnancy.

- More than half (54.3%) reported that they quit smoking by the last 3 months of pregnancy.
- Almost 16% reported smoking after delivery.

When comparing the ages of women who smoked:

- Women <20, 13.6% smoked during pregnancy
- Women 20–24,17.6% smoked during pregnancy
- Women 25–34, 8.8% smoked during pregnancy
- Women ≥35, 5.7% smoked during pregnancy

The findings among racial and ethnic groups indicated that smoking during pregnancy was highest among American Indians/Alaska Natives (26.0%) and lowest among Asians/Pacific Islanders (2.1%).

When a pregnant woman smokes the fetus is exposed to dangerous chemicals including nicotine, carbon monoxide, and tar, which lessen the amount of oxygen available to the fetus. Oxygen is important for overall growth and development. Tobacco use during pregnancy has been associated with low birth weight, **ectopic pregnancy** (fertilized egg implants itself outside of the uterus), **placenta previa** (placenta lies low in the uterus and covers all or part of the cervix), **placenta abruption** (placenta separates prematurely from the uterine wall), preterm delivery, stillbirth, fetal growth restriction, sudden infant death syndrome (SIDS), birth defects, learning disabilities, and early puberty in girls (Center for Disease Control, 2015d).

A woman being exposed to secondhand smoke during pregnancy has also been linked to low- birth weight infants. In addition, exposure to **thirdhand smoke**, or toxins from tobacco smoke that linger on clothing, furniture, and in locations where smoking has occurred, results in a negative impact on infants' lung development. Rehan, Sakurai, and Torday (2011) found that prenatal exposure to thirdhand smoke played a greater role in altered lung functioning in children than exposure postnatally.

Prescription/Over-the-counter Drugs: About 70% of pregnant

women take at least one prescription drug (March of Dimes, 2016e). A woman should not be taking any prescription drug during pregnancy unless it was prescribed by a health care provider who knows she is pregnant. Some prescription drugs can cause birth defects, problems in overall health, and development of the fetus. Over-the-counter drugs are also a concern during the prenatal period because they may cause certain health problems. For example, the pain reliever ibuprofen can cause serious blood flow problems to the fetus during the last three months.

Figure 2.11

Source

Illicit Drugs: Common illicit drugs include cocaine, ecstasy and other club drugs, heroin, marijuana, and prescription drugs that are abused. It is difficult to completely determine the effects of a particular illicit drug on a developing child because most mothers who use, use more than one substance and have other unhealthy behaviors. These include smoking, drinking alcohol, not eating healthy meals, and being more likely to get a sexually transmitted disease. However, several problems seem clear. The use of cocaine

is connected with low birth weight, stillbirths and spontaneous abortion. Heavy marijuana use is associated with problems in brain development (March of Dimes, 2016c). If a baby's mother used an addictive drug during pregnancy that baby can get addicted to the drug before birth and go through drug withdrawal after birth, also known as **neonatal abstinence syndrome** (March of Dimes, 2015d). Other complications of illicit drug use include premature birth, smaller than normal head size, birth defects, heart defects, and infections. Additionally, babies born to mothers who use drugs may have problems later in life, including learning and behavior difficulties, slower than normal growth, and die from sudden infant death syndrome. Children of substance abusing parents are also considered at high risk for a range of biological, developmental, academic, and behavioral problems, including developing substance abuse problems of their own (Conners, et al., 2003).

Box 2.3 Should Women Who Use Drugs During Pregnancy Be Arrested and Jailed?

Women who use drugs or alcohol during pregnancy can cause serious lifelong harm to their child. Some people have advocated mandatory screenings for women who are pregnant and have a history of drug abuse, and if the women continue using, to arrest, prosecute, and incarcerate them (Figdor & Kaeser, 1998). This policy was tried in Charleston, South Carolina 20 years ago. The policy was called the Interagency Policy on Management of Substance Abuse During Pregnancy and had disastrous results:

> The Interagency Policy applied to patients attending the obstetrics clinic at MUSC, which primarily serves patients who are indigent or on Medicaid. It did not apply to private obstetrical patients. The policy required patient education about the harmful effects of substance abuse during pregnancy. A statement also warned patients that protection of unborn and newborn children from the harms of illegal drug abuse could involve the Charleston police, the Solicitor of the Ninth Judicial Court, and the Protective Services Division of the Department of Social Services (DSS). (Jos, Marshall, & Perlmutter, 1995, pp. 120–121)

This policy seemed to deter women from seeking prenatal care, deterred them from seeking other social services, and was applied solely to low-income women, resulting in lawsuits. The program was canceled after 5 years, during which 42 women were arrested. A federal agency later determined that the program involved human experimentation without the approval and oversight of an institutional review board (IRB).

In July 2014, Tennessee enacted a law that allows women who illegally use a narcotic drug while pregnant to be prosecuted for assault if her infant is harmed or addicted to the drug (National Public Radio, 2015). According to the National Public Radio report, a baby is born dependent on a drug every 30 minutes in Tennessee, which is a rate three times higher than the national average. However, since the law took effect the number of babies born having drug withdrawal symptoms has not diminished. Critics contend that the criminal justice system should not be involved in what is considered a healthcare problem. What do you think? Is the issue of mothers using illicit drugs more of a legal or medical concern?

Pollutants: There are more than 83,000 chemicals used in the United States with little information on the effects of them during pregnancy (March of Dimes, 2016b).

- **Lead:** An environmental pollutant of significant concern is lead poisoning, which has been linked to fertility problems, high blood pressure, low birth weight, prematurity, miscarriage, and slowed neurological development. Grossman and Slutsky (2017) found that babies born in Flint Michigan, an area identified with high lead levels in the drinking water, were premature,

weighed less than average, and gained less weight than expected.

- **Pesticides:** The chemicals in certain pesticides are also potentially damaging and may lead to birth defects, learning problems, low birth weight, miscarriage, and premature birth (March of Dimes, 2014).
- **Bisphenol A:** Prenatal exposure to bisphenol A (BPA), a chemical commonly used in plastics and food and beverage containers, may disrupt the action of certain genes contributing to certain birth defects (March of Dimes, 2016b).
- **Radiation:** If a mother is exposed to radiation, it can get into the bloodstream and pass through the umbilical cord to the baby. Radiation can also build up in body areas close to the uterus, such as the bladder. Exposure to radiation can slow the baby's growth, cause birth defects, affect brain development, cause cancer, and result in a miscarriage.
- **Mercury:** Mecury, a heavy metal, can cause brain damage and affect the baby's hearing and vision. This is why women are cautioned about the amount and type of fish they consume during pregnancy.

Toxoplasmosis: The tiny parasite, toxoplasma gondii, causes an infection called **toxoplasmosis.** According to the March of Dimes (2012d), toxoplasma gondii infects more than 60 million people in the United States. A healthy immune system can keep the parasite at bay producing no symptoms, so most people do not know they are infected. As a routine prenatal screening frequently does not test for the presence of this parasite, pregnant women may want to talk to their health-care provider about being tested.

Toxoplasmosis can cause premature birth, stillbirth, and can result in birth defects to the eyes and brain. While most babies born with this infection show no symptoms, ten percent may experience eye infections, enlarged liver and spleen, jaundice, and pneumonia. To avoid being infected, women should avoid eating undercooked or raw meat and unwashed fruits and vegetables, touching cooking utensils that touched raw meat or unwashed fruits and vegetables, and touching cat feces, soil or sand. If women think they may have been infected during pregnancy, they should have their baby tested.

Sexually Transmitted Diseases: Gonorrhea, syphilis, and chlamydia are sexually transmitted infections that can be passed to the fetus by an infected mother. Mothers should be tested as early as possible to minimize the risk of spreading these infections to their unborn child. Additionally, the earlier the treatment begins, the better the health outcomes for mother and baby (CDC, 2016d). Sexually transmitted diseases (STDs) can cause premature birth, premature rupture of the amniotic sac, an ectopic pregnancy, birth

defects, miscarriage, and still births (March of Dimes, 2013). Most babies become infected with STDS while passing through the birth canal during delivery, but some STDs can cross the placenta and infect the developing fetus.

Human Immunodeficiency Virus (HIV): One of the most potentially devastating teratogens is HIV. HIV and Acquired Immune Deficiency Syndrome (AIDS) are leading causes of illness and death in the United States (Health Resources and Services Administration, 2015). One of the main ways children under age 13 become infected with HIV is via mother-to-child transmission of the virus prenatally, during labor, or by breastfeeding (CDC, 2016c). There are some measures that can be taken to lower the chance the child will contract the disease. HIV positive mothers who take antiviral medications during their pregnancy greatly reduce the chance of passing the virus to the fetus. The risk of transmission is less than 2 percent; in contrast, it is 25 percent if the mother does not take antiretroviral drugs (CDC, 2016b). However, the long-term risks of prenatal exposure to the medication are not known. It is recommended that women with HIV deliver the child by c-section, and that after birth they avoid breast feeding.

German measles (or rubella): Rubella, also called German measles, is an infection that causes mild flu-like symptoms and a rash on the skin. However, only about half of children infected have these symptoms, while others have no symptoms (March of Dimes, 2012a). Rubella has been associated with a number of birth defects. If the mother contracts the disease during the first three months of pregnancy, damage can occur in the eyes, ears, heart or brain of the unborn child. Deafness is almost certain if the mother has German measles before the 11th week of prenatal development and can also cause brain damage. Women in the United States are much less likely to be afflicted with rubella, because most women received childhood vaccinations that protect her from the disease.

Maternal Factors

Mothers over 35: Most women over 35 who become pregnant are in good health and have healthy pregnancies. However, according to the March of Dimes (2016d), women over age 35 are more likely to have an increased risk of:

- Fertility problems
- High blood pressure
- Diabetes
- Miscarriages
- Placenta Previa
- Cesarean section
- Premature birth
- Stillbirth
- A baby with a genetic disorder or other birth defects

Because a woman is born with all her eggs, environmental teratogens can affect the quality of the eggs as women get older. Also, a woman's reproductive system ages which can adversely affect the pregnancy. Some women over 35 choose special prenatal screening tests, such as a maternal blood screening, to determine if there are any health risks for the baby.

Figure 2.13

Although there are medical concerns associated with having a child later in life, there are also many positive consequences to being a more mature parent. Older parents are more confident, less stressed, and typically married providing family stability. Their children perform better on math and reading tests, and they are less prone to injuries or emotional troubles (Albert, 2013). Women who choose to wait are often well educated and lead healthy lives. According to Gregory (2007), older women are more stable, demonstrate a stronger family focus, possess greater self-confidence, and have more money. Having a child later in one's career equals overall higher wages. In fact, for every year a woman delays motherhood, she makes 9% more in lifetime earnings. Lastly, women who delay having children actually live longer. Sun et al. (2015) found that women who had their last child after the age of 33 doubled their chances of living to age 95 or older than women who had their last child before their 30th birthday. A woman's natural ability to have a child at a later age indicates that her reproductive system is aging slowly, and consequently so is the rest of her body.

Teenage Pregnancy: A teenage mother is at a greater risk for

having pregnancy complications including anemia, and high blood pressure. These risks are even greater for those under age 15. Infants born to teenage mothers have a higher risk for being premature and having low birthweight or other serious health problems. Premature and low birthweight babies may have organs that are not fully developed which can result in breathing problems, bleeding in the brain, vision loss, and serious intestinal problems. Very low birthweight babies (less than 3 1/3 pounds) are more than 100 times as likely to die, and moderately low birthweight babies (between 3 1/3 and 5 ½ pounds) are more than 5 times as likely to die in their first year, than normal weight babies (March of Dimes, 2012c). Again, the risk is highest for babies of mothers under age 15. Reasons for these health issues include that teenagers are the least likely of all age groups to get early and regular prenatal care. Additionally, they may engage in negative behaviors including eating unhealthy food, smoking, drinking alcohol, and taking drugs. Additional concerns for teenagers are repeat births. About 25% of teen mothers under age 18 have a second baby within 2 years after the first baby's birth.

Gestational Diabetes: Seven percent of pregnant women develop gestational diabetes (March of Dimes, 2015b). Diabetes is a condition where the body has too much glucose in the bloodstream. Most pregnant women have their glucose level tested at 24 to 28 weeks of pregnancy. Gestational diabetes usually goes away after the mother gives birth, but it might indicate a risk for developing diabetes later in life. If untreated, gestational diabetes can cause premature birth, stillbirth, the baby having breathing problems at birth, jaundice, or low blood sugar. Babies born to mothers with gestational diabetes can also be considerably heavier (more than 9 pounds) making the labor and birth process more difficult. For expectant mothers, untreated gestational diabetes can cause preeclampsia (high blood pressure and signs that the liver and kidneys may not be working properly) discussed later in the chapter. Risk factors for gestational diabetes include age (being over age 25), being overweight or gaining too much weight during pregnancy, family history of

diabetes, having had gestational diabetes with a prior pregnancy, and race and ethnicity (African-American, Native American, Hispanic, Asian, or Pacific Islander have a higher risk). Eating healthy and maintaining a healthy weight during pregnancy can reduce the chance of gestational diabetes. Women who already have diabetes and become pregnant need to attend all their prenatal care visits, and follow the same advice as those for women with gestational diabetes as the risk of preeclampsia, premature birth, birth defects, and stillbirth are the same.

High Blood Pressure (Hypertension): Hypertension is a condition in which the pressure against the wall of the arteries becomes too high. There are two types of high blood pressure during pregnancy, gestational and chronic. Gestational hypertension only occurs during pregnancy and goes away after birth. Chronic high blood pressure refers to women who already had hypertension before the pregnancy or to those who developed it during pregnancy and it continued after birth. According to the March of Dimes (2015c) about 8 in every 100 pregnant women have high blood pressure. High blood pressure during pregnancy can cause premature birth and low birth weight (under five and a half pounds), placental abruption, and mothers can develop preeclampsia.

Rh Disease: Rh is a protein found in the blood. Most people are Rh positive, meaning they have this protein. Some people are Rh negative, meaning this protein is absent. Mothers who are Rh negative are at risk of having a baby with a form of anemia called Rh disease (March of Dimes, 2009). A father who is Rh-positive and mother who is Rh-negative can conceive a baby who is Rh-positive. Some of the fetus's blood cells may get into the mother's bloodstream and her immune system is unable to recognize the Rh factor. The immune system starts to produce antibodies to fight off what it thinks is a foreign invader. Once her body produces immunity, the antibodies can cross the placenta and start to destroy the red blood cells of the developing fetus. As this process takes time, often the first Rh positive baby is not harmed, but as the mother's body will continue to produce antibodies to the Rh factor

across her lifetime, subsequent pregnancies can pose greater risk for an Rh positive baby. In the newborn, Rh disease can lead to jaundice, anemia, heart failure, brain damage and death.

Weight Gain during Pregnancy: According to March of Dimes (2016f) during pregnancy most women need only an additional 300 calories per day to aid in the growth of the fetus. Gaining too little or too much weight during pregnancy can be harmful. Women who gain too little may have a baby who is low-birth weight, while those who gain too much are likely to have a premature or large baby. There is also a greater risk for the mother developing preeclampsia and diabetes, which can cause further problems during the pregnancy. Putting on the weight slowly is best. Mothers who are concerned about their weight gain should talk to their health care provider.

Table 2.4 Weight Gain during Pregnancy

If you were a healthy weight before pregnancy	If you were underweight before pregnancy	If you were overweight before pregnancy	If you were obese before pregnancy
• gain 25-35lbs • 1-4½lbs in the first trimester and 1lb per week in the second and third trimesters	• gain 28-40lbs • 1-4½lbs in the first trimester and a little more than 1lb per week thereafter	• gain 12-25 lbs • 1-4½lbs in the first trimester and a little more than ½lb per week in the second and third trimesters	• 11-20lbs • 1-4½lbs in the first trimester and less than ½lb per week in the second and third trimesters
Mothers of twins need to gain more in each category.			

Source

Stress: Feeling stressed is common during pregnancy, but high levels of stress can cause complications including having a premature baby or a low-birthweight baby. Babies born early or too small are at an increased risk for health problems. Stress-related hormones may cause these complications by affecting a woman's immune systems resulting in an infection and premature birth. Additionally, some women deal with stress by smoking, drinking alcohol, or taking drugs, which can lead to problems in the pregnancy. High levels of stress in pregnancy have also been correlated with problems in the baby's brain development and

immune system functioning, as well as childhood problems such as trouble paying attention and being afraid (March of Dimes, 2012b).

Depression: Depression is a significant medical condition in which feelings of sadness, worthlessness, guilt, and fatigue interfere with one's daily functioning. Depression can occur before, during, or after pregnancy, and 1 in 7 women is treated for depression sometime between the year before pregnancy and year after pregnancy (March of Dimes, 2015a). Women who have experienced depression previously are more likely to have depression during pregnancy. Consequences of depression include the baby being born premature, having a low birthweight, being more irritable, less active, less attentive, and having fewer facial expressions. About 13% of pregnant women take an antidepressant during pregnancy. It is important that women taking antidepressants during pregnancy discuss the medication with a health care provider as some medications can cause harm to the developing organism. In fact, birth defects happen about 2 to 3 times more often in women who are prescribed certain Selective Serotonin Reuptake Inhibitors (SSRIs) for their depression.

Paternal Impact: The age of fathers at the time of conception is also an important factor in health risks for children. According to Nippoldt (2015) offspring of men over 40 face an increased risk of miscarriages, autism, birth defects, achondroplasia (bone growth disorder) and schizophrenia. These increased health risks are thought to be due to accumulated chromosomal aberrations and mutations during the maturation of sperm cells in older men (Bray, Gunnell, & Smith, 2006). However, like older women, the overall risks are small.

Figure 2.14 Hazardous Occupations

Source

In addition, men are more likely than women to work in occupations where hazardous chemicals, many of which have teratogenic effects or may cause genetic mutations, are used (Cordier, 2008). These may include petrochemicals, lead, and pesticides that can cause abnormal sperm and lead to miscarriages or diseases. Men are also more likely to be a source of secondhand smoke for their developing offspring. As noted earlier, smoking by either the mother or around the mother can hinder prenatal development.

Prenatal Assessment

A number of assessments are suggested to women as part of their routine prenatal care to find conditions that may increase the risk of complications for the mother and fetus (Eisenberg, Murkoff, & Hathaway, 1996). These can include blood and urine analyses and screening and diagnostic tests for birth defects.

Figure 2.15 Preparing for an Ultrasound

Source

Ultrasound is one of the main screening tests done in combination with blood tests. The ultrasound is a test in which sound waves are used to examine the fetus. There are two general types. Transvaginal ultrasounds are used in early pregnancy, while transabdominal ultrasounds are more common and used after 10 weeks of pregnancy (typically, 16 to 20 weeks). Ultrasounds are used to check the fetus for defects or problems. It can also find out the age of the fetus, location of the placenta, fetal position, movement, breathing and heart rate, amount of amniotic fluid, and number of fetuses. Most women have at least one ultra sound during pregnancy, but if problems are noted, additional ultrasounds may be recommended.

Figure 2.16 Amniocentesis

Source
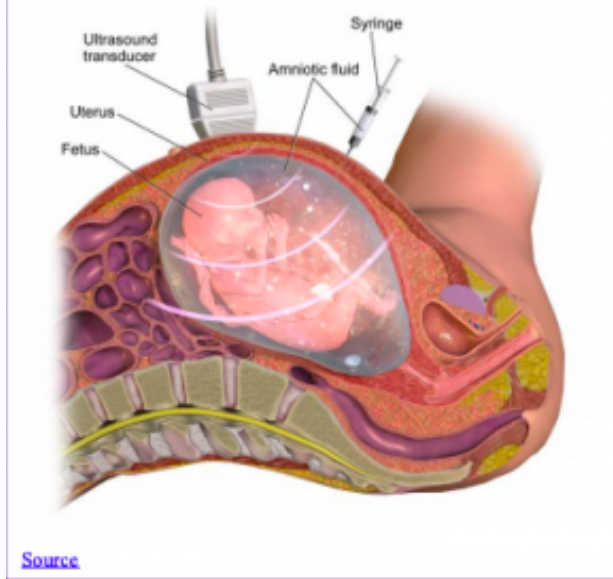
When diagnosis of a birth defect is necessary, ultrasounds help guide the more invasive diagnostic tests of amniocentesis and chorionic villus sampling.

**Amniocentesis** is a procedure in which a needle is used to withdraw a small amount of amniotic fluid and cells from the sac surrounding the fetus and later tested. **Chorionic Villus Sampling** is a procedure in which a small sample of cells is taken from the placenta and tested. Both amniocentesis and chorionic villus sampling have a risk of miscarriage, and consequently they are not done routinely.

Box 2.4 Infertility and Reproductive Technology

Infertility: Infertility affects about 10 to 15 percent of couples in the United States (Mayo Clinic, 2015). For men, the most common cause is a lack of, or low sperm production, and for women, it is the failure to ovulate. Another common cause for women is **pelvic inflammatory disease (PID)**, *which is an infection of a woman's reproductive organs* (Carroll, 2007). It is often a complication caused by and STD, such as chlamydia and gonorrhea, although other infections that are not sexually transmitted can also cause PID.

Fertility treatment: The majority of infertility cases are treated using fertility drugs to increase ovulation, or with surgical procedures to repair the reproductive organs or remove scar tissue from the reproductive tract. In **in vitro fertilization (IVF)** *eggs are removed from the female and are fertilized outside the woman's body*. The fertilized egg is then reinserted in the woman's uterus. The success rate varies depending on the type of egg implanted, such as whether the egg was recently removed from the woman, used after being frozen, or donated from another woman. Success is also highly dependent on the age of the mother (See Figure 2.17).

Figure 2.17 Percentage of Pregnancies, Live Births, and Single-Infant Live Births from IVF from Fresh Non-Donor Eggs
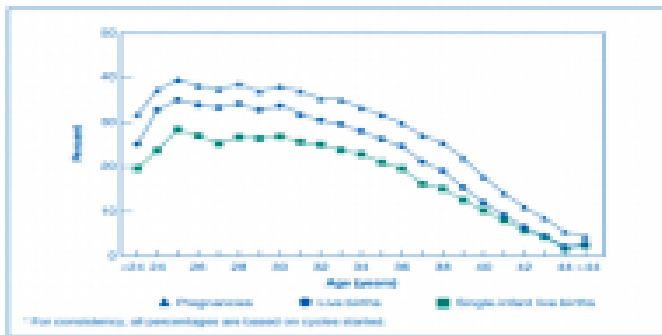
Source

Higher success rates, but less common procedures include **gamete intra-fallopian tube transfer** (GIFT) *which involves implanting both sperm and ova into the fallopian tube and fertilization is allowed to occur naturally* (Carroll, 2007). **Zygote intra-fallopian tube transfer** (ZIFT) *is another procedure in which sperm and ova are fertilized outside of the woman's body and the fertilized egg is then implanted in the fallopian tube*. This allows the zygote to travel down the fallopian tube and embed in the lining of the uterus naturally. This procedure also has a higher success rate than IVF.

Complications of Pregnancy

Minor complications: There are a number of common side effects of pregnancy. Not everyone experiences all of these, nor to the

same degree. And although they are considered "minor" this is not to say that these problems are not potentially very uncomfortable. These side effects include nausea (particularly during the first 3-4 months of pregnancy as a result of higher levels of estrogen in the system), heartburn, gas, hemorrhoids, backache, leg cramps, insomnia, constipation, shortness of breath or varicose veins (as a result of carrying a heavy load on the abdomen).

Major Complications: The following are some serious complications of pregnancy which can pose health risks to mother and child and that often require hospitalization.

Ectopic Pregnancy occurs when the zygote becomes attached to the fallopian tube before reaching the uterus. About 1 in 50 pregnancies in the United States are tubal pregnancies and this number has been increasing because of the higher rates of pelvic inflammatory disease and Chlamydia (Carroll, 2007). Abdominal pain, vaginal bleeding, nausea and fainting are symptoms of ectopic pregnancy.

Preeclampsia, also known as Toxemia, is characterized by a sharp rise in blood pressure, a leakage of protein into the urine as a result of kidney problems, and swelling of the hands, feet, and face during the third trimester of pregnancy. Preeclampsia is the most common complication of pregnancy. It is estimated to affect 5% to 10% of all pregnancies globally and accounts for 40% to 60% of maternal deaths in developing countries (National Institute of Child Health and Human Development, 2013). Rates are lower in the United States and preeclampsia affects about 3% to 5% of pregnant women.

Preeclampsia occurs most frequently in first pregnancies, and it is more common in women who are obese, have diabetes, or are carrying twins. When preeclampsia causes seizures, the condition is known as **eclampsia**, which is the second leading cause of maternal death in the United States. Preeclampsia is also a leading cause of fetal complications, which include low birth weight, premature birth, and stillbirth. Treatment is typically bed rest and sometimes medication. If this treatment is ineffective, labor may be induced.

Maternal Mortality: Acording to the CDC (2019), about 700 American women die from complications related to pregnancy each year, and this number is rising. Further, 60% of those deaths could have been prevented. Bleeding, infections, and heart-related problems are the main causes. Possible contributing factors include the high caesarean section rate and obesity. Compared to other developed nations, this number is considered high. Approximately 1000 women die in childbirth around the world each day (World Health Organization, 2010). Rates are highest in Subsaharan Africa and South Asia, although there has been a substantial decrease in these rates. The campaign to make childbirth safe for everyone has led to the development of clinics accessible to those living in more isolated areas and training more midwives to assist in childbirth.

Spontaneous abortion is experienced in an estimated 20-40 percent of undiagnosed pregnancies and in another 10 percent of diagnosed pregnancies. Usually the body aborts due to chromosomal abnormalities, and this typically happens before the 12th week of pregnancy. Cramping and bleeding result and normal periods return after several months. Some women are more likely to have repeated miscarriages due to chromosomal, amniotic, or hormonal problems, but miscarriage can also be a result of defective sperm (Carrell et. al., 2003).

Birth

Preparation for Childbirth

Prepared childbirth refers to being not only in good physical condition to help provide a healthy environment for the baby to develop, but also helping individuals to prepare to accept their new roles as parents. Additionally, parents can receive information and

training that will assist them for delivery and life with the baby. The more future parents can learn about childbirth and the newborn, the better prepared they will be for the adjustment they must make to a new life.

One of the most common methods for preparing for childbirth is **The Lamaze Method**. This method originated in Russia and was brought to the United States in the 1950s by Fernand Lamaze. The emphasis of this method is on teaching the woman to be in control in the process of delivery. It includes learning muscle relaxation, breathing though contractions, having a focal point (usually a picture to look at) during contractions and having a support person who goes through the training process with the mother and serves as a coach during delivery (Eisenberg, Murkoff, & Hathaway, 1996).

Choosing Where to Have the Baby and Who Will Deliver: The vast majority of births occur in a hospital setting. However, one percent of women choose to deliver at home (Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). Women who are at low risk for birth complications can successfully deliver at home. More than half (67%) of home deliveries are by certified nurse midwifes. Midwives are trained and licensed to assist in delivery and are far less expensive than the cost of a hospital delivery. However, because of the potential for a complication during the birth process, most medical professionals recommend that delivery take place in a hospital. Despite the concerns, in the United States women who have had previous children, who are over 25, and who are white are more likely to have out-of-hospital births (MacDorman, Menacker, & Declercq, 2010). In addition to home births, one-third of out-of-hospital births occur in freestanding clinics, birthing centers, in physician's offices, or other locations.

Stages of Birth for Vaginal Delivery

Figure 2.17 Stages of Birth for a Vaginal Delivery
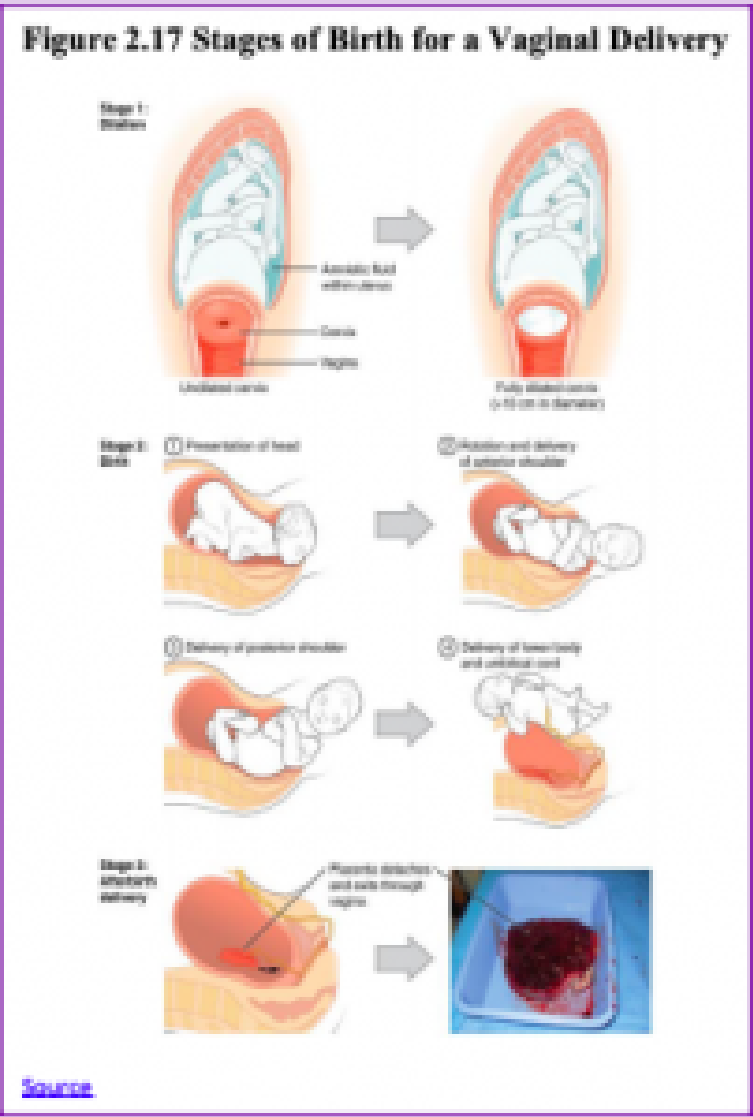
The First Stage of labor begins with uterine contractions that may initially last about 30 seconds and be spaced 15 to 20 minutes apart. These increase in duration and frequency to more than a minute in length and about 3 to 4 minutes apart. Typically, doctors advise that they be called when contractions are coming about every 5 minutes. Some women experience false labor or **Braxton-Hicks contractions**, especially with the first child. These may come and go. They tend to diminish when the mother begins walking around. Real labor pains tend to increase with walking. Labor may also be signaled by a bloody discharge being expelled from the cervix. In one out of 8 pregnancies, the amniotic sac or water in which the fetus is suspended may break before labor begins. In such cases, the physician may induce labor with the use of medication if it does not begin on its own in order to reduce the risk of infection. Normally this sac does not rupture until the later stages of labor.

The first stage of labor is typically the longest. During this stage the cervix or opening to the uterus dilates to 10 centimeters or just under 4 inches. This may take around 12-16 hours for first children or about 6-9 hours for women who have previously given birth. Labor may also begin with a discharge of blood or amniotic fluid.

The Second Stage involves the passage of the baby through the birth canal. This stage takes about 10-40 minutes. Contractions usually come about every 2-3 minutes. The mother pushes and relaxes as directed by the medical staff. Normally the head is delivered first. The baby is then rotated so that one shoulder can come through and then the other shoulder. The rest of the baby quickly passes through. At this stage, an **episiotomy** or incision made in the tissue between the vaginal opening and anus, may be performed to avoid tearing the tissue of the back of the vaginal opening (Mayo Clinic, 2016). The baby's mouth and nose are suctioned out. The umbilical cord is clamped and cut.

The Third Stage is relatively painless. During this stage, the placenta or afterbirth is delivered. This is typically within 20 minutes after delivery. If an episiotomy was performed it is stitched up during this stage.

More than 50% of women giving birth at hospitals use an epidural anesthesia during delivery (American Pregnancy Association, 2015). An **epidural block** is a regional analgesic that can be used during labor and alleviates most pain in the lower body without slowing labor. The epidural block can be used throughout labor and has little to no effect on the baby. Medication is injected into a small space outside the spinal cord in the lower back. It takes 10 to 20 minutes for the medication to take effect. An epidural block with stronger medications, such as anesthetics, can be used shortly before a C-section or if a vaginal birth requires the use of forceps or vacuum extraction.

A **Cesarean section (C-section)** is surgery to deliver the baby by being removed through the mother's abdomen. In the United States, about one in three women have their babies delivered this way (Martin et al., 2015). Most C-sections are done when problems occur during delivery unexpectedly. These can include:

• Health problems in the mother
• Signs of distress in the baby
• Not enough room for the baby to go through the vagina
• The position of the baby, such as a breech presentation where the head is not in the downward position

C-sections are also more common among women carrying more than one baby. Although the surgery is relatively safe for mother and baby, it is considered major surgery and carries health risks. Additionally, it also takes longer to recover from a C-section than from vaginal birth. After healing, the incision may leave a weak spot in the wall of the uterus. This could cause problems with an attempted vaginal birth later. However, more than half of women who have a C-section can have a vaginal birth later.

Induced birth: Sometimes a baby's arrival may need to be induced or delivered before labor begins. Inducing labor may be recommended for a variety of reasons when there is concern for the health of the mother or baby. For example:

• The mother is approaching two weeks beyond her due date and labor has not started naturally

• The mother's water has broken, but contractions have not begun
• There is an infection in the mother's uterus
• The baby has stopped growing at the expected pace
• There is not enough amniotic fluid surrounding the baby
• The placenta peels away, either partially or completely, from the inner wall of the uterus before delivery
• The mother has a medical condition that might put her or her baby at risk, such as high blood pressure or diabetes (Mayo Clinic, 2014)

Assessing the Neonate

The Apgar assessment is conducted one minute and five minutes after birth.

This is a very quick way to assess the newborn's overall condition. Five measures are assessed: Heart rate, respiration, muscle tone (assessed by touching the baby's palm), reflex response (the Babinski reflex is tested), and color. A score of 0 to 2 is given on each feature examined. An Apgar of 5 or less is cause for concern. The second Apgar should indicate improvement with a higher score.

Figure 2.18 APGAR Scores

APGAR
Test Scoring

	Score 0	Score 1	Score 2
Appearance	Blue all over	Blue only at extremities	No blue coloration
Pulse	No pulse	< 100 beats/min.	>100 beats/min.
Grimace	No response to stimulation	Grimace or feeble cry when stimulated	Sneezing, coughing, or pulling away when stimulated
Activity	No movement	Some movement	Active movement
Respiration	No breathing	Weak, slow, or irregular breathing	Strong cry

Source:

Another way to assess the condition of the newborn is the Neonatal Behavioral Assessment Scale (NBAS). The baby's motor development, muscle tone, and stress response are assessed. This tool has been used around the world to further assess the newborn, especially those with low Apgar scores, and to make comparisons of infants in different cultures (Brazelton & Nugent, 1995).

Problems of the Newborn

Anoxia: Anoxia is a temporary lack of oxygen to the brain. Difficulty during delivery may lead to anoxia which can result in brain damage or in severe cases, death. Babies who suffer both low birth weight and anoxia are more likely to suffer learning disabilities later in life as well.

Figure 2.19 Newborn in Neonatal Unit

Source

Low Birth weight: We have been discussing a number of teratogens associated with low birth weight such as alcohol, tobacco, etc. A child is considered low birth weight if he or she weighs less than 5 pounds 8 ounces (2500 grams). About 8.2 percent of babies born in the United States are of low birth weight (Center for Disease Control, 2015a). A low birth weight baby has difficulty maintaining adequate body temperature because it lacks the fat that would otherwise provide insulation. Such a baby is also at more risk for infection, and 67 percent of these babies are also preterm which can make them more at risk for respiratory infection. Very low birth

weight babies (2 pounds or less) have an increased risk of developing cerebral palsy.

Additionally, Pettersson, Larsson, D'Onofrio, Almqvist, and Lichtenstein (2019) analyzed fetal growth and found that reduced birth weight was correlated with a small, but significant increase in several psychiatric disorders in adulthood. These included: attention-deficit/hyperactivity disorder, autism, depression, and obsessive-compulsive disorder. Pettersson et al. theorized that "reduced fetal growth compromises brain development during a critical period, which in turn slightly increases the risk not only for neurodevelopmental disorders but also for virtually all mental health conditions" (p. 540). An insufficient supply of oxygen and nutrients for the developing fetus are proposed as factors that increased the risk for neurodevelopmental disorders.

Preterm: A newborn might also have a low birth weight if it is born at less than 37 weeks gestation, which qualifies it as a preterm baby (CDC, 2015c). Early birth can be triggered by anything that disrupts the mother's system. For instance, vaginal infections can lead to premature birth because such infection causes the mother to release anti-inflammatory chemicals which, in turn, can trigger contractions. Smoking and the use of other teratogens can lead to preterm
birth. The earlier a woman quits smoking, the lower the chance that the baby will be born preterm (Someji & Beltrán-Sánchez, 2019). A significant consequence of preterm birth includes respiratory distress syndrome, which is characterized by weak and irregular breathing (United States National Library of Medicine, 2015b).

Saybie (name given to her by the hospital), a baby girl born in San Diego, California is now considered the world's smallest baby ever to survive (Chiu, 2019). She was born in December 2018 at 23 weeks and 3 days weighing only 8.6 ounces (same size as an apple). After five months in the hospital, Saybie went home in May 2019 weighing 5 pounds.

Figure 2.20 Saybie

Small-for-Date Infants: Infants that have birth weights that are below expectation based on their gestational age are referred to as small-for-date.

These infants may be full term or preterm, but still weigh less than 90 % of all babies of the same gestational age. This is a very serious situation for newborns as their growth was adversely affected. Regev et al. (2003) found that small-for- date infants died at rates more than four times higher than other infants. Remember that many causes of low birth weight and preterm births are preventable with proper prenatal care.

Postpartum Maternal Concerns

After pregnancy many women experience emotional changes. The "baby blues" are often mentioned as a common occurrence in new mothers. The **baby blues** are feelings of sadness that occur 3 to 5 days after having a baby, and typically disappear usually within 10 days of the birth. New mothers may have trouble sleeping, be

moody, and feel let-down from the birthing experience. However, postpartum depression is not the same as the baby blues. According to the Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-5), (American Psychiatric Association, 2013), **peripartum onset of depression,** also known as postpartum depression, is a type of depression that occurs during pregnancy or in the 4 weeks following pregnancy. Approximately 1 out of 8 women experience postpartum depression and symptoms can include feelings of sadness, sleeplessness, and difficulty bonding with the newborn.

Changing hormone levels are thought to be a factor in the occurrence of peripartum depression, however, risk factors include having depression previously, a family history of depression, being younger than 20, experiencing stress, and substance use. Peripartum-onset mood disorders, both depression, and mania can present with or without psychotic features. Hallucinations and delusions are associated with postpartum psychotic episodes and have included command hallucinations to kill the infant or delusions that the infant is possessed. Psychotic features occur in approximately 1 in 500 to 1 in 1,000 deliveries, and the risk is higher for women with prior postpartum mood episodes (American Psychiatric Association, 2013).

Postpartum anxiety is also a concern for many new mothers. According to Bregel (2017), because oxytocin, a bonding hormone, rises during pregnancy, brain areas related to empathy and anxiety are heightened. Consequently, the new mother is "hard-wired" to respond to and fend for her baby, which can lead to toxic levels of stress and anxiety. These can manifest as heightened alertness, intrusive and horrifying thoughts of something terrible happening to the infant, and physiological arousal. Just as for peripartum depression and postpartum psychosis, a new mother experiencing postpartum anxiety should seek assistance from a health care provider.

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Attribution

DEVELOPMENT IN INFANCY & TODDLERHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Explore important aspects of a person's experience and ability to justify why they are important

Vignette

Misty arrived at 28 weeks' gestation, right at 7 months into the pregnancy. She spent several weeks in the neonatal unit but showed positive growth in development during this time. Her mother, Pam, was able to spend time with Misty daily but was not allowed to hold or touch her very often in the beginning

Photo by Sharon McCutcheon on Unsplash

due to needs for respiratory support. Pam held her as often as she could to provide comfort, cherishing the increased time each day brought but also worried about how the limited physical contact would affect their bond. The hospital has reported Pam will be able to take Misty home in a few days and she is meeting with the Social Worker to plan for discharge. The Social Worker has provided support for the family with connection to resources for developmental supports and plans for a home visit to follow up in a few weeks.

The Social Worker arrives for the follow up appointment and Pam reports taking care of Misty is "so much harder than I ever thought. She didn't seem to cry this much when we were at the hospital and she won't stay asleep longer than an hour at a time, it's just so much and I don't know how to help her or make her feel better". Pam reports she has taken Misty to the doctor two times due to her concerns and was told they were not able to find any physical issues with Misty. Pam reported "I just feel so helpless, the doctors weren't any help, they just told me I needed to give it some more time and she would eventually settle but I'm just not sure, it doesn't seem to be settling, it seems like it's just getting worse". Pam also reports "I've been reading a lot of stuff online too about premature babies and attachment and it's really scaring me because there are so many stories about how some babies really struggle with development and then all the stuff about

poor attachment and all the stuff that happens if a baby doesn't have a good attachment, it's just all so scary…". The Social Worker takes notes on areas of concern Pam reports with Misty and then explored use of the resources Pam had been given at discharge. Pam looks down and reports "No, I haven't called any of them. It's just been so crazy and hard with Misty that I haven't even thought about them". The Social Worker reflects how hard it must be trying to manage a new baby and battle so many concerns related to the baby's health and well-being. The Social Worker discusses working to set a schedule and increasing some of the structure for their day to see if this may help provide some supports for both Pam and Misty. Pam reports being open to "anything that will help" and schedules to meet with the Social Worker the following week.

Pam shares "nothing has changed" when the Social Worker arrives for their next meeting. The Social Worker allows Pam to share continued struggles with trying to comfort Misty and continued feelings of failure when "nothing works". She states, "I just don't understand. Is it me? Is something wrong with her? I just don't understand and don't know what to do. I tried all the stuff we talked about for a couple of days, but it didn't seem to work so I stopped". The Social Worker acknowledges how hard change can be and then explores options to make a referral for assessments in areas of Occupational and Mental Health supports, discussing while the pediatrician reports nothing is physically wrong with Misty, there may be some sensory issues presenting that would need a specific assessment by an Occupational Therapist. The Social Worker also discussed how Misty's premature arrival can be felt as a trauma by both Misty and Pam and benefits of exploring this with a Mental Health provider for supports. Pam states "I'm willing to try anything at this point. Send me to as many places you think would help".

The Social Worker arrives for a follow up visit approximately 6 weeks after referrals were made. Pam arrives at the door smiling. The Social Worker recognizes this and comments on the difference from their last visit. Pam states "It's still been rough but better. We have started Occupational Therapy for some sensory issues that were

found when we went for our assessment. We've also started seeing a therapist that focuses on work with parents and infants and it's been life changing for me to have a better understanding of how our experiences have impacted us both, as well as learning some coping skills for when I'm feeling overwhelmed. We've also been doing some attachment work and I'm starting to feel more connected to Misty and can tell she's feeling it too. We have a long way to go but I don't feel so hopeless anymore, I know we'll get there".

Critical Thinking:

1. What stage of Piaget's Theory of Cognitive Development is the client currently in? Are they meeting expectations of this stage? Examples? Are they demonstrating any delays in this stage? Examples?

2. What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?

3. What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?

4. What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

References

Hutchinson, E. D. (2019). *Dimensions of human behavior* (Sixth edition). Sage Publications, Inc.

Chapter 10: Physical Development in Infancy & Toddlerhood

Overall Physical Growth

The average newborn in the United States weighs about 7.5 pounds

(between 5 and 10 pounds) and is about 20 inches in length. For the first few days of life, infants typically lose about 5 percent of their body weight as they eliminate waste and get used to feeding. This often goes unnoticed by most parents but can be cause for concern for those who have a smaller infant. This weight loss is temporary, however, and is followed by a rapid period of growth. By the time an infant is 4 months old, it usually doubles in weight and by one year has tripled the birth weight. By age 2, the weight has quadrupled, so we can expect that a 2-year-old should weigh between 20 and 40 pounds. The average length at one year is about 29.5 inches and at two years it is around 34.4 inches (Bloem, 2007).

Body Proportions

Another dramatic physical change that takes place in the first several years of life is the change in body proportions. The head initially makes up about 50 percent of our entire length when we are developing in the womb. At birth, the head makes up about 25 percent of our length, and by age 25 it comprises about 20 percent our length.

Figure 3.1 Changes in Proportions

Source
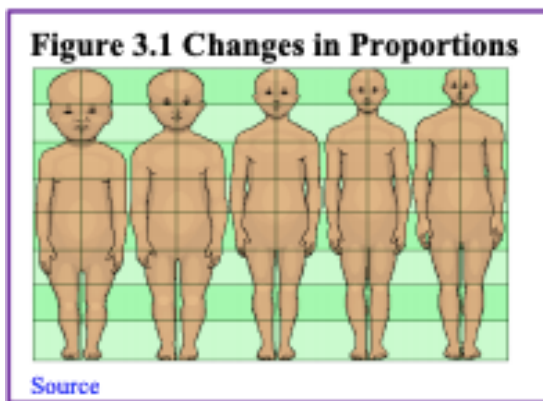
The Brain in the First Two Years

Some of the most dramatic physical change that occurs during this period is in the brain. We are born with most of the brain cells that we will ever have; that is, about 85 billion neurons whose function is to store and transmit information (Huttenlocher&Dabholkar, 1997). While most of the brain's neurons are present at birth, they are not fully mature. During the next several years dendrites, *or branching extensions that collect information from other neurons*, will undergo a period of exuberance. Because of this proliferation of dendrites, by age two a single neuron might have thousands of dendrites. Synaptogenesis, *or the formation of connections between neurons*, continues from the prenatal period forming thousands of new connections during infancy and toddlerhood. *This period of rapid neural growth is referred to as* synaptic blooming.

Figure 3.2 Components of the Neuron

Source
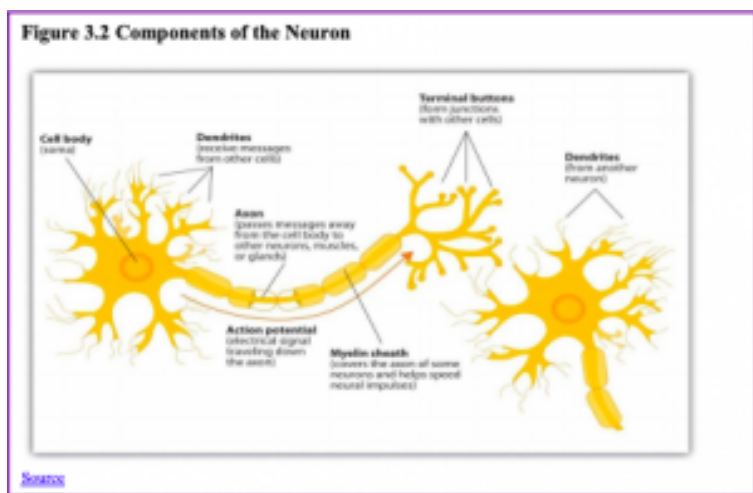
The blooming period of neural growth is then followed by a period of synaptic pruning, *where neural connections are reduced thereby making those that are used much stronger*. It is thought that pruning

causes the brain to function more efficiently, allowing for mastery of more complex skills (Kolb & Whishaw, 2011). The experience will shape which of these connections are maintained and which of these are lost. Ultimately, about 40 percent of these connections will be lost (Webb, Monk, and Nelson, 2001). Blooming occurs during the first few years of life, and pruning continues through childhood and into adolescence in various areas of the brain.

Another major change occurring in the central nervous system is the development of myelin, *a coating of fatty tissues around the axon of the neuron* (Carlson, 2014). Myelin helps insulate the nerve cell and speed the rate of transmission of impulses from one cell to another. This enhances the building of neural pathways and improves coordination and control of movement and thought processes. The development of myelin continues into adolescence but is most dramatic during the first several years of life.

The infant's brain grows very fast. At birth, the brain is about 250 grams (half a pound) and by one year it is already 750 grams (Eliot, 1999). Comparing to adult size, the newborn brain is approximately 33% of adult size at birth, and in just 90 days, it is already at 55% of adult size (Holland et al., 2014). Most of the neural activity is occurring in the cortex or *the thin outer covering of the brain involved in voluntary activity and thinking*. The cortex is divided into two hemispheres, and each hemisphere is divided into four lobes, each separated by folds known as fissures. If we look at the cortex starting at the front of the brain and moving over the top (see Figure 3.3), we see first the frontal lobe (behind the forehead), *which is responsible primarily for thinking, planning, memory, and judgment*. Following the frontal lobe is the parietal lobe, *which extends from the middle to the back of the skull and which is responsible primarily for processing information about touch*. Next is the occipital lobe, at the very back of the skull, *which processes visual information*. Finally, in front of the occipital lobe, between the ears, is the temporal lobe, which is *responsible for hearing and language* (Jarrett, 2015).

Figure 3.3 The Two Hemispheres
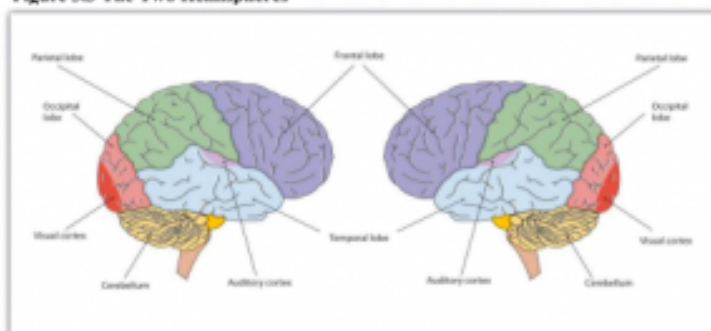
The brain is divided into two hemispheres (left and right), each of which has four lobes (temporal, frontal, occipital, and parietal). Furthermore, there are specific cortical areas that control different processes. Source

Although the brain grows rapidly during infancy, specific brain regions do not mature at the same rate. Primary motor areas develop earlier than primary sensory areas, and the prefrontal cortex, that is located behind the forehead, is the least developed (Giedd, 2015). As the prefrontal cortex matures, the child is increasingly able to regulate or control emotions, to plan activities, strategize, and have better judgment. This is not fully accomplished in infancy and toddlerhood but continues throughout childhood, adolescence, and adulthood.

Lateralization *is the process in which different functions become localized primarily on one side of the brain.* For example, in most adults the left hemisphere is more active than the right during language production, while the reverse pattern is observed during tasks involving visuospatial abilities (Springer & Deutsch, 1993). This process develops over time, however, structural asymmetries between the hemispheres have been reported even in fetuses (Chi, Dooling, & Gilles, 1997; Kasprian et al., 2011) and infants (Dubois et al., 2009).

Lastly, neuroplasticity *refers to the brain's ability to change, both physically and chemically, to enhance its adaptability to*

environmental change and compensate for an injury. The control of some specific bodily functions, such as movement, vision, and hearing, is performed in specified areas of the cortex, and if these areas are damaged, the individual will likely lose the ability to perform the corresponding function. The brain's neurons have a remarkable capacity to reorganize and extend themselves to carry out these particular functions in response to the needs of the organism, and to repair any damage. As a result, the brain constantly creates new neural communication routes and rewires existing ones. Both environmental experiences, such as stimulation and events within a person's body, such as hormones and genes, affect the brain's plasticity. So too does age. Adult brains demonstrate neuroplasticity, but they are influenced less extensively than those of infants (Kolb & Fantie, 1989; Kolb & Whishaw, 2011).

Infant Sleep

A newborn typically sleeps approximately 16.5 hours per 24-hour period. This is usually polyphasic sleep in that the infant is accumulating the 16.5 hours over several sleep periods throughout the day (Salkind, 2005). The infant is averaging 15 hours per 24-hour period by one month, and 14 hours by 6 months. By the time children turn two, they are averaging closer to 10 hours per 24 hours. Additionally, the average newborn will spend close to 50% of the sleep time in the Rapid Eye Movement (REM) phase, which decreases to 25% to 30% in childhood.

Figure 3.4

 Sudden Unexpected Infant Deaths (SUID): Each year in the United States, there are about 3,500 Sudden Unexpected Infant Deaths (SUID). These deaths occur among infants less than one-year-old and have no immediately obvious cause (CDC, 2019). The three commonly reported types of SUID are:

- **Sudden Infant Death Syndrome (SIDS)**: *SIDS is identified when the death of a healthy infant occurs suddenly and unexpectedly, and medical and forensic investigation findings (including an autopsy) are inconclusive.* SIDS is the leading cause of death in Figure 3.4 75 infants 1 to 12 months old, and approximately 1,400 infants died of SIDS in 2017 (CDC, 2019). Because SIDS is diagnosed when no other cause of death can be determined, possible causes of SIDS are regularly researched. One leading hypothesis suggests that infants who die from SIDS have abnormalities in the area of the brainstem responsible for regulating breathing (Weekes-Shackelford & Shackelford, 2005).
- **Unknown Cause**: The sudden death of an infant less than one year of age that cannot be explained because a thorough investigation was not conducted, and the cause of death could

not be determined. In 2017, 1300 infants died from unknown causes (CDC, 2019).

- **Accidental Suffocation and Strangulation in Bed**: Reasons for accidental suffocation include: Suffocation by soft bedding, another person rolling on top of or against the infant while sleeping, an infant being wedged between two objects such as a mattress and wall, and strangulation such as when an infant's head and neck become caught between crib railings. In 2017, 900 infants died from accidental suffocation and strangulation.

Figure 3.5

Breakdown of Sudden Unexpected Infant Death by Cause, 2017

- Sudden infant death syndrome (SIDS)
- Unknown cause
- Accidental suffocation and strangulation in bed
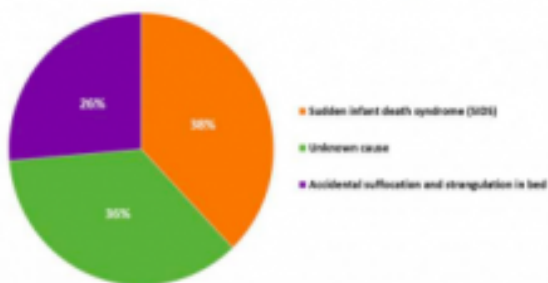
SOURCE: CDC/NCHS, National Vital Statistics System, Compressed Mortality File

This chart shows the breakdown of sudden unexpected infant deaths by cause in 2017. 38% of cases were categorized as sudden infant death syndrome, followed by unknown cause (36%), and accidental suffocation and strangulation in bed (26%).

The combined SUID death rate declined considerably following the release of the American Academy of Pediatrics safe sleep recommendations in 1992, which advocated that infants be placed for sleep on their backs (nonprone position). These recommendations were followed by a major Back to Sleep Campaign in 1994. However, accidental suffocation and strangulation in bed mortality rates remained unchanged until the late 1990s. In 1998 death rates from accidental suffocation and strangulation in bed

actually started to increase, and they reached the highest rate at 24.6 deaths per 100,000 live births in 2017 (CDC, 2019).

Figure 3.6

Trends in Sudden Unexpected Infant Death by Cause, 1990-2017

SOURCE: CDC/NCHS, National Vital Statistics System, Compressed Mortality File
This graph shows the trends in sudden unexpected infant death (SUID) rates in the United States from 1990 through 2017.
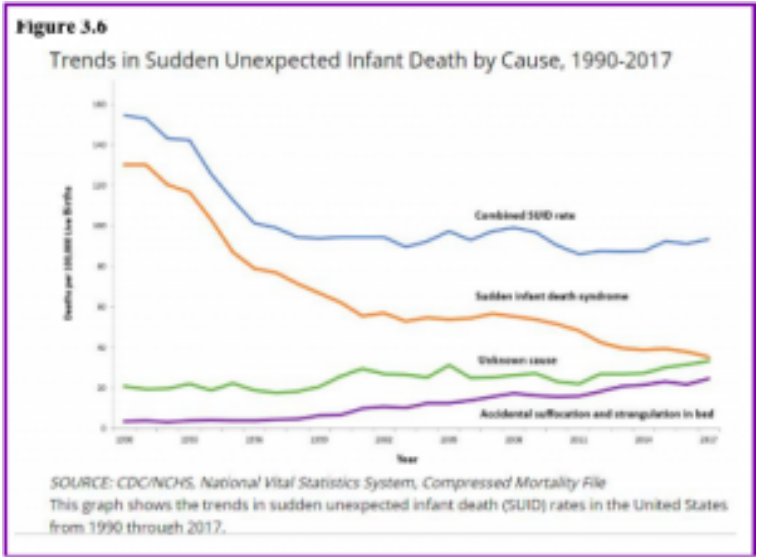
Should infants be sharing the bed with parents?

Figure 3.7

Source

Colvin, Collie-Akers, Schunn, and Moon (2014) analyzed a total of 8207 deaths from 24 states during 2004–2012 that were contained in the National Center for the Review and Prevention of Child Deaths Case Reporting System, a database of death reports from state child death review teams. The results indicated that younger victims (0-3 months) were more likely to die by bed-sharing and sleeping in an adult bed/on a person. A higher percentage of older victims (4 months to 364 days) rolled into objects in the sleep environment and changed position from side/back to prone. Carpenter et al. (2013) compared infants who died of SIDS with a matched control and found that infants younger than three months old who slept in bed with a parent were five times more likely to die of SIDS compared to babies who slept separately from the parents but were still in the same room. They concluded that bed-sharing, even when the parents do not smoke or take alcohol or drugs, increases the risk of SIDS. However, when combined with parental smoking and maternal alcohol consumption and/or drug use, risks associated with bed-sharing greatly increased.

The two studies discussed above were based on American statistics. What about the rest of the world? Co-sleeping occurs in many cultures, primarily because of a more collectivist perspective that encourages a close parent-child bond and interdependent relationship (Morelli, Rogoff, Oppenheim, & Goldsmith, 1992). In countries where co-sleeping is common, however, Figure 3.7 Source 77 parents and infants typically sleep on floor mats and other hard surfaces which minimize the suffocation that can occur with bedding (Nelson, Schiefenhoevel, & Haimerl, 2000).

From Reflexes to Voluntary Movements

Table 3.1 Some Common Infant Reflexes

Reflex	Description	Image
Sucking	Suck on anything that touches the lips	Source
Rooting	Turning the head when the cheek is touched	Source
Grasp	Fingers automatically grip anything that touches the palm of the hand	Source
Babinski	The toes will fan out and curl when the sole of the foot is stroked from heel to toe	Source
Moro	A sudden noise or loss of support to the head and neck will cause infants to spread out their arms and legs then quickly contract the limbs inward	Source
Tonic Neck	When lying on the back with the head to one side infants will extend the arm and leg on that side while flexing the limbs on the opposite side (looks like a fencer pose).	Source
Stepping	Legs move in stepping like motion when feet touch a smooth surface	Source

Newborns are equipped with a number of reflexes (see Table 3.1) which are involuntary movements in response to stimulation. Some of the more common reflexes, such as the sucking reflex and rooting reflex, are important to feeding. The grasping and stepping reflexes are eventually replaced by more voluntary behaviors. Within the first few months of life these reflexes disappear, while other reflexes, such as the eye-blink, swallowing, sneezing, gagging, and withdrawal reflex stay with us as they continue to serve important functions. Reflexes offer pediatricians insight into the

maturation and health of the nervous system. Reflexes that persist longer than they should and can impede normal development (Berne, 2006). In preterm infants and those with neurological impairments, some of these reflexes may be absent at birth. Once present, they may persist longer than in a neurologically healthy infant (El-Dib, Massaro, Glass & Aly, 2012).

Motor Development

Motor development occurs in an orderly sequence as infants move from reflexive reactions (e.g., sucking and rooting) to more advanced motor functioning. As mentioned during the prenatal section, development occurs according to the Cephalocaudal (from head to tail) and Proximodistal (from the midline outward) principles. For instance, babies first learn to hold their heads up, then to sit with assistance, then to sit unassisted, followed later by crawling, pulling up, cruising or walking while holding on to something, and then unassisted walking (Eisenberg, Murkoff, & Hathaway, 1989). As motor skills develop, there are certain developmental milestones that young children should achieve. For each milestone, there is an average age, as well as a range of ages in which the milestone should be reached. An example of a developmental milestone is a baby holding up its head. Babies on average are able to hold up their head at 6 weeks old, and 90% of babies achieve this between 3 weeks and 4 months old. On average, most babies sit alone at 7 months old. Sitting involves both coordination and muscle strength, and 90% of babies achieve this milestone between 5 and 9 months old. If the child is displaying delays on several milestones, that is reason for concern, and the parent or caregiver should discuss this with the child's pediatrician. Developmental delays can be identified and addressed through early intervention.

Figure 3.8

Motor Skills refer to our ability to move our bodies and manipulate objects. Fine motor skills focus on the muscles in our fingers, toes, and eyes, and enable coordination of small actions (e.g., grasping a toy, writing with a pencil, and using a spoon). Newborns cannot grasp objects voluntarily but do wave their arms toward objects of interest. At about 4 months of age, the infant is able to reach for an object, first with both arms and within a few weeks, with only one arm. At this age grasping an object involves the use of the fingers and palm, but no thumbs. This is known as the Palmer Grasp. The use of the thumb comes at about 9 months of age when the infant is able to grasp an object using the forefinger and thumb. Now the infant uses a Pincer Grasp, and this ability greatly enhances the ability to control and manipulate an object and infants take great delight in this newfound ability. They may spend hours picking up small objects from the floor and placing them in containers. By 9

months, an infant can also watch a moving object, reach for it as it approaches, and grab it.

Gross motor skills focus on large muscle groups that control our head, torso, arms and legs and involve larger movements (e.g., balancing, running, and jumping). These skills begin to develop first. Examples include moving to bring the chin up when lying on the stomach, moving the chest up, and rocking back and forth on hands and knees. But it also includes exploring an object with one's feet as many babies do as early as 8 weeks of age if seated in a carrier or other device that frees the hips. This may be easier than reaching for an object with the hands, which requires much more practice (Berk, 2007). Sometimes an infant will try to move toward an object while crawling and surprisingly move backward because of the greater amount of strength in the arms than in the legs.

Sensory Capacities

Throughout much of history, the newborn was considered a passive, disorganized being who possessed minimal abilities. William James, an early psychologist, had described the newborn's world as "a blooming, buzzing confusion," (Shaffer, 1985). However, current research techniques have demonstrated just how developed the newborn is with especially organized sensory and perceptual abilities.

Vision: The womb is a dark environment void of visual stimulation. Consequently, vision is one of the most poorly developed senses at birth, and time is needed to build those neural pathways between the eyes and the brain (American Optometric Association [AOA], 2019). Newborns typically cannot see further than 8 to 10 inches away from their faces (AOA, 2019). An 8-week old's vision is 20/300. This means an object 20 feet away from an infant has the same clarity as an object 300 feet away from an adult with normal vision.

By 3-months visual acuity has sharpened to 20/200, which would allow them the see the letter E at the top of a standard eye chart (Hamer, 2016). As a result, the world looks blurry to young infants (Johnson & deHaan, 2015).

Why is visual acuity so poor in the infant? The fovea, which is the central field of vision in the retina and allows us to see sharp detail, is not fully developed at birth, and does not start to reach adult levels of development until 15 months (Li & Ding, 2017). Even by 45 months some of the sensory neurons (cones) of the fovea are still not fully grown. Can babies see color?

Young infants can perceive color, but the colors need to be very pure forms of basic colors, such as vivid red or green rather than weaker pastel shades. Most studies report that babies can see the full spectrum of colors by five months of age (AOA, 2019).

Newborn infants prefer and orient to face-like stimuli more than they do other patterned stimuli (Farroni et al., 2005). They also prefer images of faces that are upright and not scrambled (Chien, 2011). Infants also quickly learn to distinguish the face of their mother from faces of other women (Bartrip, Morton, & De Schonen, 2001). When viewing a person's face, one-month olds fixate on the outer edges of the face rather than the eyes, nose, or mouth, and two-month olds gaze more at the inner features, especially the eyes (Hainline, 1978).

Researchers have examined the development of attention and tracking in the visual system and have found the following for young infants:

- One-month-olds have difficulty disengaging their attention and can spend several minutes fixedly gazing at a stimulus (Johnson & deHaan, 2015).
- Aslin (1981) found that when tracking an object visually, the eye movements of newborns and one-month olds are not smooth

but saccadic, that is step-like jerky movements. Aslin also found their eye movements lag behind the object's motion. This means young infants do not anticipate the trajectory of the object. By two months of age, their eye movements are becoming smoother, but they still lag behind the motion of the object and will not achieve this until about three to four months of age (Johnson & deHaan, 2015).

- Newborns also orient more to the visual field toward the side of the head, than to the visual field on either side of the nose (Lewis, Maurer, & Milewski, 1979). By two to three months, stimuli in both fields are now equally attended to (Johnson & deHaan, 2015).

Binocular vision, which requires input from both eyes, is evident around the third month and continues to develop during the first six months (Atkinson & Braddick, 2003). By six months infants can perceive depth perception in pictures as well (Sen, Yonas, & Knill, 2001). Infants who have experience crawling and exploring will pay greater attention to visual cues of depth and modify their actions accordingly (Berk, 2007).

Hearing: The infant's sense of hearing is very keen at birth, and the ability to hear is evidenced as soon as the seventh month of prenatal development. Newborns prefer their mother's voices over another female when speaking the same material (DeCasper & Fifer, 1980). Additionally, they will register in utero specific information heard from their mother's voice.

Figure 3.9

DeCasper and Spence (1986) tested 16 infants (average age of 55.8 hours) whose mothers had previously read to them prenatally. The mothers read several passages to their fetuses, including the first 28 paragraphs of the Cat in the Hat, beginning when they were 7 months pregnant. The fetuses had been exposed to the stories an average of 67 times or 1.5 hours. When the experimental infants were tested, the target stories (previously heard) were more reinforcing than the novel story as measured by their rate of sucking. However, for control infants, the target stories were not more reinforcing than the novel story indicating that the experimental infants had heard them before.

An infant can distinguish between very similar sounds as early as one month after birth and can distinguish between a familiar and non-familiar voice even earlier. Infants are especially sensitive to the frequencies of sounds in human speech and prefer the exaggeration of infant-directed speech, which will be discussed later. Additionally, infants are innately ready to respond to the sounds of any language, but between six and nine months they show a preference for listening to their native language (Jusczyk, Cutler,

& Redanz, 1993). Their ability to distinguish the sounds that are not in the language around them diminishes rapidly (Cheour-Luhtanen, et al., 1995).

Touch and Pain: Immediately after birth, a newborn is sensitive to touch and temperature, and is also highly sensitive to pain, responding with crying and cardiovascular responses (Balaban & Reisenauer, 2013). Newborns who are circumcised, which is the surgical removal of the foreskin of the penis, without anesthesia experience pain as demonstrated by increased blood pressure, increased heart rate, decreased oxygen in the blood, and a surge of stress hormones (United States National Library of Medicine, 2016). Research has demonstrated that infants who were circumcised without anesthesia experienced more pain and fear during routine childhood vaccines. Fortunately, today many local pain killers are currently used during circumcision.

Taste and Smell: Studies of taste and smell demonstrate that babies respond with different facial expressions, suggesting that certain preferences are innate. Newborns can distinguish between sour, bitter, sweet, and salty flavors and show a preference for sweet flavors. Newborns also prefer the smell of their mothers. An infant only 6 days old is significantly more likely to turn toward its own mother's breast pad than to the breast pad of another baby's mother (Porter, Makin, Davis, & Christensen, 1992), and within hours of birth an infant also shows a preference for the face of its own mother (Bushnell, 2001; Bushnell, Sai, & Mullin, 1989).

Figure 3.10

Intermodality: Infants seem to be born with the ability to perceive the world in an intermodal way; that is, through stimulation from more than one sensory modality. For example, infants who sucked on a pacifier with either a smooth or textured surface preferred to look at a corresponding (smooth or textured) visual model of the pacifier. By 4 months, infants can match lip movements with speech sounds and can match other audiovisual events. Sensory processes are certainly affected by the infant's developing motor abilities (Hyvärinen, Walthes, Jacob, Nottingham Chapin, & Leonhardt, 2014). Reaching, crawling, and other actions allow the infant to see, touch, and organize his or her experiences in new ways.

How are Infants Tested: Habituation procedures, that is measuring decreased responsiveness to a stimulus after repeated presentations, have increasingly been used to evaluate infants to study the development of perceptual and memory skills. Phelps (2005) describes a habituation procedure used when measuring the rate of the sucking reflex.

Researchers first measure the initial baseline rate of sucking to

a pacifier equipped with transducers that measure muscle contractions. Next, an auditory stimulus is presented, such as a human voice uttering a speech sound such as "da." The rate of sucking will typically increase with the new sound, but then decrease to baseline levels as "da" is repeatedly presented, showing habituation. If the sound "ma" was then presented, the rate of sucking would again increase, demonstrating that the infant can discriminate between these two stimuli.

Additionally, the speed or efficiency with which infants show habituation has been shown to predict outcomes in behaviors, such as language acquisition and verbal and nonverbal intelligence. Infants who show difficulty during habituation, or habituate at slower than normal rates, have been found to be at an increased risk for significant developmental delays. Infants with Down syndrome, teratogen-exposed infants, malnourished infants, and premature infants have all been studied. Researchers have found that at the age of 16 months, high-risk infants show rates of habituation comparable to newborn infants (Phelps, 2005).

Nutrition

Breast milk is considered the ideal diet for newborns. Colostrum, the first breast milk produced during pregnancy, and just after birth has been described as "liquid gold" (United States Department of Health and Human Services (USDHHS), 2011). It is very rich in nutrients and antibodies. Breast milk changes by the third to fifth day after birth, becoming much thinner, but containing just the right amount of fat, sugar, water, and proteins to support overall physical and neurological development. For most babies, breast milk is also easier to digest than formula. Formula-fed infants experience more diarrhea and upset stomachs. The absence of antibodies in formula often results in a higher rate of ear infections and

respiratory infections. Children who are breastfed have lower rates of childhood leukemia, asthma, obesity, type 1 and 2 diabetes, and a lower risk of SIDS. The USDHHS recommends that mothers breastfeed their infants until at least 6 months of age and that breast milk be used in the diet throughout the first year or two.

Figure 3.11

Source

Several recent studies have reported that it is not just babies that benefit from breastfeeding. Breastfeeding stimulates contractions in the uterus to help it regain its normal size, and women who breastfeed are more likely to space their pregnancies further apart. Mothers who breastfeed are at lower risk of developing breast cancer (Islami et al., 2015), especially among higher-risk racial and ethnic groups (Islami et al., 2015; Redondo et al., 2012). Women who breastfeed have lower rates of ovarian cancer (Titus-Ernstoff, Rees, Terry, & Cramer, 2010), reduced risk for developing Type 2 diabetes (Schwarz et al., 2010; Gunderson, et al., 2015), and rheumatoid arthritis (Karlson, Mandl, Hankinson, & Grodstein, 2004). In most studies these benefits have been seen in women who breastfeed longer than 6 months.

Current rates of breastfeeding indicate that 83.2% of mothers have

breastfed their infants at some point (CDC, 2018). However, most mothers who breastfeed in the United States stop breastfeeding exclusively at about 6-8 weeks, often in order to return to work outside the home (USDHHS, 2011). Mothers can certainly continue to provide breast milk to their babies by expressing and freezing the milk to be bottle fed at a later time or by being available to their infants at feeding time. However, some mothers find that after the initial encouragement they receive in the hospital to breastfeed, the outside world is less supportive of such efforts. Some workplaces support breastfeeding mothers by providing flexible schedules and welcoming infants, but many do not. In addition, not all women may be able to breastfeed. Women with HIV are routinely discouraged from breastfeeding as the infection may pass to the infant. Similarly, women who are taking certain medications or undergoing radiation treatment may be told not to breastfeed (USDHHS, 2011).

Besides the nutritional benefits of breastfeeding, breast milk is free. Anyone who has priced formula recently can appreciate this added incentive to breastfeeding. Prices for a year's worth of formula and feeding supplies can cost between $1,500 and $3000 per year (Los Angles County Department of Public Health, 2019). In addition to the formula, costs include bottles, nipples, sterilizers, and other supplies.

Figure 3.12

EXCLUSIVE BREASTFEEDING

$375 PER YEAR

FORMULA FEEDING

$1,500-$3,000 PER YEAR

Source

One early argument given to promote the practice of breastfeeding was that it promoted bonding and healthy emotional development for infants. However, this does not seem to be the case. Breastfed and bottle-fed infants adjust equally well emotionally (Ferguson & Woodward, 1999). This is good news for mothers who may be unable to breastfeed for a variety of reasons and for fathers who might feel left out.

When to Introduce More Solid Foods: Solid foods should not be introduced until the infant is ready. According to The Clemson University Cooperative Extension (2014), some things to look for include that the infant:

- can sit up without needing support
- can hold its head up without wobbling
- shows interest in foods others are eating

- is still hungry after being breastfed or formula-fed
- is able to move foods from the front to the back of the mouth
- is able to turn away when they have had enough

For many infants who are 4 to 6 months of age, breast milk or formula can be supplemented with more solid foods. The first semi-solid foods that are introduced are iron-fortified infant cereals mixed with breast milk or formula. Typically rice, oatmeal, and barley cereals are offered as a number of infants are sensitive to more wheat-based cereals. Finger foods such as toast squares, cooked vegetable strips, or peeled soft fruit can be introduced by 10-12 months. New foods should be introduced one at a time, and the new food should be fed for a few days in a row to allow the baby time to adjust to the new food. This also allows parents time to assess if the child has a food allergy. Foods that have multiple ingredients should be avoided until parents have assessed how the child responds to each ingredient separately. Foods that are sticky (such as peanut butter or taffy), cut into large chunks (such as cheese and harder meats), and firm and round (such as hard candies, grapes, or cherry tomatoes) should be avoided as they are a choking hazard. Honey and corn syrup should be avoided as these often contain botulism spores. In children under 12 months, this can lead to death (Clemson University Cooperative Extension, 2014).

Figure 3.12

Global Considerations and Malnutrition

Children in developing countries and countries experiencing the harsh conditions of war are at risk for two major types of malnutrition, also referred to as wasting. Infantile marasmus refers to starvation due to a lack of calories and protein. Children who do not receive adequate nutrition lose fat and muscle until their bodies

can no longer function. Babies who are breastfed are much less at risk of malnutrition than those who are bottle-fed.

After weaning, children who have diets deficient in protein may experience kwashiorkor known as the "disease of the displaced child" often occurring after another child has been born and taken over breastfeeding. This results in a loss of appetite and swelling of the abdomen as the body begins to break down the vital organs as a source of protein.

Figure 3.13 Kwashiorkor

(Photo Courtesy Centers for Disease Control and Prevention)
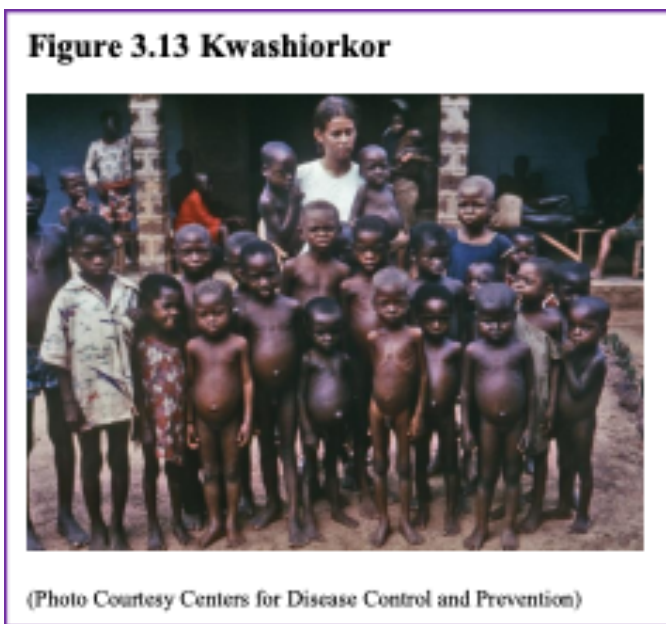
Around the world, the rates of wasting have been dropping. However, according to the World Health Organization and UNICEF, in 2014 there were 50 million children under the age of five that experienced these forms of wasting, and 16 million were severely wasted (UNICEF, 2015). This works out to 1 child in every 13 children in the world suffers from some form of wasting, and the majority of these children live in Asia (34.3 million) and Africa (13.9 million).

Wasting can occur as a result of severe food shortages, regional diets that lack certain proteins and vitamins, or infectious diseases that inhibit appetite (Latham, 1997).

The consequences of wasting depend on how late in the progression of the disease parents and guardians seek medical treatment for their children. Unfortunately, in some cultures families do not seek treatment early, and as a result by the time a child is hospitalized the child often dies within the first three days after admission (Latham, 1997). Several studies have reported long- term cognitive effects of early malnutrition (Galler & Ramsey, 1989; Galler, Ramsey, Salt & Archer, 1987; Richardson, 1980), even when home environments were controlled (Galler, Ramsey, Morley, Archer & Salt, 1990). Lower IQ scores (Galler et al., 1987), poor attention (Galler & Ramsey, 1989), and behavioral issues in the classroom (Galler et al., 1990) have been reported in children with a history of serious malnutrition in the first few years of life.

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Attribution

Chapter 11: Cognitive Development in Infancy & Toddlerhood

- Compare the Piagetian concepts of schema, assimilation, and accommodation
- List and describe the six substages of sensorimotor intelligence
- Describe the characteristics of infant memory
- Describe components and developmental progression of language
- Identify and compare the theories of language

Piaget and the Sensorimotor Stage

Schema, Assimilation, and Accommodation

Piaget believed that we are continuously trying to maintain

cognitive equilibrium, or a balance, in what we see and what we know (Piaget, 1954). Children have much more of a challenge in maintaining this balance because they are constantly being confronted with new situations, new words, new objects, etc. All this new information needs to be organized, and a framework for organizing information is referred to as a schema. Children develop schemata through the processes of assimilation and accommodation.

Figure 3.14

Figure 3.14 Assimilation and Accommodation
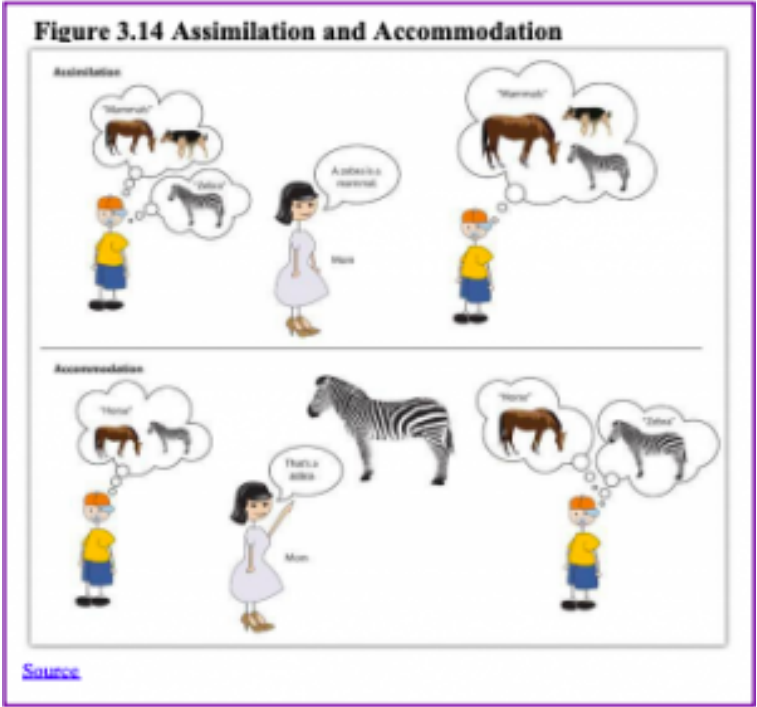
When faced with something new, a child may demonstrate assimilation, which is fitting the new information into an existing schema, such as calling all animals with four legs "doggies" because he or she knows the word doggie. Instead of assimilating the

information, the child may demonstrate accommodation, which is expanding the framework of knowledge to accommodate the new situation and thus learning a new word to more accurately name the animal. For example, recognizing that a horse is different from a zebra means the child has accommodated, and now the child has both a zebra schema and a horse schema. Even as adults we continue to try and "make sense" of new situations by determining whether they fit into our old way of thinking (assimilation) or whether we need to modify our thoughts (accommodation). According to the Piagetian perspective, infants learn about the world primarily through their senses and motor abilities (Harris, 2005). These basic motor and sensory abilities provide the foundation for the cognitive skills that will emerge during the subsequent stages of cognitive development. The first stage of cognitive development is referred to as the sensorimotor stage and it occurs through six substages. Table 3.2 identifies the ages typically associated with each substage.

Table 3.2

Table 3.2 Infant Ages for the Six Substages of the Sensorimotor Stage	
Substage 1	Reflexes (0–1 month)
Substage 2	Primary Circular Reactions (1–4 months)
Substage 3	Secondary Circular Reactions (4–8 months)
Substage 4	Coordination of Secondary Circular Reactions (8–12 months)
Substage 5	Tertiary Circular Reactions (12–18 months)
Substage 6	Beginning of Representational Thought (18–24 months)

Source:

Substage 1: Reflexes. Newborns learn about their world through the use of their reflexes, such as when sucking, reaching, and grasping. Eventually the use of these reflexes becomes more deliberate and purposeful.

Substage 2: Primary Circular Reactions. During these next 3 months, the infant begins to actively involve his or her own body in some form of repeated activity. An infant may accidentally engage in a behavior and find it interesting such as making a vocalization. This

interest motivates trying to do it again and helps the infant learn a new behavior that originally occurred by chance. The behavior is identified as circular because of the repetition, and as primary because it centers on the infant's own body.

Substage 3: Secondary Circular Reactions. The infant begins to interact with objects in the environment. At first the infant interacts with objects (e.g., a crib mobile) accidentally, but then these contacts with the objects are deliberate and become a repeated activity. The infant becomes more and more actively engaged in the outside world and takes delight in being able to make things happen. Repeated motion brings particular interest as, for example, the infant is able to bang two lids together from the cupboard when seated on the kitchen floor.

Figure 3.15

Source

Substage 4: Coordination of Secondary Circular Reactions. The infant combines these basic reflexes and simple behaviors and uses planning and coordination to achieve a specific goal. Now the infant can engage in behaviors that others perform and anticipate

upcoming events. Perhaps because of continued maturation of the prefrontal cortex, the infant becomes capable of having a thought and carrying out a planned, goal-directed activity. For example, an infant sees a toy car under the kitchen table and then crawls, reaches, and grabs the toy. The infant is coordinating both internal and external activities to achieve a planned goal.

Substage 5: Tertiary Circular Reactions. The toddler is considered a "little scientist" and begins exploring the world in a trial-and-error manner, using both motor skills and planning abilities. For example, the child might throw her ball down the stairs to see what happens. The toddler's active engagement in experimentation helps them learn about their world.

Substage 6: Beginning of Representational Thought. The sensorimotor period ends with the appearance of symbolic or representational thought. The toddler now has a basic understanding that objects can be used as symbols. Additionally, the child is able to solve problems using mental strategies, to remember something heard days before and repeat it, and to engage in pretend play. This initial movement from a "hands-on" approach to knowing about the world to the more mental world of substage six marks the transition to preoperational thought.

Figure 3.16

Source

Development of Object Permanence

A critical milestone during the sensorimotor period is the development of object permanence. Object permanence is the understanding that even if something is out of sight, it still exists (Bogartz, Shinskey, & Schilling, 2000). According to Piaget, young infants do not remember an object after it has been removed from sight. Piaget studied infants'reactions when a toy was first shown to them and then hidden under a blanket. Infants who had already developed object permanence would reach for the hidden toy, indicating that they knew it still existed, whereas infants who had not developed object permanence would appear confused. Piaget emphasizes this construct because it was an objective way for children to demonstrate that they can mentally represent their world. Children have typically acquired this milestone by 8 months. Once toddlers have mastered object permanence, they enjoy games like hide and seek, and they realize that when someone leaves the room they will come back. Toddlers also point to pictures in books and look at inappropriate places when you ask them to find objects.

In Piaget's view, around the same time children develop object permanence, they also begin to exhibit stranger anxiety, which is a fear of unfamiliar people (Crain, 2005). Babies may demonstrate this by crying and turning away from a stranger, by clinging to a caregiver, or by attempting to reach their arms toward familiar faces, such as parents. Stranger anxiety results when a child is unable to assimilate the stranger into an existing schema; therefore, she cannot predict what her experience with that stranger will be like, which results in a fear response.

Critique of Piaget

Piaget thought that children's ability to understand objects, such as

learning that a rattle makes a noise when shaken, was a cognitive skill that develops slowly as a child matures and interacts with the environment. Today, developmental psychologists think Piaget was incorrect. Researchers have found that even very young children understand objects and how they work long before they have experience with those objects (Baillargeon, 1987; Baillargeon, Li, Gertner, & Wu, 2011). For example, Piaget believed that infants did not fully master object permanence until substage 5 of the sensorimotor period (Thomas, 1979). However, infants seem to be able to recognize that objects have permanence at much younger ages. Diamond (1985) found that infants show earlier knowledge if the waiting period is shorter. At age 6 months, they retrieved the hidden object if their wait for retrieving the object is no longer than 2 seconds, and at 7 months if the wait is no longer than 4 seconds.

Others have found that children as young as 3 months old have demonstrated knowledge of the properties of objects that they had only viewed and did not have prior experience with. In one study, 3-month-old infants were shown a truck rolling down a track and behind a screen. The box, which appeared solid but was actually hollow, was placed next to the track. The truck rolled past the box as would be expected. Then the box was placed on the track to block the path of the truck. When the truck was rolled down the track this time, it continued unimpeded. The infants spent significantly more time looking at this impossible event (Figure 3.17). Baillargeon (1987) concluded that they knew solid objects cannot pass through each other. Baillargeon's findings suggest that very young children have an understanding of objects and how they work, which Piaget (1954) would have said is beyond their cognitive abilities due to their limited experiences in the world.

Figure 3.17

Figure 3.17

In Baillargeon's (1987) study, infants observed a track (a) roll down an unobstructed track, (b) roll down an unobstructed track with an obstruction (box) beside it, and (c) roll down and pass through what appeared to be an obstruction.

Infant Memory

Memory requires a certain degree of brain maturation, so it should not be surprising that infant memory is rather fleeting and fragile. As a result, older children and adults experience infantile amnesia, the inability to recall memories from the first few years of life. Several hypotheses have been proposed for this amnesia. From the biological perspective, it has been suggested that infantile amnesia is due to the immaturity of the infant brain, especially those areas that are crucial to the formation of autobiographical memory, such as the hippocampus. From the cognitive perspective, it has been suggested that the lack of linguistic skills of babies and toddlers limit their ability to mentally represent events; thereby, reducing their ability to encode memory. Moreover, even if infants do form such early memories, older children and adults may not be able to access them because they may be employing very different, more linguistically based, retrieval cues than infants used when forming the memory. Finally, social theorists argue that episodic memories of personal experiences may hinge on an understanding of "self", something that is clearly lacking in infants and young toddlers.

However, in a series of clever studies Carolyn Rovee-Collier and her colleagues have demonstrated that infants can remember events from their life, even if these memories are shortlived. Three-month-old infants were taught that they could make a mobile hung

over their crib shake by kicking their legs. The infants were placed in their crib, on their backs. A ribbon was tied to one foot and the other end to a mobile. At first infants made random movements, but then came to realize that by kicking they could make the mobile shake. After two 9-minute sessions with the mobile, the mobile was removed. One week later the mobile was reintroduced to one group of infants and most of the babies immediately started kicking their legs, indicating that they remembered their prior experience with the mobile. The second group of infants was shown on the mobile two weeks later, and the babies made only random movements. The memory had faded (Rovee-Collier, 1987; Giles & Rovee-Collier, 2011). Rovee-Collier and Hayne (1987) found that 3-month-olds could remember the mobile after two weeks if they were shown the mobile and watched it move, even though they were not tied to it. This reminder helped most infants to remember the connection between their kicking and the movement of the mobile. Like many researchers of infant memory, Rovee-Collier (1990) found infant memory to be very context-dependent. In other words, the sessions with the mobile and the later retrieval sessions had to be conducted under very similar circumstances or else the babies would not remember their prior experiences with the mobile. For instance, if the first mobile had had yellow blocks with blue letters, but at the later retrieval session the blocks were blue with yellow letters, the babies would not kick. Infants older than 6 months of age can retain information for longer periods of time; they also need less reminding to retrieve information in memory.

Infants older than 6 months of age can retain information for longer periods of time; they also need less reminding to retrieve information in memory. Studies of deferred imitation, that is, the imitation of actions after a time delay, can occur as early as six months of age (Campanella & Rovee-Collier, 2005), but only if infants are allowed to practice the behavior they were shown. By 12 months of age, infants no longer need to practice the behavior in order to retain memory for four weeks (Klein & Meltzoff, 1999).

Language

Our vast intelligence also allows us to have language, a system of communication that uses symbols in a regular way to create meaning. Language gives us the ability to communicate our intelligence to others by talking, reading, and writing. Although other species have at least some ability to communicate, none of them have language. There are many components of language that will now be reviewed.

Components of Language

Phoneme: A phoneme is the smallest unit of sound that makes a meaningful difference in a language. The word "bit" has three phonemes. In spoken languages, phonemes are produced by the positions and movements of the vocal tract, including our lips, teeth, tongue, vocal cords, and throat, whereas in sign language phonemes are defined by the shapes and movement of the hands.

Figure 3.18
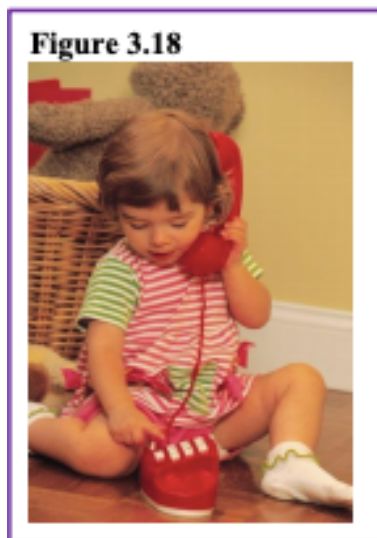
There are hundreds of unique phonemes that can be made by human speakers, but most languages only use a small subset of the possibilities. English contains about 45 phonemes, whereas other languages have as few as 15 and others more than 60. The Hawaiian language contains fewer phonemes as it includes only 5 vowels (a, e, i, o, and u) and 7 consonants (h, k, l, m, n, p, and w).

Infants are born able to detect all phonemes, but they lose their ability to do so as they get older; by 10 months of age, a child's ability to recognize phonemes becomes very similar to that of the adult speakers of the native language. Phonemes that were initially differentiated come to be treated as equivalent (Werker & Tees, 2002).

Morpheme: Whereas phonemes are the smallest units of sound in language, a morpheme is a string of one or more phonemes that makes up the smallest units of meaning in a language. Some morphemes are prefixes and suffixes used to modify other words. For example, the syllable "re-" as in "rewrite" or "repay" means "to do again," and the suffix "-est" as in "happiest" or "coolest" means "to the maximum."

Semantics: Semantics refers to the set of rules we use to obtain meaning from morphemes. For example, adding "ed" to the end of a verb makes it past tense.

Syntax: Syntax is the set of rules of a language by which we construct sentences. Each language has a different syntax. The syntax of the English language requires that each sentence has a noun and a verb, each of which may be modified by adjectives and adverbs. Some syntaxes make use of the order in which words appear. For example, in English, the meaning of the sentence "The man bites the dog" is different from "The dog bites the man."

Pragmatics: The social side of language is expressed through pragmatics, or how we communicate effectively and appropriately with others. Examples of pragmatics include turn taking, staying on topic, volume and tone of voice, and appropriate eye contact.

Lastly, words do not possess fixed meanings but change their interpretation as a function of the context in which they are spoken.

We use contextual information, the information surrounding language, to help us interpret it. Examples of contextual information include our knowledge and nonverbal expressions, such as facial expressions, postures, and gestures. Misunderstandings can easily arise if people are not attentive to contextual information or if some of it is missing, such as it may be in newspaper headlines or in text messages.

Language Developmental Progression

An important aspect of cognitive development is language acquisition. The order in which children learn language structures is consistent across children and cultures (Hatch, 1983). Starting before birth, babies begin to develop language and communication skills. At birth, babies recognize their mother's voice and can discriminate between the language(s) spoken by their mothers and foreign languages, and they show preferences for faces that are moving in synchrony with audible language (Blossom & Morgan, 2006; Pickens et al., 1994; Spelke & Cortelyou, 1981).

Do newborns communicate? Of course, they do. They do not, however, communicate with the use of oral language. Instead, they communicate their thoughts and needs with body posture (being relaxed or still), gestures, cries, and facial expressions. A person who spends adequate time with an infant can learn which cries indicate pain and which ones indicate hunger, discomfort, or frustration.

Figure 3.19

Intentional Vocalizations: In terms of producing spoken language, babies begin to coo almost immediately. Cooing is a one-syllable combination of a consonant and a vowel sound (e.g., coo or ba). Interestingly, babies replicate sounds from their own languages. A baby whose parents speak French will coo in a different tone than a baby whose parents speak Spanish or Urdu. These gurgling, musical vocalizations can serve as a source of entertainment to an infant who has been laid down for a nap or seated in a carrier on a car ride. Cooing serves as practice for vocalization, as well as the infant hears the sound of his or her own voice and tries to repeat sounds that are entertaining. Infants also begin to learn the pace and pause of conversation as they alternate their vocalization with that of someone else and then take their turn again when the other person's vocalization has stopped.

At about four to six months of age, infants begin making even more elaborate vocalizations that include the sounds required for any language. Guttural sounds, clicks, consonants, and vowel sounds stand ready to equip the child with the ability to repeat whatever sounds are characteristic of the language heard. Eventually, these sounds will no longer be used as the infant grows more accustomed to a particular language.

At about 7 months, infants begin babbling, engaging in intentional

vocalizations that lack specific meaning and comprise a consonant-vowel repeated sequence, such as ma-ma-ma, da-da-da. Children babble as practice in creating specific sounds, and by the time they are a 1-year-old, the babbling uses primarily the sounds of the language that they are learning (de Boysson- Bardies, Sagart, & Durand, 1984). These vocalizations have a conversational tone that sounds meaningful even though it is not. Babbling also helps children understand the social, communicative function of language. Children who are exposed to sign language babble in sign by making hand movements that represent real language (Petitto & Marentette, 1991).

Gesturing: Children communicate information through gesturing long before they speak, and there is some evidence that gesture usage predicts subsequent language development (Iverson & Goldin-Meadow, 2005). Deaf babies also use gestures to communicate wants, reactions, and feelings. Because gesturing seems to be easier than vocalization for some toddlers, sign language is sometimes taught to enhance one's ability to communicate by making use of the ease of gesturing. The rhythm and pattern of language are used when deaf babies sign, just as it is when hearing babies babble.

Understanding: At around ten months of age, the infant can understand more than he or she can say, which is referred to as receptive language. You may have experienced this phenomenon as well if you have ever tried to learn a second language. You may have been able to follow a conversation more easily than contribute to it. One of the first words that children understand is their own name, usually by about 6 months, followed by commonly used words like "bottle," "mama," and "doggie" by 10 to 12 months (Mandel, Jusczyk, & Pisoni, 1995).

Infants shake their head "no" around 6–9 months, and they respond to verbal requests to do things like "wave bye-bye" or "blow a kiss" around 9–12 months. Children also use contextual information,

particularly the cues that parents provide, to help them learn the language. Children learn that people are usually referring to things that they are looking at when they are speaking (Baldwin, 1993), and that that the speaker's emotional expressions are related to the content of their speech.

Holophrastic Speech: Children begin using their first words at about 12 or 13 months of age and may use partial words to convey thoughts at even younger ages. These one-word expressions are referred to as holophrasic speech. For example, the child may say "ju" for the word "juice" and use this sound when referring to a bottle. The listener must interpret the meaning of the holophrase, and when this is someone who has spent time with the child, interpretation is not too difficult. But, someone who has not been around the child will have trouble knowing what is meant. Imagine the parent who to a friend exclaims, "Ezra's talking all the time now!" The friend hears only "ju da ga" to which the parent explains means, "I want some milk when I go with Daddy."

Language Errors: The early utterances of children contain many errors, for instance, confusing /b/ and /d/, or /c/ and /z/. The words children create are often simplified, in part because they are not yet able to make the more complex sounds of the real language (Dobrich & Scarborough, 1992). Children may say "keekee" for kitty, "nana" for banana, and "vesketti" for spaghetti because it is easier. Often these early words are accompanied by gestures that may also be easier to produce than the words themselves. Children's pronunciations become increasingly accurate between 1 and 3 years, but some problems may persist until school age.

A child who learns that a word stands for an object may initially think that the word can be used for only that particular object, which is referred to as underextension. Only the family's Irish Setter is a "doggie", for example. More often, however, a child may think that a label applies to all objects that are similar to the original object, which is called overextension. For example, all animals

become "doggies". The first error is often the result of children learning the meaning of a word in a specific context, while the second language error is a function of the child's smaller vocabulary.

First words and cultural influences: If the child is using English, first words tend to be nouns. The child labels objects such as a cup, ball, or other items that they regularly interact with. In a verb-friendly language such as Chinese, however, children may learn more verbs. This may also be due to the different emphasis given to objects based on culture. Chinese children may be taught to notice action and relationships between objects, while children from the United States may be taught to name an object and its qualities (color, texture, size, etc.). These differences can be seen when comparing interpretations of art by older students from China and the United States (Imai et al., 2008).

Two-word sentences and telegraphic (text message) speech: By the time they become toddlers, children have a vocabulary of about 50-200 words and begin putting those words together in telegraphic speech, such as "baby bye-bye" or "doggie pretty". Words needed to convey messages are used, but the articles and other parts of speech necessary for grammatical correctness are not yet used. These expressions sound like a telegraph, or perhaps a better analogy today would be that they read like a text message. Telegraphic speech/text message speech occurs when unnecessary words are not used. "Give baby ball" is used rather than "Give the baby the ball."

Infant-directed Speech: Why is a horse a "horsie"? Have you ever wondered why adults tend to use "baby talk" or that sing-song type of intonation and exaggeration used when talking to children? This represents a universal tendency and is known as infant-directed speech. It involves exaggerating the vowel and consonant sounds, using a high-pitched voice, and delivering the phrase with great facial expression (Clark, 2009). Why is this done? Infants are frequently more attuned to the tone of voice of the person speaking

than to the content of the words themselves and are aware of the target of speech. Werker, Pegg, and McLeod (1994) found that infants listened longer to a woman who was speaking to a baby than to a woman who was speaking to another adult. Adults may use this form of speech in order to clearly articulate the sounds of a word so that the child can hear the sounds involved. It may also be because when this type of speech is used, the infant pays more attention to the speaker and this sets up a pattern of interaction in which the speaker and listener are in tune with one another.

Theories of Language Development

Psychological theories of language learning differ in terms of the importance they place on nature and nurture. Remember that we are a product of both nature and nurture. Researchers now believe that language acquisition is partially inborn and partially learned through our interactions with our linguistic environment (Gleitman & Newport, 1995; Stork & Widdowson, 1974). First to be discussed are the biological theories, including nativist, brain areas, and critical periods. Next, learning theory and social pragmatics will be presented.

Nativism: The linguist Noam Chomsky is a believer in the natural approach to language, arguing that human brains contain a language acquisition device (LAD) that includes a universal grammar that underlies all human language (Chomsky, 1965, 1972). According to this approach, each of the many languages spoken around the world (there are between 6,000 and 8,000) is an individual example of the same underlying set of procedures that are hardwired into human brains. Chomsky's account proposes that children are born with a knowledge of general rules of syntax that determine how sentences are constructed. Language develops as long as the infant is exposed

to it. No teaching, training, or reinforcement is required for language to develop as proposed by Skinner.

Chomsky differentiates between the deep structure of an idea; that is, how the idea is represented in the fundamental universal grammar that is common to all languages, and the surface structure of the idea or how it is expressed in any one language. Once we hear or express a thought in surface structure, we generally forget exactly how it happened. At the end of a lecture, you will remember a lot of the deep structure (i.e., the ideas expressed by the instructor), but you cannot reproduce the surface structure (the exact words that the instructor used to communicate the ideas).

Although there is general agreement among psychologists that babies are genetically programmed to learn language, there is still debate about Chomsky's idea that there is a universal grammar that can account for all language learning. Evans and Levinson (2009) surveyed the world's languages and found that none of the presumed underlying features of the language acquisition device were entirely universal. In their search, they found languages that did not have noun or verb phrases, that did not have tenses (e.g., past, present, future), and even some that did not have nouns or verbs at all, even though a basic assumption of a universal grammar is that all languages should share these features.

Brain Areas for Language: For the 90% of people who are right-handed, language is stored and controlled by the left cerebral cortex, although for some left-handers this pattern is reversed. These differences can easily be seen in the results of neuroimaging studies that show that listening to and producing language creates greater activity in the left hemisphere than in the right. Broca's area, an area in front of the left hemisphere near the motor cortex, is responsible for language production (Figure 3.20).

Figure 3.20 Drawing of Brain Showing Broca's and Wernicke's Area

Figure 3.20 Drawing of Brain Showing Broca's and Wernicke's Areas
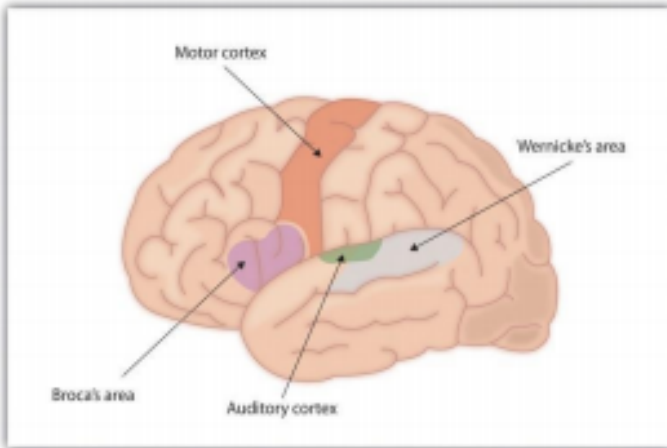
For most people the left hemisphere is specialized for language. Broca's area, near the motor cortex, is involved in language production, whereas Wernicke's area, near the auditory cortex, is specialized for language comprehension.

This area was first localized in the 1860s by the French physician Paul Broca, who studied patients with lesions to various parts of the brain. Wernicke's area, an area of the brain next to the auditory cortex, is responsible for language comprehension.

Is there a critical period for learning a language? Psychologists believe there is a critical period, a time in which learning can easily occur, for language. This critical period appears to be between infancy and puberty (Lenneberg, 1967; Penfield & Roberts, 1959), but isolating the exact timeline has been elusive. Children who are not exposed to language early in their lives will likely never grasp the grammatical and communication nuances of language. Case studies, including Victor the "Wild Child," who has abandoned as a baby in 18th century France and not discovered until he was 12, and Genie,

a child whose parents kept her locked away from 18 months until 13 years of age, are two examples of children who were deprived of language. Both children made some progress in socialization after they were rescued, but neither of them ever developed a working understanding of language (Rymer, 1993). Yet, such case studies are fraught with many confounds. How much did the years of social isolation and malnutrition contribute to their problems in language development?

Figure 3.21 Victor of Aveyon

Der Wilde von Aveyron.

Source
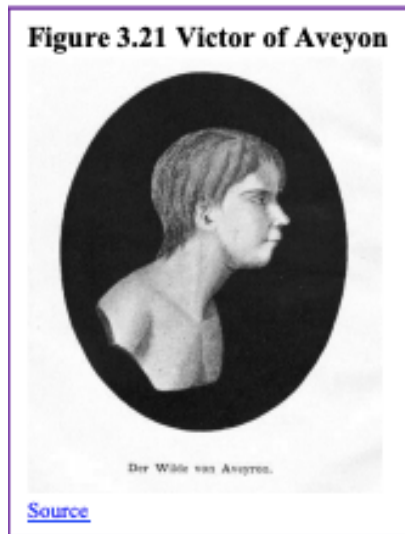
A better test for the notion of critical periods for language is found in studies of children with hearing loss. Several studies show that the earlier children are diagnosed with hearing impairment and receive treatment, the better the child's long-term language development. For instance, Stika et al. (2015) reported that when children's hearing loss was identified during newborn screening, and subsequently addressed, the majority showed normal language development when later tested at 12-18 months. Fitzpatrick, Crawford, Ni, and Durieux-Smith (2011) reported that early language intervention in children who were moderately to severely hard of

hearing, demonstrated normal outcomes in language proficiency by 4 to 5 years of age. Tomblin et al. (2015) reported that children who were fit with hearing aids by 6 months of age showed good levels of language development by age 2. Those whose hearing was not corrected until after 18 months showed lower language performance, even in the early preschool years. However, this study did reveal that those whose hearing was corrected by toddlerhood had greatly improved language skills by age 6. The research with hearing impaired children reveals that this critical period for language development is not exclusive to infancy, and that the brain is still receptive to language development in early childhood. Fortunately, it is has become routine to screen hearing in newborns, because when hearing loss is not treated early, it can delay spoken language, literacy, and impact children's social skills (Moeller & Tomblin, 2015).

Learning Theory: Perhaps the most straightforward explanation of language development is that it occurs through the principles of learning, including association and reinforcement (Skinner, 1953). Additionally, Bandura (1977) described the importance of observation and imitation of others in learning language. There must be at least some truth to the idea that language is learned through environmental interactions or nurture. Children learn the language that they hear spoken around them rather than some other language. Also supporting this idea is the gradual improvement of language skills with time. It seems that children modify their language through imitation and reinforcement, such as parental praise and being understood. For example, when a two-year-old child asks for juice, he might say, "me juice," to which his mother might respond by giving him a cup of apple juice.

Figure 3.22 Three Theorists who provide explanations for language development

Figure 3.22 Three theorists who provide explanations for language development

B. F. Skinner Source   Albert Bandura Source   Noam Chomsky Source

However, language cannot be entirely learned. For one, children learn words too fast for them to be learned through reinforcement. Between the ages of 18 months and 5 years, children learn up to 10 new words every day (Anglin, 1993). More importantly, language is more generative than it is imitative. Language is not a predefined set of ideas and sentences that we choose when we need them, but rather a system of rules and procedures that allows us to create an infinite number of statements, thoughts, and ideas, including those that have never previously occurred. When a child says that she "swimmed" in the pool, for instance, she is showing generativity. No adult speaker of English would ever say "swimmed," yet it is easily generated from the normal system of producing language.

Other evidence that refutes the idea that all language is learned through experience comes from the observation that children may learn languages better than they ever hear them. Deaf children whose parents do not communicate using ASL very well nevertheless are able to learn it perfectly on their own and may even make up their own language if they need to (Goldin-Meadow & Mylander, 1998). A group of deaf children in a school in Nicaragua, whose teachers could not sign, invented a way to communicate through made-up signs (Senghas, Senghas, & Pyers, 2005). The development of this new Nicaraguan Sign Language has continued

and changed as new generations of students have come to the school and started using the language. Although the original system was not a real language, it is becoming closer and closer every year, showing the development of a new language in modern times.

Social pragmatics: Another view emphasizes the very social nature of human language. Language from this view is not only a cognitive skill but also a social one. A language is a tool humans use to communicate, connect to, influence and inform others. Most of all, language comes out of a need to cooperate. The social nature of language has been demonstrated by a number of studies that have shown that children use several pre-linguistic skills (such as pointing and other gestures) to communicate not only their own needs but what others may need. So, a child watching her mother search for an object may point to the object to help her mother find it. Eighteen-month to 30-month-olds have been shown to make linguistic repairs when it is clear that another person does not understand them (Grosse, Behne, Carpenter & Tomasello, 2010). Grosse et al. (2010) found that even when the child was given the desired object if there had been any misunderstanding along the way (such as a delay in being handed the object, or the experimenter calling the object by the wrong name), children would make linguistic repairs. This would suggest that children are using language not only as a means of achieving some material goal, but to make themselves understood in the mind of another person.

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Attribution

Chapter 12: Psychosocial Development in Infancy & Toddlerhood

Temperament

Perhaps you have spent time with a number of infants. How were they alike? How did they differ? How do you compare with your siblings or other children you have known well? You may have

noticed that some seemed to be in a better mood than others and that some were more sensitive to noise or more easily distracted than others. These differences may be attributed to temperament. Temperament is the innate characteristics of the infant, including mood, activity level, and emotional reactivity, noticeable soon after birth.

In a 1956 landmark study, Chess and Thomas (1996) evaluated 141 children's temperament based on parental interviews. Referred to as the New York Longitudinal Study, infants were assessed on 9 dimensions of temperament including: Activity level, rhythmicity (regularity of biological functions), approach/withdrawal (how children deal with new things), adaptability to situations, intensity of reactions, threshold of responsiveness (how intense a stimulus has to be for the child to react), quality of mood, distractibility, attention span, and persistence. Based on the infants' behavioral profiles, they were categorized into three general types of temperament:

- Easy Child (40%) who is able to quickly adapt to routine and new situations, remains calm, is easy to soothe, and usually is in a positive mood.
- Difficult Child (10%) who reacts negatively to new situations, has trouble adapting to routine, is usually negative in mood, and cries frequently.
- Slow-to-Warm-Up Child (15%) has a low activity level, adjusts slowly to new situations and is often negative in mood.

As can be seen the percentages do not equal 100% as some children were not able to be placed neatly into one of the categories. Think about how you might approach each type of child in order to improve your interactions with them. An easy child will not need much extra attention, while a slow to warm up child may need to be given advance warning if new people or situations are going to be introduced. A difficult child may need to be given extra time to burn off their energy. A caregiver's ability to work well and accurately

read the child will enjoy a goodness-of-fit, meaning their styles match and communication and interaction can flow. Parents who recognize each child's temperament and accept it, will nurture more effective interactions with the child and encourage more adaptive functioning. For example, an adventurous child whose parents regularly take her outside on hikes would provide a good "fit" to her temperament.

Parenting is bidirectional: Not only do parents affect their children, children influence their parents. Child characteristics, such as temperament, affect parenting behaviors and roles. For example, an infant with an easy temperament may enable parents to feel more effective, as they are easily able to soothe the child and elicit smiling and cooing. On the other hand, a cranky or fussy infant elicits fewer positive reactions from his or her parents and may result in parents feeling less effective in the parenting role (Eisenberg et al., 2008). Over time, parents of more difficult children may become more punitive and less patient with their children (Clark, Kochanska, & Ready, 2000; Eisenberg et al., 1999; Kiff, Lengua, & Zalewski, 2011). Parents who have a fussy, difficult child are less satisfied with their marriages and have greater challenges in balancing work and family roles (Hyde, Else-Quest, & Goldsmith, 2004). Thus, child temperament is one of the child characteristics that influence how parents behave with their children.

Figure 3.23

Source

Temperament does not change dramatically as we grow up, but we may learn how to work around and manage our temperamental qualities. Temperament may be one of the things about us that stays the same throughout development. In contrast, personality, defined as an individual's consistent pattern of feeling, thinking, and behaving, is the result of the continuous interplay between biological disposition and experience.

Personality also develops from temperament in other ways (Thompson, Winer, & Goodvin, 2010). As children mature biologically, temperamental characteristics emerge and change over time. A newborn is not capable of much self-control, but as brain-based capacities for self- control advance, temperamental changes in self-regulation become more apparent. For example, a newborn who cries frequently does not necessarily have a grumpy personality; over time, with sufficient parental support and an increased sense of security, the child might be less likely to cry.

In addition, personality is made up of many other features besides temperament. Children's developing self-concept, their motivations to achieve or to socialize, their values and goals, their coping styles, their sense of responsibility and conscientiousness, and many other qualities are encompassed into personality. These qualities are influenced by biological dispositions, but even more by the child's experiences with others, particularly in close relationships, that guide the growth of individual characteristics. Indeed, personality development begins with the biological foundations of temperament but becomes increasingly elaborated, extended, and refined over time. The newborn that parents gazed upon becomes an adult with a personality of depth and nuance.

Infant Emotions

At birth, infants exhibit two emotional responses: Attraction and withdrawal. They show attraction to pleasant situations that bring comfort, stimulation, and pleasure, and they withdraw from unpleasant stimulation such as bitter flavors or physical discomfort. At around two months, infants exhibit social engagement in the form of social smiling as they respond with smiles to those who engage their positive attention (Lavelli & Fogel, 2005).

Figure 3.24

Source

Social smiling becomes more stable and organized as infants learn to use their smiles to engage their parents in interactions. Pleasure is expressed as laughter at 3 to 5 months of age, and displeasure becomes more specific as fear, sadness, or anger between ages 6

and 8 months. Anger is often the reaction to being prevented from obtaining a goal, such as a toy being removed (Braungart-Rieker, Hill-Soderlund, & Karrass, 2010). In contrast, sadness is typically the response when infants are deprived of a caregiver (Papousek, 2007). Fear is often associated with the presence of a stranger, known as stranger wariness, or the departure of significant others known as separation anxiety. Both appear sometime between 6 and 15 months after object permanence has been acquired. Further, there is some indication that infants may experience jealousy as young as 6 months of age (Hart & Carrington, 2002).

Emotions are often divided into two general categories: Basic emotions, such as interest, happiness, anger, fear, surprise, sadness and disgust, which appear first, and self-conscious emotions, such as envy, pride, shame, guilt, doubt, and embarrassment. Unlike primary emotions, secondary emotions appear as children start to develop a self-concept and require social instruction on when to feel such emotions. The situations in which children learn self-conscious emotions vary from culture to culture. Individualistic cultures teach us to feel pride in personal accomplishments, while in more collective cultures children are taught to not call attention to themselves unless you wish to feel embarrassed for doing so (Akimoto & Sanbinmatsu, 1999).

Facial expressions of emotion are important regulators of social interaction. In the developmental literature, this has been investigated under the concept of social referencing; that is, the process whereby infants seek out information from others to clarify a situation and then use that information to act (Klinnert, Campos, & Sorce, 1983). To date, the strongest demonstration of social referencing comes from work on the visual cliff. In the first study to investigate this concept, Sorce, Emde, Campos, and Klinnert (1985) placed mothers on the far end of the "cliff" from the infant. Mothers first smiled to the infants and placed a toy on top of the safety glass to attract them; infants invariably began crawling to their mothers. When the infants were in the center of the table, however, the

mother then posed an expression of fear, sadness, anger, interest, or joy. The results were clearly different for the different faces; no infant crossed the table when the mother showed fear; only 6% did when the mother posed anger, 33% crossed when the mother posed sadness, and approximately 75% of the infants crossed when the mother posed joy or interest.

Other studies provide similar support for facial expressions as regulators of social interaction. Experimenters posed facial expressions of neutral, anger, or disgust toward babies as they moved toward an object and measured the amount of inhibition the babies showed in touching the object (Bradshaw, 1986). The results for 10- and 15-month olds were the same: Anger produced the greatest inhibition, followed by disgust, with neutral the least. This study was later replicated using joy and disgust expressions, altering the method so that the infants were not allowed to touch the toy (compared with a distractor object) until one hour after exposure to the expression (Hertenstein & Campos, 2004). At 14 months of age, significantly more infants touched the toy when they saw joyful expressions, but fewer touched the toy when the infants saw disgust.

A final emotional change is in self-regulation. Emotional self-regulation refers to strategies we use to control our emotional states so that we can attain goals (Thompson & Goodvin, 2007).

This requires effortful control of emotions and initially requires assistance from caregivers (Rothbart, Posner, & Kieras, 2006). Young infants have very limited capacity to adjust their emotional states and depend on their caregivers to help soothe themselves. Caregivers can offer distractions to redirect the infant's attention and comfort to reduce the emotional distress. As areas of the infant's prefrontal cortex continue to develop, infants can tolerate more stimulation. By 4 to 6 months, babies can begin to shift their attention away from upsetting stimuli (Rothbart et al, 2006). Older infants and toddlers can more effectively communicate their need

for help and can crawl or walk toward or away from various situations (Cole, Armstrong, & Pemberton, 2010). This aids in their ability to self-regulate. Temperament also plays a role in children's ability to control their emotional states, and individual differences have been noted in the emotional self-regulation of infants and toddlers (Rothbart & Bates, 2006).

Development of sense of self: During the second year of life, children begin to recognize themselves as they gain a sense of self as object. In a classic experiment by Lewis and Brooks (1978) children 9 to 24 months of age were placed in front of a mirror after a spot of rouge was placed on their nose as their mothers pretended to wipe something off the child's face. If the child reacted by touching his or her own nose rather that of the "baby" in the mirror, it was taken to suggest that the child recognized the reflection as him- or herself. Lewis and Brooks found that somewhere between 15 and 24 months most infants developed a sense of self-awareness. Self-awareness is the realization that you are separate from others (Kopp, 2011).

Once a child has achieved self-awareness, the child is moving toward understanding social emotions such as guilt, shame or embarrassment, as well as, sympathy or empathy.

Figure 3.25

Source

Forming Attachments

Attachment is the close bond with a caregiver from which the infant derives a sense of security. The formation of attachments in infancy has been the subject of considerable research as attachments have been viewed as foundations for future relationships. Additionally, attachments form the basis for confidence and curiosity as toddlers, and as important influences on self-concept.

Figure: 3.26 Mutually enjoyable interactions promote infant bonding

(credit: Peter Shanks)

Freud's Psychoanalytic Theory: According to Freud (1938) infants are oral creatures who obtain pleasure from sucking and mouthing objects. Freud believed the infant will become attached to a person or object that provides this pleasure. Consequently, infants were believed to become attached to their mother because she was the one who satisfied their oral needs and provided pleasure. Freud further believed that the infants will become attached to their mothers "if the mother is relaxed and generous in her feeding practices, thereby allowing the child a lot of oral pleasure," (Shaffer, 1985, p. 435). Was Freud correct in his explanation for why infants became attached?

Harlow's Research: In one classic study showing if nursing was the most important factor to attachment, Wisconsin University psychologists Harry and Margaret Harlow investigated the responses of young monkeys. The infants were separated from their biological mothers, and two surrogate mothers were introduced to their cages. One, the wire mother, consisted of a round wooden head, a mesh of cold metal wires, and a bottle of milk from which the baby monkey could drink. The second mother was a foam-rubber form wrapped in a heated terry-cloth blanket. The infant

monkeys went to the wire mother for food, but they overwhelmingly preferred and spent significantly more time with the warm terry-cloth mother. The warm terry-cloth mother provided no food but did provide comfort (Harlow, 1958). The infant's need for physical closeness and touching is referred to as contact comfort. Contact comfort is believed to be the foundation for attachment. The Harlows' studies confirmed that babies have social as well as physical needs. Both monkeys and human babies need a secure base that allows them to feel safe. From this base, they can gain the confidence they need to venture out and explore their worlds.

Bowlby's Theory: Building on the work of Harlow and others, John Bowlby developed the concept of attachment theory. He defined attachment as the affectional bond or tie that an infant forms with the mother (Bowlby, 1969). An infant must form this bond with a primary caregiver in order to have normal social and emotional development. In addition, Bowlby proposed that this attachment bond is very powerful and continues throughout life. He used the concept of a secure base to define a healthy attachment between parent and child (Bowlby, 1982). A secure base is a parental presence that gives the child a sense of safety as the child explores the surroundings.

Figure 3.27 John Bowlby

Source

Bowlby said that two things are needed for a healthy attachment: The caregiver must be responsive to the child's physical, social, and emotional needs; and the caregiver and child must engage in mutually enjoyable interactions (Bowlby, 1969). Additionally, Bowlby observed that infants would go to extraordinary lengths to prevent separation from their parents, such as crying, refusing to be comforted, and waiting for the caregiver to return. He observed that these same expressions were common to many other mammals, and consequently argued that these negative responses to separation serve an evolutionary function.

Because mammalian infants cannot feed or protect themselves, they are dependent upon the care and protection of adults for survival. Thus, those infants who were able to maintain proximity to an attachment figure we're more likely to survive and reproduce.

Erikson: Trust vs. Mistrust

As previously discussed in chapter 1, Erikson formulated an eight stage theory of psychosocial development. Erikson was in agreement on the importance of a secure base, arguing that the most important goal of infancy was the development of a basic sense of trust in one's caregivers. Consequently, the first stage, trust vs. mistrust, highlights the importance of attachment. Erikson maintained that the first year to year and a half of life involves the establishment of a sense of trust (Erikson, 1982). Infants are dependent and must rely on others to meet their basic physical needs as well as their needs for stimulation and comfort. A caregiver who consistently meets these needs instills a sense of trust or the belief that the world is a trustworthy place. The caregiver should not worry about over indulging a child's need for comfort, contact or stimulation.

Problems establishing trust: Erikson (1982) believed that mistrust could contaminate all aspects of one's life and deprive the individual of love and fellowship with others. Consider the implications for establishing trust if a caregiver is unavailable or is upset and ill-prepared to care for a child. Or if a child is born prematurely, is unwanted, or has physical problems that make him or her less desirable to a parent. Under these circumstances, we cannot assume that the parent is going to provide the child with a feeling of trust.

Mary Ainsworth and the Strange Situation Technique

Developmental psychologist Mary Ainsworth, a student of John Bowlby, continued studying the development of attachment in infants. Ainsworth and her colleagues created a laboratory test that

measured an infant's attachment to his or her parent. The test is called The Strange Situation Technique because it is conducted in a context that is unfamiliar to the child and therefore likely to heighten the child's need for his or her parent (Ainsworth, 1979).

During the procedure, that lasts about 20 minutes, the parent and the infant are first left alone, while the infant explores the room full of toys. Then a strange adult enters the room and talks for a minute to the parent, after which the parent leaves the room. The stranger stays with the infant for a few minutes, and then the parent again enters, and the stranger leaves the room. During the entire session, a video camera records the child's behaviors, which are later coded by trained coders. The investigators were especially interested in how the child responded to the caregiver leaving and returning to the room, referred to as the "reunion." On the basis of their behaviors, the children are categorized into one of four groups where each group reflects a different kind of attachment relationship with the caregiver. One style is secure and the other three styles are referred to as insecure.

- A child with a secure attachment style usually explores freely while the caregiver is present and may engage with the stranger. The child will typically play with the toys and bring one to the caregiver to show and describe from time to time. The child may be upset when the caregiver departs but is also happy to see the caregiver return.

- A child with an ambivalent (sometimes called resistant) attachment style is wary about the situation in general, particularly the stranger, and stays close or even clings to the caregiver rather than exploring the toys. When the caregiver leaves, the child is extremely distressed and is ambivalent when the caregiver returns. The child may rush to the caregiver, but then fails to be comforted when picked up. The child may still be angry and even resist attempts to be soothed.

- A child with an avoidant attachment style will avoid or ignore the mother, showing little emotion when the mother departs or returns. The child may run away from the mother when she approaches. The child will not explore very much, regardless of who is there, and the stranger will not be treated much differently from the mother.

- A child with a disorganized/disoriented attachment style seems to have an inconsistent way of coping with the stress of the strange situation. The child may cry during the separation, but avoid the mother when she returns, or the child may approach the mother but then freeze or fall to the floor.

How common are the attachment styles among children in the United States? It is estimated that about 65 percent of children in the United States are securely attached. Twenty percent exhibit avoidant styles and 10 to 15 percent are ambivalent. Another 5 to 10 percent may be characterized as disorganized (Ainsworth, Blehar, Waters, & Wall, 1978).

Some cultural differences in attachment styles have been found (Rothbaum, Weisz, Pott, Miyake, & Morelli, 2010). For example, German parents value independence and Japanese mothers are typically by their children's sides. As a result, the rate of insecure-avoidant attachments is higher in Germany and insecure-resistant attachments are higher in Japan. These differences reflect cultural variation rather than true insecurity, however (van Ijzendoorn and Sagi, 1999). Overall, secure attachment is the most common type of attachment seen in every culture studied thus far (Thompson, 2006).

Figure 3.28

Source

Caregiver Interactions and the Formation of Attachment: Most developmental psychologists argue that a child becomes securely attached when there is consistent contact from one or more caregivers who meet the physical and emotional needs of the child in a responsive and appropriate manner. However, even in cultures where mothers do not talk, cuddle, and play with their infants, secure attachments can develop (LeVine et. al., 1994).

The insecure ambivalent style occurs when the parent is insensitive and responds inconsistently to the child's needs. Consequently, the infant is never sure that the world is a trustworthy place or that he or she can rely on others without some anxiety. A caregiver who is unavailable, perhaps because of marital tension, substance abuse, or preoccupation with work, may send a message to the infant he or she cannot rely on having needs met. An infant who receives only sporadic attention when experiencing discomfort may not learn how to calm down. The child may cry if separated from the caregiver and also cry upon their return. They seek constant reassurance that never seems to satisfy their doubt. Keep in mind that clingy behavior can also just be part of a child's natural disposition or temperament and does not necessarily reflect some

kind of parental neglect. Additionally, a caregiver that attends to a child's frustration can help teach them to be calm and to relax.

The insecure-avoidant style is marked by insecurity, but this style is also characterized by a tendency to avoid contact with the caregiver and with others. This child may have learned that needs typically go unmet and learns that the caregiver does not provide care and cannot be relied upon for comfort, even sporadically. An insecure-avoidant child learns to be more independent and disengaged.

The insecure disorganized/disoriented style represents the most insecure style of attachment and occurs when the child is given mixed, confused, and inappropriate responses from the caregiver. For example, a mother who suffers from schizophrenia may laugh when a child is hurting or cry when a child exhibits joy. The child does not learn how to interpret emotions or to connect with the unpredictable caregiver. This type of attachment is also often seen in children who have been abused. Research has shown that abuse disrupts a child's ability to regulate their emotions (Main & Solomon, 1990).

Caregiver Consistency: Having a consistent caregiver may be jeopardized if the infant is cared for in a day care setting with a high turn-over of staff or if institutionalized and given little more than basic physical care. Infants who, perhaps because of being in orphanages with inadequate care, have not had the opportunity to attach in infancy may still form initial secure attachments several years later. However, they may have more emotional problems of depression, anger, or be overly friendly as they interact with others (O'Connor et. al., 2003).

Figure 3.29

Source

Social Deprivation: Severe deprivation of parental attachment can lead to serious problems. According to studies of children who have not been given warm, nurturing care, they may show developmental delays, failure to thrive, and attachment disorders (Bowlby, 1982). Non-organic failure to thrive is the diagnosis for an infant who does not grow, develop, or gain weight on schedule and there is no known medical explanation for this failure. Poverty, neglect, inconsistent parenting, and severe family dysfunction are correlated with non-organic failure to thrive. In addition, postpartum depression can cause even a well-intentioned mother to neglect her infant.

Reactive Attachment Disorder: Children who experience social neglect or deprivation, repeatedly change primary caregivers that limit opportunities to form stable attachments or are reared in unusual settings (such as institutions) that limit opportunities to form stable attachments can certainly have difficulty forming attachments. According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (American Psychiatric Association, 2013), those children experiencing neglectful situations and also displaying markedly disturbed and developmentally inappropriate

attachment behavior, such as being inhibited and withdrawn, minimal social and emotional responsiveness to others, and limited positive affect, may be diagnosed with reactive attachment disorder. This disorder often occurs with developmental delays, especially in cognitive and language areas. Fortunately, the majority of severely neglected children do not develop reactive attachment disorder, which occurs in less than 10% of such children. The quality of the caregiving environment after serious neglect affects the development of this disorder.

Resiliency: Being able to overcome challenges and successfully adapt is resiliency. Even young children can exhibit strong resiliency to harsh circumstances. Resiliency can be attributed to certain personality factors, such as an easy-going temperament. Some children are warm, friendly, and responsive, whereas others tend to be more irritable, less manageable, and difficult to console, and these differences play a role in attachment (Gillath, Shaver, Baek, & Chun, 2008; Seifer, Schiller, Sameroff, Resnick, & Riordan, 1996). It seems safe to say that attachment, like most other developmental processes, is affected by an interplay of genetic and socialization influences.

Receiving support from others also leads to resiliency. A positive and strong support group can help a parent and child build a strong foundation by offering assistance and positive attitudes toward the newborn and parent. In a direct test of this idea, Dutch researcher van den Boom (1994) randomly assigned some babies' mothers to a training session in which they learned to better respond to their children's needs. The research found that these mothers' babies were more likely to show a secure attachment style in comparison to the mothers in a control group that did not receive training.

Erikson: Autonomy vs. Shame and Doubt

As the child begins to walk and talk, an interest in independence or autonomy replaces a concern for trust. The toddler tests the limits of what can be touched, said, and explored. Erikson (1982) believed that toddlers should be allowed to explore their environment as freely as safety allows and in so doing will develop a sense of independence that will later grow to self-esteem, initiative, and overall confidence. If a caregiver is overly anxious about the toddler's actions for fear that the child will get hurt or violate other's expectations, the caregiver can give the child the message that he or she should be ashamed of their behavior and instill a sense of doubt in their own abilities. Parenting advice based on these ideas would be to keep toddlers safe but let them learn by doing.

Measuring Infant Development

The Bayley Scales of Infant and Toddler Development, Third Edition (Bayley-III) comprehensively assess children within the age range of 1 to 42 months (Pearson Education, 2016). Children are evaluated in five key developmental domains, including cognition, language, social-emotional, motor, and adaptive behavior. By identifying developmental delays in the very young, the Bayley Scales can highlight which early intervention techniques might be most beneficial. Detailed information is even able to be obtained from non-verbal children.

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DEVELOPMENT IN EARLY CHILDHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

Vignette

Tisha, 3 y/o, has been demonstrating increased emotional and behavioral issues at her preschool. Her parents, Mr. and Mrs. Taylor have been called to meet with the Director to discuss these concerns. They report the same issues occurring at home, stating "We have no idea why she's been having such a hard time, it was like she went to sleep our sweet girl one night and woke up a completely different child the next morning, refusing to listen, tantrums anytime she doesn't get her way, she just fights us on everything". They report they adopted Tisha

Photo by Sarah Louise Kinsella on Unsplash

when she was an infant and had minimal issues with her until several weeks ago when they report the change in behavior occurring. The Director discussed increased struggles with Tisha at school, also refusing to comply with requests from her teachers and showing increased aggression with her peers with hitting and biting, and possible need to dismiss Tisha from their program if her disruptive behaviors did not stop.

Mr. and Mrs. Taylor admit they have really struggled with what to do, "so we usually just end up letting her have her way because we get so tired and frustrated with fighting with her – we just don't know what to do". The Director explores a referral for mental health services that could be provided at the school, discussing how professional interventions may be needed due to her history and the Taylors agree to an initial assessment.

Mr. and Mrs. Taylor meet with a Licensed Certified Social Worker (LCSW) for an initial assessment. He greets them warmly and then invites Tisha to choose some toys to play with while he speaks with her parents. Tisha seems uncertain at first and slowly begins to explore the toys in the room. The Social Worker invites Mr. and Mrs. Taylor to share their story and concerns while Tisha plays and they report their history of struggling to conceive and how happy they were to finally have a child when Tisha came into their lives. They discussed how everything was going very well until the past several weeks when the emotional and behavioral struggles began. The Social Worker asked if any changes had occurred around the time Mr. and Mrs. Taylor noticed Tisha's change in behavior and they reported none they could think of. The Social Worker then explored any information they were given about Tisha and her biological parents/family before she came into their care. They reported minimal information was given but remembering hearing her biological mother had struggled with drug use before becoming pregnant but had reported stopping use of all drugs except for marijuana while pregnant. Mrs. Taylor states "her biological mother had also reported struggles with caring for Tisha her first few months but I don't really know what that means". They reported not thinking this had affected Tisha as she had not had any major issues during her first couple of years with them but are starting to wonder what she may have experienced in her first several months before coming to live with them.

During this time, the Social Worker notices Tisha engages in some aggressive play with various people figures and hitting toys together. He also notices she is rocking back and forth at times in between her play. She also gets increasingly louder when she hears her parents speaking. The Social Worker reflects this and Tisha sticks her tongue out at him.

Critical Thinking:

1. What stage of Piaget's Theory of Cognitive Development is the client currently in? Are they meeting expectations of this stage? Examples? Are they demonstrating any delays in this stage? Examples?
2. What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?
3. What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
4. What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 13: Physical Development in Early Childhood

Overall Physical Growth

Children between the ages of two and six years tend to grow about 3 inches in height and gain about 4 to 5 pounds in weight each year. Just as in infancy, growth occurs in spurts rather than continually. According to the Centers for Disease Control and Prevention (2000), the average 2-year-old weighs between 23 and 28 pounds and stands between 33 and 35 inches tall. The average 6-year-old

weighs between 40 and 50 pounds and is about 44 to 47 inches in height. The 3-year-old is still very similar to a toddler with a large head, large stomach, short arms, and legs. By the time the child reaches age 6, however, the torso has lengthened, and body proportions have become more like those of adults.

This growth rate is slower than that of infancy and is accompanied by a reduced appetite between the ages of 2 and 6. This change can sometimes be surprising to parents and lead to the development of poor eating habits. However, children between the ages of 2 and 3 need 1,000 to 1,400 calories, while children between the ages of 4 and 8 need 1,200 to 2,000 calories (Mayo Clinic, 2016a).

Figure 4.1

Source

Brain Maturation

Brain weight: The brain is about 75 percent of its adult weight

by three years of age. By age 6, it is at 95 percent of its adult weight (Lenroot & Giedd, 2006). Myelination and the development of dendrites continue to occur in the cortex and as it does, we see a corresponding change in what the child is capable of doing. Greater development in the prefrontal cortex, the area of the brain behind the forehead that helps us to think, strategize, and control attention and emotion, makes it increasingly possible to inhibit emotional outbursts and understand how to play games.

Understanding the game, thinking ahead, and coordinating movement improves with practice and myelination.

Growth in the Hemispheres and Corpus Callosum: Between ages 3 and 6, the left hemisphere of the brain grows dramatically. This side of the brain or hemisphere is typically involved in language skills. The right hemisphere continues to grow throughout early childhood and is involved in tasks that require spatial skills, such as recognizing shapes and patterns. The corpus callosum, a dense band of fibers that connects the two hemispheres of the brain, contains approximately 200 million nerve fibers that connect the hemispheres (Kolb & Whishaw, 2011). The corpus callosum is illustrated in Figure 4.2.

Figure 4.2

Figure 4.2 Corpus Callosum
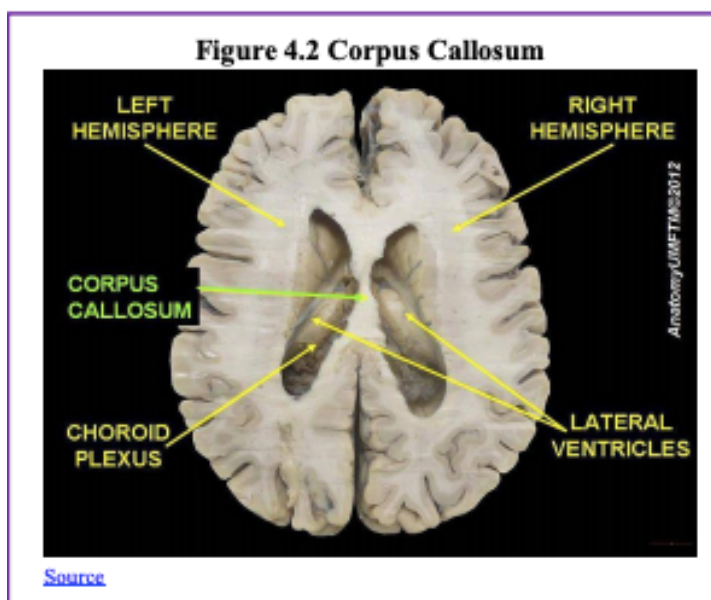
The corpus callosum is located a couple of inches below the longitudinal fissure, which runs the length of the brain and separates the two cerebral hemispheres (Garrett, 2015). Because the two hemispheres carry out different functions, they communicate with each other and integrate their activities through the corpus callosum. Additionally, because incoming information is directed toward one hemisphere, such as visual information from the left eye being directed to the right hemisphere, the corpus callosum shares this information with the other hemisphere.

The corpus callosum undergoes a growth spurt between ages 3 and 6, and this results in improved coordination between right and left hemisphere tasks. For example, in comparison to other individuals, children younger than 6 demonstrate difficulty coordinating an Etch A Sketch toy because their corpus callosum is not developed enough to integrate the movements of both hands (Kalat, 2016).

Motor Skill Development

Early childhood is the time period when most children acquire the basic skills for locomotion, such as running, jumping, and skipping, and object control skills, such as throwing, catching, and kicking (Clark, 1994). Children continue to improve their gross motor skills as they run and jump. Fine motor skills are also being refined in activities, such as pouring water into a container, drawing, coloring, and buttoning coats and using scissors. The table 1 highlights some of the changes in motor skills during early childhood between 2 and 5 years of age. The development of greater coordination of muscle groups and finer precision can be seen during this time period. Thus, average 2-year-olds may be able to run with slightly better coordination than they managed as a toddler, yet they would have difficulty peddling a tricycle, something the typical 3-year-old can do. We see similar changes in fine motor skills with 4-year-olds who no longer struggle to put on their clothes, something they may have had problems with two years earlier. Motor skills continue to develop into middle childhood, but for those in early childhood, a play that deliberately involves these skills is emphasized.

Figure 4.3

Source
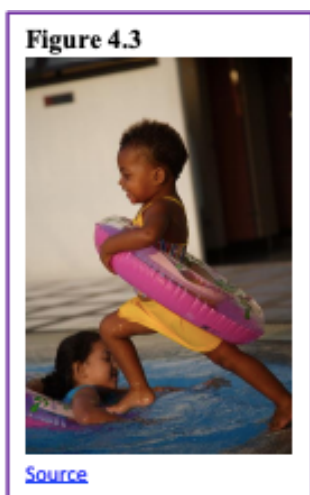
Children's Art: Children's art highlights many developmental changes. Kellogg (1969) noted that children's drawings underwent several transformations. Starting with about 20 different types of scribbles at age 2, children move on to experimenting with the placement of scribbles on the page. By age 3 they are using the basic structure of scribbles to create shapes and are beginning to combine these shapes to create more complex images. By 4 or 5 children are creating images that are more recognizable representations of the world. These changes are a function of improvement in motor skills, perceptual development, and cognitive understanding of the world (Cote & Golbeck, 2007).

The drawing of tadpoles (see Figure: 4.4) is a pervasive feature of young children's drawings of self and others. Tadpoles emerge in children's drawing at about the age of 3 and have been observed in the drawings of young children around the world (Gernhardt, Rubeling & Keller, 2015), but there are cultural variations in the size, number of facial features, and emotional expressions displayed.

Figure 4.4

Source
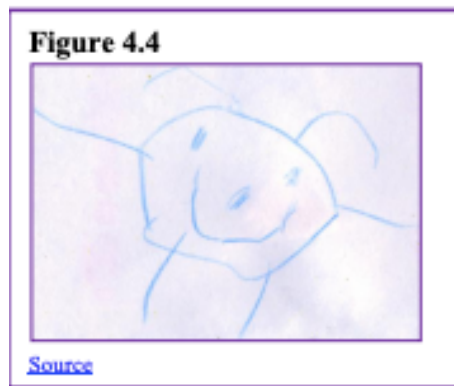
Gernhardt et al. found that children from Western contexts (i.e., urban areas of Germany and Sweden) and urban educated non-Western contexts (i.e., urban areas of Turkey, Costa Rica and

Estonia) drew larger images, with more facial detail and more positive emotional expressions, while those from non-Western rural contexts (i.e., rural areas of Cameroon and India) depicted themselves as smaller, with less facial details and a more neutral emotional expression. The authors suggest that cultural norms of non-Western traditionally rural cultures, which emphasize the social group rather than the individual, maybe one of the factors for the smaller size of the figures compared to the larger figures from children in the Western cultures which emphasize the individual.

Table 4.1

Table 4.1 Changes in Gross and Fine Motor Skills in Early Childhood

	Gross Motor Skills	Fine Motor Skills
Age 2	• Can kick a ball without losing balance • Can pick up objects while standing, without losing balance (This often occurs by 15 months. It is a cause for concern if not seen by 2 years). • Can run with better coordination. (May still have a wide stance).	• Able to turn a door knob • Can look through a book turning one page at a time • Can build a tower of 6 to 7 cubes • Able to put on simple clothes without help (The child is often better at removing clothes than putting them on).
Age 3	• Can briefly balance and hop on one foot • May walk up stairs with alternating feet (without holding the rail) • Can pedal a tricycle	• Can build a block tower of more than nine cubes • Can easily place small objects in a small opening • Can copy a circle • Can draw a person with 3 parts • Can feed self easily
Age 4	• Shows improved balance • Hops on one foot without losing balance • Throws a ball overhand with coordination	• Can cut out a picture using scissors • Can draw a square • Manages a spoon and fork neatly while eating • Puts on clothes properly
Age 5	• Has better coordination (getting the arms, legs, and body to work together) • Skips, jumps, and hops with good balance • Stays balanced while standing on one foot with eyes closed	• Shows more skill with simple tools and writing utensils • Can copy a triangle • Can use a knife to spread soft foods

Source: NIH: US National Library of Medicine

Toilet Training

Toilet training typically occurs during the first two years of early childhood (24-36 months). Some children show interest by age 2, but others may not be ready until months later. The average age for girls to be toilet trained is 29 months and for boys, it is 31 months, and 98% of children are trained by 36 months (Boyse & Fitzgerald, 2010). The child's age is not as important as his/her physical and emotional readiness. If it started too early, it might take longer to train a child. If a child resists being trained or is not successful after a few weeks, it is best to take a break and try again later. Most children master daytime bladder control first, typically within two to three months of consistent toilet training. However, nap and nighttime training might take months or even years.

Figure: 4.5

Source

According to the Mayo Clinic (2016b), the following questions can help parents determine if a child is ready for toilet training:

- Does your child seem interested in the potty chair or toilet, or

in wearing underwear?

- Can your child understand and follow basic directions?
- Does your child complain about wet or dirty diapers?
- Does your child tell you through words, facial expressions or posture when he or she needs to go?
- Does your child stay dry for periods of two hours or longer during the day?
- Can your child pull down his or her pants and pull them up again?
- Can your child sit on and rise from a potty chair? (p. 1)

Some children experience elimination disorders that may require intervention by the child's pediatrician or a trained mental health practitioner. Elimination disorders include enuresis, or the repeated voiding of urine into bed or clothes (involuntary or intentional) and encopresis, the repeated passage of feces into inappropriate places (involuntary or intentional) (American Psychiatric Association, 2013). The prevalence of enuresis is 5%-10% for 5-year-olds, 3%-5% for 10-year-olds and approximately 1% for those 15 years of age or older. Around 1% of 5-year- olds have encopresis, and it is more common in males than females.

Sleep

During early childhood, there is a wide variation in the number of hours of sleep recommended per day. For example, two-year-olds may still need 15-16 hours per day, while a six-year-old may only need 7-8 hours. The National Sleep Foundation's 2015 recommendations based on age are listed in Figure 4.6.

Figure 4.6

Figure 4.6

Sexual Development in Early Childhood

Historically, children have been thought of as innocent or incapable of sexual arousal (Aries, 1962). Yet, the physical dimension of sexual arousal is present from birth. However, to associate the elements of seduction, power, love, or lust that is part of the adult meanings of sexuality would be inappropriate. Sexuality begins in childhood as a response to physical states and sensation and cannot be interpreted as similar to that of adults in any way (Carroll, 2007).

Infancy: Boys and girls are capable of erections and vaginal lubrication even before birth (Martinson, 1981). Arousal can signal overall physical contentment and stimulation that accompanies feeding or warmth. Infants begin to explore their bodies and touch their genitals as soon as they have sufficient motor skills. This stimulation is for comfort or to relieve tension rather than to reach orgasm (Carroll, 2007).

Early Childhood: Self-stimulation is common in early childhood for both boys and girls. Curiosity about the body and about others' bodies is a natural part of early childhood as well. As children grow, they are more likely to show their genitals to siblings or peers, and to take off their clothes and touch each other (Okami, Olmstead, & Abramson, 1997). Masturbation is common for both boys and girls. Boys are often shown by other boys how to masturbate, but girls tend to find out accidentally. Additionally, boys masturbate more often and touch themselves more openly than do girls (Schwartz, 1999).

Hopefully, parents respond to this without an undue alarm and without making the child feel guilty about their bodies. Instead, messages about what is going on and the appropriate time and place for such activities help the child learn what is appropriate.

Nutritional Concerns

In addition to those in early childhood have a smaller appetite, their parents may notice a general reticence to try new foods, or a preference for certain foods often served or eaten in a particular way. Some of these changes can be traced back to the "just right" (or just-so) phenomenon that is common in early childhood. Many young children desire consistency and may be upset if there are even slight changes to their daily routines. They may like to line up their toys or other objects or place them in symmetric patterns. They may arrange the objects until they feel "just right". Many young children have a set bedtime ritual and a strong preference for certain clothes, toys or games. All these tendencies tend to wane as children approach middle childhood, and the familiarity of such ritualistic behaviors seem to bring a sense of security and a general reduction in childhood fears and anxiety (Evans, Gray, & Leckman, 1999; Evans & Leckman, 2015).

Malnutrition due to insufficient food is not common in developed nations, like the United States, yet many children lack a balanced diet. Added sugars and solid fats contribute to 40% of daily calories for children and teens in the US. Approximately half of these empty calories come from six sources: soda, fruit drinks, dairy desserts, grain desserts, pizza, and whole milk (CDC, 2015). Caregivers need to keep in mind that they are setting up taste preferences at this age. Young children who grow accustomed to a high fat, very sweet and salty flavors may have trouble eating foods that have subtler flavors, such as fruits and vegetables. Consider the following advice (See Box 4.1) about establishing eating patterns for years to come (Rice, 1997). Notice that keeping mealtime pleasant, providing sound nutrition and not engaging in power struggles over food are the main goals:

Figure 4.7 Nutritious Lunch

Source

Tips for Establishing Healthy Eating Patterns

- Recognize that appetite varies. Children may eat well at one meal and have no appetite at another. Rather than seeing this as a problem, it may help to realize that appetites do vary. Continue to provide good nutrition, but do not worry excessively if the child does not eat at a particular meal.

- Keep it pleasant. This tip is designed to help caregivers create a positive atmosphere during mealtime. Mealtimes should not be the time for arguments or expressing tensions. You do not want the child to have painful memories of mealtimes together or have nervous stomachs and problems eating and digesting food due to stress.

- No short-order chefs. While it is fine to prepare foods that children enjoy, preparing a different meal for each child or family member sets up an unrealistic expectation from others. Children probably do best when they are hungry, and a meal is ready. Limiting snacks rather than allowing children to "graze" can help create an appetite for what is being served.

- Limit choices. If you give your young child choices, make sure that you give them one or two specific choices rather than asking "What would you like for lunch?" If given an open choice, children may change their minds or ask for something that is not available or appropriate.

- Serve balanced meals. This tip encourages

caregivers to serve balanced meals. A box of macaroni and cheese is not a balanced meal. Meals prepared at home tend to have better nutritional value than fast food or frozen dinners. Prepared foods tend to be higher in fat and sugar content, as these ingredients enhance taste and profit margin because fresh food is often costlier and less profitable. However, preparing fresh food at home is not costly. It does, however, require more activity. Preparing meals and including the children in kitchen chores can provide a fun and memorable experience.

- Do not bribe. Bribing a child to eat vegetables by promising desert is not a good idea. The child will likely find a way to get the desert without eating the vegetables (by whining or fidgeting, perhaps, until the caregiver gives in). In addition, bribery teaches the child that some foods are better than others. Children tend to naturally enjoy a variety of foods until they are taught that some are considered less desirable than others. Most important is not to force your child to eat or fight overeating food.

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Chapter 14: Cognitive Development in Early Childhood

Chapter 14 Learning Objectives

- Describe Piaget's preoperational stage and the characteristics of preoperational thought
- Summarize the challenges to Piaget's theory
- Describe Vygotsky's theory of cognitive development
- Describe Information processing research on attention and memory
- Describe the views of the neo-Piagetians
- Describe theory-theory and the development of theory of mind
- Describe the developmental changes in language
- Describe the various types of early childhood education
- Describe the characteristics of autism

Early childhood is a time of pretending, blending fact and fiction, and learning to think of the world using language. As young children move away from needing to touch, feel, and hear about the world,

they begin learning basic principles about how the world works. Concepts such as tomorrow, time, size, distance and fact vs. fiction are not easy to grasp at this age, but these tasks are all part of cognitive development during early childhood.

Piaget's Preoperational Stage

Piaget's stage that coincides with early childhood is the preoperational stage. According to Piaget, this stage occurs from the age of 2 to 7 years. In the preoperational stage, children use symbols to represent words, images, and ideas, which is why children in this stage engage in pretend play. A child's arms might become airplane wings as she zooms around the room, or a child with a stick might become a brave knight with a sword. Children also begin to use language in the preoperational stage, but they cannot understand adult logic or mentally manipulate information. The term operational refers to logical manipulation of information, so children at this stage are considered pre-operational. Children's logic is based on their own personal knowledge of the world so far, rather than on conventional knowledge.

The preoperational period is divided into two stages: The symbolic function substage occurs between 2 and 4 years of age and is characterized by the child being able to mentally represent an object that is not present and a dependence on perception in problem-solving. The intuitive thought substage, lasting from 4 to 7 years, is marked by greater dependence on intuitive thinking rather than just perception (Thomas, 1979). This implies that children think automatically without using evidence. At this stage, children ask many questions as they attempt to understand the world around them using immature reasoning. Let us examine some of Piaget's assertions about children's cognitive abilities at this age.

Pretend Play: Pretending is a favorite activity at this time. A toy has

qualities beyond the way it was designed to function and can now be used to stand for a character or object unlike anything originally intended. A teddy bear, for example, can be a baby or the queen of a faraway land. Piaget believed that children's pretend play helped children solidify new schemata they were developing cognitively. This play, then, reflected changes in their conceptions or thoughts. However, children also learn as they pretend and experiment. Their play does not simply represent what they have learned (Berk, 2007).

Figure 4. 8

Source

Egocentrism: Egocentrism in early childhood refers to the tendency of young children not to be able to take the perspective of others, and instead the child thinks that everyone sees, thinks, and feels just as they do. Egocentric children are not able to infer the perspective of other people and instead attribute their own perspective to situations. For example, ten-year-old Keiko's birthday is coming up, so her mom takes 3-year-old Kenny to the toy store to choose a present for his sister. He selects an Iron Man action figure for her, thinking that if he likes the toy, his sister will too.

Piaget's classic experiment on egocentrism involved showing children a three-dimensional model of a mountain and asking them to describe what a doll that is looking at the mountain from a different angle might see (see Figure 4.9). Children tend to choose a picture that represents their own, rather than the doll's view. By age 7 children are less self-centered.

Figure 4.9

Figure 4.9 "What does Dolly see?"

Source
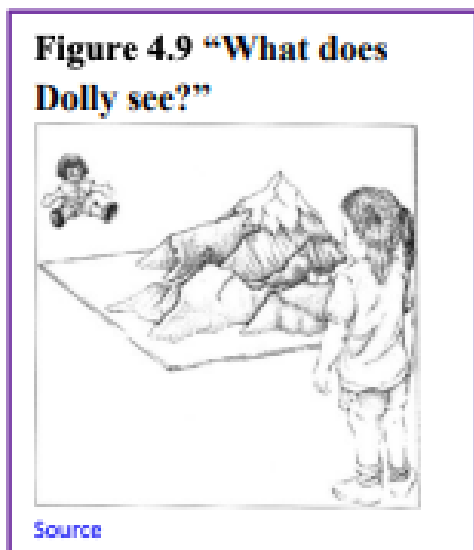
However, even younger children when speaking to others tend to use different sentence structures and vocabulary when addressing a younger child or an older adult. This indicates some awareness of the views of others.

Conservation Errors: Conservation refers to the ability to recognize that moving or rearranging matter does not change the quantity. Using Kenny and Keiko again, dad gave a slice of pizza to 10-year-old Keiko and another slice to 3-year-old Kenny. Kenny's pizza slice was cut into five pieces, so Kenny told his sister that he got more

pizza than she did. Kenny did not understand that cutting the pizza into smaller pieces did not increase the overall amount. This was because Kenny exhibited centration or focused on only one characteristic of an object to the exclusion of others. Kenny focused on the five pieces of pizza to his sister's one piece even though the total amount was the same. Keiko was able to consider several characteristics of an object than just one. Because children have not developed this understanding of conservation, they cannot perform mental operations.

The classic Piagetian experiment associated with conservation involves liquid (Crain, 2005). As seen in Figure 4.10, the child is shown two glasses (as shown in a) which are filled to the same level and asked if they have the same amount. Usually, the child agrees they have the same amount.

Figure 4.10

Figure 4.10 Conservation of Liquid. Does pouring liquid in a tall, narrow container make it have more?
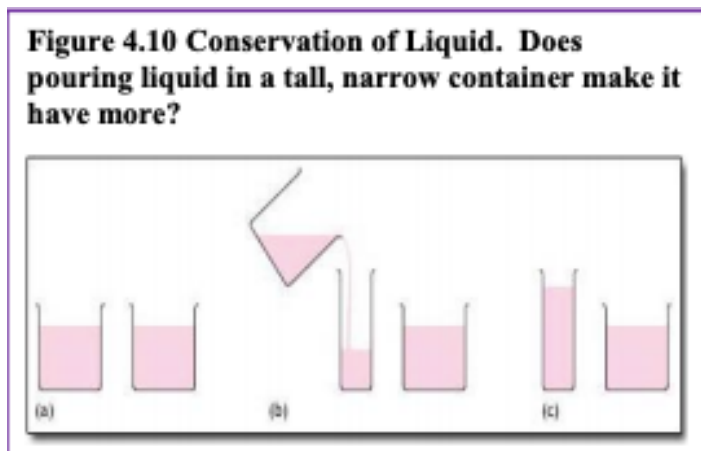
The experimenter then pours the liquid in one glass to a taller and thinner glass (as shown in b). The child is again asked if the two glasses have the same amount of liquid. The preoperational child will typically say the taller glass now has more liquid because it is

taller (as shown in c). The child has centered on the height of the glass and fails to conserve.

Classification Errors: Preoperational children have difficulty understanding that an object can be classified in more than one way. For example, if shown three white buttons and four black buttons and asked whether there are more black buttons or buttons, the child is likely to respond that there are more black buttons. They do not consider the general class of buttons. Because young children lack these general classes, their reasoning is typically transductive, that is, making faulty inferences from one specific example to another. For example, Piaget's daughter Lucienne stated she had not had her nap, therefore it was not afternoon. She did not understand that the afternoon is a time period and her nap was just one of many events that occurred in the afternoon (Crain, 2005). As the child's vocabulary improves and more schemata are developed, the ability to classify objects improves.

Animism: Animism refers to attributing life-like qualities to objects. The cup is alive, the chair that falls down and hits the child's ankle is mean, and the toys need to stay home because they are tired. Cartoons frequently show objects that appear alive and take on lifelike qualities.

Young children do seem to think that objects that move may be alive, but after age three, they seldom refer to objects as being alive (Berk, 2007).

Critique of Piaget: Similar to the critique of the sensorimotor period, several psychologists have attempted to show that Piaget also underestimated the intellectual capabilities of the preoperational child. For example, children's specific experiences can influence when they are able to conserve. Children of pottery makers in Mexican villages know that reshaping clay does not change the amount of clay at much younger ages than children who do not have similar experiences (Price-Williams, Gordon, & Ramirez,

1969). Crain (2005) indicated that preoperational children can think rationally on mathematical and scientific tasks, and they are not as egocentric as Piaget implied. Research on Theory of Mind (discussed later in the chapter) has demonstrated that children overcome egocentrism by 4 or 5 years of age, which is sooner than Piaget indicated.

Vygotsky's Sociocultural Theory of Cognitive Development

Lev Vygotsky (1896-1934) was a Russian psychologist who argued that culture has a major impact on a child's cognitive development. Piaget and Gesell believed development stemmed directly from the child, and although Vygotsky acknowledged intrinsic development, he argued that it is the language, writings, and concepts arising from the culture that elicit the highest level of cognitive thinking (Crain, 2005). He believed that social interactions with adults and more learned peers can facilitate a child's potential for learning.

Figure 4.11 Lev Vygotsky

Without this interpersonal instruction, he believed children's minds would not advance very far as their knowledge would be based only on their own discoveries. Some of Vygotsky's key concepts are described below.

Zone of Proximal Development and Scaffolding: Vygotsky's best-known concept is the zone of proximal development (ZPD). Vygotsky stated that children should be taught in the ZPD, which occurs when they can almost perform a task, but not quite on their own without assistance. With the right kind of teaching, however, they can accomplish it successfully. A good teacher identifies a child's ZPD and helps the child stretch beyond it. Then the adult (teacher) gradually withdraws support until the child can then perform the task unaided. Researchers have applied the metaphor of scaffolds (the temporary platforms on which construction workers stand) to this way of teaching. Scaffolding is the temporary support that parents or teachers give a child to do a task.

Private Speech: Do you ever talk to yourself? Why? Chances are, this occurs when you are struggling with a problem, trying to remember something or feel very emotional about a situation. Children talk to themselves too. Piaget interpreted this as egocentric speech or speech that is focused on the child and does not include another's point of view.

Vygotsky, however, believed that children talk to themselves in order to solve problems or clarify thoughts. As children learn to think in words, they do so aloud before eventually closing their lips and engaging in private speech or inner speech.

Figure 4.12 Children talk to themselves to better problem solve

Source

Thinking out loud eventually becomes thought accompanied by internal speech and talking to oneself becomes a practice only engaged in when we are trying to learn something or remember something. This inner speech is not as elaborate as the speech we use when communicating with others (Vygotsky, 1962).

Contrast with Piaget: Piaget was highly critical of teacher-directed instruction believing that teachers who take control of the child's learning place the child into a passive role (Crain, 2005). Further,

teachers may present abstract ideas without the child's true understanding, and instead, they just repeat back what they heard. Piaget believed children must be given opportunities to discover concepts on their own. As previously stated, Vygotsky did not believe children could reach a higher cognitive level without instruction from more learned individuals. Who is correct? Both theories certainly contribute to our understanding of how children learn.

Information Processing

Information processing researchers have focused on several issues in cognitive development for this age group, including improvements in attention skills, changes in the capacity and the emergence of executive functions in working memory. Additionally, in early childhood memory strategies, memory accuracy, and autobiographical memory emerge. Early childhood is seen by many researchers as a crucial time period in memory development (Posner & Rothbart, 2007).

Attention

Changes in attention have been described by many as the key to changes in human memory (Nelson & Fivush, 2004; Posner & Rothbart, 2007). However, attention is not a unified function; it is comprised of sub-processes. The ability to switch our focus between tasks or external stimuli is called divided attention or multitasking. This is separate from our ability to focus on a single task or stimulus while ignoring distracting information, called selective attention. Different from these is sustained attention, or the ability to stay on task for long periods of time. Moreover, we also

have attention processes that influence our behavior and enable us to inhibit a habitual or dominant response and others that enable us to distract ourselves when upset or frustrated.

Divided Attention: Young children (age 3-4) have considerable difficulties in dividing their attention between two tasks, and often perform at levels equivalent to our closest relative, the chimpanzee, but by age five they have surpassed the chimp (Hermann, Misch, Hernandez-Lloreda & Tomasello, 2015; Hermann & Tomasello, 2015). Despite these improvements, 5-year- olds continue to perform below the level of school-age children, adolescents, and adults.

Figure 4.13 These children will experience difficulty focusing on anything except playing

Source

Selective Attention: Children's ability with selective attention tasks improves as they age. However, this ability is also greatly influenced by the child's temperament (Rothbart & Rueda, 2005), the complexity of the stimulus or task (Porporino, Shore, Iarocci & Burack, 2004), and along with whether the stimuli are visual or

auditory (Guy, Rogers & Cornish, 2013). Guy et al. found that children's ability to selectively attend to visual information outpaced that of auditory stimuli. This may explain why young children are not able to hear the voice of the teacher over the cacophony of sounds in the typical preschool classroom (Jones, Moore & Amitay, 2015). Jones and his colleagues found that 4 to 7-year-olds could not filter out background noise, especially when its frequencies were close in sound to the target sound. In comparison, 8 to 11-year-old older children often performed similarly to adults.

Sustained Attention: Most measures of sustained attention typically ask children to spend several minutes focusing on one task, while waiting for an infrequent event, while there are multiple distractors for several minutes. Berwid, Curko-Kera, Marks and Halperin (2005) asked children between the ages of 3 and 7 to push a button whenever a "target" image was displayed, but they had to refrain from pushing the button when a non-target image was shown. The younger the child, the more difficulty he or she had maintaining their attention.

Memory

Based on studies of adults, people with amnesia, and neurological research on memory, researchers have proposed several "types" of memory (see Figure 4.14). Sensory memory (also called the sensory register) is the first stage of the memory system, and it stores sensory input in its raw form for a very brief duration; essentially long enough for the brain to register and start processing the information. Studies of auditory sensory memory have found that the sensory memory trace for the characteristics of a tone last about one second in 2-year-olds, two seconds in 3-year-olds, more than two seconds in 4-year-olds and three to five seconds in

6-year-olds (Glass, Sachse, & vob Suchodoletz, 2008). Other researchers have found that young children hold sounds for a shorter duration than do older children and adults, and that this deficit is not due to attentional differences between these age groups but reflect differences in the performance of the sensory memory system (Gomes et al., 1999).

Figure 4.14

Figure 4.14

Memory can be characterized in terms of stages—the length of time that information remains available to us.
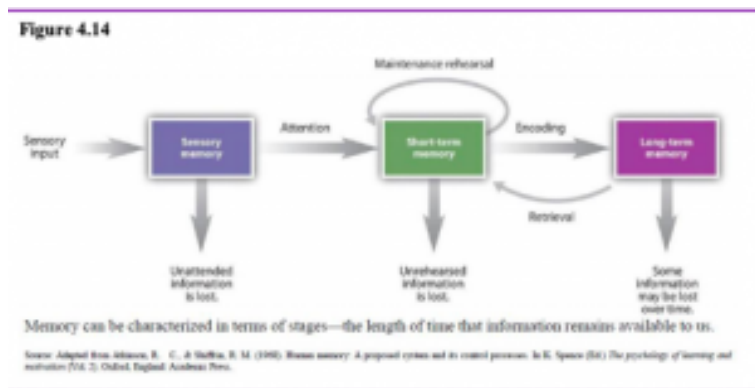
The second stage of the memory system is called short-term or working memory. Working memory is the component of memory in which current conscious mental activity occurs.

Working memory often requires conscious effort and adequate use of attention to function effectively. As you read earlier, children in this age group struggle with many aspects of attention, and this greatly diminishes their ability to consciously juggle several pieces of information in memory. The capacity of working memory, that is the amount of information someone can hold in consciousness, is smaller in young children than in older children and adults (Galotti, 2018). The typical adult and teenager can hold a 7-digit number active in their short- term memory. The typical 5-year-old can hold only a 4-digit number active. This means that the more complex a mental task is, the less efficient a younger child will be in paying

attention to, and actively processing, the information in order to complete the task.

Changes in attention and the working memory system also involve changes in executive function. Executive function (EF) refers to self-regulatory processes, such as the ability to inhibit behavior or cognitive flexibility, that enable adaptive responses to new situations or to reach a specific goal. Executive function skills gradually emerge during early childhood and continue to develop throughout childhood and adolescence. Like many cognitive changes, brain maturation, especially the prefrontal cortex, along with experience influence the development of executive function skills. Children show higher executive function skills when parents are warm and responsive, use scaffolding when the child is trying to solve a problem and provide cognitively stimulating environments (Fay-Stammbach, Hawes & Meredith, 2014). For instance, scaffolding was positively correlated with greater cognitive flexibility at age two and inhibitory control at age four (Bibok, Carpendale & Müller, 2009).

Older children and adults use mental strategies to aid their memory performance. For instance, simple rote rehearsal may be used to commit information to memory. Young children often do not rehearse unless reminded to do so, and when they do rehearse, they often fail to use clustering rehearsal. In clustering rehearsal, the person rehearses previous material while adding in additional information. If a list of words is read out loud to you, you are likely to rehearse each word as you hear it along with any previous words you were given. Young children will repeat each word they hear, but often fail to repeat the prior words in the list. In Schneider, Kron-Sperl and Hunnerkopf's (2009) longitudinal study of 102 kindergarten children, the majority of children used no strategy to remember information, a finding that was consistent with previous research. As a result, their memory performance was poor when compared to their abilities as they aged and started to use more effective memory strategies.

The third component in memory is long-term memory, which is also known as a permanent memory. A basic division of long-term memory is between declarative and non-declarative memory. Declarative memories, sometimes referred to as explicit memories, are memories for facts or events that we can consciously recollect. Non-declarative memories, sometimes referred to as implicit memories, are typically automated skills that do not require conscious recollection. Remembering that you have an exam next week would be an example of a declarative memory. In contrast, knowing how to walk so you can get to the classroom or how to hold a pencil to write would be examples of non-declarative memories. Declarative memory is further divided into semantic and episodic memory. Semantic memories are memories for facts and knowledge that are not tied to a timeline, while episodic memories are tied to specific events in time.

Neo-Piagetians

A component of episodic memory is autobiographical memory, or our personal narrative. As you may recall in Chapter 3, the concept of infantile amnesia was introduced. Adults rarely remember events from the first few years of life. In other words, we lack autobiographical memories from our experiences as an infant, toddler and very young preschooler. Several factors contribute to the emergence of autobiographical memory, including brain maturation, improvements in language, opportunities to talk about experiences with parents and others, the development of theory of mind, and a representation of "self" (Nelson & Fivush, 2004). Two-year-olds do remember fragments of personal experiences, but these are rarely coherent accounts of past events (Nelson & Ross, 1980). Between 2 and 2 ½ years of age children can provide more information about past experiences. However, these recollections require considerable prodding by adults (Nelson &

Fivush, 2004). Over the next few years, children will form more detailed autobiographical memories and engage in more reflection of the past.

Figure 4.15 How long will these children remember their trip to Disneyland?

Source

As previously discussed, Piaget's theory has been criticized on many fronts, and updates to reflect more current research have been provided by the Neo-Piagetians, or those theorists who provide "new" interpretations of Piaget's theory. Morra, Gobbo, Marini and Sheese (2008) reviewed Neo-Piagetian theories, which were first presented in the 1970s, and identified how these "new" theories combined Piagetian concepts with those found in Information Processing. Similar to Piaget's theory, Neo-Piagetian theories believe in constructivism, assume cognitive development can be

separated into different stages with qualitatively different characteristics, and advocate that children's thinking becomes more complex in advanced stages. Unlike Piaget, Neo-Piagetians believe that aspects of information processing change the complexity of each stage, not logic as determined by Piaget.

Neo-Piagetians propose that working memory capacity is affected by biological maturation, and therefore restricts young children's ability to acquire complex thinking and reasoning skills.

Increases in working memory performance and cognitive skills development coincide with the timing of several neurodevelopmental processes. These include myelination, axonal and synaptic pruning, changes in cerebral metabolism, and changes in brain activity (Morra et al., 2008). Myelination especially occurs in waves between birth and adolescence, and the degree of myelination in particular areas explains the increasing efficiency of certain skills. Therefore, brain maturation, which occurs in spurts, affects how and when cognitive skills develop.

Additionally, all Neo-Piagetian theories support that experience and learning interact with biological maturation in shaping cognitive development.

Children's Understanding of the World

Both Piaget and Vygotsky believed that children actively try to understand the world around them, referred to as constructivism. However, Piaget is identified as a cognitive constructivitst, which focuses on independent learning, while Vygotsky is a social constrctivist relying on social interactions for learning. More recently developmentalists have added to this understanding by examining how children organize information and develop their own theories about the world.

Theory-Theory is the tendency of children to generate theories to explain everything they encounter. This concept implies that humans are naturally inclined to find reasons and generate explanations for why things occur. Children frequently ask question about what they see or hear around them.

Figure 4.16

Source

When the answers provided do not satisfy their curiosity or are too complicated for them to understand, they generate their own theories. In much the same way that scientists construct and revise their theories, children do the same with their intuitions about the world as they encounter new experiences (Gopnik & Wellman, 2012). One of the theories they start to generate in early childhood centers on the mental states; both their own and those of others.

Theory of mind refers to the ability to think about other people's thoughts. This mental mind reading helps humans to understand and predict the reactions of others, thus playing a crucial role in social development. One common method for determining if a child has reached this mental milestone is the false belief task. The research began with a clever experiment by Wimmer and Perner

([1983](#)), who tested whether children can pass a [false-belief test](#) (see Figure 4.17). The child is shown a picture story of Sally, who puts her ball in a basket and leaves the room. While Sally is out of the room, Anne comes along and takes the ball from the basket and puts it inside a box. The child is then asked where Sally thinks the ball is located when she comes back to the room. Is she going to look first in the box or in the basket? The right answer is that she will look in the basket, because that is where she put it and thinks it is; but we have to infer this false belief against our own better knowledge that the ball is in the box. This is very difficult for children before the age of four because of the cognitive effort it takes. Three-year- olds have difficulty distinguishing between what they once thought was true and what they now know to be true. They feel confident that what they know now is what they have always known (Birch & Bloom, 2003). Even adults need to think through this task ([Epley, Morewedge, &](#) [Keysar, 2004](#)). To be successful at solving this type of task the child must separate what he or she "knows" to be true from what someone else might "think" is true.

In Piagetian terms, children must give up a tendency toward egocentrism. The child must also understand that what guides people's actions and responses are what they believe rather than what is reality. In other words, people can mistakenly believe things that are false and will act based on this false knowledge. Consequently, prior to age four children are rarely successful at solving such a task (Wellman, Cross & Watson, 2001).

Figure 4. 17

Salley

Anne

This is Sally's basket.

This is Anne's box.

Sally puts her red ball . . . into her basket.

Sally goes out of the room and leaves Anne alone.

Anne takes the ball out of the basket . . . and puts it in the box.

When Sally comes back . . . she wants to play with the ball.

Where will Sally look for her ball?
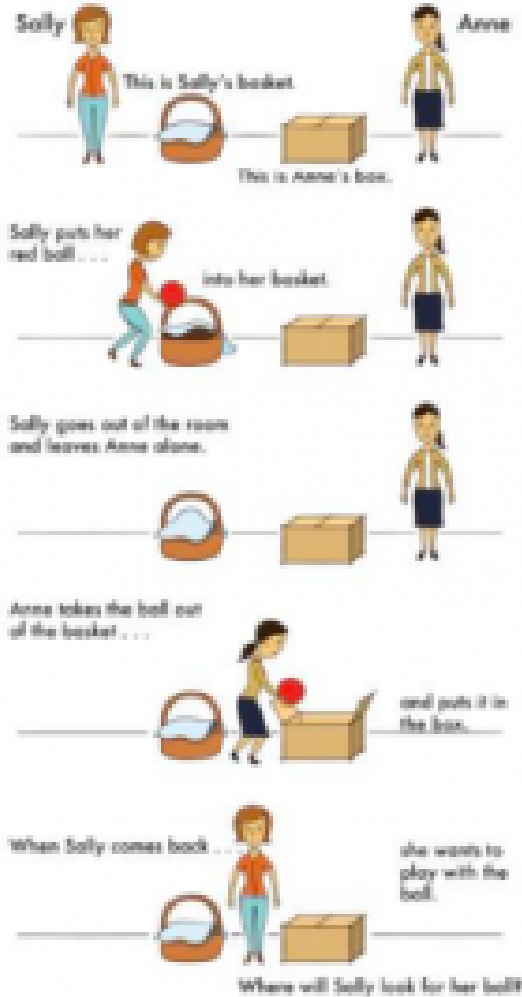
Source:

Researchers examining the development of theory of mind have been concerned by the overemphasis on the mastery of false belief

as the primary measure of whether a child has attained theory of mind. Two-year-olds understand the diversity of desires, yet as noted earlier it is not until age four or five that children grasp false belief, and often not until middle childhood do they understand that people may hide how they really feel. In part, because children in early childhood have difficulty hiding how they really feel. Wellman and his colleagues (Wellman, Fang, Liu, Zhu & Liu, 2006) suggest that theory of mind is comprised of a number of components, each with its own developmental timeline (see Table 4.2).

Table 4.2

Table 4.2 Components of Theory of Mind	
Component	Description
Diverse-desires	Understanding that two people may have different desires regarding the same object.
Diverse-beliefs	Understanding that two people may hold different beliefs about an object.
Knowledge access (knowledge/ignorance)	Understanding that people may or may not have access to information.
False belief	Understanding that someone might hold a belief based on false information.

Those in early childhood in the US, Australia, and Germany develop theory of mind in the sequence outlined in Table 4.2. Yet, Chinese and Iranian preschoolers acquire knowledge access before diverse beliefs (Shahaeian, Peterson, Slaughter & Wellman, 2011). Shahaeian and colleagues suggested that cultural differences in child-rearing may account for this reversal. Parents in collectivistic cultures, such as China and Iran, emphasize conformity to the family and cultural values, greater respect for elders, and the acquisition of knowledge and academic skills more than they do autonomy and social skills (Frank, Plunkett & Otten, 2010). This could reduce the degree of familial conflict of opinions expressed in the family. In contrast, individualistic cultures encourage children to think for themselves and assert their own opinion, and this could increase the risk of conflict in beliefs being expressed by family members. As a result, children in individualistic cultures would acquire insight into the

question of diversity of belief earlier, while children in collectivistic cultures would acquire knowledge access earlier in the sequence. The role of conflict in aiding the development of theory of mind may account for the earlier age of onset of an understanding of false belief in children with siblings, especially older siblings (McAlister & Petersen, 2007; Perner, Ruffman & Leekman, 1994).

Component	Description
Diverse-desires	Understanding that two people may have different desires regarding the same object.
Diverse-beliefs	Understanding that two people may hold different beliefs about an object.
Knowledge access (knowledge/ ignorance)	Understanding that people may or may not have access to information.
False belief	Understanding that someone might hold a belief based on false information.

This awareness of the existence of theory of mind is part of social intelligence, such as recognizing that others can think differently about situations. It helps us to be self-conscious or aware that others can think of us in different ways and it helps us to be able to be understanding or be empathic toward others. Moreover, this mind reading ability helps us to anticipate and predict people's actions. The awareness of the mental states of others is important for communication and social skills.

Language Development

Vocabulary growth: A child's vocabulary expands between the ages of two to six from about 200 words to over 10,000 words. This

"vocabulary spurt" typically involves 10-20 new words per week and is accomplished through a process called fast-mapping. Words are easily learned by making connections between new words and concepts already known. The parts of speech that are learned depend on the language and what is emphasized. Children speaking verb-friendly languages, such as Chinese and Japanese, learn verbs more readily, while those speaking English tend to learn nouns more readily. However, those learning less verb-friendly languages, such as English, seem to need assistance in grammar to master the use of verbs (Imai et al., 2008).

Literal meanings: Children can repeat words and phrases after having heard them only once or twice, but they do not always understand the meaning of the words or phrases. This is especially true of expressions or figures of speech which are taken literally. For example, a classroom full of preschoolers hears the teacher say, "Wow! That was a piece of cake!" The children began asking "Cake? Where is my cake? I want cake!"

Overregularization: Children learn rules of grammar as they learn language but may apply these rules inappropriately at first. For instance, a child learns to add "ed" to the end of a word to indicate past tense. Then form a sentence such as "I goed there. I doed that." This is typical at ages two and three. They will soon learn new words such as "went" and "did" to be used in those situations.

The impact of training: Remember Vygotsky and the Zone of Proximal Development? Children can be assisted in learning language by others who listen attentively, model more accurate pronunciations and encourage elaboration. The child exclaims, "I'm goed there!" and the adult responds, "You went there? Say, 'I went there.' Where did you go?" Children may be ripe for language as Chomsky suggests, but active participation in helping them learn is important for language development as well. The process of scaffolding is one in which the guide provides needed assistance to the child as a new skill is learned.

Bilingualism

Although monolingual speakers often do not realize it, the majority of children around the world are Bilingual, meaning that they understand and use two languages (Meyers-Sutton, 2005).

Even in the United States, which is a relatively monolingual society, more than 60 million people (21%) speak a language other than English at home (Camarota & Zeigler, 2014; Ryan, 2013).

Children who are dual language learners are one of the fastest growing populations in the United States (Hammer et al., 2014). They make up nearly 30% of children enrolled in early childhood programs, like Head Start. By the time they enter school, they are very heterogeneous in their language and literacy skills, with some children showing delays in being proficient in either one or both languages (Hammer et al., 2014). Hoff (2018) reports language competency is dependent on the quantity, quality, and opportunity to use a language. Dual language learners may hear the same number of words and phrases (quantity) overall, as do monolingual children, but it is split between two languages (Hoff, 2018). Thus, in any single language they may be exposed to fewer words. They will show higher expressive and receptive skills in the language they come to hear the most.

In addition, the quality of the languages spoken to the child may differ in bilingual versus monolingual families. Place and Hoff (2016) found that for many immigrant children in the United States, most of the English heard was spoken by a non-native speaker of the language. Finally, many children in bilingual households will sometimes avoid using the family's heritage language in favor of the majority language (DeHouwer, 2007, Hoff, 2018). A common pattern in Spanish-English homes, is for the parents to speak to the child in Spanish, but for the child to respond in English. As a result, children

may show little difference in the receptive skills between English and Spanish, but better expressive skills in English (Hoff, 2018).

There are several studies that have documented the advantages of learning more than one language in childhood for cognitive executive function skills. Bilingual children consistently outperform monolinguals on measures of inhibitory control, such as ignoring irrelevant information (Bialystok, Martin & Viswanathan, 2005). Studies also reveal an advantage for bilingual children on measures of verbal working memory (Kaushanskaya, Gross, & Buac, 2014; Yoo & Kaushanskaya, 2012) and non-verbal working memory (Bialystok, 2011). However, it has been reported that among lower SES populations the working memory advantage is not always found (Bonifacci, Giombini, Beloocchi, & Conteno, 2011).

There is also considerable research to show that being bilingual, either as a child or an adult, leads to greater efficiency in the word learning process. Monolingual children are strongly influenced by the mutual-exclusivity bias, the assumption that an object has only a single name (Kaushanskaya, Gross, & Buac, 2014). For example, a child who has previously learned the word car, may be confused when this object is referred to as an automobile or sedan. Research shows that monolingual children find it easier to learn the name of a new object, than acquiring a new name for a previously labelled object. In contrast, bilingual children and adults show little difficulty with either task (Kaushanskaya & Marian, 2009). This finding may be explained by the experience bilinguals have in translating between languages when referring to familiar objects.

Preschool

Providing universal preschool has become an important lobbying point for federal, state, and local leaders throughout our country. In his 2013 State of the Union address, President Obama called

upon congress to provide high quality preschool for all children. He continued to support universal preschool in his legislative agenda, and in December 2014 the President convened state and local policymakers for the White House Summit on Early Education (White House Press Secretary, 2014). However, universal preschool covering all four-year olds in the country would require significant funding. Further, how effective preschools are in preparing children for elementary school, and what constitutes high quality preschool have been debated. To set criteria for designation as a high-quality preschool, the National Association for the Education of Young Children (NAEYC) identifies 10 standards (NAEYC, 2016). These include:

- Positive relationships among all children and adults are promoted.
- A curriculum that supports learning and development in social, emotional, physical, language, and cognitive areas.
- Teaching approaches that are developmentally, culturally and linguistically appropriate.
- Assessment of children's progress to provide information on learning and development.
- The health and nutrition of children are promoted, while they are protected from illness and injury.

- Teachers possess the educational qualifications, knowledge, and commitment to promote children's learning.
- Collaborative relationships with families are established and maintained.
- Relationships with agencies and institutions in the children's communities are established to support the program's goals.
- The indoor and outdoor physical environments are safe and well-maintained.
- Leadership and management personnel are well qualified, effective, and maintain licensure status with the applicable state agency.

Parents should review preschool programs using the NAEYC criteria as a guide and template for asking questions that will assist them in choosing the best program for their child. Selecting the right preschool is also difficult because there are so many types of preschools available. Zachry (2013) identified Montessori, Waldorf, Reggio Emilia, High Scope, Parent Co-Ops and Bank Street as types of preschool programs that focus on children learning through discovery.

Teachers act as guides and create activities based on the child's developmental level.

Head Start: For children who live in poverty, Head Start has been providing preschool education since 1965 when it was begun by President Lyndon Johnson as part of his war on poverty. It currently serves nearly one million children and annually costs approximately 7.5 billion dollars (United States Department of Health and Human Services, 2015). However, concerns about the effectiveness of Head Start have been ongoing since the program began.

Figure 4.18 Four Year Old Head Start Students

Source

Armor (2015) reviewed existing research on Head Start and found there were no lasting gains, and the average child in Head Start had not learned more than children who did not receive preschool education.

A 2015 report evaluating the effectiveness of Head Start comes from the What Works Clearinghouse. The What Works Clearinghouse identifies research that provides reliable evidence of the effectiveness of programs and practices in education and is managed by the Institute of Education Services for the United States Department of Education. After reviewing 90 studies on the effectiveness of Head Start, only one study was deemed scientifically acceptable and this study showed disappointing results (Barshay, 2015). This study showed that 3-and 4-year-old children in Head Start received "potentially positive effects" on general reading achievement, but no noticeable effects on math achievement and social-emotional development.

Nonexperimental designs are a significant problem in determining the effectiveness of Head Start programs because a control group is needed to show group differences that would demonstrate educational benefits. Because of ethical reasons, low-income children are usually provided with some type of pre-school programming in an alternative setting. Additionally, head Start programs are different depending on the location, and these differences include the length of the day or qualification of the teachers. Lastly, testing young children is difficult and strongly dependent on their language skills and comfort level with an evaluator (Barshay, 2015).

Autism Spectrum Disorder

A greater discussion on disorders affecting children and special educational services to assist them will occur in Chapter 5.

However, because characteristics of Autism Spectrum Disorder must be present in the early developmental period, as established by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association (APA), 2013), this disorder will be presented here. So, what exactly is an Autism Spectrum Disorder?

Autism spectrum disorder is probably the most misunderstood and puzzling of the neurodevelopmental disorders. Children with this disorder show signs of significant disturbances in three main areas: (a) deficits in social interaction, (b) deficits in communication, and (c) repetitive patterns of behavior or interests. These disturbances appear early in life and cause serious impairments in functioning (APA, 2013). The child with autism spectrum disorder might exhibit deficits in social interaction by not initiating conversations with other children or turning their head away when spoken to. These children do not make eye contact with others and seem to prefer playing alone rather than with others. In a certain sense, it is almost as though these individuals live in a personal and isolated social world which others are simply not privy to or able to penetrate. Communication deficits can range from a complete lack of speech, to one-word responses (e.g., saying "Yes" or "No" when replying to questions or statements that require additional elaboration), to echoed speech (e.g., parroting what another person says, either immediately or several hours or even days later), and to difficulty maintaining a conversation because of an inability to reciprocate others' comments. These deficits can also include problems in using and understanding nonverbal cues (e.g., facial expressions, gestures, and postures) that facilitate normal communication.

Repetitive patterns of behavior or interests can be exhibited a number of ways. The child might engage in stereotyped, repetitive movements (rocking, head-banging, or repeatedly dropping an object and then picking it up), or she might show great distress at small changes in routine or the environment. For example, the child might throw a temper tantrum if an object is not in its proper

place or if a regularly-scheduled activity is rescheduled. In some cases, the person with autism spectrum disorder might show highly restricted and fixated interests that appear to be abnormal in their intensity. For instance, the child might learn and memorize every detail about something even though doing so serves no apparent purpose. Importantly, autism spectrum disorder is not the same thing as intellectual disability, although these two conditions can occur together. The DSM-5 specifies that the symptoms of autism spectrum disorder are not caused or explained by intellectual disability.

Figure 4.19 Dr. Temple Grandin, an advocate for individuals with autism

Source

The qualifier "spectrum" in autism spectrum disorder is used to indicate that individuals with the disorder can show a range, or spectrum, of symptoms that vary in their magnitude and severity: Some severe, others less severe. The previous edition of the DSM included a diagnosis of Asperger's disorder, generally recognized as a less severe form of autistim spectrum disorder. Individuals diagnosed with Asperger's disorder were described as having average or high intelligence and a strong vocabulary, but

exhibiting impairments in social interaction and social communication, such as talking only about their special interests (Wing, Gould, & Gillberg, 2011). However, because research has failed to demonstrate that Asperger's disorder differs from autism spectrum disorder, the DSM-5 does not include it. Some individuals with autism spectrum disorder, particularly those with better language and intellectual skills, can live and work independently as adults. However, most do not because the symptoms cause serious impairment in many aspects of life (APA, 2013).

To determine current prevalence rates, the Autism and Developmental Disabilities Monitoring (ADDM) Network provides estimates of the prevalence of autism spectrum disorders among 8- year-old children who reside within 11 ADM sites in the United States, including Arizona, Arkansas, Colorado, Georgia, Maryland, Minnesota, Missouri, New Jersey, North Carolina, Tennessee, and Wisconsin (Baio et al., 2018). For 2014 (most recent data), estimates indicated that nearly 1 in 59 children in the United States has autism spectrum disorder, and the disorder is 4 times more common in boys (1 out of 38) than girls (1 out of 152).

Rates of autistim spectrum disorder have increased dramatically since the 1980s. For example, California saw an increase of 273% in reported cases from 1987 through 1998 (Byrd, 2002).

Between 2000 and 2008, the rate of autism diagnoses in the United States increased 78% (CDC, 2012) and between 2000 and 2014 the rate increased 150% (Baio et al., 2018). Although it is difficult to interpret this increase, it is possible that the rise in prevalence is the result of the broadening of the diagnosis, increased efforts to identify cases in the community, and greater awareness and acceptance of the diagnosis. In addition, mental health professionals are now more knowledgeable about autism spectrum disorder and are better equipped to make the diagnosis, even in subtle cases (Novella, 2008).

The exact causes of autism spectrum disorder remain unknown despite massive research efforts over the last two decades (Meek, Lemery-Chalfant, Jahromi, & Valiente, 2013). Autism appears to be strongly influenced by genetics, as identical twins sh ow concordance rates of 60%– 90%, whereas concordance rates for fraternal twins and siblings are 5%–10% (Autism Genome Project Consortium, 2007). Many different genes and gene mutations have been implicated in autism (Meek et al., 2013). Among the genes involved are those important in the formation of synaptic circuits that facilitate communication between different areas of the brain (Gauthier et al., 2011). A number of environmental factors are also thought to be associated with increased risk for autism spectrum disorder, at least in part, because they contribute to new mutations. These factors include exposure to pollutants, such as plant emissions and mercury, urban versus rural residence, and vitamin D deficiency (Kinney, Barch, Chayka, Napoleon, & Munir, 2009).

A recent Swedish study looking at the records of over one million children born between 1973 and 2014 found that exposure to prenatal infections increased the risk for autism spectrum disorders (al-Haddad et al., 2019). Children born to mothers with an infection during pregnancy has a 79% increased risk of autism. Infections included: sepsis, flu, pneumonia, meningitis, encephalitis, an infection of the placental tissues or kidneys, or a urinary tract infection. One possible reason for the autism diagnosis is that the fetal brain is extremely vulnerable to damage from infections and inflammation. These results highlighted the importance of pregnant women receiving a flu vaccination and avoiding any infections during pregnancy.

There is no scientific evidence that a link exists between autism and vaccinations (Hughes, 2007). Indeed, a recent study compared the vaccination histories of 256 children with autism spectrum disorder with that of 752 control children across three time periods during their first two years of life (birth to 3 months, birth to 7 months, and birth to 2 years) (DeStefano, Price, & Weintraub, 2013). At the time

of the study, the children were between 6 and 13 years old, and their prior vaccination records were obtained. Because vaccines contain immunogens

(substances that fight infections), the investigators examined medical records to see how many immunogens children received to determine if those children who received more immunogens were at greater risk for developing autism spectrum disorder. The results of this study clearly demonstrated that the quantity of immunogens from vaccines received during the first two years of life were not at all related to the development of autism spectrum disorder.

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Chapter 15: Psychosocial Development in Early Childhood

Erikson: Initiative vs. Guilt

The trust and autonomy of previous stages develop into a desire
to take initiative or to think of ideas and initiative action (Erikson,
1982). Children may want to build a fort with the cushions from the
living room couch or open a lemonade stand in the driveway or
make a zoo with their stuffed animals and issue tickets to those who
want to come. Or they may just want to get themselves ready for
bed without any assistance. To reinforce taking initiative, caregivers
should offer praise for the child's efforts and avoid being critical of
messes or mistakes. Placing pictures of drawings on the refrigerator,
purchasing mud pies for dinner, and admiring towers of legos will
facilitate the child's sense of initiative.

Self-Concept and Self-Esteem

Early childhood is a time of forming an initial sense of self. Self-
concept is our self-description according to various categories,
such as our external and internal qualities. In contrast, self-
esteem is an evaluative judgment about who we are. The emergence
of cognitive skills in this age group results in improved perceptions
of the self. If asked to describe yourself to others you would likely
provide some physical descriptors, group affiliation, personality
traits, behavioral quirks, values, and beliefs. When researchers ask

young children the same open-ended question, the children provide physical descriptors, preferred activities, and favorite possessions. Thus, a three-year-old might describe herself as a three years-old girl with red hair, who likes to play with legos. This focus on external qualities is referred to as the categorical self.

However, even children as young as three know there is more to themselves than these external characteristics. Harter and Pike (1984) challenged the method of measuring personality with an open-ended question as they felt that language limitations were hindering the ability of young children to express their self-knowledge. They suggested a change to the method of measuring self-concept in young children, whereby researchers provide statements that ask whether something is true of the child (e.g., "I like to boss people around", "I am grumpy most of the time"). Consistent with Harter and Pike's suspicions, those in early childhood answer these statements in an internally consistent manner, especially after the age of four (Goodvin, Meyer, Thompson & Hayes, 2008) and often give similar responses to what others (parents and teachers) say about the child (Brown, Mangelsdorf, Agathen, & Ho, 2008; Colwell & Lindsey, 2003).

Young children tend to have a generally positive self- image. This optimism is often the result of a lack of social comparison when making self-evaluations (Ruble, Boggiano, Feldman, & Loeble, 1980), and with comparison between what the child once could do to what they can do now (Kemple, 1995).

Figure 4.20

However, this does not mean that preschool children are exempt from negative self-evaluations. Preschool children with insecure attachments to their caregivers tend to have lower self-esteem at age four (Goodvin et al., 2008). Maternal negative affect was also found by Goodwin and her colleagues to produce more negative self-evaluations in preschool children.

Self-Control

Self-control is not a single phenomenon but is multi-facetted. It includes response initiation, the ability to not initiate a behavior before you have evaluated all the information, response inhibition, the ability to stop a behavior that has already begun, and delayed gratification, the ability to hold out for a larger reward by forgoing a smaller immediate reward (Dougherty, Marsh, Mathias, & Swann, 2005). It is in early childhood that we see the start of self-control, a process that takes many years to fully develop. In the now classic "Marshmallow Test" (Mischel, Ebbesen, & Zeiss, 1972) children are confronted with the choice of a small immediate reward (a marshmallow) and a larger delayed reward (more marshmallows).

Walter Mischel and his colleagues over the years have found that the ability to delay gratification at the age of four predicted better academic performance and health later in life (Mischel, et al., 2011). Self- control is related to executive function, discussed earlier in the chapter. As executive function improves, children become less impulsive (Traverso, Viterbori, & Usai, 2015).

Gender

Another important dimension of the self is the sense of self as male or female. Preschool aged children become increasingly interested in finding out the differences between boys and girls, both physically and in terms of what activities are acceptable for each. While two-year-olds can identify some differences and learn whether they are boys or girls, preschoolers become more interested in what it means to be male or female. Gender is the cultural, social and psychological meanings associated with masculinity and feminity (Spears Brown & Jewell, 2018). A person's sense of self as a member of a particular gender is known as gender identity. The development of gender identity appears to be due to an interaction among biological, social and representational influences (Ruble, Martin, & Berenbaum, 2006). Gender roles, or the expectations associated with being male or female, are learned in one's culture throughout childhood and into adulthood.

Gender socialization focuses on what young children learn about gender from society, including parents, peers, media, religious institutions, schools, and public policies. Children learn about what is acceptable for females and males early, and in fact, this socialization may even begin the moment a parent learns that a child is on the way. Knowing the sex of the child can conjure up images of the child's behavior, appearance, and potential on the part of a parent, and this stereotyping continues to guide perception

through life. Consider parents of newborns, shown a 7-pound, 20-inch baby, wrapped in blue (a color designating males) describe the child as tough, strong, and angry when crying. Shown the same infant in pink (a color used in the United States for baby girls), these parents are likely to describe the baby as pretty, delicate, and frustrated when crying (Maccoby & Jacklin, 1987). Female infants are held more, talked to more frequently and given direct eye contact, while male infant interactions are often mediated through a toy or activity.

Figure 4.21 Gender Roles

Source
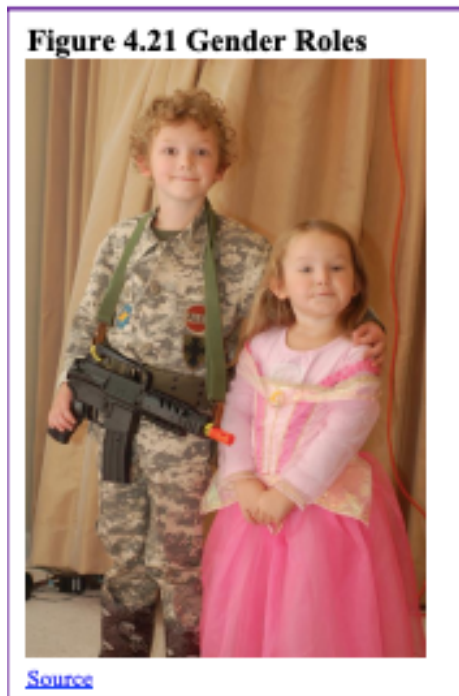
As they age, sons are given tasks that take them outside the house and that have to be performed only on occasion, while girls are more likely to be given chores inside the home, such as cleaning or cooking that are performed daily. Sons are encouraged to think

for themselves when they encounter problems and daughters are more likely to be given assistance, even when they are working on an answer. Parents also talk to their children differently according to their gender. For example, parents talk to sons more in detail about science, and they discuss numbers and counting twice as often than with daughters (Chang, Sandhofer, & Brown, 2011). How are these beliefs about behaviors and expectations based on gender transmitted to children?

Theories of Gender Development

One theory of gender development in children is social learning theory, which argues that behavior is learned through observation, modeling, reinforcement, and punishment (Bandura, 1997). Children are rewarded and reinforced for behaving in concordance with gender roles that have been presented to them since birth and punished for breaking gender roles. In addition, social learning theory states that children learn many of their gender roles by modeling the behavior of adults and older children and, in doing so, develop ideas about what behaviors are appropriate for each gender. Cognitive social learning theory also emphasizes reinforcement, punishment, and imitation, but adds cognitive processes. These processes include attention, self- regulation, and self-efficacy. Once children learn the significance of gender, they regulate their own behavior based on internalized gender norms (Bussey & Bandura, 1999).

Another theory is that children develop their own conceptions of the attributes associated with maleness or femaleness, which is referred to as gender schema theory (Bem, 1981). Once children have identified with a particular gender, they seek out information about gender traits, behaviors, and roles. This theory is more constructivist as children are actively acquiring their gender. For

example, friends discuss what is acceptable for boys and girls, and popularity may be based on what is considered ideal behavior for their gender.

Developmental intergroup theory states that many of our gender stereotypes are so strong because we emphasize gender so much in culture (Bigler & Liben, 2007). Developmental intergroup theory postulates that adults' heavy focus on gender leads children to pay attention to gender as a key source of information about themselves and others, to seek out any possible gender differences, and to form rigid stereotypes based on gender that are subsequently difficult to change.

Transgender Children

Many young children do not conform to the gender roles modeled by the culture and even push back against assigned roles. However, a small percentage of children actively reject the toys, clothing, and anatomy of their assigned sex and state they prefer the toys, clothing and anatomy of the opposite sex. Approximately 0.3 percent of the United States population identify as transgender or identifying with the gender opposite their natal sex (Olson & Gülgöz, 2018).

Transgender adults have stated that they identified with the opposite gender as soon as they began talking (Russo, 2016). Some of these children may experience gender dysphoria, or distress accompanying a mismatch between one's gender identity and biological sex (APA, 2013), while other children do not experience discomfort regarding their gender identity.

Current research is now looking at those young children who identify as transgender and have socially transitioned. In 2013, a longitudinal study following 300 socially transitioned transgender

children between the ages of 3 and 12 began (Olson & Gülgöz, 2018). Socially transitioned transgender children identify with the gender opposite than the one assigned at birth, and they change their appearance and pronouns to reflect their gender identity. Findings from the study indicated that the gender development of these socially transitioned children looked similar to the gender development of cisgender children, or those whose gender and sex assignment at birth matched. These socially transitioned transgender children exhibited similar gender preferences and gender identities as their gender matched peers. Further, these children who were living everyday according to their gender identity and were supported by their families, exhibited positive mental health.

Some individuals who identify as transgender are intersex; that is born with either an absence or some combination of male and female reproductive organs, sex hormones, or sex chromosomes (Jarne & Auld, 2006). In humans, intersex individuals make up more than 150 million people, or about two percent of the world's population (Blackless et al., 2000). There are dozens of intersex conditions, and intersex individuals demonstrate the diverse variations of biological sex. Some examples of intersex conditions include:

- Turner syndrome or the absence of, or an imperfect, second X chromosome
- Congenital adrenal hyperplasia or a genetic disorder caused by an increased production of androgens
- Androgen insensitivity syndrome or when a person has one X and one Y chromosome, but is resistant to the male hormones or androgens

Greater attention to the rights of children born intersex is occurring in the medical field, and intersex children and their parents should work closely with specialists to ensure these children develop positive gender identities.

How much does gender matter for children: Starting at birth, children learn the social meanings of gender from adults and their culture. Gender roles and expectations are especially portrayed in children's toys, books, commercials, video games, movies, television shows and music (Khorr, 2017). Therefore, when children make choices regarding their gender identification, expression, and behavior that may be contrary to gender stereotypes, it is important that they feel supported by the caring adults in their lives. This support allows children to feel valued, resilient, and develop a secure sense of self (American Academy of Pediatricians, 2015).

Parenting Styles

Relationships between parents and children continue to play a significant role in children's development during early childhood. As children mature, parent-child relationships naturally change. Preschool and grade-school children are more capable, have their own preferences, and sometimes refuse or seek to compromise with parental expectations. This can lead to greater parent-child conflict, and how conflict is managed by parents further shapes the quality of parent-child relationships.

Baumrind (1971) identified a model of parenting that focuses on the level of control/ expectations that parents have regarding their children and how warm/responsive they are. This model resulted in four parenting styles. In general, children develop greater competence and self-confidence when parents have high, but reasonable expectations for children's behavior, communicate well with them, are warm, loving and responsive, and use reasoning, rather than coercion as preferred responses to children's misbehavior. This kind of parenting style has been described as authoritative (Baumrind, 2013). Authoritative parents are supportive and show interest in their kids' activities but are not overbearing

and allow them to make constructive mistakes. Parents allow negotiation where appropriate, and consequently this type of parenting is considered more democratic.

Figure 4.22 Authoritative Parenting

Source
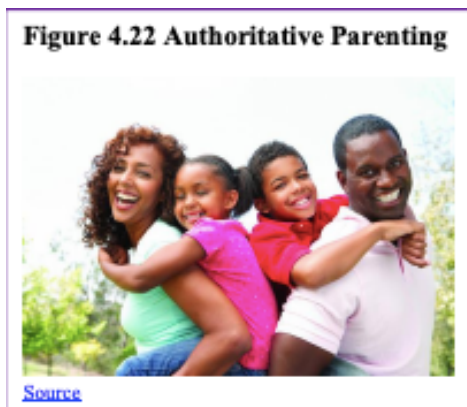
Authoritarian is the traditional model of parenting in which parents make the rules and children are expected to be obedient. Baumrind suggests that authoritarian parents tend to place maturity demands on their children that are unreasonably high and tend to be aloof and distant. Consequently, children reared in this way may fear rather than respect their parents and, because their parents do not allow discussion, may take out their frustrations on safer targets-perhaps as bullies toward peers.

Permissive parenting involves holding expectations of children that are below what could be reasonably expected from them. Children are allowed to make their own rules and determine their own activities. Parents are warm and communicative but provide little structure for their children. Children fail to learn self-discipline and may feel somewhat insecure because they do not know the limits.

Uninvolved parents are disengaged from their children. They do not make demands on their children and are non-responsive. These

children can suffer in school and in their relationships with their peers (Gecas & Self, 1991).

Keep in mind that most parents do not follow any model completely. Real people tend to fall somewhere in between these styles. Sometimes parenting styles change from one child to the next or in times when the parent has more or less time and energy for parenting. Parenting styles can also be affected by concerns the parent has in other areas of his or her life. For example, parenting styles tend to become more authoritarian when parents are tired and perhaps more authoritative when they are more energetic. Sometimes parents seem to change their parenting approach when others are around, maybe because they become more self-conscious as parents or are concerned with giving others the impression that they are a "tough" parent or an "easy- going" parent. Additionally, parenting styles may reflect the type of parenting someone saw modeled while growing up. See Table 4.3 for Baumrind's parenting style descriptions.

Table 4.3 Comparison of Four Parenting Styles

Table 4.3 Comparison of Four Parenting Styles

		Expectations/Control	
		Low	**High**
Warmth/Responsiveness	Low	uninvolved	authoritarian
	High	permissive	authoritative

Culture: The impact of culture and class cannot be ignored when examining parenting styles. The model of parenting described above

assumes that the authoritative style is the best because this style is designed to help the parent raise a child who is independent, self-reliant and responsible. These are qualities favored in "individualistic" cultures such as the United States, particularly by the middle class. However, in "collectivistic" cultures such as China or Korea, being obedient and compliant are favored behaviors. Authoritarian parenting has been used historically and reflects cultural need for children to do as they are told. African-American, Hispanic and Asian parents tend to be more authoritarian than non-Hispanic whites. In societies where family members' cooperation is necessary for survival, rearing children who are independent and who strive to be on their own makes no sense. However, in an economy based on being mobile in order to find jobs and where one's earnings are based on education, raising a child to be independent is very important.

In a classic study on social class and parenting styles, Kohn (1977) explains that parents tend to emphasize qualities that are needed for their own survival when parenting their children.

Working class parents are rewarded for being obedient, reliable, and honest in their jobs. They are not paid to be independent or to question the management; rather, they move up and are considered good employees if they show up on time, do their work as they are told, and can be counted on by their employers. Consequently, these parents reward honesty and obedience in their children. Middle class parents who work as professionals are rewarded for taking initiative, being self-directed, and assertive in their jobs. They are required to get the job done without being told exactly what to do. They are asked to be innovative and to work independently. These parents encourage their children to have those qualities as well by rewarding independence and self-reliance. Parenting styles can reflect many elements of culture.

Spanking

Spanking is often thought of as a rite of passage for children, and this method of discipline continues to be endorsed by the majority of parents (Smith, 2012). Just how effective is spanking, however, and are there any negative consequences? After reviewing the research, Smith (2012) states "many studies have shown that physical punishment, including spanking, hitting and other means of causing pain, can lead to increased aggression, antisocial behavior, physical injury and mental health problems for children" (p. 60). Gershoff, (2008) reviewed decades of research and recommended that parents and caregivers make every effort to avoid physical punishment and called for the banning of physical discipline in all U.S. schools.

In a longitudinal study that followed more than 1500 families from 20 U.S. cities, parents' reports of spanking were assessed at ages three and five (MacKenzie, Nicklas, Waldfogel, & Brooks-Gunn, 2013). Measures of externalizing behavior and receptive vocabulary were assessed at age nine. Results indicated that those children who were spanked at least twice a week by their mothers scored 2.66 points higher on a measure of aggression and rule-breaking than those who were never spanked. Additionally, those who were spanked less, still scored 1.17 points higher than those never spanked. When fathers did the spanking, those spanked at least two times per week scored 5.7 points lower on a vocabulary test than those never spanked. This study revealed the negative cognitive effects of spanking in addition to the increase in aggressive behavior.

Internationally, physical discipline is increasingly being viewed as a violation of children's human rights. According to Save the Children (2019), 46 countries have banned the use of physical punishment, and the United Nations Committee on the Rights of the Child (2014)

called physical punishment "legalized violence against children" and advocated that physical punishment be eliminated in all settings.

Many alternatives to spanking are advocated by child development specialists and include:

- Praising and modeling appropriate behavior
- Providing time-outs for inappropriate behavior
- Giving choices
- Helping the child identify emotions and learning to calm down
- Ignoring small annoyances
- Withdrawing privileges

Sibling Relationships

Siblings spend a considerable amount of time with each other and offer a unique relationship that is not found with same-age peers or with adults. Siblings play an important role in the development of social skills.

Figure 4.23
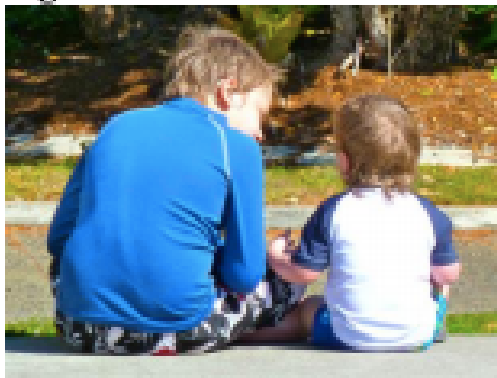
Source:

Cooperative and pretend play interactions between younger and older siblings can teach empathy, sharing, and cooperation (Pike, Coldwell, & Dunn, 2005), as well as, negotiation and conflict resolution (Abuhatoum & Howe, 2013). However, the quality of sibling relationships is often mediated by the quality of the parent-child relationship and the psychological adjustment of the child (Pike et al., 2005). For instance, more negative interactions between siblings have been reported in families where parents had poor patterns of communication with their children (Brody, Stoneman, & McCoy, 1994).

Children who have emotional and behavioral problems are also more likely to have negative interactions with their siblings. However, the psychological adjustment of the child can sometimes be a reflection of the parent-child relationship. Thus, when examining the quality of sibling interactions, it is often difficult to tease out the separate effect of adjustment from the effect of the parent-child relationship.

While parents want positive interactions between their children, conflicts are going to arise, and some confrontations can be the impetus for growth in children's social and cognitive skills. The sources of conflict between siblings often depend on their respective ages. Dunn and Munn (1987) revealed that over half of all sibling conflicts in early childhood were disputes about property rights. By middle childhood this starts shifting toward control over social situation, such as what games to play, disagreements about facts or opinions, or rude behavior (Howe, Rinaldi, Jennings, & Petrakos, 2002). Researchers have also found that the strategies children use to deal with conflict change with age, but this is also tempered by the nature of the conflict. Abuhatoum and Howe (2013) found that coercive strategies (e.g., threats) were preferred when the dispute centered on property rights, while reasoning was more likely to be used by older siblings and in disputes regarding control over the social situation. However, younger siblings also use reasoning, frequently bringing up the concern of legitimacy (e.g.,

"You're not the boss") when in conflict with an older sibling. This is a very common strategy used by younger siblings and is possibly an adaptive strategy in order for younger siblings to assert their autonomy (Abuhatoum & Howe, 2013). A number of researchers have found that children who can use non-coercive strategies are more likely to have a successful resolution, whereby a compromise is reached and neither child feels slighted (Ram & Ross, 2008; Abuhatoum & Howe, 2013). Not surprisingly, friendly relationships with siblings often lead to more positive interactions with peers. The reverse is also true. A child can also learn to get along with a sibling, with, as the song says, "a little help from my friends" (Kramer & Gottman, 1992).

Play

Freud saw play as a means for children to release pent-up emotions and to deal with emotionally distressing situations in a more secure environment. Vygotsky and Piaget saw play as a way of children developing their intellectual abilities (Dyer & Moneta, 2006). All three theorists saw play as providing positive outcomes for children. Parten (1932) observed two to five-year-old children and noted six types of play: Three labeled as non-social play (unoccupied, solitary, and onlooker) and three categorized as social play (parallel, associative, and cooperative). Table 4.4 describes each type of play.

Figure 4.24 Which type of play are these two boys engaging in?

Younger children engage in non-social play more than those older; by age five associative and cooperative play are the most common forms of play (Dyer & Moneta, 2006).

Table 4.4 Parten's Classification of Types of Play in Preschool Children

Category	Description
Unoccupied Play	Children's behavior seems more random and without a specific goal. This is the least common form of play.
Solitary Play	Children play by themselves, do not interact with others, nor are they engaging in similar activities as the children around them.
Onlooker Play	Children are observing other children playing. They may comment on the activities and even make suggestions but will not directly join the play.
Parallel Play	Children play alongside each other, using similar toys, but do not directly act with each other.
Associative Play	Children will interact with each other and share toys but are not working toward a common goal.
Cooperative Play	Children are interacting to achieve a common goal. Children may take on different tasks to reach that goal.

An intriguing occurrence in early childhood is the emergence of imaginary companions.

Researchers differ in how they define what qualifies as an imaginary companion. Some studies include only invisible characters that the child refers to in conversation or plays with for an extended period of time. Other researchers also include objects that the child personifies, such as a stuffed toy or doll, or characters the child impersonates every day. Estimates of the number of children who have imaginary companions varies greatly (from as little as 6% to as high as 65%) depending on what is included in the definition (Gleason, Sebanc, & Hartup, 2000).

Little is known about why children create imaginary companions, and more than half of all companions have no obvious trigger in the child's life (Masih, 1978). Imaginary companions are sometimes based on real people, characters from stories, or simply names

the child has heard (Gleason, et. al., 2000). Imaginary companions often change over time. In their study, Gleason et al. (2000) found that 40% of the imaginary companions of the children they studied changed, such as developing superpowers, switching age, gender, or even dying, and 68% of the characteristics of the companion were acquired over time. This could reflect greater complexity in the child's "creation" over time and/or a greater willingness to talk about their imaginary playmates.

In addition, research suggests that contrary to the assumption that children with imaginary companions are compensating for poor social skills, several studies have found that these children are very sociable (Mauro, 1991; Singer & Singer, 1990; Gleason, 2002). However, studies have reported that children with imaginary companions are more likely to be first-borns or only-children (Masih, 1978; Gleason et al., 2000, Gleason, 2002). Although not all research has found a link between birth order and the incidence of imaginary playmates (Manosevitz, Prentice, & Wilson, 1973). Moreover, some studies have found little or no difference in the presence of imaginary companions and parental divorce (Gleason et al., 2000), number of people in the home, or the amount of time children are spending with real playmates (Masih, 1978; Gleason & Hohmann, 2006).

Do children treat real friends differently? The answer appears to be not really. Young children view their relationship with their imaginary companion to be as supportive and nurturing as with their real friends. Gleason has suggested that this might suggest that children form a schema of what is a friend and use this same schema in their interactions with both types of friends (Gleason, et al., 2000; Gleason, 2002; Gleason & Hohmann, 2006).

Children and the Media

Children view far more television today than in the 1960s; so much that they have been referred to as Generation M for Media. Almost all American families have at least one TV set, and half own three or more (Nielsen Company, 2009). For children age six and under, two-thirds watch television every day, usually for two hours (Rideout & Hamel, 2006). Even when involved in other activities, such as playing, there is often a television on nearby (Christakis, 2009; Kirkorian, Pempek, & Murphy, 2009). Research has consistently shown that too much television adversely affects children's behavior, health, and achievement (Gentile & Walsh, 2002; Robinson, Wilde, & Navracruz, 2001). Young children are negatively affected cognitive and language development as well as be linked to attention problems later in childhood (Schmidt, Pempek, & Kirkorian, 2008; Courage, Murphy, & Goulding, 2010).

Figure 4.26

Source

An additional concern is the amount of screen time children are getting with smart mobile devices. While most parents believe that

their young children use mobile devices for a variety of activities, the children report that they typically use them to play games (Chiong & Schuler, 2010). Studies have reported that young children who have two or more hours per day using mobile devices show more externalizing behaviors (aggression, tantrums) and inattention (Tamana, et al., 2019), shorter sleep duration and a higher risk of behavioral problems (Wu, 2017), and fail to meet developmental milestones in fine and gross motor skills, language, and problem-solving (Madigan, Browne, Racine, Mori, & Tough, 2019).

Based on research findings, the AAP (2016) suggests that prior to the age of two children should be engaged in hands-on exploration and social interaction with the real world, rather than the virtual one. The immaturity of the cognitive functions in infants and toddlers make it difficult for them to learn from digital media as effectively as they can from caregivers. For instance, it is often not until 24 months of age that children can learn new words from live-video chatting (Kirkorian, Choi, & Pempek, 2016). Between the ages of 2 and 5 the AAP (2016) suggests that children should be limited to no more than one hour per day of high quality programs that are co-viewed with a caregiver to help children to understand what they are viewing. The AAP also strongly suggest that parents should avoid using mobile media to soothe their children. The concern is that using media as a strategy to distract or soothe the child may make it difficult for parents to limit the child's use of the devices and may inhibit children's ability to self-regulate their own emotions.

Child Care

In 2018, about 71.5% of mothers of school-aged and 65.1% percent of mothers of preschool aged children in the United States worked outside the home (Bureau of Labor Statistics, 2019). Since more

women have been entering the workplace, there has been a concern that families do not spend as much time with their children. This, however, is not true. The Economist Data Team (2017) analyzed data from of ten countries (United States, Britain, Canada, France, Germany, Denmark, Italy, Netherlands, Slovenia and Spain) and estimated that the average mother spent 54 minutes a day caring for children in 1965, but 104 minutes in 2012. Only mothers in France spent last time in 2012 than in 1965. Men continue to do less than women at 59 minutes per day in 2012, but they provided more care than in 1965 when they averaged only 16 minutes a day. However, differences were found between working-class and middle-class mothers. In 1965 mothers with and without a university education spent about the same amount of time on child care. By 2012 the more educated ones were spending half an hour more per day. See Figure 4.27 for the difference between mothers in the United States who were university educated (dark blue line) and those who were non-university educated (light blue line).

Figure 4.27 U.S. Mothers' Time Spent in Child Care

Figure 4.27 U.S. Mothers' Time Spent in Child Care 1965-2012
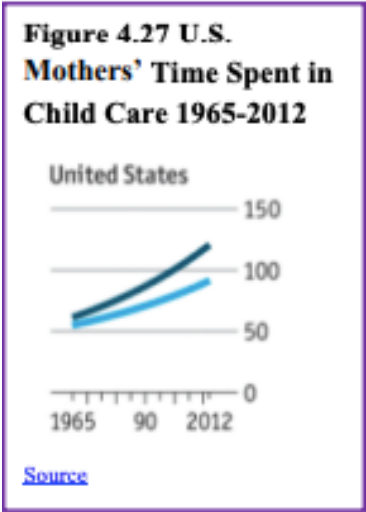
To evaluate how early child care affects children's development, the National Institute of Child Health and Human Development (2006) conducted a longitudinal study. This study is considered the most comprehensive child care study to date, and it began in 1991 when the children were one month of age. The study included an economically and ethnically diverse group of 1364 children assessed from 10 sites around the country. By design the study involved single parents, minority backgrounds, and differing formal education levels. Child care was defined as "any care provided on a regular basis by someone other than the child's mother" (p. 4). A regular basis included more than 10 hours per week. Child care arrangements included: Care from the father or another relative, care from a caregiver not related to the child in the child's home, small group care in the caregiver's home, and center-based care.

Overall results indicated that children cared for by their mothers did not develop differently than those who were cared for by others. Parents and family characteristics were stronger predictors of child development than child care facilities. Specifically, greater cognitive, language and social competence were demonstrated when parents were more educated, had higher incomes, and provided emotionally supportive and cognitively enriched home environments. When comparing higher quality child care with lower quality child care differences were noted. Higher quality care, as measured by adult-to-child ratios, group size, and caregivers' educational and training levels, resulted in higher cognitive performance, better language comprehension and production, and higher levels of school readiness. Lower quality care predicted more behavioral problems and poorer cognitive, language, and school readiness.

Figure 4.28

The higher the teacher to child ratio, the more time the teacher has for involvement with the children and the less stressed the teacher may be so that the interactions can be more relaxed, stimulating and positive. The more children there are in a program, the less desirable the program as well. This is because the center may be more rigid in rules and structure to accommodate the large number of children in the facility. The physical environment should be colorful, stimulating, clean, and safe. The philosophy of the organization and the curriculum available should be child-centered, positive, and stimulating. Providers should be trained in early childhood education as well. A majority of states do not require training for their child care providers. While formal education is not required for a person to provide a warm, loving relationship to a child, knowledge of a child's development is useful for addressing their social, emotional, and cognitive needs in an effective way.

By working toward improving the quality of childcare and increasing

family-friendly workplace policies, such as more flexible scheduling and childcare facilities at places of employment, we can accommodate families with smaller children and relieve parents of the stress sometimes associated with managing work and family life.

Child Abuse

The Child Abuse Prevention and Treatment Act (United States Department of Health and Human Services, 2013) defines Child Abuse and Neglect as: Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm (p. viii). Each state has its own definition of child abuse based on the federal law, and most states recognize four major types of maltreatment: neglect, physical abuse, psychological maltreatment, and sexual abuse. Each of the forms of child maltreatment may be identified alone, but they can occur in combination.

Victims of Child Abuse: According to the United States Department of Health and Human Services (HHS) (2019), during 2017 (the most recent year data has been collected) Child Protective Services (CPS) agencies received an estimated 4.1 million referrals for abuse involving approximately 7.5 million children. This is a rate of 31.8 per 1,000 children in the national population. Professionals made 65.7% of alleged child abuse and neglect reports, and they included law enforcement (18.3%), educational (19.4%) and social services personnel (11.7%). Nonprofessionals, such as friends, neighbors, and relatives, submitted 17.3% of the reports. Approximately 3.5 million children were the subjects of at least one report.

Victims in their first year of life had the highest rate of victimization (25.3 per 1,000 children of the same age). The majority of victims consisted of three ethnicities: White (44.6%), Hispanic (22.3%), and

African-American (20.7%). The greatest percentages of children suffered from neglect (74.9%) and physical abuse (18.3%), although a child may have suffered from multiple forms of maltreatment. In 2017 an estimated 1,720 children died from abuse and neglect, and 71.8% of all child fatalities were younger than 3 years old. Boys had a higher child fatality rate (2.68 per 100,000 boys), while girls died of abuse and neglect at a rate of 2.02 per 100,000 girls. More than 88% of child fatalities were comprised of White (41.9%), African-American (31.5%), and Hispanic (15.1%) victims (HHS, 2019).

Sexual Abuse: Childhood sexual abuse is defined as any sexual contact between a child and an adult or a much older child. Incest refers to sexual contact between a child and family members. In each of these cases, the child is exploited by an older person without regard for the child's developmental immaturity and inability to understand the sexual behavior (Steele, 1986). Research estimates that 1 out of 4 girls and 1 out of 10 boys have been sexually abused (Valente, 2005). The median age for sexual abuse is 8 or 9 years for both boys and girls (Finkelhorn, Hotaling, Lewis, & Smith, 1990). Most boys and girls are sexually abused by a male. Although rates of sexual abuse are higher for girls than for boys, boys may be less likely to report abuse because of the cultural expectation that boys should be able to take care of themselves and because of the stigma attached to homosexual encounters (Finkelhorn et al., 1990). Girls are more likely to be abused by family member and boys by strangers. Sexual abuse can create feelings of self-blame, betrayal, shame and guilt (Valente, 2005). Sexual abuse is particularly damaging when the perpetrator is someone the child trusts and may lead to depression, anxiety, problems with intimacy, and suicide (Valente, 2005).

Stress on Young Children: Children experience different types of stressors. Normal, everyday stress can provide an opportunity for young children to build coping skills and poses little risk to development. Even more long-lasting stressful events, such as changing schools or losing a loved one, can be managed fairly well.

Children who experience toxic stress or who live in extremely stressful situations of abuse over long periods of time can suffer long-lasting effects. The structures in the midbrain or limbic system, such as the hippocampus and amygdala, can be vulnerable to prolonged stress during early childhood (Middlebrooks & Audage, 2008). High levels of the stress hormone cortisol can reduce the size of the hippocampus and affect the child's memory abilities. Stress hormones can also reduce immunity to disease. The brain exposed to long periods of severe stress can develop a low threshold making the child hypersensitive to stress in the future.

Adverse Childhood Experiences (ACEs)

The toxic stress that young children endure can have a significant impact on their later lives. According to Merrick, Ford, Ports, and Guinn (2018), the foundation for lifelong health and well-being is created in childhood, as positive experiences strengthen biological systems while adverse experiences can increase mortality and morbidity. All types of abuse, neglect, and other potentially traumatic experiences that occur before the age of 18 are referred to as adverse childhood experiences (ACEs) (CDC, 2019). ACEs have been linked to risky behaviors, chronic health conditions, low life potential and early death, and as the number of ACEs increase, so does the risk for these results.

Figure 4.29

Figure 4.29

Early Adversity has Lasting Impacts

Adverse Childhood Experiences

Source

When a child experiences strong, frequent, and/or prolonged adversity without adequate adult support, the child's stress response systems can be activated and disrupt the development of the brain and other organ systems (Harvard University, 2019). Further, ACEs can increase the risk for stress-related disease and cognitive impairment, well into the adult years. Felitti et al. (1998) found that those who had experienced four or more ACEs compared to those who had experienced none, had increased health risks for alcoholism, drug abuse, depression, suicide attempt, increase in smoking, poor self-rated health, more sexually transmitted diseases, an increase in physical inactivity and severe obesity. More ACEs showed an increased relationship to the presence of adult diseases including heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease. Overall, those with multiple ACEs were likely to have multiple health risk factors later in life.

Figure 4.30 How ACES Affect Children and Adults

Figure 4.30 How ACES Affect Children and Adults
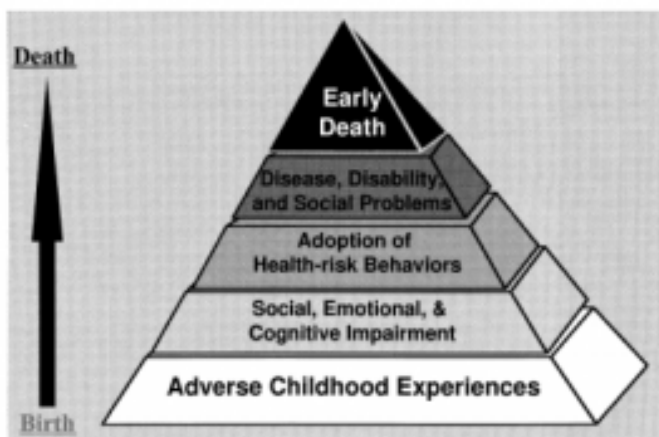
Some groups have been found to be at a greater risk for experiencing ACEs. Merrick et al. (2018) reviewed the results from the 2011-2014 Behavioral Risk Factor Surveillance System, which included an ACE module consisting of questions adapted from the Centers for Disease Control and Prevention. Each question was collapsed into one of the eight ACE categories: physical abuse, emotional abuse, sexual abuse, household mental illness, household substance use, household domestic violence, incarcerated household member, and parental separation or divorce. The results indicated that 25% of the sample had been exposed to three or more ACEs, and although ACEs were found across all demographic groups, those who identified as Black, multiracial, lesbian/gay/bisexual, having less than a high school education, being low income, and unemployed experienced significantly higher ACE exposure. Assisting families and providing children with supportive and responsive adults can help prevent the negative effects of ACEs.

Separating Families at the United States Border: Thousands of

children were separated from their parents beginning in April 2018 as they approached the United States border by Immigration and Custom Enforcement (ICE). Children were placed in separate facilities from their parents when they were being processed, and they were not told when they would be reunited. When enduring stressful situations, separation from one's parents can be extremely detrimental to a child (Society for Research in Child Development (SRCD), 2018). Parental separations affect children's stress management systems by changing how the body responds to stress. Long-term stress can disrupt brain functioning, cognitive skills, emotional processing, and physiological health. When exposed to stress, children typically look to their parents for support and care, and parents can reduce children's stress. These separated children were already under extreme stress escaping their previous homes, and then were separated from the individuals who could support them through this process.

Figure 4.31 Children in a Detention Center

Source

Stress from parent separation places children at a higher risk for

anxiety, depression, PTSD, lower IQ, obesity, impaired immune system functioning, and medical conditions (SRCD, 2018). Even after being reunited, children can experience attachment issues, poorer self-esteem, and physical and psychological health difficulties. As they age, they continue to exhibit an increased risk for mental health problems, problems in social interactions, difficulty with adult attachments, poorer stress management, and an increased risk for death. The American Psychological Association (2019) opposes policies that separate families given the negative outcomes suffered by children.

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PART VIII
DEVELOPMENT IN MIDDLE CHILDHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

Vignette

Monty is an 8 y/o boy living with his mother, Foley, and maternal grandmother, Livia, in a small 2 bedroom apartment in the city. Foley was 15 when she had Monty and did not finish high school. Both she and her mother Livia work different shifts at a factory nearby their apartment so one of them can be home to provide care for Monty. Monty has never met his father and knows little about him. Recently Foley has been fighting more with her mother about how Livia is becoming less patient with Monty and has begun locking him in his room when he is being disruptive.

Photo by Andrew Lancaster on Unsplash

Monty has done fairly well in school until this past year. He has always been a high energy child but had been able to respond to his teachers majority of the time when redirected. Over the past several weeks Monty has demonstrated increased struggles with defiance, aggression, and fighting with his peers. Foley has been called to meet with the school Social Worker to discuss these concerns.

Foley meets with the school Social Worker next and reports how Monty has always been a very active and impulsive child, not paying much attention to his surroundings or personal space of others. Foley describes Monty as "the Energizer bunny – he never stops, always running around, crashing into things and making a mess wherever he goes. I have a hard time getting him to listen too, and I usually end up spanking him to make him stop. My mom also spanks him,

but she says it doesn't always work so she started locking him in his room until he stops – we've been fighting more recently about this and I noticed he seems to be having a harder time too". She shares some of their history with the Social Worker, such as being a teenage mother, Monty's father never being around, and increasing struggles with her mother's punishments for Monty, mainly locking him in his room. The Social Worker explored Foley's thoughts on connecting Monty to mental health service as a support which could be provided at school. Foley reports feeling some anxiety with this as she does not know much about mental health services and fears Monty will simply be medicated "like a Zombie". The Social Worker assures Foley this will not be the case as the focus will be how to support Monty with emotional and behavioral interventions, and if medication was something recommended, they would be able to discuss benefits vs possible side effects with Foley having the final say in the decision. Foley agrees to "give it a try, couldn't hurt anything, could it?".

Critical Thinking:

1. What stage of Piaget's Theory of Cognitive Development is the client currently in? Are they meeting expectations of this stage? Examples? Are they demonstrating any delays in this stage? Examples?
2. What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?

3. What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
4. What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 16: Physical Development in Middle Childhood

Overall Physical Growth: Rates of growth generally slow during these years. Typically, a child will gain about 5-7 pounds a year and grow about 2-3 inches per year (CDC, 2000). They also tend to slim down and gain muscle strength and lung capacity making it possible to engage in strenuous physical activity for long periods of time. The beginning of the growth spurt, which occurs prior to puberty, begins two years earlier for females than males. The mean age for the beginning of the growth spurt for girls is nine, while for

boys it is eleven. Children of this age tend to sharpen their abilities to perform both gross motor skills, such as riding a bike, and fine motor skills, such as cutting their fingernails. In gross motor skills (involving large muscles) boys typically outperform girls, while with fine motor skills (small muscles) girls outperform the boys. These improvements in motor skills are related to brain growth and experience during this developmental period.

Brain Growth: Two major brain growth spurts occur during middle/late childhood (Spreen, Riser, & Edgell, 1995). Between ages 6 and 8, significant improvements in fine motor skills and eye-hand coordination are noted. Then between 10 and 12 years of age, the frontal lobes become more developed and improvements in logic, planning, and memory are evident (van der Molen & Molenaar, 1994). Myelination is one factor responsible for these growths. From age 6 to 12, the nerve cells in the association areas of the brain, that is those areas where sensory, motor, and intellectual functioning connect, become almost completely myelinated (Johnson, 2005). This myelination contributes to increases in information processing speed and the child's reaction time. The hippocampus, responsible for transferring information from the short-term to long- term memory, also show increases in myelination resulting in improvements in memory functioning (Rolls, 2000). Children in middle to late childhood are also better able to plan, coordinate activity using both left and right hemispheres of the brain, and to control emotional outbursts. Paying attention is also improved as the prefrontal cortex matures (Markant & Thomas, 2013).

Sports

Figure 5.1

Source

Middle childhood seems to be a great time to introduce children to organized sports, and in fact, many parents do. Nearly 3 million children play soccer in the United States (United States Youth Soccer, 2012). This activity promises to help children build social skills, improve athletically and learn a sense of competition. However, it has been suggested that the emphasis on competition and athletic skill can be counterproductive and lead children to grow tired of the game and want to quit. In many respects, it appears that children's activities are no longer children's activities once adults become involved and approach the games as adults rather than children. The U. S. Soccer Federation recently advised coaches to reduce the amount of drilling engaged in during practice and to allow children to play more freely and to choose their own positions. The hope is that this will build on their love of the game and foster their natural talents.

Sports are important for children. Children's participation in sports has been linked to:

- Higher levels of satisfaction with family and overall quality of life in children
- Improved physical and emotional development
- Better academic performance

Yet, a study on children's sports in the United States (Sabo & Veliz, 2008) has found that gender, poverty, location, ethnicity, and disability can limit opportunities to engage in sports. Girls were more likely to have never participated in any type of sport (see Figure 5.2). They also found that fathers may not be providing their daughters as much support as they do their sons.

While boys rated their fathers as their biggest mentor who taught them the most about sports, girls rated coaches and physical education teachers as their key mentors. Sabo and Veliz also found that children in suburban neighborhoods had a much higher participation of sports than boys and girls living in rural or urban centers. In addition, Caucasian girls and boys participated in organized sports at higher rates than minority children (see Figure 5.3).

Figure 5.2

Figure 5.2 Participation in Organized and Team Sports (Percent) by Gender

Total girls (n=1051). Total boys (n=1081)
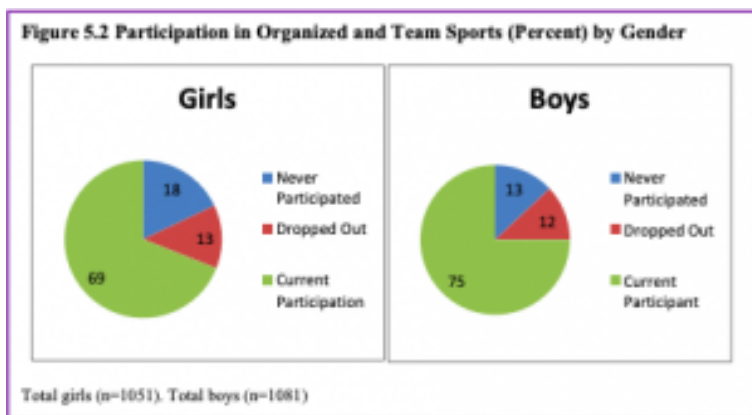
Figure 5.3 Percent of Students Participating in Organized Sports, by Gender, Race, and Ethnicity
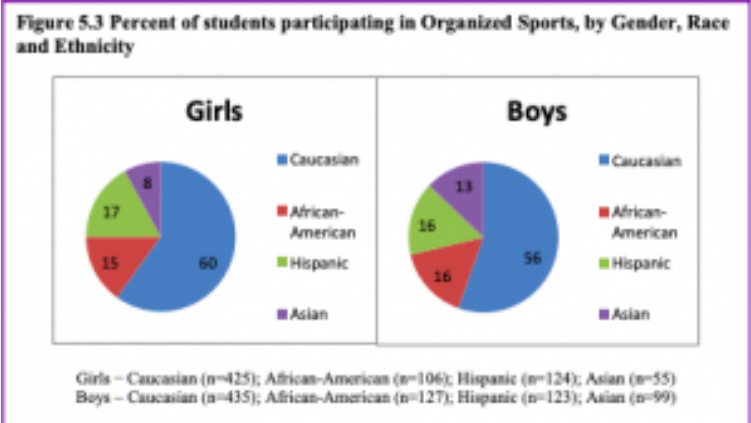
Finally, Sabo and Veliz asked children who had dropped out of organized sports why they left. For both girls and boys, the number one answer was that it was no longer any fun (see Table 5.1). According to the Sport Policy and Research Collaborative (SPARC) (2013), almost 1 in 3 children drop out of organized sports, and while there are many factors involved in the decisions to drop out, one suggestion has been the lack of training that coaches of children's sports receive may be contributing to this attrition (Barnett, Smoll & Smith, 1992). Several studies have found that when coaches receive proper training, the drop-out rate is about 5% instead of the usual 30% (Fraser-Thomas, Côté, & Deakin, 2005; SPARC, 2013).

Table 5.1 Top Reasons Dropped Out or Stopped Playing Organized/ Team Sports

Table 5.1 Top Reasons Dropped Out or Stopped Playing Organized/Team Sports

Girls		Boys	
I was not having fun	38%	I was not having fun	39%
I wanted to focus more on studying and grades	36%	I had a health problem or injury	29%
I had a health problem or injury	27%	I wanted to focus more on studying and grades	26%
I wanted to focus more on other clubs or activities	22%	I did not like or get along with the coach	22%
I did not like or get along with the coach	18%	I wanted to focus more on other clubs or activities	18%
I did not like or get along with others on the team	16%	I did not like or get along with others on the team	16%
I was not a good enough player	15%	I was not a good enough player	15%
My family worried about me getting hurt or injured while playing sports	14%	My family worried about me getting hurt or injured while playing sports	12%

Source: Sabo, D., & Veliz, P. (2008). Go Out and Play: Youth Sports in America. East Meadows, NY: Women's Sports

Welcome to the world of esports: According to Discover Esports (2017), esports is a form of competition with the medium being video games. Players use computers or specific video game consoles to play video games against each other. In addition to playing themselves, children my just watch others play the video games. The recent SPARC (2016) report on the "State of Play" in the United States highlights a disturbing trend. One in four children between the ages of 5 and 16 rate playing computer games with their friends as a form of exercise. Over half of males and about 20% of females, aged 12-19, say they are fans of esports.

Since 2008 there has also been a downward trend in the number of sports children are engaged in, despite a body of research evidence that suggests that specializing in only one activity can increase the chances of injury, while playing multiple sports is protective (SPARC, 2016). A University of Wisconsin study found that 49% of athletes who specialized in a sport experienced an injury compared with 23% of those who played multiple sports (McGuine, 2016).

Physical Education: For many children, physical education in school

is a key component in introducing children to sports. After years of schools cutting back on physical education programs, there has been a turn around, prompted by concerns over childhood obesity and the related health issues. Despite these changes, currently only the state of Oregon and the District of Columbia meet PE guidelines of a minimum of 150 minutes per week of physical activity in elementary school and 225 minutes in middle school (SPARC, 2016).

Childhood Obesity

The decreased participation in school physical education and youth sports is just one of many factors that has led to an increase in children being overweight or obese. The current measurement for determining excess weight is the Body Mass Index (BMI) which expresses the relationship of height to weight. According to the Centers for Disease Control and Prevention (CDC), children's whose BMI is at or above the 85th percentile for their age are considered overweight, while children who are at or above the 95th percentile are considered obese (Lu, 2016). In 2015-2016 approximately 13.9% of 2-5 year-olds and 18.4% of 6-11 year-olds were obese (Hales, Carroll, Fryar, & Ogden, 2017). Excess weight and obesity in children are associated with a variety of medical and cognitive conditions including high blood pressure, insulin resistance, inflammation, depression, and lower academic achievement (Lu, 2016).

Being overweight has also been linked to impaired brain functioning, which includes deficits in executive functioning, working memory, mental flexibility, and decision making (Liang, Matheson, Kaye, & Boutelle, 2014). Children who ate more saturated fats performed worse on relational memory tasks, while eating a diet high in omega-3 fatty acids promoted relational memory skills (Davidson, 2014). Using animal studies Davidson et al. (2013) found

that large amounts of processed sugars and saturated fat weakened the blood-brain barrier, especially in the hippocampus. This can make the brain more vulnerable to harmful substances that can impair its functioning. Another important executive functioning skill is controlling impulses and delaying gratification. Children who are overweight show less inhibitory control than normal weight children, which may make it more difficult for them to avoid unhealthy foods (Lu, 2016). Overall, being overweight as a child increases the risk for cognitive decline as one ages.

Figure 5.4 Being Overweight can be a Lifelong Struggle

Figure 5.4 Being overweight can be a lifelong struggle

overweight become *overweight*
kids *adults*

Source
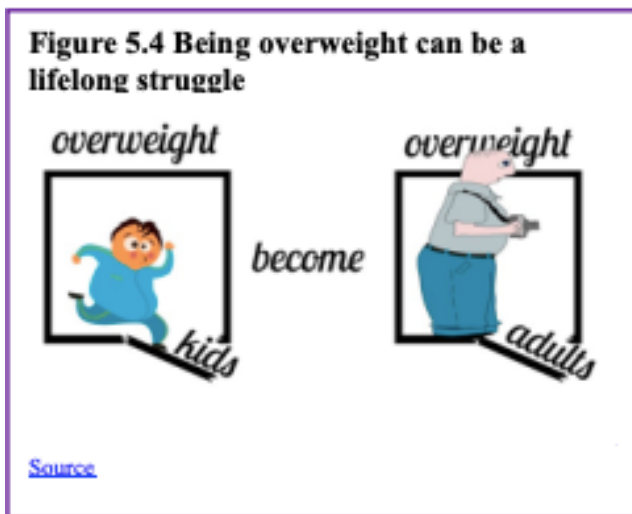
A growing concern is the lack of recognition from parents that children are overweight or obese. Katz (2015) referred to this as oblivobesity. Black, Park and Gregson (2015) found that parents in the United Kingdom (UK) only recognized their children as obese when they were above the 99.7th percentile while the official cut-off for obesity is at the 85th percentile. Oude Luttikhuis, Stolk, and Sauer (2010) surveyed 439 parents and found that 75% of parents of

overweight children said the child had a normal weight and 50% of parents of obese children said the child had a normal weight. For these parents, overweight was considered normal and obesity was considered normal or a little heavy. Doolen, Alpert, and Miller (2009) reported on several studies from the United Kingdom, Australia, Italy, and the United States, and in all locations, parents were more likely to misperceive their children's weight. Black et al. (2015) concluded that as the average weight of children rises, what parents consider normal also rises. Needless to say, if parents cannot identify if their children are overweight they will not be able to intervene and assist their children with proper weight management.

An added concern is that the children themselves are not accurately identifying if they are overweight. In a United States sample of 8-15 year-olds, more than 80% of overweight boys and 70% of overweight girls misperceived their weight as normal (Sarafrazi, Hughes, & Borrud, 2014). Also noted was that as the socioeconomic status of the children rose, the frequency of these misconceptions decreased. It appeared that families with more resources were more conscious of what defines a healthy weight.

Children who are overweight tend to be rejected, ridiculed, teased and bullied by others (Stopbullying.gov, 2018). This can certainly be damaging to their self-image and popularity. In addition, obese children run the risk of suffering orthopedic problems such as knee injuries, and they have an increased risk of heart disease and stroke in adulthood (Lu, 2016). It is hard for a child who is obese to become a non-obese adult. In addition, the number of cases of pediatric diabetes has risen dramatically in recent years.

Behavioral interventions, including training children to overcome impulsive behavior, are being researched to help overweight children (Lu, 2016).

Figure 5.5

Source

Practicing inhibition has been shown to strengthen the ability to resist unhealthy foods. Parents can help their overweight children the best when they are warm and supportive without using shame or guilt. Parents can also act like the child's frontal lobe until it is developed by helping them make correct food choices and praising their efforts (Liang, et al., 2014). Research also shows that exercise, especially aerobic exercise, can help improve cognitive functioning in overweight children (Lu, 2016). Parents should take caution against emphasizing diet alone to avoid the development of any obsession about dieting that can lead to eating disorders. Instead, increasing a child's activity level is most helpful.

In 2018 the American Psychological Association (APA) developed a clinical practice guideline that recommends family-based, multicomponent behavioral interventions to treat obesity and overweight in children 2 to 18 (Weir, 2019). The guidelines recommend counseling on diet, physical activity and "teaching

parents strategies for goal setting, problem-solving, monitoring children's behaviors, and modeling positive parental behaviors," (p. 32). Early research results have shown success using this model compared to controls. Because there is no quick fix for weight loss, the program recommends 26 contact hours with the family. Unfortunately, for many families cost, location, and time commitment make it difficult for them to receive the interventions. APA has recommended that behavioral treatment could be delivered in primary care offices to encourage greater particiapation. APA also recommend that schools and communities need to offer more nutritious meals to children and limit sodas and unhealthy foods.

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Chapter 17: Cognitive Development in Middle Childhood

Chapter 17 Learning Objectives

- Describe Piaget's concrete operational stage and the characteristics of concrete thought
- Describe information processing research on memory, attention, knowledgebase, metacognition, and critical thinking
- Describe language development and explain the three types of communication disorders
- Describe the theories of intelligence, including general "g", triarchic theory, and Gardner's multiple intelligences
- Explain how intelligence is measured, the tests used to assess intelligence, the extremes in intelligence, and the concern of bias
- Describe how language and culture influence the typical classroom
- Identify common disabilities in childhood and the legislation that protects them educationally

Recall from the last chapter that children in early childhood are in Piaget's preoperational stage, and during this stage, children are learning to think symbolically about the world. Cognitive skills continue to expand in middle and late childhood as thought processes become more logical and organized when dealing with concrete information. Children at this age understand concepts such as past, present, and future, giving them the ability to plan and work toward goals. Additionally, they can process complex ideas such as addition and subtraction and cause-and-effect relationships.

Concrete Operational Thought

From ages 7 to 11, children are in what Piaget referred to as the concrete operational stage of cognitive development (Crain, 2005). This involves mastering the use of logic in concrete ways. The word concrete refers to that which is tangible; that which can be seen, touched or experienced directly. The concrete operational child is able to make use of logical principles in solving problems involving the physical world. For example, the child can understand the principles of cause and effect, size, and distance.

The child can use logic to solve problems tied to their own direct experience but has trouble solving hypothetical problems or considering more abstract problems. The child uses inductive reasoning, which is a logical process in which multiple premises believed to be true are combined to obtain a specific conclusion. For example, a child has one friend who is rude, another friend who is also rude, and the same is true for a third friend. The child may conclude that friends are rude. We will see that this way of thinking tends to change during adolescence being replaced with deductive reasoning. We will now explore some of the major abilities that the concrete child exhibits.

Classification: As children's experiences and vocabularies grow, they build schemata and are able to organize objects in many different ways. They also understand classification hierarchies and can arrange objects into a variety of classes and subclasses.

Figure 5.6 Children in the concrete operational stage understand how to classify organisms

Domain
Kingdom
Phylum
Class
Order
Family
Genus
Species

Greatest # of organisms, broad

Least # of organisms, specific

Source
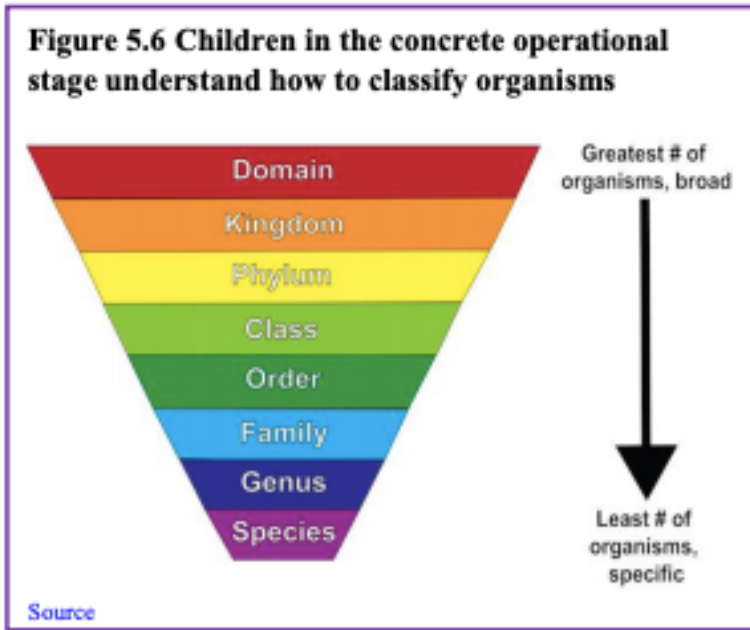
Identity: One feature of concrete operational thought is the understanding that objects have qualities that do not change even if the object is altered in some way. For instance, the mass of an object does not change by rearranging it. A piece of chalk is still chalked even when the piece is broken in two.

Reversibility: The child learns that some things that have been changed can be returned to their original state. Water can be frozen and then thawed to become liquid again, but eggs cannot be unscrambled. Arithmetic operations are reversible as well: 2 + 3 = 5 and 5 − 3 = 2. Many of these cognitive skills are incorporated

into the school's curriculum through mathematical problems and in worksheets about which situations are reversible or irreversible.

Conservation: Remember the example in our last chapter of preoperational children thinking that a tall beaker filled with 8 ounces of water was "more" than a short, wide bowl filled with 8 ounces of water? Concrete operational children can understand the concept of conservation which means that changing one quality (in this example, height or water level) can be compensated for by changes in another quality (width). Consequently, there is the same amount of water in each container, although one is taller and narrower and the other is shorter and wider.

Decentration: Concrete operational children no longer focus on only one dimension of any object (such as the height of the glass) and instead consider the changes in other dimensions too (such as the width of the glass). This allows for conservation to occur.

Seriation: Arranging items along a quantitative dimension, such as length or weight, in a methodical way is now demonstrated by the concrete operational child. For example, they can methodically arrange a series of different-sized sticks in order by length, while younger children approach a similar task in a haphazard way.

These new cognitive skills increase the child's understanding of the physical world, however according to Piaget, they still cannot think in abstract ways. Additionally, they do not think in systematic scientific ways. For example, when asked which variables influence the period that a pendulum takes to complete its arc and given weights they can attach to strings in order to do experiments, most children younger than 12 perform biased experiments from which no conclusions can be drawn (Inhelder & Piaget, 1958).

Information Processing

Children differ in their memory abilities, and these differences predict both their readiness for school and academic performance in school (PreBler, Krajewski, & Hasselhorn, 2013). During middle and late childhood children make strides in several areas of cognitive function including the capacity of working memory, their ability to pay attention, and their use of memory strategies. Both changes in the brain and experience foster these abilities.

Working Memory: The capacity of working memory expands during middle and late childhood, and research has suggested that both an increase in processing speed and the ability to inhibit irrelevant information from entering memory are contributing to the greater efficiency of working memory during this age (de Ribaupierre, 2002). Changes in myelination and synaptic pruning in the cortex are likely behind the increase in processing speed and ability to filter out irrelevant stimuli (Kail, McBride-Chang, Ferrer, Cho, & Shu, 2013).

Children with learning disabilities in math and reading often have difficulties with working memory (Alloway, 2009). They may struggle with following the directions of an assignment. When a task calls for multiple steps, children with poor working memory may miss steps because they may lose track of where they are in the task. Adults working with such children may need to communicate: Using more familiar vocabulary, using shorter sentences, repeating task instructions more frequently, and breaking more complex tasks into smaller more manageable steps. Some studies have also shown that more intensive training of working memory strategies, such as chunking, aid in improving the capacity of working memory in children with poor working memory (Alloway, Bibile, & Lau, 2013).

Attention: As noted above, the ability to inhibit irrelevant information improves during this age group, with there being a

sharp improvement in selective attention from age six into adolescence (Vakil, Blachstein, Sheinman, & Greenstein, 2009). Children also improve in their ability to shift their attention between tasks or different features of a task (Carlson, Zelazo, & Faja, 2013). A younger child who is asked to sort objects into piles based on type of object, car versus animal, or color of object, red versus blue, may have difficulty if you switch from asking them to sort based on type to now having them sort based on color. This requires them to suppress the prior sorting rule. An older child has less difficulty making the switch, meaning there is greater flexibility in their attentional skills. These changes in attention and working memory contribute to children having more strategic approaches to challenging tasks.

Memory Strategies: Bjorklund (2005) describes a developmental progression in the acquisition and use of memory strategies. Such strategies are often lacking in younger children but increase in frequency as children progress through elementary school. Examples of memory strategies include rehearsing information you wish to recall, visualizing and organizing information, creating rhymes, such "i" before "e" except after "c", or inventing acronyms, such as "roygbiv" to remember the colors of the rainbow. Schneider, Kron-Sperl, and Hünnerkopf (2009) reported a steady increase in the use of memory strategies from ages six to ten in their longitudinal study (see Table 5.2). Moreover, by age ten many children were using two or more memory strategies to help them recall information. Schneider and colleagues found that there were considerable individual differences at each age in the use of strategies, and that children who utilized more strategies had better memory performance than their same aged peers.

Children may experience three deficiencies in their use of memory strategies. A mediation deficiency occurs when a child does not grasp the strategy being taught, and thus, does not benefit from its use.

Table 5.2 Percent of Children who did not use any Memory Strategies by Age.

Age	Percentage
6	55
7	44
8	25
9	17
10	13

If you do not understand why using an acronym might be helpful, or how to create an acronym, the strategy is not likely to help you. In a production deficiency the child does not spontaneously use a memory strategy and must be prompted to do so. In this case, children know the strategy and are more than capable of using it, but they fail to "produce" the strategy on their own. For example, children might know how to make a list, but may fail to do this to help them remember what to bring on a family vacation. A utilization deficiency refers to children using an appropriate strategy, but it fails to aid their performance. Utilization deficiency is common in the early stages of learning a new memory strategy (Schneider & Pressley, 1997; Miller, 2000). Until the use of the strategy becomes automatic it may slow down the learning process, as space is taken up in memory by the strategy itself. Initially, children may get frustrated because their memory performance may seem worse when they try to use the new strategy. Once children become more adept at using the strategy, their memory performance will improve. Sodian and Schneider (1999) found that new memory strategies acquired prior to age eight often show utilization deficiencies with there being a gradual improvement in the child's use of the strategy. In contrast, strategies acquired after

this age often followed an "all-or-nothing" principle in which improvement was not gradual, but abrupt.

Knowledge Base: During middle and late childhood, children are able to learn and remember due to an improvement in the ways they attend to and store information. As children enter school and learn more about the world, they develop more categories for concepts and learn more efficient strategies for storing and retrieving information. One significant reason is that they continue to have more experiences on which to tie new information. In other words, their knowledge base, knowledge in particular areas that makes learning new information easier, expands (Berger, 2014).

Metacognition: Children in middle and late childhood also have a better understanding of how well they are performing a task, and the level of difficulty of a task. As they become more realistic about their abilities, they can adapt studying strategies to meet those needs. Young children spend as much time on an unimportant aspect of a problem as they do on the main point, while older children start to learn to prioritize and gauge what is significant and what is not. As a result, they develop metacognition. Metacognition refers to the knowledge we have about our own thinking and our ability to use this awareness to regulate our own cognitive processes (Bruning, Schraw, Norby, & Ronning, 2004).

Critical Thinking: According to Bruning et al. (2004) there is a debate in U.S. education as to whether schools should teach students what to think or how to think. Critical thinking, or a detailed examination of beliefs, courses of action, and evidence, involves teaching children how to think. The purpose of critical thinking is to evaluate information in ways that help us make informed decisions. Critical thinking involves better understanding a problem through gathering, evaluating, and selecting information, and also by considering many possible solutions. Ennis (1987) identified several skills useful in critical thinking. These include:

Analyzing arguments, clarifying information, judging the credibility of a source, making value judgements, and deciding on an action. Metacognition is essential to critical thinking because it allows us to reflect on the information as we make decisions.

Language Development

Vocabulary: One of the reasons that children can classify objects in so many ways is that they have acquired a vocabulary to do so. By fifth grade, a child's vocabulary has grown to 40,000 words. It grows at a rate that exceeds that of those in early childhood. This language explosion, however, differs from that of younger children because it is facilitated by being able to associate new words with those already known, and because it is accompanied by a more sophisticated understanding of the meanings of a word.

New Understanding: Those in middle and late childhood are also able to think of objects in less literal ways. For example, if asked for the first word that comes to mind when one hears the word "pizza", the younger child is likely to say "eat" or some word that describes what is done with a pizza. However, the older child is more likely to place pizza in the appropriate category and say "food". This sophistication of vocabulary is also evidenced by the fact that older children tell jokes and delight in doing do. They may use jokes that involve plays on words such as "knock- knock" jokes or jokes with punch lines. Young children do not understand play on words and tell "jokes" that are literal or slapstick, such as "A man fell down in the mud! Isn't that funny?"

Grammar and Flexibility: Older children are also able to learn new rules of grammar with more flexibility. While younger children are likely to be reluctant to give up saying "I goed there", older children will learn this rather quickly along with other rules of grammar.

Communication Disorders

At the end of early childhood, children are often assessed in terms of their ability to speak properly. By first grade, about 5% of children have a notable speech disorder (Medline Plus, 2016c).

Fluency disorders: Fluency disorders affect the rate of speech. Speech may be labored and slow, or too fast for listeners to follow. The most common fluency disorder is stuttering.

Stuttering is a speech disorder in which sounds, syllables, or words are repeated or last longer than normal. These problems cause a break in the flow of speech, which is called dysfluency (Medline Plus, 2016b). About 5% of young children, aged two-five, will develop some stuttering that may last from several weeks to several years (Medline Plus, 2016c).

Approximately 75% of children recover from stuttering. For the remaining 25%, stuttering can persist as a lifelong communication disorder (National Institute on Deafness and other Communication Disorders, NIDCD, 2016). This is called developmental stuttering and is the most common form of stuttering. Brain injury, and in very rare instances, emotional trauma may be other triggers for developing problems with stuttering. In most cases of developmental stuttering, other family members share the same communication disorder. Researchers have recently identified variants in four genes that are more commonly found in those who stutter (NIDCD, 2016).

Articulation disorder: An articulation disorder refers to the inability to correctly produce speech sounds (phonemes) because of imprecise placement, timing, pressure, speed, or flow of movement of the lips, tongue, or throat (NIDCD, 2016). Sounds can be substituted, left off, added or changed. These errors may make it hard for people to understand the speaker. They can range from problems with specific sounds, such as lisping to severe impairment in the phonological system. Most children have problems

pronouncing words early on while their speech is developing. However, by age three, at least half of what a child says should be understood by a stranger. By age five, a child's speech should be mostly intelligible. Parents should seek help if by age six the child is still having trouble producing certain sounds. It should be noted that accents are not articulation disorders (Medline Plus, 2016a).

Voice disorders: Disorders of the voice involve problems with pitch, loudness, and quality of the voice (American Speech-Language and Hearing Association, 2016). It only becomes a disorder when problems with the voice makes the child unintelligible. In children, voice disorders are significantly more prevalent in males than in females. Between 1.4% and 6% of children experience problems with the quality of their voice. Causes can be due to structural abnormalities in the vocal cords and/or larynx, functional factors, such as vocal fatigue from overuse, and in rarer cases psychological factors, such as chronic stress and anxiety.

Theories of Intelligence

Psychologists have long debated how to best conceptualize and measure intelligence (Sternberg, 2003). These questions include: How many types of intelligence are there, the role of nature versus nurture in intelligence, how intelligence is represented in the brain, and the meaning of group differences in intelligence.

Figure 5.7 Alfred Binet

Source

General (g) versus Specific (s) Intelligences: From 1904-1905 the French psychologist Alfred Binet (1857–1914) and his colleague Théodore Simon (1872–1961) began working on behalf of the French government to develop a measure that would identify children who would not be successful with the regular school curriculum. The goal was to help teachers better educate these students (Aiken, 1994). Binet and Simon developed what most psychologists today regard as the first intelligence test, which consisted of a wide variety of questions that included the ability to name objects, define words, draw pictures, complete sentences, compare items, and construct sentences.

Binet and Simon (Binet, Simon, & Town, 1915; Siegler, 1992) believed that the questions they asked the children all assessed the basic abilities to understand, reason, and make judgments. It turned out that the correlations among these different types of measures were in fact all positive; that is, students who got one item correct were

more likely to also get other items correct, even though the questions themselves were very different.

On the basis of these results, the psychologist Charles Spearman (1863–1945) hypothesized that there must be a single underlying construct that all of these items measure. He called the construct that the different abilities and skills measured on intelligence tests have in common the General Intelligence Factor (g). Virtually all psychologists now believe that there is a generalized intelligence factor, "g", that relates to abstract thinking and that includes the abilities to acquire knowledge, to reason abstractly, to adapt to novel situations, and to benefit from instruction and experience (Gottfredson, 1997; Sternberg, 2003). People with higher general intelligence learn faster.

Soon after Binet and Simon introduced their test, the American psychologist Lewis Terman at Stanford University (1877–1956) developed an American version of Binet's test that became known as the Stanford-Binet Intelligence Test. The Stanford- Binet is a measure of general intelligence made up of a wide variety of tasks, including vocabulary, memory for pictures, naming of familiar objects, repeating sentences, and following commands.
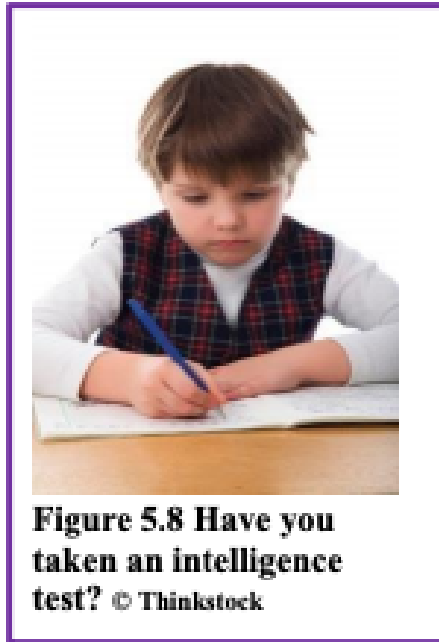
Figure 5.8 Have you taken an intelligence test? © Thinkstock

Although there is general agreement among psychologists that "g" exists, there is also evidence for specific intelligence "s", a measure of specific skills in narrow domains. One empirical result in support of the idea of "s" comes from intelligence tests themselves. Although the different types of questions do correlate with each other, some items correlate more highly with each other than do other items; they form clusters or clumps of intelligence.

Triarchic Theory: One advocate of the idea of multiple intelligences is the psychologist Robert Sternberg. Sternberg has proposed a triarchic (three-part) theory of intelligence that proposes that people may display more or less analytical intelligence, creative intelligence, and practical intelligence. Sternberg (1985, 2003) argued that traditional intelligence tests assess analytical intelligence, academic problem solving and performing calculations,

but that they do not typically assess creative intelligence, the ability to adapt to new situations and create new ideas, and/or practical intelligence, the ability to demonstrate common sense and street-smarts.

As Sternberg proposed, research has found that creativity is not highly correlated with analytical intelligence (Furnham & Bachtiar, 2008) and exceptionally creative scientists, artists, mathematicians, and engineers do not score higher on intelligence than do their less, creative peers (Simonton, 2000).

Figure 5.9 How many uses can you think of for a paper clip? Thinkstock ©
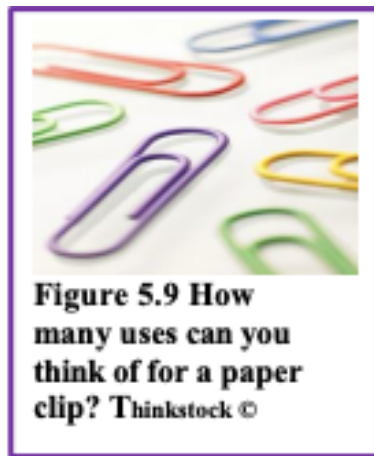
Furthermore, the brain areas that are associated with convergent thinking, thinking that is directed toward finding the correct answer to a given problem, are different from those associated with divergent thinking, the ability to generate many different ideas or solutions to a single problem (Tarasova, Volf, & Razoumnikova, 2010). On the other hand, being creative often takes some of the basic abilities measured by "g", including the abilities to learn from experience, to remember information, and to think abstractly (Bink & Marsh, 2000). Ericsson (1998), Weisberg (2006), Hennessey and Amabile (2010) and Simonton (1992) studied creative people and

identified at least five components that are likely to be important for creativity as listed in Table 5.3

Table 5.3

Table 5.3 Important Components for Creativity

Component	Description
Expertise	Creative people have studied and learned about a topic
Imaginative Thinking	Creative people view problems in new and different ways
Risk Taking	Creative people take on new, but potentially risky approaches
Intrinsic Interest	Creative people take on projects for interest not money
Working in Creative Environments	The most creative people are supported, aided, and challenged by other people working on similar projects

The last aspect of the triarchic model, practical intelligence, refers primarily to intelligence that cannot be gained from books or formal learning. Practical intelligence represents a type of "street smarts" or "common sense" that is learned from life experiences. Although a number of tests have been devised to measure practical intelligence (Sternberg, Wagner, & Okagaki, 1993; Wagner & Sternberg, 1985), research has not found much evidence that practical intelligence is distinct from "g" or that it is predictive of success at any particular tasks (Gottfredson, 2003).

Practical intelligence may include, at least in part, certain abilities that help people perform well at specific jobs, and these abilities may not always be highly correlated with general intelligence (Sternberg et al., 1993).

Theory of Multiple Intelligences: Another champion of the idea of specific types of intelligences rather than one overall intelligence is the psychologist Howard Gardner (1983, 1999). Gardner argued that it would be evolutionarily functional for different people to have different talents and skills and proposed that there are eight intelligences that can be differentiated from each other. A potential ninth intelligence; that is, existential still needs empirical support.

Gardner investigated intelligences by focusing on children who were talented in one or more areas and adults who suffered from strokes that compromised some capacities, but not others. Gardner also noted that some evidence for multiple intelligences comes from the abilities of autistic savants, people who score low on intelligence tests overall, but who nevertheless may have exceptional skills in a given domain, such as math, music, art, or in being able to recite statistics in a given sport (Treffert & Wallace, 2004). In addition to brain damage and the existence of savants, Gardner identified these 8 intelligences based on other criteria including a set developmental history and psychometric findings. See Table 5.4 for a list of Gardner's eight specific intelligences.

Table 5.4 Howard Gardner's Eight Specific Intelligences

Intelligence	Description
Linguistic	The ability to speak and write well
Logical-mathematical	The ability to use logic and mathematical skills to solve problems
Spatial	The ability to think and reason about objects in three dimensions
Musical	The ability to perform and enjoy music
Kinesthetic (body)	The ability to move the body in sports, dance, or other physical activities
Interpersonal	The ability to understand and interact effectively with others
Intrapersonal	The ability to have insight into the self
Naturalistic	The ability to recognize, identify, and understand animals, plants, and other living things

Source: Adapted from Gardner, H. (1999). Intelligence reframed: Multiple intelligences for the 21st century. New York, NY: Basic Books.

Table 5.4

The idea of multiple intelligences has been influential in the field of education, and teachers have used these ideas to try to teach

differently to different students. For instance, to teach math problems to students who have particularly good kinesthetic intelligence, a teacher might encourage the students to move their bodies or hands according to the numbers. On the other hand, some have argued that these "intelligences" sometimes seem more like "abilities" or "talents" rather than real intelligence. There is no clear conclusion about how many intelligences there are. Are sense of humor, artistic skills, dramatic skills, and so forth also separate intelligences? Furthermore, and again demonstrating the underlying power of a single intelligence, the many different intelligences are, in fact, correlated and thus represent, in part, "g" (Brody, 2003).

Figure 5.10 © Thinkstock

Measuring Intelligence: Standardization and the Intelligence Quotient

The goal of most intelligence tests is to measure "g", the general

intelligence factor. Good intelligence tests are reliable, meaning that they are consistent over time, and also demonstrate validity, meaning that they actually measure intelligence rather than something else. Because intelligence is such an important individual difference dimension, psychologists have invested substantial effort in creating and improving measures of intelligence, and these tests are now considered the most accurate of all psychological tests. In fact, the ability to accurately assess intelligence is one of the most important contributions of psychology to everyday public life.

Intelligence changes with age. A 3-year-old who could accurately multiply 183 by 39 would certainly be intelligent, but a 25-year-old who could not do so would be seen as unintelligent. Thus, understanding intelligence requires that we know the norms or standards in a given population of people at a given age. The standardization of a test involves giving it to a large number of people at different ages and computing the average score on the test at each age level.

It is important that intelligence tests be standardized on a regular basis, because the overall level of intelligence in a population may change over time. The Flynn effect refers to the observation that scores on intelligence tests worldwide have increased substantially over the past decades (Flynn, 1999). Although the increase varies somewhat from country to country, the average increase is about 3 IQ points every 10 years. There are many explanations for the Flynn effect, including better nutrition, increased access to information, and more familiarity with multiple-choice tests (Neisser, 1998). Whether people are actually getting smarter, however, is debatable (Neisser, 1997). Most of the increase in IQ occurred during the second half of the 20th century. Recent research has found a reversal of the Flynn effect in several nations around the world, although some nations still show an increase in IQ scores (Dutton, van der Linden, & Lynn, 2016).

Once the standardization has been accomplished, we have a picture

of the average abilities of people at different ages and can calculate a person's mental age, which is the age at which a person is performing intellectually. If we compare the mental age of a person to the person's chronological age, the result is the Intelligence Quotient (IQ), a measure of intelligence that is adjusted for age. A simple way to calculate IQ is by using the following formula:

IQ = mental age ÷ chronological age × 100.

Thus a 10-year-old child who does as well as the average 10-year-old child has an IQ of 100 (10÷ 10 × 100), whereas an 8-year-old child who does as well as the average 10-year-old child would have an IQ of 125 (10 ÷ 8 × 100). Most modern intelligence tests are based on the relative position of a person's score among people of the same age, rather than on the basis of this formula, but the idea of an intelligence "ratio" or "quotient" provides a good description of the score's meaning.

Wechsler Scales: A number of scales are based on the IQ. The Wechsler Adult lntelligence Scale (WAIS) is the most widely used intelligence test for adults (Watkins, Campbell, Nieberding, & Hallmark, 1995). The current version of the WAIS, the WAIS-IV, was standardized on 2,200 people ranging from 16 to 90 years of age. It consists of 15 different tasks, each designed to assess intelligence, including working memory, arithmetic ability, spatial ability, and general knowledge about the world. The WAIS-IV yield scores on four domains: verbal, perceptual, working memory, and processing speed. The reliability of the test is high (more than 0.95), and it shows substantial construct validity. The WAIS-IV is correlated highly with other IQ tests such as the Stanford-Binet, as well as with criteria of academic and life success, including college grades, measures of work performance, and occupational level. It also shows significant correlations with measures of everyday functioning among people with intellectual disabilities.

The Wechsler scale has also been adapted for preschool children

in the form of the Wechsler Primary and Preschool Scale of Intelligence-Fourth Edition (WPPSI-IV) and for older children and adolescents in the form of the Wechsler Intelligence Scale for Children-Fifth Edition (WISC-V). Figure 5.11 illustrates items from the WAIS.

Figure 5.11

Figure 5.11 Sample Items from the Wechsler Adult Intelligence Scale (WAIS)

https://www.flickr.com/search/?q=wechsler+scale

Bias: Intelligence tests and psychological definitions of intelligence have been heavily criticized since the 1970s for being biased in favor of Anglo-American, middle-class respondents and for being inadequate tools for measuring non-academic types of intelligence or talent. Intelligence changes with experience, and intelligence quotients or scores do not reflect that ability to change. What is considered smart varies culturally as well, and most intelligence tests do not take this variation into account. For example, in the West, being smart is associated with being quick. A person who answers a question the fastest is seen as the smartest, but in some cultures being smart is associated with considering an idea thoroughly before giving an answer. A well- thought out, the contemplative answer is the best answer.

Extremes of Intelligence: Intellectual Disability and Giftedness

The results of studies assessing the measurement of intelligence show that IQ is distributed in the population in the form of a normal distribution (or bell curve), which is the pattern of scores usually observed in a variable that clusters around its average. In a normal distribution, the bulk of the scores fall toward the middle, with fewer scores falling at the extremes. The normal distribution of intelligence shows that on IQ tests, as well as on most other measures, the majority of people cluster around the average (in this case, where IQ = 100), and fewer are either very smart or very dull (see Figure 5.13). Because the standard deviation of an IQ test is about 15, this means that about 2% of people score above an IQ of 130, often considered the threshold for giftedness, and about the same percentage score below an IQ of 70, often being considered the threshold for intellectual disability.

Although Figure 5.12 presents a single distribution, the actual IQ distribution varies by sex such that the distribution for men is more spread out than is the distribution for women. These sex differences mean that about 20% more men than women fall in the extreme (very smart or very dull) ends of the distribution (Johnson, Carothers, & Deary, 2009). Boys are about five times more likely to be diagnosed with the reading disability dyslexia than are girls (Halpern, 1992), and are also more likely to be classified as having an intellectual disability. However, boys are also about 20% more highly represented in the upper end of the IQ distribution.

Figure 5.12

Figure 5.12 Distribution of IQ Scores in the General Population

About 68% of people fall in this range within 15 points of 100

About 95% of people fall in this range within 30 points of 100

Less than 2% of people fall in this range

68%

Less than 2% of people fall in this range

2%   13.5%   34%   34%   13.5%   2%

95%

55   70   85   100   115   130   145

Wechsler intelligence score

Number of scores

The normal distribution of IQ scores in the general population shows that most people have about average intelligence, while very few have extremely high or extremely low intelligence.

One end of the distribution of intelligence scores is defined by people with very low IQ. Intellectual disability (or intellectual developmental disorder) is assessed based on cognitive capacity (IQ) and adaptive functioning. The severity of the disability is based on adaptive functioning, or how well the person handles everyday life tasks. About 1% of the United States population, most of them males, fulfill the criteria for the intellectual developmental disorder, but some children who are given this diagnosis lose the classification as they get older and better learn to function in society. A particular vulnerability of people with low IQ is that they may be taken advantage of by others, and this is an important aspect of the definition of intellectual developmental disorder (Greenspan, Loughlin, & Black, 2001).

One cause of the intellectual developmental disorder is Down syndrome, a chromosomal disorder caused by the presence of all or part of an extra 21st chromosome. The incidence of Down syndrome is estimated at approximately 1 per 700 births, and the prevalence increases as the mother's age increases (CDC, 2014). People with Down syndrome typically exhibit a distinctive pattern of physical features, including a flat nose, upwardly slanted eyes, a protruding tongue, and a short neck (see Figure 5.14).

Fortunately, societal attitudes toward individuals with intellectual

disabilities have changed over the past decades. Laws such as the Americans with Disabilities Act (ADA) have made it illegal to discriminate on the basis of mental and physical disability, and there has been a trend to bring people with intellectual disabilities out of institutions and into our workplaces and schools.

Figure 5.13 Individuals with Down Syndrome

© Thinkstock.
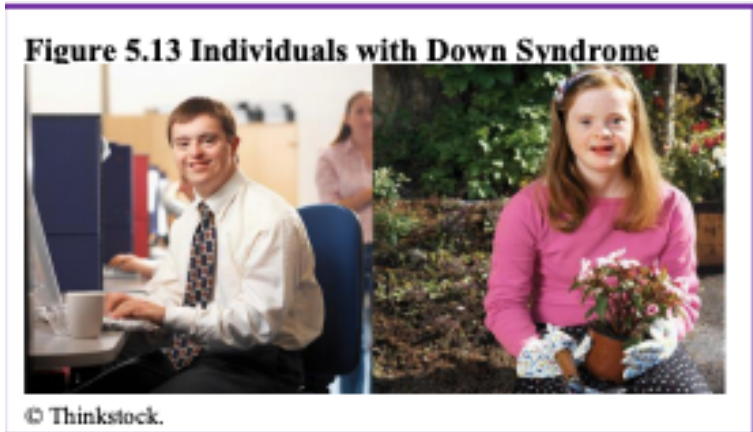
Giftedness refers to children who have an IQ of 130 or higher (Lally & Valentine-French, 2015). Having extremely high IQ is clearly less of a problem than having extremely low IQ, but there may also be challenges to being particularly smart. It is often assumed that schoolchildren who are labeled as "gifted" may have adjustment problems that make it more difficult for them to create social relationships. To study gifted children, Lewis Terman and his colleagues (Terman & Oden, 1959) selected about 1,500 high school students who scored in the top 1% on the Stanford-Binet and similar IQ tests (i.e., who had IQs of about 135 or higher), and tracked them for more than seven decades (the children became known as the "termites" and are still being studied today). This study found that these students were not unhealthy or poorly adjusted, but rather were above average in physical health and were taller and heavier than individuals in the general population. The students also had

above-average social relationships and were less likely to divorce than the average person (Seagoe, 1975).

Terman's study also found that many of these students went on to achieve high levels of education and entered prestigious professions, including medicine, law, and science. Of the sample, 7% earned doctoral degrees, 4% earned medical degrees, and 6% earned law degrees.

Figure 5.14

The popular stereotype of highly intelligent people as physically uncoordinated and unpopular is not true.
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These numbers are all considerably higher than what would have been expected from a more general population. Another study of young adolescents who had even higher IQs found that these students ended up attending graduate school at a rate more than 50 times higher than that in the general population (Lubinski & Benbow, 2006).

As you might expect based on our discussion of intelligence, kids who are gifted have higher scores on general intelligence "g", but there are also different types of giftedness. Some children are particularly good at math or science, some at automobile repair or

carpentry, some at music or art, some at sports or leadership, and so on. There is a lively debate among scholars about whether it is appropriate or beneficial to label some children as "gifted and talented" in school and to provide them with accelerated special classes and other programs that are not available to everyone. Although doing so may help the gifted kids (Colangelo & Assouline, 2009), it also may isolate them from their peers and make such provisions unavailable to those who are not classified as "gifted."

Education

Remember the ecological systems model (Bronfenbrenner, 1979) that we explored in chapter one? This model helps us understand an individual by examining the contexts in which the person lives and the direct and indirect influences on that person's life. School becomes a very important component of children's lives during middle and late childhood, and parents and the culture contribute to children's experiences in school as indicated by the ecological systems model through their interaction with the school.

Gender: The stereotypes held by parents and teachers can influence children's self-efficacy in various domains. For example, teachers who hold the view that girls are better at reading (Retelsdorf, Schwartz, & Asbrock, 2015) or boys are better at math (Plante, de la Sablonnière, Aronson, & Théorêt, 2013) often find that their students' performance in these areas mirror these stereotypes, despite the children's actual ability, or the ability of children in the classrooms of teachers who do not hold such stereotypes. While not all children will internalize the views of others, those who do are more likely to show declines in their performance consistent with the stereotypes (Plante, et al., 2013; Retelsdorf et al., 2015).

Parental Involvement in School: Parents vary in their level of involvement with their children's schools. Teachers often complain

that they have difficulty getting parents to participate in their child's education and devise a variety of techniques to keep parents in touch with daily and overall progress. For example, parents may be required to sign a behavior chart each evening to be returned to school or may be given information about the school's events through websites and newsletters. There are other factors that need to be considered when looking at parental involvement. To explore these, first ask yourself if all parents who enter the school with concerns about their child be received in the same way?

Horvat (2004) found that teachers seek a particular type of involvement from particular types of parents. While teachers thought they were open and neutral in their responses to parental involvement, in reality teachers were most receptive to support, praise and agreement coming from parents who were most similar in race and social class with the teachers. Parents who criticized the school or its policies were less likely to be given voice. Parents who have higher levels of income, occupational status, and other qualities favored in society have family capital. This is a form of power that can be used to improve a child's education. Parents who do not have these qualities may find it more difficult to be effectively involved. The authors suggest that teachers closely examine their biases against parents. Schools may also need to examine their ability to dialogue with parents about school policies in more open ways. Any efforts to improve effective parental involvement should address these concerns.

Cultural Differences in the Classroom

Bilingualism: In 2013, approximately 20% of school aged children and adolescents spoke a language other than English in the home (Camarota & Zeigler, 2014). The majority of bilingual students speak Spanish, but the rest represent more than three hundred different

language groups from around the world. In larger communities throughout the United States, it is therefore common for a single classroom to contain students from several language backgrounds at once. In classrooms, as in other social settings, bilingualism exists in different forms and degrees. At one extreme are students who speak both English and another language fluently; at the other extreme are those who speak only limited versions of both languages. In between are students who speak their home (or heritage) language much better than English, as well as others who have partially lost their heritage language in the process of learning English (Tse, 2001). Commonly, a student may speak a language satisfactorily, but be challenged by reading or writing it. Whatever the case, each bilingual student poses unique challenges to teachers.

Figure 5.15

Source

The student who speaks both languages fluently has a definite cognitive advantage. As you might suspect, and research confirms,

a fully fluent bilingual student is in a better position to express concepts or ideas in more than one way, and to be aware of doing so (Jimenez, Garcia, & Pearson, 1995; Francis, 2006). Unfortunately, the bilingualism of many students is unbalanced in the sense that they are either still learning English, or else they have lost some earlier ability to use their original, heritage language. Losing one's original language is a concern as research finds that language loss limits students' ability to learn English as well or as quickly as they could do. Having a large vocabulary in a first language has been shown to save time in learning vocabulary in a second language (Hansen, Umeda & McKinney, 2002). Preserving the first language is important if a student has impaired skill in all languages and therefore needs intervention or help from a speech-language specialist. Research has found, in such cases, that the specialist can be more effective if the specialist speaks and uses the first language as well as English (Kohnert, Yim, Nett, Kan, & Duran, 2005).

Figure 5.16 How do Classrooms Accommodate Different Cultures?

Source

Cultures and ethnic groups differ not only in languages, but also in how languages are used. Since some of the patterns differ from

those typical of modern classrooms, they can create misunderstandings between teachers and students (Cazden, 2001; Rogers, et al., 2005). Consider these examples:

- In some cultures, it is considered polite or even intelligent not to speak unless you have something truly important to say. Chitchat, or talk that simply affirms a personal tie between people, is considered immature or intrusive (Minami, 2002). In a classroom, this habit can make it easier for a child to learn not to interrupt others, but it can also make the child seem unfriendly.
- Eye contact varies by culture. In many African American and Latin American communities, it is considered appropriate and respectful for a child not to look directly at an adult who is speaking to them (Torres-Guzman, 1998). In classrooms, however, teachers often expect a lot of eye contact (as in "I want all eyes on me!") and may be tempted to construe lack of eye contact as a sign of indifference or disrespect.
- Social distance varies by culture. In some cultures, it is common to stand relatively close when having a conversation; in others, it is more customary to stand relatively far apart (Beaulieu, 2004). Problems may happen when a teacher and a student prefer different social distances. A student who expects a closer distance than does the teacher may seem overly familiar or intrusive, whereas one who expects a longer distance may seem overly formal or hesitant.
- Wait time varies by culture. Wait time is the gap between the end of one person's comment or question and the next person's reply or answer. In some cultures wait time is relatively long, as long as three or four seconds (Tharp & Gallimore, 1989). In others it is a negative gap, meaning that it is acceptable, even expected, for a person to interrupt before the end of the previous comment. In classrooms the wait time is customarily about one second; after that, the teacher is likely to move on to another question or to another student. A

student who habitually expects a wait time longer than one second may seem hesitant, and not be given many chances to speak. A student who expects a negative wait time, on the other hand, may seem overeager or even rude.

- In most non-Anglo cultures, questions are intended to gain information, and it is assumed that a person asking the question truly does not have the information requested (Rogoff, 2003). In most classrooms, however, teachers regularly ask test questions, which are questions to which the teacher already knows the answer and that simply assess whether a student knows the answer as well (Macbeth, 2003). The question: "How much is 2 + 2?" for example, is a test question. If the student is not aware of this purpose, he or she may become confused, or think that the teacher is surprisingly ignorant. Worse yet, the student may feel that the teacher is trying deliberately to shame the student by revealing the student's ignorance or incompetence to others.

Figure 5.17

Source

- Preference for activities that are cooperative rather than competitive. Many activities in school are competitive, even when teachers try to de-emphasize the competition. Once

past the first year or second year of school, students often become attentive to who receives the highest marks on an assignment, for example, or who is the best athlete at various sports or whose contributions to class discussions gets the most verbal recognition from the teacher (Johnson & Johnson, 1998). A teacher deliberately organizes important activities or assignments competitively, as in "Let's see who finishes the math sheet first". Classroom life can then become explicitly competitive, and the competitive atmosphere can interfere with cultivating supportive relationships among students or between students and the teacher (Cohen, 2004). For students who give priority to these relationships, competition can seem confusing at best and threatening at worst. A student may wonder, "What sort of sharing or helping with answers is allowed?" The answer to this question may be different depending on the cultural background of the student and teacher. What the student views as cooperative sharing may be seen by the teacher as laziness, freeloading, or even cheating.

Figure 5.1

Box 5.1 What happened to No Child Left Behind?

Children's academic performance is often measured with the use of standardized tests. **Achievement tests** *are used to measure what a child has already learned.* Achievement tests are often used as measures of teaching effectiveness within a school setting and as a method to make schools that receive tax dollars (such as public schools, charter schools, and private schools that receive vouchers) accountable to the government for their performance. In 2001, President Bush signed into effect Public Law 107-110, better known as the **No Child Left Behind Act** mandating that schools administer achievement tests to students and publish those results so that parents have an idea of their children's performance. Additionally, the government would have information on the gaps in educational achievement between children from various social class, racial, and ethnic groups. Schools that showed significant gaps in these levels of performance were mandated to work toward narrowing these gaps. Educators criticized the policy for focusing too much on testing as the only indication of student performance. Target goals were considered unrealistic and set by the federal government rather than individual states. Because these requirements became increasingly unworkable for schools, changes to the law were requested. On December 12, 2015 President Obama signed into law **Every Student Succeeds Act** (ESSA) (United States Department of Education, 2017). This law is state driven and focuses on expanding educational opportunities and improving student outcomes, including in the areas of high school graduation, drop-out rates, and college attendance.

Children with Disabilities

A Learning Disability (or LD) is a specific impairment of academic learning that interferes with a specific aspect of schoolwork and that reduces a student's academic performance significantly. A LD shows itself as a major discrepancy between a student's ability and some feature of achievement: The student may be delayed in reading, writing, listening, speaking, or doing mathematics, but not in all of these at once. A learning problem is not considered a learning disability if it stems from physical, sensory, or motor handicaps, or from generalized intellectual impairment. It is also not an LD if the learning problem really reflects the challenges of learning English as a second language. Genuine LDs are the learning problems left over after these other possibilities are accounted for or excluded. Typically, a student with an LD has not been helped by teachers' ordinary efforts to assist the student when he or she falls behind academically, though what counts as an "ordinary effort", of course, differs among teachers, schools, and students. Most importantly, though, an LD relates to a fairly specific area of academic learning. A student may be able to read and compute well enough, for example, but not be able to write. LDs are by far the most common form of special educational need, accounting for half of all students with special needs in the United States and approximately 20% of all students, depending on how the numbers are estimated (National Center for Learning Disabilities, 2017). Students with LDs are so common, in fact, that most teachers regularly encounter at least one per class in any given school year, regardless of the grade level they teach.

These difficulties are identified in school because this is when children's academic abilities are being tested, compared, and measured. Consequently, once academic testing is no longer essential in that person's life (as when they are working rather than going to school) these disabilities may no longer be noticed or

relevant, depending on the person's job and the extent of the disability.

Dyslexia is one of the most commonly diagnosed disabilities and involves having difficulty in the area of reading. This diagnosis is used for a number of reading difficulties. Common characteristics are difficulty with phonological processing, which includes the manipulation of sounds, spelling, and rapid visual/verbal processing. Additionally, the child may reverse letters, have difficulty reading from left to right, or may have problems associating letters with sounds. It appears to be rooted in neurological problems involving the parts of the brain active in recognizing letters, verbally responding, or being able to manipulate sounds. Recent studies have identified a number of genes that are linked to developing dyslexia (National Institute of Neurological Disorders and Stroke, 2016). Treatment typically involves altering teaching methods to accommodate the person's particular problematic area.

Dysgraphia refers to a writing disability that is often associated with dyslexia (Carlson, 2013). There are different types of dysgraphia, including phonological dysgraphia when the person cannot sound out words and write them phonetically. Orthographic dysgraphia is demonstrated by those individuals who can spell regularly spelled words, but not irregularly spelled ones. Some individuals with dysgraphia experience difficulties in motor control and experience trouble forming letters when using a pen or pencil.

Figure 5.18

Dyscalculia refers to problems in math. Cowan and Powell (2014) identified several terms used when describing difficulties in mathematics including dyscalculia, mathematical learning disability, and mathematics disorder. All three terms refer to students with average intelligence who exhibit poor academic performance in mathematics. When evaluating a group of third graders, Cowan and Powell (2014) found that children with dyscalculia demonstrated problems with working memory, reasoning, processing speed and oral language, all of which are referred to as domain-general factors. Additionally, problems with multi-digit skills, including number system knowledge, were also exhibited.

A child with attention-deficit/hyperactivity disorder (ADHD) shows a constant pattern of inattention and/or hyperactive and impulsive behavior that interferes with normal functioning (American Psychological Association (APA), 2013). Some of the signs of inattention include great difficulty with, and avoidance of, tasks that require sustained attention (such as conversations or reading), failure to follow instructions (often resulting in failure to complete

schoolwork and other duties), disorganization (difficulty keeping things in order, poor time management, sloppy and messy work), lack of attention to detail, becoming easily distracted, and forgetfulness. Hyperactivity is characterized by excessive movement and includes fidgeting or squirming, leaving one's seat in situations when remaining seated is expected, having trouble sitting still (e.g., in a restaurant), running about and climbing on things, blurting out responses before another person's question or statement has been completed, difficulty waiting for one's turn for something, and interrupting and intruding on others. Frequently, the hyperactive child comes across as noisy and boisterous. The child's behavior is hasty, impulsive, and seems to occur without much forethought; these characteristics may explain why adolescents and young adults diagnosed with ADHD receive more traffic tickets and have more automobile accidents than do others their age (Thompson, Molina, Pelham, & Gnagy, 2007).

ADHD occurs in about 5% of children (APA, 2013). On average, boys are 3 times more likely to have ADHD than are girls; however, such findings might reflect the greater propensity of boys to engage in aggressive and antisocial behavior and thus incur a greater likelihood of being referred to psychological clinics (Barkley, 2006). Children with ADHD face severe academic and social challenges. Compared to their non-ADHD counterparts, children with ADHD have lower grades and standardized test scores and higher rates of expulsion, grade retention, and dropping out. They also are less well-liked and more often rejected by their peers (Hoza et al., 2005).

Figure 5.19

Source

ADHD can persist into adolescence and adulthood (Barkley, Fischer, Smallish, & Fletcher, 2002). A recent study found that 29.3% of adults who had been diagnosed with ADHD decades earlier still showed symptoms (Barbaresi et al., 2013). Somewhat troubling, this study also reported that nearly 81% of those whose ADHD persisted into adulthood had experienced at least one other comorbid disorder, compared to 47% of those whose ADHD did not persist. Additional concerns when an adult has ADHD include Worse educational attainment, lower socioeconomic status, less likely to be employed, more likely to be divorced, and more likely to have non-alcohol-related substance abuse problems (Klein et al., 2012).

Etiology of ADHD: Family and twin studies indicate that genetics play a significant role in the development of ADHD. Burt (2009), in a review of 26 studies, reported that the median rate of concordance for identical twins was .66, whereas the median concordance rate for fraternal twins was .20. The specific genes involved in ADHD are thought to include at least two that are important in the regulation of the neurotransmitter dopamine (Gizer, Ficks, & Waldman, 2009), suggesting that dopamine may be important in ADHD. Indeed, medications used in the treatment of ADHD, such

as methylphenidate (Ritalin) and amphetamine with dextroamphetamine (Adderall), have stimulant qualities and elevate dopamine activity. People with ADHD show less dopamine activity in key regions of the brain, especially those associated with motivation and reward (Volkow et al., 2009), which provides support to the theory that dopamine deficits may be a vital factor in the development this disorder (Swanson et al., 2007).

Brain imaging studies have shown that children with ADHD exhibit abnormalities in their frontal lobes, an area in which dopamine is in abundance. Compared to children without ADHD, those with ADHD appear to have smaller frontal lobe volumes, and they show less frontal lobe activation when performing mental tasks (Banaschewski et al., 2017). Recall that one of the functions of the frontal lobes is to inhibit our behavior. Thus, abnormalities in this region may go a long way toward explaining the hyperactive, uncontrolled behavior of ADHD.

Many parents attribute their child's hyperactivity to sugar. A statistical review of 16 studies, however, concluded that sugar consumption has no effect at all on the behavioral and cognitive performance of children (Wolraich, Wilson, & White, 1995). Additionally, although food additives have been shown to increase hyperactivity in non-ADHD children, the effect is rather small (McCann et al., 2007). Numerous studies, however, have shown a significant relationship between exposure to nicotine in cigarette smoke during the prenatal period and ADHD (Linnet et al., 2003; Sourander et al., 2019). Maternal smoking during pregnancy is also associated with the development of more severe symptoms of the disorder (Thakuretal., 2013). Additionally, low birth weight and prematurity have been correlated with ADHD (Banaschewski et al., 2017).

Treatment for ADHD: Recommended treatment for ADHD includes behavioral interventions, cognitive behavioral therapy, parent and teacher education, recreational programs, and lifestyle changes,

such as getting more sleep (Clay, 2013). For some children, medication is prescribed. Parents are often concerned that stimulant medication may result in their child acquiring a substance use disorder. However, research using longitudinal studies has demonstrated that children diagnosed with ADHD who received pharmacological treatment had a lower risk for substance abuse problems than those children who did not receive medication (Wilens, Fararone, Biederman, & Gunawardene, 2003). The risk of substance abuse problems appears to be even greater for those with ADHD who are un-medicated and also exhibit antisocial tendencies (Marshal & Molina, 2006).

Is the prevalence rate of ADHD increasing? Many people believe that the rates of ADHD have increased in recent years, and there is evidence to support this contention. In a recent study, investigators found that the parent-reported prevalence of ADHD among children (4–17 years old) in the United States increased by 22% during a 4-year period, from 7.8% in 2003 to 9.5% in 2007 (CDC, 2010). ADHD may be over-diagnosed by doctors who are too quick to medicate children as behavior treatment. There is also greater awareness of ADHD now than in the past. Nearly everyone has heard of ADHD, and most parents and teachers are aware of its key symptoms. Thus, parents may be quick to take their children to a doctor if they believe their child possesses these symptoms, or teachers may be more likely now than in the past to notice the symptoms and refer the child for evaluation. Further, the use of computers, video games, iPhones, and other electronic devices has become pervasive among children in the early 21st century, and these devices could potentially shorten children's attention spans.

Thus, what might seem like inattention to some parents and teachers could simply reflect exposure to too much technology.

Children with Disabilities: Legislation

Since the 1970s political and social attitudes have moved increasingly toward including people with disabilities into a wide variety of "regular" activities. In the United States, the shift is illustrated clearly in the Federal legislation that was enacted during this time. Three major laws were passed that guaranteed the rights of persons with disabilities, and of children and students with disabilities in particular. The third law has had the biggest impact on education.

Rehabilitation Act of 1973, Section 504: This law, the first of its kind, required that individuals with disabilities be accommodated in any program or activity that receives Federal funding (PL 93-112, 1973). Although this law was not intended specifically for education, in practice it has protected students' rights in some extra-curricular activities (for older students) and in some child care or after-school care programs (for younger students). If those programs receive Federal funding of any kind, the programs are not allowed to exclude children or youths with disabilities, and they have to find reasonable ways to accommodate the individuals' disabilities.

Americans with Disabilities Act of 1990 (or ADA): This legislation also prohibited discrimination on the basis of disability, just as Section 504 of the Rehabilitation Act had done (PL 101-336, 1990). Although the ADA also applies to all people (not just to students), its provisions are more specific and "stronger" than those of Section 504. In particular, ADA extends to all employment and jobs, not just those receiving Federal funding. It also specifically requires accommodations to be made in public facilities such as with buses, restrooms, and telephones. ADA legislation is therefore responsible for some of the "minor" renovations in schools that you may have noticed in recent years, like wheelchair-accessible doors, ramps, and restrooms, and public telephones with volume controls.

Individuals with Disabilities Education Act (or IDEA): As its name implied, this legislation was more focused on education than either Section 504 or ADA. It was first passed in 1975, reauthorized in 2004 (PL 108-446, 2004), and most recently amended in 2015 through Public Law 114-95, as the Every Student Succeeds Act (United States Department of Education, 2017). In its current form, the law guarantees the following rights related to education for anyone with a disability from birth to age 21. The first two influence schooling in general, but the last three affect the work of classroom teachers rather directly:

- **Free, appropriate education:** An individual or an individual's family should not have to pay for education simply because the individual has a disability, and the educational program should be truly educational; i.e., not merely care-taking or babysitting the person.

- **Due process:** In case of disagreements between an individual with a disability and the schools or other professionals, there must be procedures for resolving the disagreements that are fair and accessible to all parties, including the person himself or herself or the person's representative.

- **A fair evaluation of performance in spite of disability:** Tests or other evaluations should not assume test-taking skills that a person with a disability cannot reasonably be expected to have, such as holding a pencil, hearing or seeing questions, working quickly, or understanding and speaking orally. Evaluation procedures should be modified to allow for these differences. This provision of the law applies both to evaluations made by teachers and to school-wide or "high-stakes" testing programs.

- **Education in the "least restrictive environment":** Education for someone with a disability should provide as many educational opportunities and options for the person as possible, both in the short term and in the long term. In

practice, this requirement has meant including students in regular classrooms and school activities as much as possible, though often not totally.

- **An individualized educational program (IEP):** Given that every disability is unique, instructional planning for a person with a disability should be unique or individualized as well. In practice this provision has led to classroom teachers planning individualized programs jointly with other professionals (like reading specialists, psychologists, or medical personnel) as part of a team.

Evaluation and diagnosis can be the first step in helping provide children with disabilities the type of instruction and resources that will benefit them educationally, but diagnosis and labeling also have social implications. It is important to consider that children can be misdiagnosed and that once a child has received a diagnostic label, the child, teachers, and family members may tend to interpret actions of the child through that label. The label can also influence the child's self-concept. Consider, for example, a child who is misdiagnosed as learning disabled. That child may expect to have difficulties in school, lack confidence, and because of these expectations experience trouble. This self-fulfilling prophecy or tendency to act in such a way as to make what you predict will happen, will come true.

This calls our attention to the power that labels can have whether or not they are accurately applied. It is also important to consider that children's difficulties can change over time; a child who has problems in school, may improve later or may live under circumstances as an adult where the problem (such as a delay in math skills or reading skills) is no longer relevant. That person, however, will still have a label as learning disabled. It should be recognized that the distinction between abnormal and normal behavior is not always clear; some abnormal behavior in children is fairly common.

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Chapter 18: Psychosocial Development in Middle Childhood

Chapter 18 Learning Objectives

- Describe Erikson's fourth stage of industry vs. inferiority
- Describe the changes in self-concept, self-esteem, and self-efficacy
- Explain Kohlberg's stages of moral development
- Describe the importance of peers, the stages of friendships, peer acceptance, and the consequences of peer acceptance
- Describe bullying, cyberbullying and the consequences of bullying
- Identify the types of families where children reside
- Identify the five family tasks
- Explain the consequences of divorce on children
- Describe the effects of cohabitation and remarriage on children
- Describe the characteristics and developmental stages of blended families

Erikson: Industry vs. Inferiority

According to Erikson, children in middle and late childhood are very busy or industrious (Erikson, 1982). They are constantly doing, planning, playing, getting together with friends, and achieving. This is a very active time, and a time when they are gaining a sense of how they measure up when compared with peers. Erikson believed that if these industrious children can be successful in their endeavors, they will get a sense of confidence for future challenges. If not, a sense of inferiority can be particularly haunting during middle and late childhood.

Self-Understanding

Self-concept refers to beliefs about general personal identity (Seiffert, 2011). These beliefs include personal attributes, such as one's age, physical characteristics, behaviors, and competencies. Children in middle and late childhood have a more realistic sense of self than do those in early childhood, and they better understand their strengths and weaknesses. This can be attributed to greater experience in comparing their own performance with that of others, and to greater cognitive flexibility. Children in middle and late childhood are also able to include other peoples' appraisals of them into their self-concept, including parents, teachers, peers, culture, and media. Internalizing others' appraisals and creating social comparison affect children's self-esteem, which is defined as an evaluation of one's identity. Children can have individual assessments of how well they perform a variety of activities and also develop an overall global self-assessment. If there is a discrepancy between how children view themselves and what they consider to be their ideal selves, their self-esteem can be negatively affected.

Figure 5.20 Hopefully these children have self-efficacy about playing the violin

Source

Another important development in self-understanding is self-efficacy, which is the belief that you are capable of carrying out a specific task or of reaching a specific goal (Bandura, 1977, 1986, 1997). Large discrepancies between self-efficacy and ability can create motivational problems for the individual (Seifert, 2011). If a student believes that he or she can solve mathematical problems, then the student is more likely to attempt the mathematics homework that the teacher assigns.

Unfortunately, the converse is also true. If a student believes that he or she is incapable of math, then the student is less likely to attempt the math homework regardless of the student's actual ability in math. Since self-efficacy is self-constructed, it is possible for students to miscalculate or misperceive their true skill, and these misperceptions can have complex effects on students' motivations. It is possible to have either too much or too little self-efficacy, and according to Bandura (1997) the optimum level seems to be either at or slightly above, true ability.

Kohlberg's Stages of Moral Development

Kohlberg (1963) built on the work of Piaget and was interested in finding out how our moral reasoning changes as we get older. He wanted to find out how people decide what is right and what is wrong. Just as Piaget believed that children's cognitive development follows specific patterns, Kohlberg (1984) argued that we learn our moral values through active thinking and reasoning, and that moral development follows a series of stages. Kohlberg's six stages are generally organized into three levels of moral reasons. To study moral development, Kohlberg posed moral dilemmas to children, teenagers, and adults, such as the following:

A man's wife is dying of cancer and there is only one drug that can save her. The only place to get the drug is at the store of a pharmacist who is known to overcharge people for drugs. The man can only pay $1,000, but the pharmacist wants $2,000, and refuses to sell it to him for less, or to let him pay later. Desperate, the man later breaks into the pharmacy and steals the medicine. Should he have done that? Was it right or wrong? Why? (Kohlberg, 1984)

Level One-Preconventional Morality: In stage one, moral reasoning is based on concepts of punishment. The child believes that if the consequence for an action is punishment, then the action was wrong. In the second stage, the child bases his or her thinking on self-interest and reward. "You scratch my back, I'll scratch yours." The youngest subjects seemed to answer based on what would happen to the man as a result of the act. For example, they might say the man should not break into the pharmacy because the pharmacist might find him and beat him. Or they might say that the man should break in and steal the drug and his wife will give him a big kiss. Right or wrong, both decisions were based on what would physically happen to the man as a result of the act. This is a self-centered approach to moral decision-making. He called this most superficial understanding of right and wrong pre-conventional morality. Preconventional morality focuses on self-

interest. Punishment is avoided, and rewards are sought. Adults can also fall into these stages, particularly when they are under pressure.

Level Two-Conventional Morality: Those tested who based their answers on what other people would think of the man as a result of his act, were placed in Level Two. For instance, they might say he should break into the store, and then everyone would think he was a good husband, or he should not because it is against the law. In either case, right and wrong is determined by what other people think. In stage three, the person wants to please others. At stage four, the person acknowledges the importance of social norms or laws and wants to be a good member of the group or society. A good decision is one that gains the approval of others or one that complies with the law. This he called conventional morality, people care about the effect of their actions on others. Some older children, adolescents, and adults use this reasoning.

Level Three-Postconventional Morality: Right and wrong are based on social contracts established for the good of everyone and that can transcend the self and social convention. For example, the man should break into the store because, even if it is against the law, the wife needs the drug and her life is more important than the consequences the man might face for breaking the law. Alternatively, the man should not violate the principle of the right of property because this rule is essential for social order. In either case, the person's judgment goes beyond what happens to the self. It is based on a concern for others; for society as a whole, or for an ethical standard rather than a legal standard. This level is called post-conventional moral development because it goes beyond convention or what other people think to a higher, universal ethical principle of conduct that may or may not be reflected in the law. Notice that such thinking is the kind Supreme Court justices do all day when deliberating whether a law is moral or ethical, which requires being able to think abstractly. Often this is not accomplished until a person reaches adolescence or adulthood. In the fifth stage, laws are recognized as social contracts. The reasons

for the laws, like justice, equality, and dignity, are used to evaluate decisions and interpret laws. In the sixth stage, individually determined universal ethical principles are weighed to make moral decisions. Kohlberg said that few people ever reach this stage. The six stages can be reviewed in Table 5.6.

Although research has supported Kohlberg's idea that moral reasoning changes from an early emphasis on punishment and social rules and regulations to an emphasis on more general ethical principles, as with Piaget's approach, Kohlberg's stage model is probably too simple. For one, people may use higher levels of reasoning for some types of problems but revert to lower levels in situations where doing so is more consistent with their goals or beliefs (Rest, 1979). Second, it has been argued that the stage model is particularly appropriate for Western, rather than nonWestern, samples in which allegiance to social norms, such as respect for authority, may be particularly important (Haidt, 2001). In addition, there is frequently little correlation between how we score on the moral stages and how we behave in real life.

Table 5.6

Table 5.6 Lawrence Kohlberg's Levels of Moral Reasoning

Age	Moral Level	Description
Young children-usually prior to age 9	Preconventional morality	**Stage 1:** Focus is on self-interest and punishment is avoided. The man shouldn't steal the drug, as he may get caught and go to jail. **Stage 2:** Rewards are sought. A person at this level will argue that the man should steal the drug because he does not want to lose his wife who takes care of him.
Older children, adolescents, and most adults	Conventional morality	**Stage 3:** Focus is on how situational outcomes impact others and wanting to please and be accepted. The man should steal the drug because that is what good husbands do. **Stage 4:** People make decisions based on laws or formalized rules. The man should obey the law because stealing is a crime.
Rare with adolescents and few adults	Postconventional morality	**Stage 5:** Individuals employ abstract reasoning to justify behaviors. The man should steal the drug because laws can be unjust, and you have to consider the whole situation. **Stage 6:** Moral behavior is based on self-chosen ethical principles. The man should steal the drug because life is more important than property.

Perhaps the most important critique of Kohlberg's theory is that it may describe the moral development of males better than it describes that of females. Gilligan (1982) has argued that, because of differences in their socialization, males tend to value principles of justice and rights, whereas females value caring for and helping others. Although there is little evidence for a gender difference in Kohlberg's stages of moral development (Turiel, 1998), it is true that girls and women tend to focus more on issues of caring, helping, and connecting with others than do boys and men (Jaffee & Hyde, 2000).

Friends and Peers

As toddlers, children may begin to show a preference for certain playmates (Ross & Lollis, 1989). However, peer interactions at this age often involve more parallel play rather than intentional social interactions (Pettit, Clawson, Dodge, & Bates, 1996). By age four, many children use the word "friend" when referring to certain children and do so with a fair degree of stability (Hartup, 1983). However, among young children "friendship" is often based on proximity, such as they live next door, attend the same school, or it refers to whomever they just happen to be playing with at the time (Rubin, 1980).

Friendships take on new importance as judges of one's worth, competence, and attractiveness in middle and late childhood. Friendships provide the opportunity for learning social skills, such as how to communicate with others and how to negotiate differences. Children get ideas from one another about how to perform certain tasks, how to gain popularity, what to wear or say, and how to act. This society of children marks a transition from a life focused on the family to a life concerned with peers. During middle and late childhood, peers increasingly play an important role. For example, peers play a key role in a child's self-esteem at this age as any parent who has tried to console a rejected child will tell

you. No matter how complimentary and encouraging the parent may be, being rejected by friends can only be remedied by renewed acceptance. Children's conceptualization of what makes someone a "friend" changes from a more egocentric understanding to one based on mutual trust and commitment. Both Bigelow (1977) and Selman (1980) believe that these changes are linked to advances in cognitive development.

Figure 5.21

Source

Bigelow and La Gaipa (1975) outline three stages to children's conceptualization of friendship. In stage one, reward-cost, friendship focuses on mutual activities. Children in early, middle, and late childhood all emphasize similar interests as the main characteristics of a good friend. Stage two, normative expectation focuses on conventional morality; that is, the emphasis is on a friend as someone who is kind and shares with you. Clark and Bittle (1992) found that fifth graders emphasized this in a friend more than third or eighth graders. In the final stage, empathy and understanding, friends are people who are loyal, committed to the relationship, and share intimate information. Clark and Bittle (1992) reported eighth graders emphasized this more in a friend. They also found that as early as fifth grade, girls were starting to include a sharing of

secrets, and not betraying confidences as crucial to someone who is a friend.

Selman (1980) outlines five stages of friendship from early childhood through to adulthood:

- **Momentary physical interaction**, a friend is someone who you are playing with at this point in time. Selman notes that this is typical of children between the ages of three and six. These early friendships are based more on circumstances (e.g., a neighbor) than on genuine similarities.
- **One-way assistance**, a friend is someone who does nice things for you, such as saving you a seat on the school bus or sharing a toy. However, children in this stage, do not always think about what they are contributing to the relationships. Nonetheless, having a friend is important and children will sometimes put up with a not so nice friend, just to have a friend. Children as young as five and as old as nine may be in this stage.
- **Fair-weather cooperation**, children are very concerned with fairness and reciprocity, and thus, a friend is someone returns a favor. In this stage, if a child does something Figure 5.21 Source Source 198 nice for a friend there is an expectation that the friend will do something nice for them at the first available opportunity. When this fails to happen, a child may break off the friendship. Selman found that some children as young as seven and as old as twelve are in this stage.
- **Intimate and mutual sharing**, typically between the ages of eight and fifteen, a friend is someone who you can tell them things you would tell no one else. Children and teens in this stage no longer "keep score" and do things for a friend because they genuinely care for the person. If a friendship dissolves in the stage it is usually due to a violation of trust. However, children in this stage do expect their friend to share similar interests and viewpoints and may take it as a betrayal if a friend likes someone that they do not.

- **Autonomous interdependence**, a friend is someone who accepts you and that you accept as they are. In this stage children, teens, and adults accept and even appreciate differences between themselves and their friends. They are also not as possessive, so they are less likely to feel threatened if their friends have other relationships or interests. Children are typically twelve or older in this stage.

Peer Relationships: Sociometric assessment measures attraction between members of a group, such as a classroom of students. In sociometric research children are asked to mention the three children they like to play with the most, and those they do not like to play with. The number of times a child is nominated for each of the two categories (like, do not like) is tabulated. Popular children receive many votes in the "like" category, and very few in the "do not like" category. In contrast, rejected children receive more unfavorable votes, and few favorable ones. Controversial children are mentioned frequently in each category, with several children liking them and several children placing them in the do not like category. Neglected children are rarely mentioned in either category, and the average child has a few positive votes with very few negative ones (Asher & Hymel, 1981).

Most children want to be liked and accepted by their friends. Some popular children are nice and have good social skills. These popular-prosocial children tend to do well in school and are cooperative and friendly. Popular-antisocial children may gain popularity by acting tough or spreading rumors about others (Cillessen & Mayeux, 2004). Rejected children are sometimes excluded because they are rejected-withdrawn. These children are shy and withdrawn and are easy targets for bullies because they are unlikely to retaliate when belittled (Boulton, 1999). Other rejected children are rejected-aggressive and are ostracized because they are aggressive, loud, and confrontational. The aggressive-rejected children may be acting out of a feeling of insecurity. Unfortunately, their fear of rejection only leads to behavior that brings further

rejection from other children. Children who are not accepted are more likely to experience conflict, lack confidence, and have trouble adjusting (Klima & Repetti, 2008; Schwartz, Lansford, Dodge, Pettit, & Bates, 2014).

Figure 5.22 Withdrawn children are targets for bullies

Source
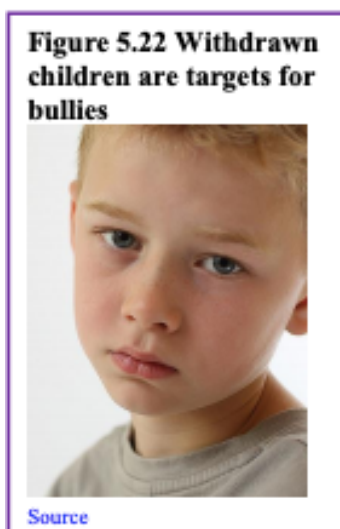
Long-Term Consequences of Popularity: Childhood popularity researcher Mitch Prinstein has found that likability in childhood leads to positive outcomes throughout one's life (as cited in Reid, 2017). Adults who were accepted in childhood have stronger marriages and work relationships, earn more money, and have better health outcomes than those who were unpopular. Further, those who were unpopular as children, experienced greater anxiety, depression, substance use, obesity, physical health problems and suicide. Prinstein found that a significant consequence of unpopularity was that children were denied opportunities to build their social skills and negotiate complex interactions, thus contributing to their continued unpopularity. Further, biological effects can occur due to unpopularity, as social rejection can activate genes that lead to an inflammatory response.

Bullying

According to Stopbullying.gov (2016), a federal government website managed by the U.S. Department of Health & Human Services, bullying is defined as unwanted, aggressive behavior among school aged children that involves a real or perceived power imbalance. Further, the aggressive behavior happens more than once or has the potential to be repeated. There are different types of bullying, including verbal bullying, which is saying or writing mean things, teasing, name calling, taunting, threatening, or making inappropriate sexual comments. Social bullying, also referred to as relational bullying, involves spreading rumors, purposefully excluding someone from a group, or embarrassing someone on purpose. Physical Bullying involves hurting a person's body or possessions.

A more recent form of bullying is cyberbullying, which involves electronic technology. Examples of cyberbullying include sending mean text messages or emails, creating fake profiles, and posting embarrassing pictures, videos or rumors on social networking sites. Children who experience cyberbullying have a harder time getting away from the behavior because it can occur any time of day and without being in the presence of others. Additional concerns of cyberbullying include that messages and images can be posted anonymously, distributed quickly, and be difficult to trace or delete. Children who are cyberbullied are more likely to: experience in-person bullying, be unwilling to attend school, receive poor grades, use alcohol and drugs, skip school, have lower self-esteem, and have more health problems (Stopbullying.gov, 2016). The National Center for Education Statistics and Bureau of Justice statistics indicate that in 2010-2011, 28% of students in grades 6-12 experienced bullying and 7% experienced cyberbullying. The 2013 Youth Risk Behavior Surveillance System, which monitors six types of health risk behaviors, indicate that 20% of students in grades 9-12 experienced bullying and 15% experienced cyberbullying (Stopbullying.gov, 2016).

Those at risk for bullying: Bullying can happen to anyone, but some students are at an increased risk for being bullied including lesbian, gay, bisexual, transgendered (LGBT) youth, those with disabilities, and those who are socially isolated. Additionally, those who are perceived as different, weak, less popular, overweight, or having low self-esteem, have a higher likelihood of being bullied. 200 Those who are more likely to bully: Bullies are often thought of as having low self-esteem, and then bully others to feel better about themselves. Although this can occur, many bullies in fact have high levels of self-esteem. They possess considerable popularity and social power and have well-connected peer relationships. They do not lack self-esteem, and instead lack empathy for others. They like to dominate or be in charge of others.

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Figure 5.23

Source

Bullied children often do not ask for help: Unfortunately, most

children do not let adults know that they are being bullied. Some fear retaliation from the bully, while others are too embarrassed to ask for help. Those who are socially isolated may not know who to ask for help or believe that no one would care or assist them if they did ask for assistance. Consequently, it is important for parents and teacher to know the warning signs that may indicate a child is being bullied. These include: unexplainable injuries, lost or destroyed possessions, changes in eating or sleeping patterns, declining school grades, not wanting to go to school, loss of friends, decreased selfesteem and/or self-destructive behaviors.

Family Life

Family Tasks: One of the ways to assess the quality of family life is to consider the tasks of families. Berger (2014) lists five family functions:

1. Providing food, clothing and shelter
2. Encouraging learning
3. Developing self-esteem
4. Nurturing friendships with peers
5. Providing harmony and stability

Notice that in addition to providing food, shelter, and clothing, families are responsible for helping the child learn, relate to others, and have a confident sense of self. Hopefully, the family will provide a harmonious and stable environment for living. A good home environment is one in which the child's physical, cognitive, emotional, and social needs are adequately met. Sometimes families emphasize physical needs but ignore cognitive or emotional needs. Other times, families pay close attention to physical needs and academic requirements but may fail to nurture the child's friendships with peers or guide the child toward developing healthy

relationships. Parents might want to consider how it feels to live in the household as a child. The tasks of families listed above are functions that can be fulfilled in a variety of family types-not just intact, two-parent households.

Parenting Styles: As discussed in the previous chapter, parenting styles affect the relationship parents have with their children. During middle and late childhood, children spend less time with parents and more time with peers, and consequently parents may have to modify their approach to parenting to accommodate the child's growing independence. The authoritative style, which incorporates reason and engaging in joint decision-making whenever possible may be the most effective approach (Berk, 2007). However, Asian-American, African-American, and Mexican-American parents are more likely than European-Americans to use an authoritarian style of parenting. This authoritarian style of parenting that uses strict discipline and focuses on obedience is also tempered with acceptance and warmth on the part of the parents. Children raised in this manner tend to be confident, successful and happy (Chao, 2001; Stewart & Bond, 2002).

Living Arrangements: Certainly, the living arrangements of children have changed significantly over the years. In 1960, 92% of children resided with married parents, while only 5% had parents who were divorced or separated and 1% resided with parents who had never been married. By 2008, 70% of children resided with married parents, 15% had parent who were divorced or separated, and 14% resided with parents who had never married (Pew Research Center, 2010). In 2017, only 65% of children lived with two married parents, while 32% (24 million children younger than 18) lived with an unmarried parent (Livingston, 2018). Some 3% of children were not living with any parents, according to the U.S. Census Bureau data.

Most children in unmarried parent households in 2017 were living with a solo mother (21%), but a growing share were living with cohabiting parents (7%) or a sole father (4%) (see Figure 5.24). The increase in children living with solo or cohabiting parents was

thought to be due to the overall declines in marriage, as well as increases in divorce. Of concern is that living with only one parent was associated with a household's lower economic situation. Specifically, 30% of solo mothers, 17% of solo fathers, and 16% of families with a cohabitating couple lived in poverty. In contrast, only 8% of married couples lived below the poverty line (Livingston, 2018).

Figure 5.24

Figure 5.24

About one-in-five children are living with a solo mom

% of children younger than 18 living with ...

Note: Children who are not living with any parents are not shown. Data regarding cohabitation available since 1997 only.
Source: Pew Research Center analysis of Current Population Survey March Supplement (IPUMS).
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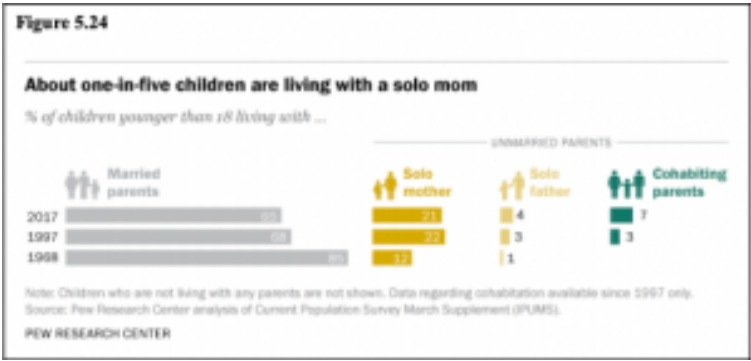
Lesbian and Gay Parenting: Research has consistently shown that the children of lesbian and gay parents are as successful as those of heterosexual parents, and consequently efforts are being made to ensure that gay and lesbian couples are provided with the same legal rights as heterosexual couples when adopting children (American Civil Liberties Union, 2016).

Figure 5.25

Patterson (2013) reviewed more than 25 years of social science research on the development of children raised by lesbian and gay parents and found no evidence of detrimental effects. In fact, research has demonstrated that children of lesbian and gay parents are as well-adjusted overall as those of heterosexual parents. Specifically, research comparing children based on parental sexual orientation has not shown any differences in the development of gender identity, gender role development, or sexual orientation. Additionally, there were no differences between the children of lesbian or gay parents and those of heterosexual parents in separation-individuation, behavior problems, self-concept, locus of control, moral judgment, school adjustment, intelligence, victimization, and substance use. Further, research has consistently found that children and adolescents of gay and lesbian parents report normal social relationships with family members, peers, and

other adults. Patterson concluded that there is no evidence to support legal discrimination or policy bias against lesbian and gay parents.

Divorce: Using families in the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development, Weaver and Schofield (2015) found that children from divorced families had significantly more behavior problems than those from a matched sample of children from non-divorced families. These problems were evident immediately after the separation and also in early and middle adolescence. An analysis of divorce factors indicated that children exhibited more externalizing behaviors if the family had fewer financial resources before the separation. It was hypothesized that the lower income and lack of educational and community resources contributed to the stress involved in the divorce. Additional factors contributing to children's behavior problems included a post-divorce home that was less supportive and stimulating, and a mother that was less sensitive and more depressed.

Additional concerns include that the child will grieve the loss of the parent they no longer see as frequently. The child may also grieve about other family members that are no longer available. Very often, divorce means a change in the amount of money coming into the household. Custodial mothers experience a 25% to 50% drop in their family income, and even five years after the divorce they have reached only 94% of their pre-divorce family income (Anderson, 2018). As a result, children experience new constraints on spending or entertainment. School-aged children, especially, may notice that they can no longer have toys, clothing or other items to which they have grown accustomed. Or it may mean that there is less eating out or being able to afford participation in extracurricular activities. The custodial parent may experience stress at not being able to rely on child support payments or having the same level of income as before. This can affect decisions regarding healthcare, vacations, rents, mortgages and other expenditures, and the stress can result in less happiness and relaxation in the home. The parent who has

to take on more work may also be less available to the children. Children may also have to adjust to other changes accompanying a divorce. The divorce might mean moving to a new home and changing schools or friends. It might mean leaving a neighborhood that has meant a lot to them as well.

Relationships of adult children of divorce are identified as more problematic than those adults from intact homes. For 25 years, Hetherington and Kelly (2002) followed children of divorce and those whose parents stayed together. The results indicated that 25% of adults whose parents had divorced experienced social, emotional, or psychological problems compared with only 10% of those whose parents remained married. For example, children of divorce have more difficulty forming and sustaining intimate relationships as young adults, are more dissatisfied with their marriage, and consequently more likely to get divorced themselves (Arkowitz & Lilienfeld, 2013). One of the most commonly cited long-term effects of divorce is that children of divorce may have lower levels of education or occupational status (Richter & Lemola, 2017). This may be a consequence of lower income and resources for funding education rather than to divorce per se. In those households where, economic hardship does not occur, there may be no impact on long-term economic status (Drexler, 2005).

According to Arkowitz and Lilienfeld (2013), long-term harm from parental divorce is not inevitable, however, and children can navigate the experience successfully. A variety of factors can positively contribute to the child's adjustment. For example, children manage better when parents limit conflict, and provide warmth, emotional support and appropriate discipline. Further, children cope better when they reside with a well-functioning parent and have access to social support from peers and other adults. Those at a higher socioeconomic status may fare better because some of the negative consequences of divorce are a result of financial hardship rather than divorce per se (Anderson, 2014; Drexler, 2005). It is important when considering the research findings on the consequences of divorce for children to consider all

the factors that can influence the outcome, as some of the negative consequences associated with divorce are due to preexisting problems (Anderson, 2014). Although they may experience more problems than children from non-divorced families, most children of divorce lead happy, well-adjusted lives and develop strong, positive relationships with their custodial parent (Seccombe & Warner, 2004).

Children from single-parent families talk to their mothers more often than children of two-parent families (McLanahan & Sandefur, 1994). In a study of college-age respondents, Arditti (1999) found that increasing closeness and a movement toward more democratic parenting styles was experienced. Others have also found that relationships between mothers and children become closer and stronger (Guttman, 1993) and suggest that greater equality and less rigid parenting is beneficial after divorce (Steward, Copeland, Chester, Malley, & Barenbaum, 1997).

Certain characteristics of the child can also facilitate post-divorce adjustment. Specifically, children with an easygoing temperament, who problem-solve well, and seek social support manage better after divorce. A further protective factor for children is intelligence (Weaver & Schofield, 2015). Children with higher IQ scores appear to be buffered from the effects of divorce. Children may be given more opportunity to discover their own abilities and gain independence that fosters self-esteem. If divorce means a reduction in tension, the child may feel relief. Overall, not all children of divorce suffer negative consequences (Hetherington & Kelly, 2002). Furstenberg and Cherlin (1991) believe that the primary factor influencing the way that children adjust to divorce is the way the custodial parent adjusts to the divorce. If that parent is adjusting well, the children will benefit. This may explain a good deal of the variation we find in children of divorce.

Is cohabitation and remarriage more difficult than divorce for the child? The remarriage of a parent may be a more difficult adjustment for a child than the divorce of a parent (Seccombe & Warner, 2004). Parents and children typically have different ideas of

how the stepparent should act. Parents and stepparents are more likely to see the stepparent's role as that of parent. A more democratic style of parenting may become more authoritarian after a parent remarries. Biological parents are more likely to continue to be involved with their children jointly when neither parent has remarried. They are least likely to jointly be involved if the father has remarried and the mother has not. Cohabitation can be difficult for children to adjust to because cohabiting relationships in the United States tend to be short-lived. About 50 percent last less than 2 years (Brown, 2000). The child who starts a relationship with the parent's live-in partner may have to sever this relationship later. Even in long-term cohabiting relationships, once it is over, continued contact with the child is rare.

Figure 5.26 Blended Family

Source

Blended Families: One in six children (16%) live in blended families (Pew Research Center, 2015). As can be seen in Figure 5.27, Hispanic, black and white children are equally likely to be living in a blended family. In contrast, children of Asian descent are more likely to be living with two married parents, often in their first marriage. Blended families are not new. In the 1700-1800s there were many blended families, but they were created because someone died and

remarried. Most blended families today are a result of divorce and remarriage, and such origins lead to new considerations. Blended families are different from intact families and more complex in a number of ways that can pose unique challenges to those who seek to form successful blended family relationships (Visher & Visher, 1985). Children may be a part of two households, each with different rules that can be confusing.

Figure 5.27

Figure 5.27

One-in-six kids is living in a blended family

% of children living with a stepparent, stepsibling or half-sibling

Hispanic	17
Black	17
Total	16
White	15
Asian	7

Note: Whites, blacks and Asians include only single-race non-Hispanics. Hispanics are of any race.

Source: U.S. Census Bureau, Survey of Income and Program Participation (SIPP) 2009 estimates

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Members in blended families may not be as sure that others care

and may require more demonstrations of affection for reassurance. For example, stepparents expect more gratitude and acknowledgment from the stepchild than they would with a biological child. Stepchildren experience more uncertainty/ insecurity in their relationship with the parent and fear the parents will see them as sources of tension. Stepparents may feel guilty for a lack of feelings they may initially have toward their partner's children. Children who are required to respond to the parent's new mate as though they were the child's "real" parent often react with hostility, rebellion, or withdrawal. This occurs especially if there has not been time for the relationship to develop.

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DEVELOPMENT IN ADOLESCENCE

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Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

</div>

Vignette

Maryam is the oldest daughter in a family of four children and a Junior at Alamo High School. Maryam's mother is Superintendent of the school district and her father owns a thriving consultant company. Maryam is the president of the junior class, a starter on the basketball and volleyball teams, the secretary for the Spanish club, and a peer mentor at both school and church. She has met with the school counselor to discuss her plans to get into her first choice for college at Cornell University.

Photo by Spencer Russell on Unsplash

When the counselor comments on her busy schedule, Maryam replies, "Well, I know but it's what you have to do to get into a good school and I know what I want. I appreciate your help with the information, but I've got to go to class now, see you later!" The school counselor stops her before she leaves and inquires if Maryam would be open to meeting with the school Social Worker to explore some strategies for managing a busy schedule and Maryam shrugs and states, "sure, why not".

The Social Worker asks to meet with Maryam the following week to check in and see how she is doing. Maryam reports feeling fine. She states "I know I'm busy but if I want to achieve my goals, then I have to be. Colleges want to see all the stuff you've done, and I want to make sure it's enough". The Social Worker reflects this and her desire to accomplish her goals, and then asks how Maryam handles all the stress that comes along with being engaged in so many activities as

well as any pressure she may feel about going to college. Maryam replies "I don't know. Fine, I guess. I mean, I don't sleep much because I'm constantly thinking of all the things I have to do the next day and making sure I get into Cornell, and sometimes my head hurts, but I think that's just from all the reading I have to do, besides, don't most kids my age feel this way? I mean I just don't want to disappoint my parents. They're really hoping I get into Cornell because that's where they both went to school". The Social Worker asks Maryam what she plans to major in and Maryam states "I'm not really sure. My mom thinks I should go into education like her and my dad thinks I should go into business or finance like him". The Social Worker asks Maryam to take some time over the next week and think about what she would choose if it were completely her decision and did not feel pressure coming from anyone, and to meet again to discuss what she comes up with. Maryam is agreeable and schedules a time to meet the following week.

Maryam arrives the following week, seeming a little more down. The Social Worker asks how she is doing, and she replies, "not so great". The Social Worker explores this with Maryam and she states "That activity you had me do, it just really got to me because I didn't think it would be so hard to think about what I actually wanted, not what my parents have wanted for me, but what I actually wanted". She reported feeling more anxious over the past week, stating "I just couldn't stop thinking about it and feeling like I should know, I mean, who doesn't know what they would want to do if they could do anything they wanted? I also noticed I wasn't as motivated to do any of my normal extracurricular activities, except for running, that always makes me feel better". The Social Worker discussed how her feelings were actually very normal for someone her age, as well as for many people trying to find "the perfect fit" and shared this is something that takes time and this being ok as well. Maryam reported feeling some relief hearing this and asked to meet with the Social Worker again.

Critical Thinking:

1. What stage of Piaget's Theory of Cognitive Development is the client currently in? Are they meeting expectations of this stage? Examples? Are they demonstrating any delays in this stage? Examples?
2. What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?
3. What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
4. What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 19: Physical Development in Adolescence

Growth in Adolescence

Puberty is a period of rapid growth and sexual maturation. These changes begin sometime between eight and fourteen. Girls begin puberty at around ten years of age and boys begin approximately two years later. Pubertal changes take around three to four years to complete. Adolescents experience an overall physical growth spurt. The growth proceeds from the extremities toward the torso. This

is referred to as distalproximal development. First the hands grow, then the arms, and finally the torso. The overall physical growth spurt results in 10-11 inches of added height and 50 to 75 pounds of increased weight. The head begins to grow sometime after the feet have gone through their period of growth. Growth of the head is preceded by growth of the ears, nose, and lips. The difference in these patterns of growth result in adolescents appearing awkward and out-of-proportion. As the torso grows, so does the internal organs. The heart and lungs experience dramatic growth during this period.

During childhood, boys and girls are quite similar in height and weight. However, gender differences become apparent during adolescence. From approximately age ten to fourteen, the average girl is taller, but not heavier, than the average boy. After that, the average boy becomes both taller and heavier, although individual differences are certainly noted. As adolescents physically mature, weight differences are more noteworthy than height differences. At eighteen years of age, those that are heaviest weigh almost twice as much as the lightest, but the tallest teens are only about 10% taller than the shortest (Seifert, 2012).

Both height and weight can certainly be sensitive issues for some teenagers. Most modern societies, and the teenagers in them, tend to favor relatively short women and tall men, as well as a somewhat thin body build, especially for girls and women. Yet, neither socially preferred height nor thinness is the destiny for many individuals. Being overweight, in particular, has become a common, serious problem in modern society due to the prevalence of diets high in fat and lifestyles low in activity (Tartamella, Herscher, & Woolston, 2004). The educational system has, unfortunately, contributed to the problem as well by gradually restricting the number of physical education courses and classes in the past two decades.

Average height and weight are also related somewhat to racial and ethnic background. In general, children of Asian background tend to be slightly shorter than children of European and North American background. The latter in turn tend to be shorter than children

from African societies (Eveleth & Tanner, 1990). Body shape differs slightly as well, though the differences are not always visible until after puberty. Asian background youth tend to have arms and legs that are a bit short relative to their torsos, and African background youth tend to have relatively long arms and legs. The differences are only averages, as there are large individual differences as well.

Sexual Development

Typically, the growth spurt is followed by the development of sexual maturity. Sexual changes are divided into two categories: Primary sexual characteristics and secondary sexual characteristics. Primary sexual characteristics are changes in the reproductive organs. For males, this includes growth of the testes, penis, scrotum, and spermarche or first ejaculation of semen. This occurs between 11 and 15 years of age. For females, primary characteristics include growth of the uterus and menarche or the first menstrual period. The female gametes, which are stored in the ovaries, are present at birth, but are immature. Each ovary contains about 400,000 gametes, but only 500 will become mature eggs (Crooks & Baur, 2007). Beginning at puberty, one ovum ripens and is released about every 28 days during the menstrual cycle. Stress and higher percentage of body fat can bring menstruation at younger ages.

Male Anatomy: Males have both internal and external genitalia that are responsible for procreation and sexual intercourse. Males produce their sperm on a cycle, and unlike the female's ovulation cycle, the male sperm production cycle is constantly producing millions of sperm daily. The main male sex organs are the penis and the testicles, the latter of which produce semen and sperm. The semen and sperm, as a result of sexual intercourse, can fertilize an ovum in the female's body; the fertilized ovum (zygote) develops into a fetus which is later born as a child.

Figure 6.1

Figure 6.1 Male Reproductive System

Figure 6.2

Figure 6.2 Female Reproductive System
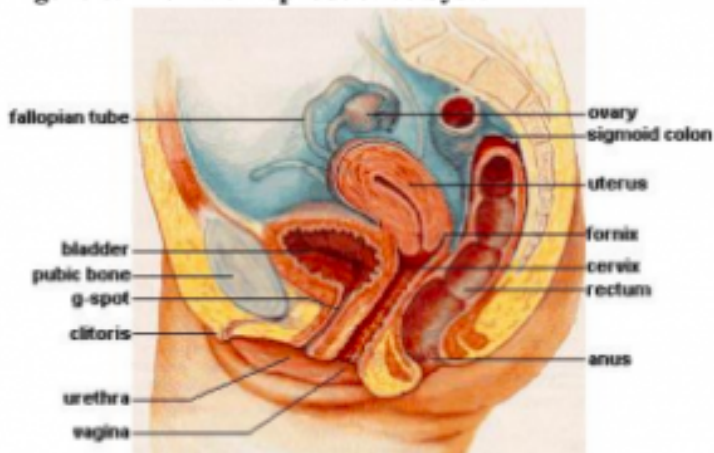
Female Anatomy: Female external genitalia is collectively known

as the vulva, which includes the mons veneris, labia majora, labia minora, clitoris, vaginal opening, and urethral opening. Female internal reproductive organs consist of the vagina, uterus, fallopian tubes, and ovaries. The uterus hosts the developing fetus, produces vaginal and uterine secretions, and passes the male's sperm through to the fallopian tubes while the ovaries release the eggs. A female is born with all her eggs already produced. The vagina is attached to the uterus through the cervix, while the uterus is attached to the ovaries via the fallopian tubes. Females have a monthly reproductive cycle; at certain intervals the ovaries release an egg, which passes through the fallopian tube into the uterus. If, in this transit, it meets with sperm, the sperm might penetrate and merge with the egg, fertilizing it. If not fertilized, the egg is flushed out of the system through menstruation.

Secondary sexual characteristics are visible physical changes not directly linked to reproduction but signal sexual maturity. For males this includes broader shoulders and a lower voice as the larynx grows. Hair becomes coarser and darker, and hair growth occurs in the pubic area, under the arms and on the face. For females, breast development occurs around age 10, although full development takes several years. Hips broaden, and pubic and underarm hair develops and also becomes darker and coarser.

Figure 6.3 First time shaving

Source
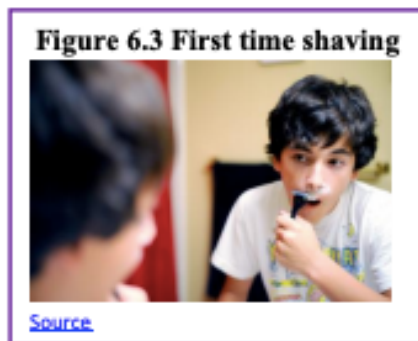
Acne: An unpleasant consequence of the hormonal changes in

puberty is acne, defined as pimples on the skin due to overactive sebaceous (oil-producing) glands (Dolgin, 2011). These glands develop at a greater speed than the skin ducts that discharges the oil. Consequently, the ducts can become blocked with dead skin and acne will develop. According to the University of California at Los Angeles Medical Center (2000), approximately 85% of adolescents develop acne, and boys develop acne more than girls because of greater levels of testosterone in their systems (Dolgin, 2011). Experiencing acne can lead the adolescent to withdraw socially, especially if they are self-conscious about their skin or teased (Goodman, 2006).

Effects of Pubertal Age: The age of puberty is getting younger for children throughout the world. According to Euling et al. (2008) data are sufficient to suggest a trend toward an earlier breast development onset and menarche in girls. A century ago the average age of a girl's first period in the United States and Europe was 16, while today it is around 13. Because there is no clear marker of puberty for boys, it is harder to determine if boys are maturing earlier too. In addition to better nutrition, less positive reasons associated with early puberty for girls include increased stress, obesity, and endocrine-disrupting chemicals.

Cultural differences are noted with Asian-American girls, on average, developing last, while African American girls enter puberty the earliest. Hispanic girls start puberty the second earliest, while European-American girls rank third in their age of starting puberty. Although African American girls are typically the first to develop, they are less likely to experience negative consequences of early puberty when compared to European-American girls (Weir, 2016).

Research has demonstrated mental health problems linked to children who begin puberty earlier than their peers. For girls, early puberty is associated with depression, substance use, eating disorders, disruptive behavior disorders, and early sexual behavior (Graber, 2013). Early maturing girls demonstrate more anxiety and less confidence in their relationships with family and friends, and

they compare themselves more negatively to their peers (Weir, 2016).

Problems with early puberty seem to be due to the mismatch between the child's appearance and the way she acts and thinks. Adults especially may assume the child is more capable than she actually is, and parents might grant more freedom than the child's age would indicate. For girls, the emphasis on physical attractiveness and sexuality is emphasized at puberty and they may lack effective coping strategies to deal with the attention they may receive.

Additionally, mental health problems are more likely to occur when the child is among the first in his or her peer group to develop. Because the preadolescent time is one of not wanting to appear different, early developing children stand out among their peer group and gravitate toward those who are older. For girls, this results in them interacting with older peers who engage in risky behaviors such as substance use and early sexual behavior (Weir, 2016).

Figure 6.4

Source

Boys also see changes in their emotional functioning at puberty. According to Mendle, Harden, Brooks-Gunn, and Graber (2010), while most boys experienced a decrease in depressive symptoms during puberty, boys who began puberty earlier and exhibited a rapid tempo, or a fast rate of change, actually increased in depressive symptoms. The effects of pubertal tempo were stronger than those of pubertal timing, suggesting that rapid pubertal change in boys may be a more important risk factor than the timing of development. In a further study to better analyze the reasons for this change, Mendle, Harden, Brooks-Gunn and Graber (2012) found that both early maturing boys and rapidly maturing boys displayed decrements in the quality of their peer relationships as they moved into early adolescence, whereas boys with more typical timing and tempo development actually experienced improvements in peer relationships. The researchers concluded that the transition in peer relationships may be especially challenging for boys whose pubertal maturation differs significantly from those of others their age. Consequences for boys attaining early puberty were increased odds of cigarette, alcohol, or another drug use (Dudovitz, et al., 2015).

Gender Role Intensification: At about the same time that puberty accentuates gender, role differences also accentuate for at least some teenagers. Some girls who excelled at math or science in elementary school, may curb their enthusiasm and displays of success at these subjects for fear of limiting their popularity or attractiveness as girls (Taylor, Gilligan, & Sullivan, 1995; Sadker, 2004). Some boys who were not especially interested in sports previously may begin dedicating themselves to athletics to affirm their masculinity in the eyes of others. Some boys and girls who once worked together successfully on class projects may no longer feel comfortable doing so, or alternatively may now seek to be working partners, but for social rather than academic reasons. Such changes do not affect all youngsters equally, nor affect any one youngster equally on all occasions. An individual may act like a young adult on one day, but more like a child the next.

Figure 6.5

Source

Adolescent Brain

The brain undergoes dramatic changes during adolescence. Although it does not get larger, it matures by becoming more interconnected and specialized (Giedd, 2015). The myelination and development of connections between neurons continue. This results in an increase in the white matter of the brain and allows the adolescent to make significant improvements in their thinking and processing skills. Different brain areas become myelinated at different times. For example, the brain's language areas undergo myelination during the first 13 years. Completed insulation of the axons consolidates these language skills but makes it more difficult to learn a second language. With greater myelination, however, comes diminished plasticity as a myelin coating inhibits the growth of new connections (Dobbs, 2012).

Even as the connections between neurons are strengthened, synaptic pruning occurs more than during childhood as the brain adapts to changes in the environment. This synaptic pruning causes the gray matter of the brain, or the cortex, to become thinner but more efficient (Dobbs, 2012). The corpus callosum, which connects

the two hemispheres, continues to thicken allowing for stronger connections between brain areas. Additionally, the hippocampus becomes more strongly connected to the frontal lobes, allowing for greater integration of memory and experiences into our decision making.

The limbic system, which regulates emotion and reward, is linked to the hormonal changes that occur at puberty. The limbic system is also related to novelty seeking and a shift toward interacting with peers. In contrast, the prefrontal cortex which is involved in the control of impulses, organization, planning, and making good decisions, does not fully develop until the mid-20s. According to Giedd (2015) the significant aspect of the later developing prefrontal cortex and early development of the limbic system is the "mismatch" in timing between the two. The approximately ten years that separates the development of these two brain areas can result in risky behavior, poor decision making, and weak emotional control for the adolescent. When puberty begins earlier, this mismatch extends even further.

Figure 6.6 Limbic System
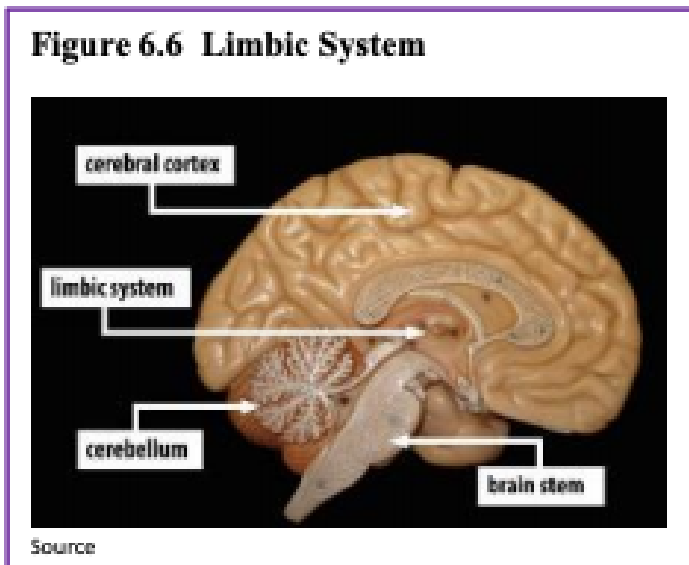
Teens often take more risks than adults and according to research it is because they weigh risks and rewards differently than adults do (Dobbs, 2012). For adolescents the brain's sensitivity to the neurotransmitter dopamine peaks, and dopamine is involved in reward circuits, so the possible rewards outweighs the risks. Adolescents respond especially strongly to social rewards during activities, and they prefer the company of others their same age. Chein et al. (2011) found that peers sensitize brain regions associated with potential rewards. For example, adolescent drivers make risky driving decisions when with friends to impress them, and teens are much more likely to commit crimes together in comparison to adults (30 and older) who commit them alone (Steinberg et al., 2017). In addition to dopamine, the adolescent brain is affected by oxytocin which facilitates bonding and makes social connections more rewarding. With both dopamine and oxytocin engaged, it is no wonder that adolescents seek peers and excitement in their lives that could end up actually harming them.

Because of all the changes that occur in the adolescent brain, the chances for abnormal development can occur, including mental illness. In fact, 50% of the mental illness occurs by the age 14 and 75% occurs by age 24 (Giedd, 2015). Additionally, during this period of development the adolescent brain is especially vulnerable to damage from drug exposure. For example, repeated exposure to marijuana can affect cellular activity in the endocannabinoid system. Consequently, adolescents are more sensitive to the effects of repeated marijuana exposure (Weir, 2015).

However, researchers have also focused on the highly adaptive qualities of the adolescent brain which allow the adolescent to move away from the family towards the outside world (Dobbs, 2012; Giedd, 2015). Novelty seeking and risk taking can generate positive outcomes including meeting new people and seeking out new situations. Separating from the family and moving into new relationships and different experiences are actually quite adaptive for society.

Adolescent Sleep

According to the National Sleep Foundation (NSF) (2016), adolescents need about 8 to 10 hours of sleep each night to function best. The most recent Sleep in America poll in 2006 indicated that adolescents between sixth and twelfth grade were not getting the recommended amount of sleep. On average adolescents only received 7 ½ hours of sleep per night on school nights with younger adolescents getting more than older ones (8.4 hours for sixth graders and only 6.9 hours for those in twelfth grade). For the older adolescents, only about one in ten (9%) get an optimal amount of sleep, and they are more likely to experience negative consequences the following day. These include feeling too tired or sleepy, being cranky or irritable, falling asleep in school, having a depressed mood, and drinking caffeinated beverages (NSF, 2016). Additionally, they are at risk for substance abuse, car crashes, poor academic performance, obesity, and a weakened immune system (Weintraub, 2016).

Troxel et al. (2019) found that insufficient sleep in adolescents is a predictor of risky sexual behaviors. Reasons given for this include that those adolescents who stay out late, typically without parental supervision, are more likely to engage in a variety of risky behaviors, including risky sex, such as not using birth control or using substances before/during sex. An alternative explanation for risky sexual behavior is that the lack of sleep negatively affects impulsivity and decision-making processes.

Why do adolescents not get adequate sleep? In addition to known environmental and social factors, including work, homework, media, technology, and socializing, the adolescent brain is also a factor. As adolescent go through puberty, their circadian rhythms change and push back their sleep time until later in the evening (Weintraub, 2016). This biological change not only keeps adolescents awake at night, it makes it difficult for them to wake up. When they are awake too early, their brains do not function

optimally. Impairments are noted in attention, academic achievement, and behavior while increases in tardiness and absenteeism are also seen.

Figure 6.7
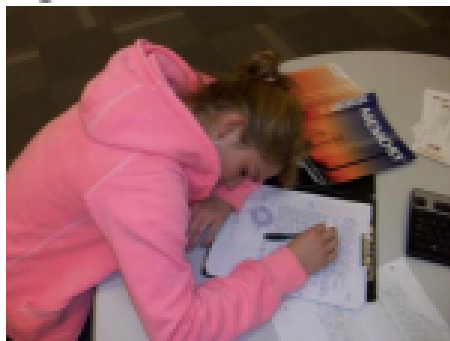
Source

To support adolescents' later sleeping schedule, the Centers for Disease Control and Prevention recommended that school not begin any earlier than 8:30 a.m. Unfortunately, over 80% of American schools begin their day earlier than 8:30 a.m. with an average start time of 8:03 a.m. (Weintraub, 2016). Psychologists and other professionals have been advocating for later school times, and they have produced research demonstrating better student outcomes for later start times. More middle and high schools have changed their start times to better reflect the sleep research. However, the logistics of changing start times and bus schedules are proving too difficult for some schools leaving many adolescent vulnerable to the negative consequences of sleep deprivation. Troxel et al. (2019) cautions that adolescents should find a middle ground between sleeping too little during the school week and too much during the weekends. Keeping consistent sleep schedules of too little sleep will result in sleep deprivation but oversleeping on

weekends can affect the natural biological sleep cycle making it harder to sleep on weekdays.

Adolescent Sexual Activity

By about age ten or eleven, most children experience increased sexual attraction to others that affects social life, both in school and out (McClintock & Herdt, 1996). By the end of high school, more than half of boys and girls report having experienced sexual intercourse at least once, though it is hard to be certain of the proportion because of the sensitivity and privacy of the information. (Center for Disease Control, 2004; Rosenbaum, 2006).

Adolescent Pregnancy: As can be seen in Figure 6.8, in 2018 females aged 15–19 years experienced a birth rate (live births) of 17.4 per 1,000 women. The birth rate for teenagers has declined by 58% since 2007 and 72% since 1991, the most recent peak (Hamilton, Joyce, Martin, & Osterman, 2019). It appears that adolescents seem to be less sexually active than in previous years, and those who are sexually active seem to be using birth control (CDC, 2016).

Risk Factors for Adolescent Pregnancy: Miller, Benson, and Galbraith (2001) found that parent/child closeness, parental supervision, and parents' values against teen intercourse (or unprotected intercourse) decreased the risk of adolescent pregnancy. In contrast, residing in disorganized/dangerous neighborhoods, living in a lower SES family, living with a single parent, having older sexually active siblings or pregnant/parenting teenage sisters, early puberty, and being a victim of sexual abuse place adolescents at an increased risk of adolescent pregnancy.

Figure 6.8

Figure 6.8
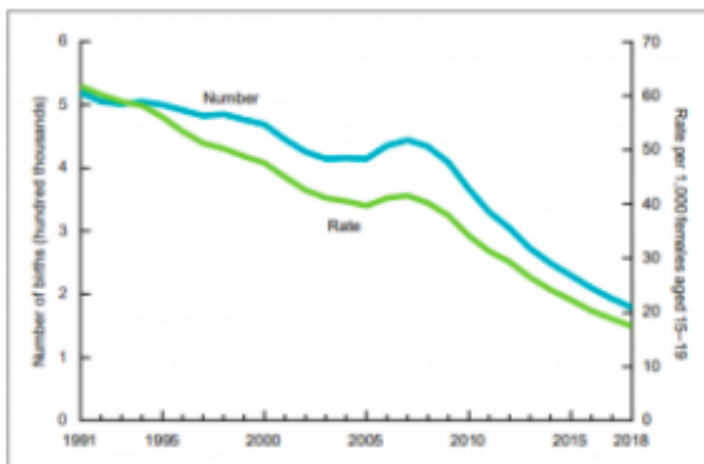
SOURCE: NCHS, National Vital Statistics System, Natality.

Source

Consequences of Adolescent Pregnancy: After the child is born life can be difficult for a teenage mother. Only 40% of teenagers who have children before age 18 graduate from high school. Without a high school degree her job prospects are limited, and economic independence is difficult. Teen mothers are more likely to live in poverty, and more than 75% of all unmarried teen mother receive public assistance within 5 years of the birth of their first child. Approximately, 64% of children born to an unmarried teenage high-school dropout live in poverty. Further, a child born to a teenage mother is 50% more likely to repeat a grade in school and is more likely to perform poorly on standardized tests and drop out before finishing high school (March of Dimes, 2012).

Research analyzing the age that men father their first child and how far they complete their education have been summarized by the Pew Research Center (2015) and reflect the research for females. Among dads ages 22 to 44, 70% of those with less than a high

school diploma say they fathered their first child before the age of 25. In comparison, less than half (45%) of fathers with some college experience became dads by that age. Additionally, becoming a young father occurs much less for those with a bachelor's degree or higher as just 14% had their first child prior to age 25. Like men, women with more education are likely to be older when they become mothers.

Eating Disorders

Although eating disorders can occur in children and adults, they frequently appear during the teen years or young adulthood (National Institute of Mental Health (NIMH), 2016). Eating disorders affect both genders, although rates among women are 2½ times greater than among men. Similar to women who have eating disorders, men also have a distorted sense of body image, including muscle dysmorphia, which is an extreme desire to increase one's muscularity (Bosson, Vandello, & Buckner, 2019). The prevalence of eating disorders in the United States is similar among Non-Hispanic Whites, Hispanics, African-Americans, and Asians, with the exception that anorexia nervosa is more common among Non-Hispanic Whites (Hudson, Hiripi, Pope, & Kessler, 2007; Wade, Keski-Rahkonen, & Hudson, 2011).

Figure 6.9

Risk Factors for Eating Disorders: Because of the high mortality rate, researchers are looking into the etiology of the disorder and associated risk factors. Researchers are finding that eating disorders are caused by a complex interaction of genetic, biological, behavioral, psychological, and social factors (NIMH, 2016). Eating disorders appear to run in families, and researchers are working to identify DNA variations that are linked to the increased risk of developing eating disorders. Researchers from King's College London (2019) found that the genetic basis of anorexia overlaps with both metabolic and body measurement traits. The genetic factors also influence physical activity, which may explain the high activity level of those with anorexia. Further, the genetic basis of anorexia overlaps with other psychiatric disorders. Researchers have also found differences in patterns of brain activity in women with eating disorders in comparison with healthy women.

The main criteria for the most common eating disorders: Anorexia nervosa, bulimia nervosa, and binge-eating disorder are described

in the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5) (American Psychiatric Association, 2013) and listed in Table 6.1.

Table 6.1

Table 6.1 DSM-5 Eating Disorders	
Anorexia Nervosa	• Restriction of energy intake leading to a significantly low body weight • Intense fear of gaining weight • Disturbance in one's self-evaluation regarding body weight
Bulimia Nervosa	• Recurrent episodes of binge eating • Recurrent inappropriate compensatory behaviors to prevent weight gain, including purging, laxatives, fasting or excessive exercise • Self-evaluation is unduly affected by body shape and weight
Binge-Eating Disorder	• Recurrent episodes of binge eating • Marked distress regarding binge eating • The binge eating is not associated with the recurrent use of inappropriate compensatory behavior

Health Consequences of Eating Disorders: For those suffering from anorexia, health consequences include an abnormally slow heart rate and low blood pressure, which increases the risk for heart failure. Additionally, there is a reduction in bone density (osteoporosis), muscle loss and weakness, severe dehydration, fainting, fatigue, and overall weakness. Anorexia nervosa has the highest mortality rate of any psychiatric disorder (Arcelus, Mitchell, Wales, & Nielsen, 2011). Individuals with this disorder may die from complications associated with starvation, while others die of suicide. In women, suicide is much more common in those with anorexia than with most other mental disorders.

The binge and purging cycle of bulimia can affect the digestives system and lead to electrolyte and chemical imbalances that can affect the heart and other major organs. Frequent vomiting can cause inflammation and possible rupture of the esophagus, as well as tooth decay and staining from stomach acids. Lastly, binge eating disorder results in similar health risks to obesity, including high

blood pressure, high cholesterol levels, heart disease, Type II diabetes, and gall bladder disease (National Eating Disorders Association, 2016).

Eating Disorders Treatment: To treat eating disorders, adequate nutrition and stopping inappropriate behaviors, such as purging, are the foundations of treatment. Treatment plans are tailored to individual needs and include medical care, nutritional counseling, medications (such as antidepressants), and individual, group, and/ or family psychotherapy (NIMH, 2016). For example, the Maudsley Approach has parents of adolescents with anorexia nervosa be actively involved in their child's treatment, such as assuming responsibility for feeding the child. To eliminate binge-eating and purging behaviors, cognitive behavioral therapy (CBT) assists sufferers by identifying distorted thinking patterns and changing inaccurate beliefs.

Figure 6.10

Source

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Chapter 20: Cognitive Development in Adolescence

Piaget's Formal Operational Stage During the formal operational stage, adolescents are able to understand abstract principles which have no physical reference. They can now contemplate such abstract constructs as beauty, love, freedom, and morality. The adolescent is no longer limited by what can be directly seen or heard. Additionally, while younger children solve problems through trial and error, adolescents demonstrate hypothetical-deductive reasoning, which is developing hypotheses based on what might logically occur. They are able to think about all the possibilities in

a situation beforehand, and then test them systematically (Crain, 2005). Now they are able to engage in true scientific thinking.

Formal operational thinking also involves accepting hypothetical situations. Adolescents understand the concept of transitivity, which means that a relationship between two elements is carried over to other elements logically related to the first two, such as if A<B and B<C, then A<C (Thomas, 1979). For example, when asked: If Maria is shorter than Alicia and Alicia is shorter than Caitlyn, who is the shortest? Adolescents are able to answer the question correctly as they understand the transitivity involved.

Does everyone reach formal operations? According to Piaget, most people attain some degree of formal operational thinking but use formal operations primarily in the areas of their strongest interest (Crain, 2005). In fact, most adults do not regularly demonstrate formal operational thought, and in small villages and tribal communities, it is barely used at all. A possible explanation is that an individual's thinking has not been sufficiently challenged to demonstrate formal operational thought in all areas.

Adolescent Egocentrism: Once adolescents can understand abstract thoughts, they enter a world of hypothetical possibilities and demonstrate egocentrism or a heightened self-focus. The egocentricity comes from attributing unlimited power to their own thoughts (Crain, 2005). Piaget believed it was not until adolescents took on adult roles that they would be able to learn the limits to their own thoughts.

David Elkind (1967) expanded on the concept of Piaget's adolescent egocentricity. Elkind theorized that the physiological changes that occur during adolescence result in adolescents being primarily concerned with themselves. Additionally, since adolescents fail to differentiate between what others are thinking and their own thoughts, they believe that others are just as fascinated with their behavior and appearance. This belief results in the adolescent anticipating the reactions of others, and consequently constructing an imaginary audience. "The imaginary audience is the adolescent's belief that those around them are as

concerned and focused on their appearance as they themselves are" (Schwartz, Maynard, & Uzelac, 2008, p. 441). Elkind thought that the imaginary audience contributed to the self-consciousness that occurs during early adolescence. The desire for privacy and reluctance to share personal information may be a further reaction to feeling under constant observation by others. Alternatively, recent research has indicated that the imaginary audience is not imaginary. Specifically, adolescents and adults feel that they are often under scrutiny by others, especially if they are active on social media (Yau & Reich, 2018).

Another important consequence of adolescent egocentrism is the personal fable or belief that one is unique, special, and invulnerable to harm. Elkind (1967) explains that because adolescents feel so important to others (imaginary audience) they regard themselves and their feelings as being special and unique. Adolescents believe that only they have experienced strong and diverse emotions, and therefore others could never understand how they feel. This uniqueness in one's emotional experiences reinforces the adolescent's belief of invulnerability, especially to death. Adolescents will engage in risky behaviors, such as drinking and driving or unprotected sex, and feel they will not suffer any negative consequences. Elkind believed that adolescent egocentricity emerged in early adolescence and declined in middle adolescence, however, recent research has also identified egocentricity in late adolescence (Schwartz, et al., 2008).

Consequences of Formal Operational Thought: As adolescents are now able to think abstractly and hypothetically, they exhibit many new ways of reflecting on information (Dolgin, 2011). For example, they demonstrate greater introspection or thinking about one's thoughts and feelings. They begin to imagine how the world could be which leads them to become idealistic or insisting upon high standards of behavior. Because of their idealism, they may become critical of others, especially adults in their life. Additionally, adolescents can demonstrate hypocrisy, or pretend to be what they are not. Since they are able to recognize what others expect of

them, they will conform to those expectations for their emotions and behavior seemingly hypocritical to themselves. Lastly, adolescents can exhibit pseudostupidity. This is when they approach problems at a level that is too complex, and they fail because the tasks are too simple. Their new ability to consider alternatives is not completely under control and they appear "stupid" when they are in fact bright, just not experienced.

Information Processing

Cognitive Control: As noted in earlier chapters, executive functions, such as attention, increases in working memory, and cognitive flexibility have been steadily improving since early childhood. Studies have found that executive function is very competent in adolescence. However, self-regulation, or the ability to control impulses, may still fail. A failure in self-regulation is especially true when there is high stress or high demand on mental functions (Luciano & Collins, 2012). While high stress or demand may tax even an adult's self-regulatory abilities, neurological changes in the adolescent brain may make teens particularly prone to more risky decision making under these conditions.

   Inductive and Deductive Reasoning: Inductive reasoning emerges in childhood and occurs when specific observations, or specific comments from those in authority, may be used to draw general conclusions. This is sometimes referred to as "bottom-up-processing". However, in inductive reasoning, the veracity of the information that created the general conclusion does not guarantee the accuracy of that conclusion. For instance, a child who has only observed thunder on summer days may conclude that it only thunders in the summer. In contrast, deductive reasoning emerges in adolescence and refers to reasoning that starts with some overarching principle and based on this proposes specific conclusions. This is sometimes referred to as "top-down-

processing". Deductive reasoning guarantees a truthful conclusion if the premises on which it is based are accurate.

Figure 6.12

Figure 6.12
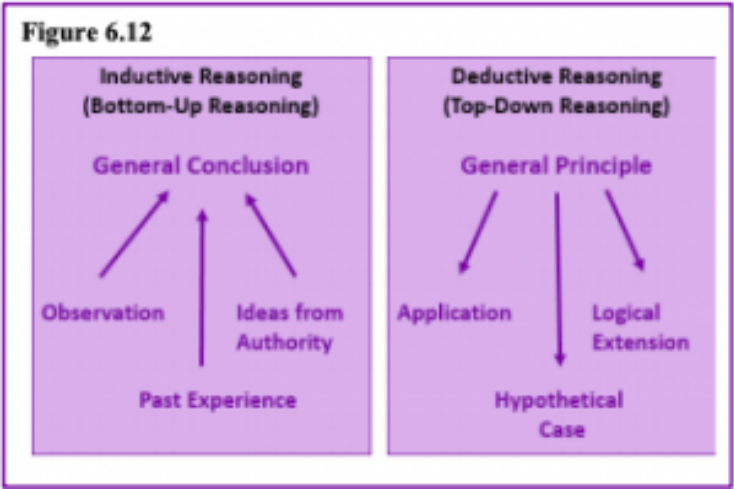
Intuitive versus Analytic Thinking: Cognitive psychologists often refer to intuitive and analytic thought as the Dual-Process Model; the notion that humans have two distinct networks for processing information (Albert & Steinberg, 2011). Intuitive thought is automatic, unconscious, and fast (Kahneman, 2011), and it is more experiential and emotional. In contrast, analytic thought is deliberate, conscious, and rational. While these systems interact, they are distinct (Kuhn, 2013). Intuitive thought is easier and more commonly used in everyday life. It is also more commonly used by children and teens than by adults (Klaczynski, 2001). The quickness of adolescent thought, along with the maturation of the limbic system, may make teens more prone to emotional intuitive thinking than adults.

Education

In early adolescence, the transition from elementary school to middle school can be difficult for many students, both academically and socially. Crosnoe and Benner (2015) found that some students became disengaged and alienated during this transition which resulted in negative longterm consequences in academic performance and mental health. This may be because middle school teachers are seen as less supportive than elementary school teachers (Brass, McKellar, North, & Ryan, 2019). Similarly, the transition to high school can be difficult. For example, high schools are larger, more bureaucratic, less personal, and there are less opportunities for teachers to get to know their students (Eccles & Roeser, 2016).

Peers: Certainly, the beliefs and expectations about academic success supported by an adolescent's family play a significant role in the student's achievement and school engagement. However, research has also focused on the importance of peers in an adolescent's school experience. Specifically, having friends who are high-achieving, academically motivated and engaged promotes motivation and engagement in the adolescent, while those whose friends are unmotivated, disengaged, and low achieving promotes the same feelings (Shin & Ryan, 2014; Vaillancourt, Paiva, Véronneau, & Dishion, 2019).

Gender: Crosnoe and Benner (2015) found that female students earn better grades, try harder, and are more intrinsically motivated than male students. Further, Duchesne, Larose, and Feng (2019) described how female students were more oriented toward skill mastery, used a variety of learning strategies, and persevered more than males. However, more females exhibit worries and anxiety about school, including feeling that they must please teachers and parents. These worries can heighten their effort but lead to fears of disappointing others. In contrast, males are more confident and do not value adult feedback regarding their academic performance

(Brass et al., 2019). There is a subset of female students who identify with sexualized gender stereotypes (SGS), however, and they tend to underperform academically. These female students endorse the beliefs that "girls" should be sexy and not smart. Nelson and Brown (2019) found that female students who support SGS, reported less desire to master skills and concepts, were more skeptical of the usefulness of an education, and downplayed their intelligence.

Life of a high school student: On average, high school teens spend approximately 7 hours each weekday and 1.1 hours each day on the weekend on educational activities. This includes attending classes, participating in extracurricular activities (excluding sports), and doing homework (Office of Adolescent Health, 2018). High school males and females spend about the same amount of time in class, doing homework, eating and drinking, and working. However, they do spend their time outside of these activities in different ways.

- **High school males.** On average, high school males spend about one more hour per day on media and communications activities than females on both weekdays (2.9 vs. 1.8 hours) and weekend days (4.8 vs. 3.8 hours). They also spend more time playing sports on both weekdays (0.9 vs. 0.5 hours) and weekend days (1.2 vs. 0.5 hours). On weekdays, high school males get an hour more sleep than females (9.2 vs. 8.2 hours, on average).
- **High school females.** On an average weekday, high school females spend more time than boys on both leisure activities (1.7 vs. 1.1 hours) and religious activities (0.1 vs. 0.0 hours). High school females also spend more time on grooming on both weekdays and weekend days (1.1 vs. 0.7 hours, on average for both weekdays and weekend days).

High School Dropouts: The status dropout rate refers to the percentage of 16 to 24 year-olds who are not enrolled in school and do not have high school credentials (either a diploma or an equivalency credential such as a General Educational Development

[GED] certificate). The dropout rate is based on sample surveys of the civilian, noninstitutionalized population, which excludes persons in prisons, persons in the military, and other persons not living in households. The dropout rate among high school students has declined from a rate of 12% in 1990, to 6.1% in 2016 (U.S. Department of Education, 2018). The rate is lower for Whites than for Blacks, and the rates for both Whites and Blacks are lower than the rate for Hispanics. However, the gap between Whites, Blacks, and Hispanics have narrowed (see Figure 6.13).

Figure 6.13

Figure 6.13 Percentage of high school dropouts among persons 16 through 24 years old (status dropout rate), by race/ethnicity: October 1976 through 2016
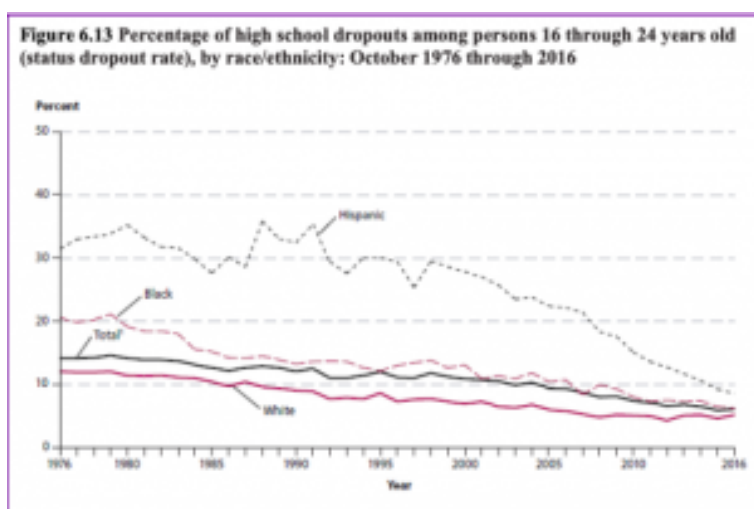
The dropout rate for males in 1990 was 12%, where it stayed until 2000. Thereafter the rate has dropped to 7.1% in 2016. The dropout rate for females in 1990 was 12%, and it has dropped to 5.1% in 2016 (U.S. Department of Education, 2018).

Reasons for Dropping Out of School: Garcia et al. (2018) reviewed the research on why students dropped out of school and identified several major obstacles to school completion. These included: Adolescents who resided in foster care or were part of the juvenile

justice system. In fact, being confined in a juvenile detention facility practically guaranteed that a student would not complete school. Having a physical or mental health condition, or the need for special educational services, adversely affected school completion. Being maltreated due to abuse or neglect and/or being homeless also contributed to dropping out of school. Additonally, adolescent-specific factors, including race, ethnicity and age, as well as family-specific characteristics, such as poverty, single parenting, large family size, and stressful transitions, all contributed to an increased likelihood of dropping-out of school. Lastly, community factors, such as unsafe neighborhoods, gang activity, and a lack of social services increased the number of school dropouts.

School Based Preparatory Experiences

According to the U. S. Department of Labor (2019), to perform at optimal levels in all education settings, all youth need to participate in educational programs grounded in standards, clear performance expectations and graduation exit options based upon meaningful, accurate, and relevant indicators of student learning and skills. These should include:

- Academic programs that are based on clear state standards
- Career and technical education programs that are based on professional and industry standards
- Curricular and program options based on universal design of school, work and communitybased learning experiences
- Learning environments that are small and safe, including extra supports such as tutoring, as necessary
- Supports from and by highly qualified staff
- Access to an assessment system that includes multiple measures, and
- Graduation standards that include options.

Teenagers and Working

Many adolescents work either summer jobs or during the school year. Holding a job may offer teenagers extra funds, the opportunity to learn new skills, ideas about future careers, and perhaps the true value of money. However, there are numerous concerns about teenagers working, especially during the school year. A long-standing concern is that that it "engenders precocious maturity of more adult-like roles and problem behaviors" (Staff, VanEseltine, Woolnough, Silver, & Burrington, 2011, p. 150).

Figure 6.14

Source

Several studies have found that working more than 20 hours per week can lead to declines in grades, a general disengagement from school (Staff, Schulenberg, & Bachman, 2010; Lee & Staff, 2007; Marsh & Kleitman, 2005), an increase in substance abuse (Longest & Shanahan, 2007), engaging in earlier sexual behavior, and pregnancy (Staff et al., 2011). However, like many employee groups, teens have seen a drop in the number of jobs. The summer jobs of previous generations have been on a steady decline, according to the United States Department of Labor, Bureau of Labor Statistics (2016). See Figure 6.15 for recent trends.

Figure 6.15

Figure: 6.15

Teen Employment Has Fallen in Recent Decades

Share of 16- to 19-year-olds who are employed
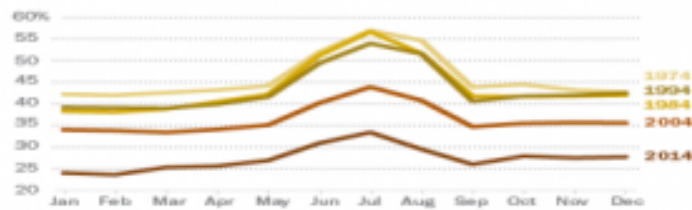
Note: Not seasonally adjusted.
Source: Bureau of Labor Statistics

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Teenage Drivers Driving gives teens a sense of freedom and independence from their parents. It can also free up time for parents as they are not shuttling teens to and from school, activities, or work. The National Highway Traffic Safety Administration (NHTSA) reports that in 2014 young drivers (15 to 20 year-olds) accounted for 5.5% (11.7 million) of the total number of drivers (214 million) in the US (National Center for Statistics and Analysis (NCSA), 2016).

However, almost 9% of all drivers involved in fatal crashes that year were young drivers (NCSA, 2016), and according to the National Center for Health Statistics (2014), motor vehicle accidents are the leading cause of death for 15 to 20 year-olds. "In all motorized jurisdictions around the world, young, inexperienced drivers have much higher crash rates than older, more experienced drivers" (NCSA, 2016, p. 1). A teen's risk of an accident is especially high during the first months of receiving a license (CDC, 2018a). The rate of fatal crashes is twice as high for young males as for young females (CDC, 2018a), although for both genders the rate was highest for the 15-20 years-old age group. For young males, the rate for fatal crashes was approximately 46 per 100,000 drivers, compared to 20 per 100,000 drivers for young females. The NHTSA (NCSA, 2016)

reported that of the young drivers who were killed and who had alcohol in their system, 81% had a blood alcohol count past what was considered the legal limit. Fatal crashes involving alcohol use were higher among young men than young women. The NHTSA also found that teens were less likely to use seat belt restraints if they were driving under the influence of alcohol, and that restraint use decreased as the level of alcohol intoxication increased. Overall, teens have the lowest rate of seat belt use. In a 2017 CDC survey, only 59% of teens reported that they always wore a seat belt when riding as a passenger (CDC, 2018b). Crash data shows that almost half of teenage passengers who die in a car crash were not wearing a seat belt (Insurance Institute for Highway Safety, 2017).

Figure 6.16

Source

In a AAA study of non-fatal, but moderate to severe motor vehicle accidents in 2014, more than half involved young male drivers 16 to 19 years of age (Carney, McGehee, Harland, Weiss, & Raby, 2015). In 36% of rear-end collisions, teen drivers were following cars too closely to be able to stop in time, and in single-vehicle accidents, driving too fast for weather and road conditions was a factor in 79% of crashes involving teens. Distraction was also a factor in nearly 60% of the accidents involving teen drivers. Fellow passengers, often also teenagers (84% of the time), and cell phones were the top two sources of distraction, respectively. This data suggested that having another teenager in the car increased the risk of an accident by 44% (Carney et al., 2015). According to the NHTSA, 10% of drivers

aged 15 to 19 years involved in fatal crashes were reported to be distracted at the time of the crash; the highest figure for any age group (NCSA, 2016). Distraction coupled with inexperience has been found to greatly increase the risk of an accident (Klauer et al., 2014). Finally, despite all the public service announcements warning of the dangers of texting while driving, four out of ten teens report having engaged in this within the past 12 months (CDC, 2018b).

The NHTSA did find that the number of accidents has been on a decline since 2005. They attribute this to greater driver training, more social awareness to the challenges of driving for teenagers, and to changes in laws restricting the drinking age. The NHTSA estimates that the raising of the legal drinking age to 21 in all 50 states and the District of Columbia has saved 30,323 lives since 1975. The CDC also credits graduated driver licenses (GDL) for reducing the number of accidents. While GDL programs vary widely, a comprehensive program has a long practice period, requires greater parental participation, and limits newly licensed drivers from driving under certain high-risk conditions (CDC, 2018a).

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Chapter 21: Psychosocial Development in Adolescence

Self-concept and Self-esteem in Adolescence

In adolescence, teens continue to develop their self-concept. Their ability to think of the possibilities and to reason more abstractly may explain the further differentiation of the self during adolescence. However, the teen's understanding of self is often full of contradictions. Young teens may see themselves as outgoing but

also withdrawn, happy yet often moody, and both smart and completely clueless (Harter, 2012). These contradictions, along with the teen's growing recognition that their personality and behavior seem to change depending on who they are with or where they are, can lead the young teen to feel like a fraud. With their parents they may seem angrier and sullen, with their friends they are more outgoing and goofier, and at work they are quiet and cautious. "Which one is really me?" may be the refrain of the young teenager. Harter (2012) found that adolescents emphasize traits such as being friendly and considerate more than do children, highlighting their increasing concern about how others may see them. Harter also found that older teens add values and moral standards to their self-descriptions.

As self-concept differentiates, so too does self-esteem. In addition to the academic, social, appearance, and physical/athletic dimensions of self-esteem in middle and late childhood, teens also add perceptions of their competency in romantic relationships, on the job, and in close friendships (Harter, 2006). Self-esteem often drops when children transition from one school setting to another, such as shifting from elementary to middle school, or junior high to high school (Ryan, Shim, & Makara, 2013). These drops are usually temporary, unless there are additional stressors such as parental conflict, or other family disruptions (De Wit, Karioja, Rye, & Shain, 2011). Self-esteem rises from mid to late adolescence for most teenagers, especially if they feel competent in their peer relationships, their appearance, and athletic abilities (Birkeland, Melkivik, Holsen, & Wold, 2012).

Erikson: Identity vs. Role Confusion

Erikson believed that the primary psychosocial task of adolescence was establishing an identity. Teens struggle with the question "Who am I?" This includes questions regarding their appearance,

vocational choices and career aspirations, education, relationships, sexuality, political and social views, personality, and interests. Erikson saw this as a period of confusion and experimentation regarding identity and one's life path. During adolescence we experience psychological moratorium, where teens put on hold commitment to an identity while exploring the options. The culmination of this exploration is a more coherent view of oneself. Those who are unsuccessful at resolving this stage may either withdraw further into social isolation or become lost in the crowd. However, more recent research, suggests that few leave this age period with identity achievement, and that most identity formation occurs during young adulthood (Côtè, 2006).

Expanding on Erikson's theory, James Marcia (2010) identified four identity statuses that represent the four possible combinations of the dimension of commitment and exploration (see Table 6.2).

Table 6.2

Table 6.2 Marcia's Four Identity Statuses

Commitment to an Identity		Exploration	
		Absent	Present
	Absent	Identity Diffusion	Identity Moratorium
	Present	Identity Foreclosure	Identity Achievement

The least mature status, and one common in many children, is identity diffusion. Identity diffusion is a status that characterizes those who have neither explored the options, nor made a commitment to an identity. Those who persist in this identity may drift aimlessly with little connection to those around them or have little sense of purpose in life.

Those in identity foreclosure have made a commitment to an identity without having explored the options. Some parents may make these decisions for their children and do not grant the teen the opportunity to make choices. In other instances, teens may

strongly identify with parents and others in their life and wish to follow in their footsteps.

Identity moratorium is a status that describes those who are activity exploring in an attempt to establish an identity but have yet to have made any commitment. This can be an anxious and emotionally tense time period as the adolescent experiments with different roles and explores various beliefs. Nothing is certain and there are many questions, but few answers.

Identity achievement refers to those who after exploration have made a commitment. This is a long process and is not often achieved by the end of adolescence.

During high school and the college years, teens and young adults move from identity diffusion and foreclosure toward moratorium and achievement. The biggest gains in the development of identity are in college, as college students are exposed to a greater variety of career choices, lifestyles, and beliefs. This is likely to spur on questions regarding identity. A great deal of the identity work we do in adolescence and young adulthood is about values and goals, as we strive to articulate a personal vision or dream for what we hope to accomplish in the future (McAdams, 2013).

Figure 6.17

Developmental psychologists have researched several different areas of identity development and some of the main areas include:

Religious identity: The religious views of teens are often similar to that of their families (KimSpoon, Longo, & McCullough, 2012). Most teens may question specific customs, practices, or ideas in the faith of their parents, but few completely reject the religion of their families.

Political identity: The political ideology of teens is also influenced by their parents' political beliefs. A new trend in the 21st century is a decrease in party affiliation among adults. Many adults do not align themselves with either the democratic or republican party but view themselves as more of an "independent". Their teenage children are often following suit or become more apolitical (Côtè, 2006).

Vocational identity: While adolescents in earlier generations envisioned themselves as working in a particular job, and often

worked as an apprentice or part-time in such occupations as teenagers, this is rarely the case today. Vocational identity takes longer to develop, as most of today's occupations require specific skills and knowledge that will require additional education or are acquired on the job itself. In addition, many of the jobs held by teens are not in occupations that most teens will seek as adults.

Gender identity: Acquiring a gender identity is becoming an increasingly prolonged task as attitudes and norms regarding gender keep changing. The roles appropriate for males and females are evolving, and the lack of a gender binary allow adolescents more freedom to explore various aspects of gender. Some teens may foreclose on a gender identity as a way of dealing with this uncertainty, and they may adopt more stereotypic male or female roles (Sinclair & Carlsson, 2013).

Sexual identity: According to Carroll (2016), by age 14 most adolescents become interested in intimate relationships, and they may begin sexual experimentation. Many adolescent feel pressure to express interest in opposite-sex relationships, even if they are not ready to do so. This pressure can be especially stressful for those adolescents who are gay, lesbian, bisexual or questioning their sexual identity. Many non-heterosexual adolescents struggle with negative peer and family reactions during their exploration. A lack of parental acceptance, especially, can adversely affect the gay, lesbian or bisexual adolescent's emerging sexual identity and can result in feelings of depression. In contrast, adolescents whose familes support their sexual identity have better health outcomes.

Ethnic identity refers to how people come to terms with who they are based on their ethnic or racial ancestry. "The task of ethnic identity formation involves sorting out and resolving positive and negative feelings and attitudes about one's own ethnic group and about other groups and identifying one's place in relation to both" (Phinney, 2006, p. 119). When groups differ in status in a culture, those from the non-dominant group have to be cognizant of the customs and values of those from the dominant culture. The reverse is rarely the case. This makes ethnic identity far less salient for

members of the dominant culture. In the United States, those of European ancestry engage in less exploration of ethnic identity, than do those of non-European ancestry (Phinney, 1989). However, according to the U.S. Census (2012) more than 40% of Americans under the age of 18 are from ethnic minorities. For many ethnic minority teens, discovering one's ethnic identity is an important part of identity formation.

Figure 6.18

Source

Phinney's model of ethnic identity formation is based on Erikson's and Marcia's model of identity formation (Phinney, 1990; Syed & Juang, 2014). Through the process of exploration and commitment, individual's come to understand and create an ethic identity. Phinney suggests three stages or statuses with regard to ethnic identity:

1. Unexamined Ethnic Identity: Adolescents and adults who have not been exposed to ethnic identity issues may be in the first stage, unexamined ethnic identity. This is often characterized with a preference for the dominant culture, or where the individual has given little thought to the question of their ethnic heritage. This is similar to diffusion in Marcia's model of identity. Included in this group are also those who have adopted the ethnicity of their parents and other family

members with little thought about the issues themselves, similar to Marcia's foreclosure status (Phinney, 1990).

2. Ethnic Identity Search: Adolescents and adults who are exploring the customs, culture, and history of their ethnic group are in the ethnic identity search stage, similar to Marcia's moratorium status (Phinney, 1990). Often some event "awakens" a teen or adult to their ethnic group; either a personal experience with prejudice, a highly profiled case in the media, or even a more positive event that recognizes the contribution of someone from the individual's ethnic group. Teens and adults in this stage will immerse themselves in their ethnic culture. For some, "it may lead to a rejection of the values of the dominant culture" (Phinney, 1990, p. 503).

3. Achieved Ethnic Identity: Those who have actively explored their culture are likely to have a deeper appreciation and understanding of their ethnic heritage, leading to progress toward an achieved ethnic identity (Phinney, 1990). An achieved ethnic identity does not necessarily imply that the individual is highly involved in the customs and values of their ethnic culture. One can be confident in their ethnic identity without wanting to maintain the language or other customs.

The development of ethnic identity takes time, with about 25% of tenth graders from ethnic minority backgrounds having explored and resolved the issues (Phinney, 1989). The more ethnically homogeneous the high school, the less identity exploration and achievement (UmanaTaylor, 2003). Moreover, even in more ethnically diverse high schools, teens tend to spend more time with their own group, reducing exposure to other ethnicities. This may explain why, for many, college becomes the time of ethnic identity exploration. "[The] transition to college may serve as a consciousness-raising experience that triggers exploration" (Syed & Azmitia, 2009, p. 618).

It is also important to note that those who do achieve ethnic identity may periodically reexamine the issues of ethnicity. This

cycling between exploration and achievement is common not only for ethnic identity formation, but in other aspects of identity development (Grotevant, 1987) and is referred to as MAMA cycling or moving back and forth between moratorium and achievement.

Bicultural/Multiracial Identity: Ethnic minorities must wrestle with the question of how, and to what extent, they will identify with the culture of the surrounding society and with the culture of their family. Phinney (2006) suggests that people may handle it in different ways. Some may keep the identities separate, others may combine them in some way, while others may reject some of them. Bicultural identity means the individual sees himself or herself as part of both the ethnic minority group and the larger society. Those who are multiracial, that is whose parents come from two or more ethnic or racial groups, have a more challenging task. In some cases, their appearance may be ambiguous. This can lead to others constantly asking them to categorize themselves. Phinney (2006) notes that the process of identity formation may start earlier and take longer to accomplish in those who are not mono-racial.

Negative Identity: A negative identity is the adoption of norms and values that are the opposite of one's family and culture, and it is assumed to be one of the more problematic outcomes of identity development in young people (Hihara, Umemura, & Sigimura, 2019). Those with a negative identity hold dichotomous beliefs, and consequently divide the world into two categories (e.g., friend or foe, good or bad). Hihara et al. suggest that this may be because teens with a negative identity cannot integrate information and beliefs that exist in both their inner and outer worlds. In addition, those with a negative identity are generally hostile and cynical toward society, often because they do not trust the world around them. These beliefs may lead teens to engage in delinquent and criminal behavior and prevent them from engaging in more positive acts that could be beneficial to society.

Parents and Teens: Autonomy and Attachment

While most adolescents get along with their parents, they do spend less time with them (Smetana, 2011). This decrease in the time spent with families may be a reflection of a teenager's greater desire for independence or autonomy. It can be difficult for many parents to deal with this desire for autonomy. However, it is likely adaptive for teenagers to increasingly distance themselves and establish relationships outside of their families in preparation for adulthood. This means that both parents and teenagers need to strike a balance between autonomy, while still maintaining close and supportive familial relationships.

Children in middle and late childhood are increasingly granted greater freedom regarding moment-to-moment decision making. This continues in adolescence, as teens are demanding greater control in decisions that affect their daily lives. This can increase conflict between parents and their teenagers. For many adolescents, this conflict centers on chores, homework, curfew, dating, and personal appearance. These are all things many teens believe they should manage that parents previously had considerable control over. Teens report more conflict with their mothers, as many mothers believe they should still have some control over many of these areas, yet often report their mothers to be more encouraging and supportive (Costigan, Cauce, & Etchison, 2007). As teens grow older, more compromise is reached between parents and teenagers (Smetana, 2011). Parents are more controlling of daughters, especially early maturing girls, than they are sons (Caspi, Lynam, Moffitt, & Silva, 1993). In addition, culture and ethnicity also play a role in how restrictive parents are with the daily lives of their children (Chen, Vansteenkiste, Beyers, Soensens, & Van Petegem, 2013).

Having supportive, less conflict ridden relationships with parents also benefits teenagers. Research on attachment in adolescence find that teens who are still securely attached to their parents have

less emotional problems (Rawatlal, Kliewer & Pillay, 2015), are less likely to engage in drug abuse and other criminal behaviors (Meeus, Branje & Overbeek, 2004), and have more positive peer relationships (Shomaker & Furman, 2009).

Peers

As children become adolescents, they usually begin spending more time with their peers and less time with their families, and these peer interactions are increasingly unsupervised by adults. Children's notions of friendship often focus on shared activities, whereas adolescents' notions of friendship increasingly focus on intimate exchanges of thoughts and feelings. During adolescence, peer groups evolve from primarily single-sex to mixed-sex. Adolescents within a peer group tend to be similar to one another in behavior and attitudes, which has been explained as a function of homophily, that is, adolescents who are similar to one another choose to spend time together in a "birds of a feather flock together" way. Adolescents who spend time together also shape each other's behavior and attitudes.

Figure 6.19

[Image: Garry Knight]

Peers can serve both positive and negative functions during adolescence. Negative peer pressure can lead adolescents to make riskier decisions or engage in more problematic behavior than they would alone or in the presence of their family. For example, adolescents are much more likely to drink alcohol, use drugs, and commit crimes when they are with their friends than when they are alone or with their family. One of the most widely studied aspects of adolescent peer influence is known as deviant peer contagion (Dishion & Tipsord, 2011), which is the process by which peers reinforce problem behavior by laughing or showing other signs of approval that then increase the likelihood of future problem behavior.

However, peers also serve as an important source of social support and companionship during adolescence, and adolescents with positive peer relationships are happier and better adjusted than those who are socially isolated or have conflictual peer relationships.

Crowds are an emerging level of peer relationships in adolescence. In contrast to friendships, which are reciprocal dyadic relationships, and cliques, which refer to groups of individuals who interact frequently, crowds are characterized more by shared reputations or images than actual interactions (Brown & Larson, 2009). These crowds reflect different prototypic identities, such as jocks or brains, and are often linked with adolescents' social status and peers' perceptions of their values or behaviors.

Romantic Relationships

Adolescence is the developmental period during which romantic relationships typically first emerge. By the end of adolescence, most American teens have had at least one romantic relationship (Dolgin, 2011). However, culture does play a role as Asian Americans and Latinas are less likely to date than other ethnic groups (Connolly,

Craig, Goldberg, & Pepler, 2004). Dating serves many purposes for teens, including having fun, companionship, status, socialization, sexual experimentation, intimacy, and partner selection for those in late adolescence (Dolgin, 2011).

There are several stages in the dating process beginning with engaging in mixed-sex group activities in early adolescence (Dolgin, 2011). The same-sex peer groups that were common during childhood expand into mixed-sex peer groups that are more characteristic of adolescence. Romantic relationships often form in the context of these mixed-sex peer groups (Connolly, Furman, & Konarski, 2000). Interacting in mixed-sex groups is easier for teens as they are among a supportive group of friends, can observe others interacting, and are kept safe from a too early intimate relationship. By middle adolescence, teens are engaging in brief, casual dating or in group dating with established couples (Dolgin, 2011). Then in late adolescence dating involves exclusive, intense relationships. These relationships tend to be long-lasting and continue for a year or longer, however, they may also interfere with friendships.

Although romantic relationships during adolescence are often short-lived rather than long-term committed partnerships, their importance should not be minimized. Adolescents spend a great deal of time focused on romantic relationships, and their positive and negative emotions are more tied to romantic relationships, or lack thereof than to friendships, family relationships, or school (Furman & Shaffer, 2003). Romantic relationships contribute to adolescents' identity formation, changes in family and peer relationships, and emotional and behavioral adjustment.

Figure 6.20

Source

    Furthermore, romantic relationships are centrally connected to adolescents' emerging sexuality. Parents, policymakers, and researchers have devoted a great deal of attention to adolescents' sexuality, in large part because of concerns related to sexual intercourse, contraception, and preventing teen pregnancies. However, sexuality involves more than this narrow focus. For example, adolescence is often when individuals who are lesbian, gay, bisexual, or transgender come to perceive themselves as such (Russell, Clarke, & Clary, 2009). Thus, romantic relationships are a domain in which adolescents experiment with new behaviors and identities.

    However, a negative dating relationship can adversely affect an adolescent's development. Soller (2014) explored the link between relationship inauthenticity and mental health. Relationship inauthenticity refers to an incongruence between thoughts/ feelings and actions within a relationship. Desires to gain partner approval and demands in the relationship may negatively affect an adolescent's sense of authenticity. Soller found that relationship inauthenticity was positively correlated with poor mental health, including depression, suicidal ideation, and suicide attempts, especially for females.

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PART X
DEVELOPMENT IN EARLY ADULTHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

Vignette

Don Stephens, 25 y/o, and Keith James, 33 y/o, have been together for 7 years. They married last year when New York legalized same sex marriages through legislation and are now planning to be parents for the first time this fall. They decided they wanted to expand their family shortly after getting married and found a surrogate, Paige, who is now 6 months pregnant with twins. While they are ecstatic, Don and Keith are both starting to experience anxiety about what it will be like to be parents. They do not have financial concerns but are struggling more with the uncertainties of the future: Will they be good fathers? Will they be able to care for TWO babies at once? Will their children face hardships due to having gay parents?

Photo by Shelby Cohron on Unsplash

They have decided to begin therapy with a Licensed Certified Social Worker (LCSW) for some support. She greets them warmly and asks what brings them in to see her. Don and Keith share their story and uncertainties related to becoming fathers.

Don shares some of his childhood experiences with his own father, who was verbally abusive, and fears he will be "just like my dad, because that's all I know, I mean, can you even be a good father when you didn't have one yourself? How will I know what to do? I have my dad's temper and I'm afraid it's going to come out if I get mad and that's the last thing I want, my kids to fear me or me say something I don't mean and then I'll ruin them. I'm also not working right now. I'm

planning to go to graduate school, but I'm still not sure about what I really want to do....".

Keith shares his fears are more related to societal views and responses to their family. He states *"It's hard being a gay man or couple sometimes, I see the way some people look at us when we walk by and that's so hard in itself some days, I can't imagine how much more it will hurt when we have our children. It keeps me up at night thinking about how our children may be treated simply because of who their parents are or what their family looks like".*

Critical Thinking:

1. What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?
2. What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
3. What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 22: Physical Development in Early Adulthood

The Physiological Peak

People in their mid-twenties to mid-forties are considered to be in early adulthood. By the time we reach early adulthood, our physical maturation is complete, although our height and weight may increase slightly. Those in their early twenties are probably at the peak of their physiological development, including muscle strength, reaction time, sensory abilities, and cardiac functioning. The reproductive system, motor skills, strength, and lung capacity are all operating at their best. Most professional athletes are at the top of their game during this stage, and many women have children in the early-adulthood years (Boundless, 2016).

The aging process actually begins during early adulthood. Around the age of 30, many changes begin to occur in different parts of the body. For example, the lens of the eye starts to stiffen and thicken, resulting in changes in vision (usually affecting the ability to focus on close objects).

Sensitivity to sound decreases; this happens twice as quickly for men as for women. Hair can start to thin and become gray around the age of 35, although this may happen earlier for some individuals and later for others. The skin becomes drier and wrinkles start to appear by the end of early adulthood. This includes a decline in response time and the ability to recover quickly from physical exertion. The immune system also becomes less adept at fighting off illness, and reproductive capacity starts to decline (Boundless, 2016).

Obesity

Although at the peak of physical health, a concern for early adults is the current rate of obesity. Results from the National Center for Health Statistics indicated that an estimated 70.7% of U.S. adults

aged 20 and over were overweight in 2012 (CDC, 2015b) and by 2016, 39.8% were considered obese (Hales, Carroll, Fryar, & Ogden, 2017)). **Body mass index (BMI)**, *expressed as weight in kilograms divided by height in meters squared (kg/m2)*, is commonly used to classify overweight (BMI 25.0–29.9), obesity (BMI greater than or equal to 30.0), and extreme obesity (BMI greater than or equal to 40.0). The current statistics are an increase from the 2013-2014 statistics that indicated that an estimated 35.1% were obese, and 6.4% extremely obese (Fryar, Carroll, & Ogden, 2014). The CDC also indicated that one's 20s are the prime time to gain weight as the average person gains one to two pounds per year from early adulthood into middle adulthood. The average man in his 20s weighs around 185 pounds and by his 30s weighs approximately 200 pounds. The average American woman weighs 162 pounds in her 20s and 170 pounds in her 30s.

The American obesity crisis is also reflected worldwide (Wighton, 2016). In 2014, global obesity rates for men were measured at 10.8% and among women 14.9%. This translates to 266 million obese men and 375 million obese women in the world, and more people were identified as obese than underweight. Although obesity is seen throughout the world, more obese men and women live in China and the USA than in any other country. Figure 7.6 illustrates how waist circumference is also used as a measure of obesity. Figure 7.7 demonstrates the percentage growth for youth (2-19 years) and adults (20-60+ years) identified as obese between 1999 and 2016.

Figure 7.6

Figure 7.6 Waist Circumference

Source
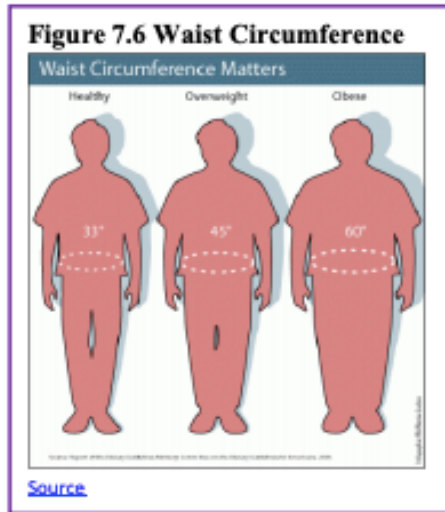
Causes of Obesity: According to the Centers for Disease Control and Prevention (CDC) (2016), obesity originates from a complex set of contributing factors, including one's environment, behavior, and genetics. Societal factors include culture, education, food marketing and promotion, the quality of food, and the physical activity environment available. Behaviors leading to obesity include diet, the amount of physical activity, and medication use. Lastly, there does not appear to be a single gene responsible for obesity. Rather, research has identified variants in several genes that may contribute to obesity by increasing hunger and food intake. Another genetic explanation is the mismatch between today's environment and "energy-thrifty genes" that multiplied in the distant past when food sources were unpredictable. The genes that helped our ancestors survive occasional famines are now being challenged by environments in which food is plentiful all the time. Overall, obesity most likely results from complex interactions among the environment and multiple genes.

Figure 7.7

Figure 7.7 Adult and Youth Obesity Trends (1999-2016)

Obesity Health Consequences: Obesity is considered to be one of the leading causes of death in the United States and worldwide. Additionally, the medical care costs of obesity in the United States were estimated to be $147 billion in 2008. According to the CDC (2016) compared to those with a normal or healthy weight, people who are obese are at increased risk for many serious diseases and health conditions including:

- All-causes of death (mortality)
- High blood pressure (Hypertension)
- High LDL cholesterol, low HDL cholesterol, or high levels of triglycerides (Dyslipidemia)
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis (a breakdown of cartilage and bone within a joint)

- Sleep apnea and breathing problems
- Some cancers (endometrial, breast, colon, kidney, gallbladder, and liver)
- Low quality of life
- Mental illness, such as clinical depression, anxiety, and other mental disorders
- Body pain and difficulty with physical functioning

A Healthy, But Risky Time

Doctor's visits are less frequent in early adulthood than for those in midlife and late adulthood and are necessitated primarily by injury and pregnancy (Berger, 2005). However, the top five causes of death in emerging and early adulthoods are non-intentional injury (including motor vehicle accidents), homicide, and suicide with cancer and heart disease completing the list (Heron, & Smith, 2007). Rates of violent death (homicide, suicide, and accidents) are highest among young adult males and vary by race and ethnicity. Rates of violent death are higher in the United States than in Canada, Mexico, Japan, and other selected countries. Males are 3 times more likely to die in auto accidents than are females (Frieden, 2011).

  Alcohol Abuse: A significant contributing factor to risky behavior is alcohol. According to 2014, National Survey on Drug Use and Health (National Institute on Alcohol Abuse and Alcoholism (NIAAA), 2016) 88% of people ages 18 or older reported that they drank alcohol at some point in their lifetime; 71% reported that they drank in the past year, and 57% reported drinking in the past month. Additionally, 6.7% reported that they engaged in heavy drinking in the past month. Heavy drinking is defined as drinking five or more drinks on the same occasion on each of five or more days in the past 30 days. Nearly 88,000 people (approximately 62,000 men and 26,000 women) die from alcohol-related causes annually, making it the fourth leading preventable cause of death in the United States.

In 2014, alcohol-impaired driving fatalities accounted for 9,967 deaths (31% of overall driving fatalities).

The NIAAA defines binge drinking when blood alcohol concentration levels reach 0.08 g/dL. This typically occurs after four drinks for women and five drinks for men in approximately two hours. In 2014, 25% of people ages 18 or older reported that they engaged in binge drinking in the past month. According to the NIAAA (2015) "Binge drinking poses serious health and safety risks, including car crashes, drunk-driving arrests, sexual assaults, and injuries. Over the long term, frequent binge drinking can damage the liver and other organs," (p. 1).

Alcohol and College Students: Results from the 2014 survey demonstrated a difference between the amount of alcohol consumed by college students and those of the same age who are not in college (NIAAA, 2016). Specifically, 60% of full-time college students ages 18–22 drank alcohol in the past month compared with 51.5% of other persons of the same age not in college. In addition, 38% of college students ages 18–22 engaged in binge drinking; that is, five or more drinks on one occasion in the past month, compared with 33.5% of other persons of the same age. Lastly, 12% of college students' (ages 18–22) engaged in heavy drinking; that is, binge drinking on five or more occasions per month, in the past month. This compares with 9.5% of other emerging adults not in college.

The consequences for college drinking are staggering, and the NIAAA (2016) estimates that each year the following occur:

- 1,825 college students between the ages of 18 and 24 die from alcohol-related unintentional injuries, including motor-vehicle crashes.
- 696,000 students between the ages of 18 and 24 are assaulted by another student who has been drinking.
- Roughly 1 in 5 college students meet the criteria for an Alcohol Use Disorder.
- About 1 in 4 college students report academic consequences from drinking, including missing class, falling behind in class,

doing poorly on exams or papers, and receiving lower grades overall. (p. 1)

- 97,000 students between the ages of 18 and 24 report experiencing alcohol-related sexual assault or date rape.

The role alcohol plays in predicting acquaintance rape on college campuses is of particular concern. "Alcohol use in one the strongest predictors of rape and sexual assault on college campuses," (Carroll, 2016, p. 454). Krebs, Lindquist, Warner, Fisher and Martin (2009) found that over 80% of sexual assaults on college campuses involved alcohol. Being intoxicated increases a female's risk of being the victim of date or acquaintance rape (Carroll, 2007). Females are more likely to blame themselves and to be blamed by others if they were intoxicated when raped. College students view perpetrators who were drinking as less responsible, and victims who were drinking as more responsible for the assaults (Untied, Orchowski, Mastroleo, & Gidycz, 2012).

Factors Affecting College Students' Drinking: Several factors associated with college life affect a student's involvement with alcohol (NIAAA, 2015).

These include the pervasive availability of alcohol, inconsistent enforcement of underage drinking laws, unstructured time, coping with stressors, and limited interactions with parents and other adults.

Figure 7.8

Source

Due to social pressures to conform and expectations when entering college, the first six weeks of freshman year are an especially susceptible time for students. Additionally, more drinking occurs in colleges with active Greek systems and athletic programs. Alcohol consumption is lowest among students living with their families and commuting, while it is highest among those living in fraternities and sororities.

College Strategies to Curb Drinking: Strategies to address college drinking involve the individual-level and campus community as a whole. Identifying at-risk groups, such as first-year students, members of fraternities and sororities, and athletes have proven helpful in changing students' knowledge, attitudes, and behavior regarding alcohol (NIAAA, 2015).

Interventions include education and awareness programs, as well as intervention by health professionals. At the college-level, reducing the availability of alcohol has proven effective by decreasing both consumption and negative consequences.

Non-Alcohol Substance Use: Illicit drug use peaks between the ages of 19 and 22 and then begins to decline. Additionally, 25% of those

who smoke cigarettes, 33% of those who smoke marijuana, and 70% of those who abuse cocaine began using after age 17 (Volkow, 2004).

Figure 7.9

Emerging adults (18 to 25) are the largest abusers of prescription opioid pain relievers, anti-anxiety medications, and Attention Deficit Hyperactivity Disorder medication (National Institute on Drug Abuse, 2015). In 2016, opioid misuse within the past 12 months was reported by 3.6% of 12-17 year-olds and was twice as high among those 18-25 (Office of Adolescent Health, 2019). In 2014 more than 1700 emerging adults died from a prescription drug overdose. This is an increase of four times since 1999. Additionally, for every death, there were 119 emergency room visits.

Daily marijuana use is at the highest level in three decades (National Institute on Drug Abuse, 2015). For those in college, 2014 data indicate that 6% of college students smoke marijuana daily, while only 2% smoked daily in 1994. For noncollege students of the same age, the daily percentage is twice as high (approximately 12%). Additionally, according to a recent survey by the National Institute of Drug Abuse (2018), daily cigarette smoking is lower for those in college in comparison to non-college groups (see Figure 7.10).

Figure 7.10

Figure 7.10

2017 Monitoring the Future College Students and Young Adults Survey Results

LARGEST DIFFERENCES FOR ANNUAL, PAST-MONTH, AND DAILY USE RATES BETWEEN COLLEGE AND NON-COLLEGE GROUPS ARE FOR **CIGARETTE SMOKING**

CIGARETTES
Daily Use

14.4%

2.0%

College   Non-College
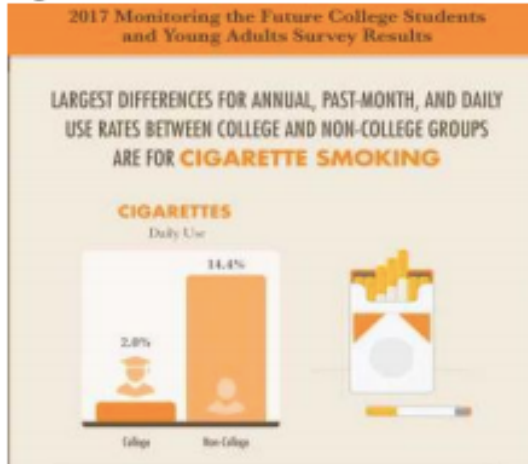
Source

Rates of violent death are influenced by substance use which peaks during emerging and early adulthood. Drugs impair judgment, reduce inhibitions, and alter mood, all of which can lead to dangerous behavior. Reckless driving, violent altercations, and forced sexual encounters are some examples. Drug and alcohol use increase the risk of sexually transmitted infections because people are more likely to engage in risky sexual behavior when under the influence. This includes having sex with someone who has had multiple partners, having anal sex without the use of a condom, having multiple partners, or having sex with someone whose history is unknown. Lastly, as previously discussed, drugs and alcohol ingested during pregnancy have a teratogenic effect on the developing embryo and fetus.

Gender

As previously discussed in chapter 4, **gender** *is the cultural, social and psychological meanings associated with masculinity and feminity. A person's sense of self as a member of a particular gender* is known as **gender identity**. Because gender is considered a **social construct**, *meaning that it does not exist naturally, but is instead a concept that is created by cultural and societal norms*, there are cultural variations on how people express their gender identity. For example, in American culture, it is considered feminine to wear a dress or skirt. However, in many Middle Eastern, Asian, and African cultures, dresses or skirts (often referred to as sarongs, robes, or gowns) can be considered masculine. Similarly, the kilt worn by a Scottish male does not make him appear feminine in his culture.

For many adults, the drive to adhere to masculine and feminine **gender roles**, *or the societal expectations associated with being male or female*, continues throughout life. In American culture, masculine roles have traditionally been associated with strength, aggression, and dominance, while feminine roles have traditionally been associated with passivity, nurturing, and subordination. Men tend to outnumber women in professions such as law enforcement, the military, and politics, while women tend to outnumber men in care-related occupations such as childcare, healthcare, and social work. These occupational roles are examples of stereotypical American male and female behavior, derived not from biology or genetics, but from our culture's traditions. Adherence to these roles may demonstrate fulfillment of social expectations, however, not necessarily personal preferences (Diamond, 2002).

Consequently, many adults are challenging gender labels and roles, and the long-standing **gender binary**; *that is, categorizing humans as only female and male,* has been undermined by current psychological research (Hyde, Bigler, Joel, Tate, & van Anders, 2019). The term gender now encompasses a wide range of possible identities, including cisgender, transgender, agender, genderfluid,

genderqueer, gender nonconforming, bigender, pangender, ambigender, non- gendered, intergender, and **Two-spirit** *which is a modern umbrella term used by some indigenous North Americans to describe gender-variant individuals in their communities* (Carroll, 2016). Hyde et al. (2019) advocate for a conception of gender that stresses multiplicity and diversity and uses multiple categories that are not mutually exclusive.

Gender Minority Discrimination: Gender nonconforming people are much more likely to experience harassment, bullying, and violence based on their gender identity; they also experience much higher rates of discrimination in housing, employment, healthcare, and education (Borgogna, McDermott, Aita, & Kridel, 2019; National Center for Transgender Equality, 2015). Transgender individuals of color face additional financial, social, and interpersonal challenges, in comparison to the transgender community as a whole, as a result of structural racism. Black transgender people reported the highest level of discrimination among all transgender individuals of color. As members of several intersecting minority groups, transgender people of color, and transgender women of color, in particular, are especially vulnerable to employment discrimination, poor health outcomes, harassment, and violence. Consequently, they face even greater obstacles than white transgender individuals and cisgender members of their own race.

Figure 7.11 Transgender Flag

Source
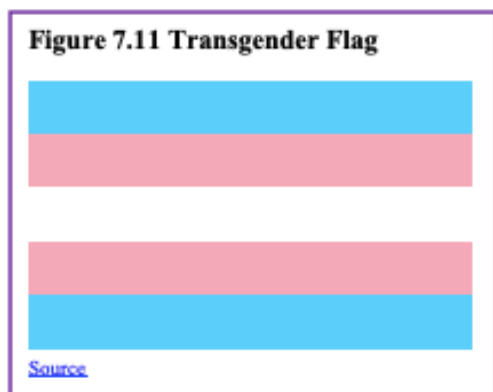
Gender Minority Status and Mental Health: Using data from over 43,000 college students, Borgona et al. (2019) examined mental health differences among several gender groups, including those identifying as cisgender, transgender and gender nonconforming. Results indicated that participants who identified as transgender and gender nonconforming had significantly higher levels of anxiety and depression than those identifying as cisgender. Bargona et al. explained the higher rates of anxiety and depression using the **minority stress model**, *which states that an unaccepting social environment results in both external and internal stress which contributes to poorer mental health.* External stressors include discrimination, harassment, and prejudice, while internal stressors include negative thoughts, feelings, and emotions resulting from one's identity. Bargona et al. recommend that mental health services that are sensitive to both gender minority and sexual minority status be available.

Figure 7.12

Source

The transgender children discussed in chapter 4 may, when they become an adult, alter their bodies through medical interventions, such as surgery and hormonal therapy so that their physical being is better aligned with gender identity. However, not all transgender individuals choose to alter their bodies or physically transition.

Many will maintain their original anatomy but may present themselves to society as a different gender, often by adopting the dress, hairstyle, mannerisms, or other characteristics typically assigned to a certain gender. It is important to note that people who cross-dress or wear clothing that is traditionally assigned to the opposite gender, such as transvestites, drag kings, and drag queens, do not necessarily identify as transgender (though some do). People often confuse the term **transvestite**, *which is the practice of dressing and acting in a style or manner traditionally associated with another sex* (APA, 2013) with transgender. Cross-dressing is typically a form of self-expression, entertainment, or personal style, and not necessarily an expression about one's gender identity.

Sexuality

Human sexuality *refers to people's sexual interest in and attraction to others, as well as their capacity to have erotic experiences and responses.* Sexuality may be experienced and expressed in a variety of ways, including thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles, and relationships. These may manifest themselves in biological, physical, emotional, social, or spiritual aspects. The biological and physical aspects of sexuality largely concern the human reproductive functions, including the human sexual response cycle and the basic biological drive that exists in all species. Emotional aspects of sexuality include bonds between individuals that are expressed through profound feelings or physical manifestations of love, trust, and care. Social aspects deal with the effects of human society on one's sexuality, while spirituality concerns an individual's spiritual connection with others through sexuality. Sexuality also impacts and is impacted by cultural, political, legal, philosophical, moral, ethical, and religious aspects of life.

The Sexual Response Cycle: *Sexual motivation, often referred to as* **libido***, is a person's overall sexual drive or desire for sexual activity.* This motivation is determined by biological, psychological, and social factors. In most mammalian species, sex hormones control the ability to engage in sexual behaviors. However, sex hormones do not directly regulate the ability to copulate in primates (including humans); rather, they are only one influence on the motivation to engage in sexual behaviors. Social factors, such as work and family, also have an impact, as do internal psychological factors like personality and stress. Sex drive may also be affected by hormones, medical conditions, medications, lifestyle stress, pregnancy, and relationship issues.

The **sexual response cycle** *is a model that describes the physiological responses that take place during sexual activity.* According to Kinsey, Pomeroy, and Martin (1948), the cycle consists of four phases: excitement, plateau, orgasm, and resolution. The **excitement phase** *is the phase in which the intrinsic (inner) motivation to pursue sex arises.* The **plateau phase** *is the period of sexual excitement with increased heart rate and circulation that sets the stage for orgasm.* **Orgasm** *is the release of tension,* and the **resolution period** *is the unaroused state before the cycle begins again.*

The Brain and Sex: The brain is the structure that translates the nerve impulses from the skin into pleasurable sensations. It controls the nerves and muscles used during sexual behavior. The brain regulates the release of hormones, which are believed to be the physiological origin of sexual desire. The cerebral cortex, which is the outer layer of the brain that allows for thinking and reasoning, is believed to be the origin of sexual thoughts and fantasies. Beneath the cortex is the limbic system, which consists of the amygdala, hippocampus, cingulate gyrus, and septal area. These structures are where emotions and feelings are believed to originate, and they are important for sexual behavior.

The **hypothalamus** is the most important part of the brain for sexual functioning. *This is the small area at the base of the brain consisting of several groups of nerve-cell bodies that receives input*

from the limbic system. Studies with lab animals have shown that the destruction of certain areas of the hypothalamus causes the complete elimination of sexual behavior. One of the reasons for the importance of the hypothalamus is that it controls the pituitary gland, which secretes hormones that control the other glands of the body.

Figure 7.13

Figure 7.13

Hypothalamus
Thyrotropin-releasing hormone
Dopamine
Growth hormone-releasing hormone
Somatostatin
Gonadotropin-releasing hormone
Corticotropin-releasing hormone
Oxytocin
Vasopressin

Thyroid
Triiodothyronine
Thyroxine

Pineal gland
Melatonin

Pituitary Gland

Anterior pituitary	Posterior pituitary
Growth hormone	Oxytocin
Thyroid-stimulating hormone	Vasopressin
Adrenocorticotropic hormone	Oxytocin (stored)
Follicle-stimulating hormone	Anti-diuretic
Luteinizing hormone	hormone (stored)
Prolactin	

Intermediate pituitary
Melanocyte-stimulating hormone

Source

Hormones: Several important sexual hormones are secreted by the pituitary gland. **Oxytocin,** also known as the hormone of love, *is released during sexual intercourse when an orgasm is achieved.* Oxytocin is also released in females when they give birth or are breastfeeding; it is believed that oxytocin is involved with maintaining close relationships. Both prolactin and oxytocin stimulate milk production in females. **Follicle-stimulating hormone (FSH)** *is responsible for ovulation in females by triggering egg maturity; it also stimulates sperm production in males.* **Luteinizing hormone (LH)** *triggers the release of a mature egg in females during the process of ovulation.* In males, testosterone appears to be a major contributing factor to sexual motivation. **Vasopressin** *is involved*

in the male arousal phase, and the increase of vasopressin during erectile response may be directly associated with increased motivation to engage in sexual behavior.

The relationship between hormones and female sexual motivation is not as well understood, largely due to the overemphasis on male sexuality in Western research. **Estrogen** and **progesterone** typically *regulate motivation to engage in sexual behavior for females, with estrogen increasing motivation and progesterone decreasing it*. The levels of these hormones rise and fall throughout a woman's menstrual cycle. Research suggests that testosterone, oxytocin, and vasopressin are also implicated in female sexual motivation in similar ways as they are in males, but more research is needed to understand these relationships.

Sexual Responsiveness Peak: Men and women tend to reach their peak of sexual responsiveness at different ages. For men, sexual responsiveness tends to peak in the late teens and early twenties. Sexual arousal can easily occur in response to physical stimulation or fantasizing. Sexual responsiveness begins a slow decline in the late twenties and into the thirties, although a man may continue to be sexually active. Through time, a man may require more intense stimulation in order to become aroused. Women often find that they become more sexually responsive throughout their 20s and 30s and may peak in the late 30s or early 40s. This is likely due to greater self-confidence and reduced inhibitions about sexuality.

Sexually Transmitted Infections: Sexually transmitted infections (STIs), also referred to as sexually transmitted diseases (STDs) or venereal diseases (VDs) *are illnesses that have a significant probability of transmission by means of sexual behavior, including vaginal intercourse, anal sex, and oral sex.* Some STIs can also be contracted by sharing intravenous drug needles with an infected person, as well as through childbirth or breastfeeding.

Common STIs include:

- chlamydia;
- herpes (HSV-1 and HSV-2);
- human papillomavirus (HPV);
- gonorrhea;
- syphilis;
- trichomoniasis;
- HIV (human immunodeficiency virus) and AIDS (acquired immunodeficiency syndrome).

According to the Centers for Disease Control and Prevention (CDC) (2014), there was an increase in the three most common types of STDs in 2014. These include 1.4 million cases of chlamydia, 350,000 cases of gonorrhea, and 20,000 cases of syphilis. Those most affected by STDS include those younger, gay/bisexual males, and females. The most effective way to prevent transmission of STIs is to practice safe sex and avoid direct contact of skin or fluids which can lead to transfer with an infected partner. Proper use of safe-sex supplies (such as male condoms, female condoms, gloves, or dental dams) reduces contact and risk and can be effective in limiting exposure; however, some disease transmission may occur even with these barriers.

Societal Views on Sexuality: Society's views on sexuality are influenced by everything from religion to philosophy, and they have changed throughout history and are continuously evolving. Historically, religion has been the greatest influence on sexual behavior in the United States; however, in more recent years, peers and the media have emerged as two of the strongest influences, particularly among American teens (Potard, Courtois, & Rusch, 2008).

Mass media in the form of television, magazines, movies, and music continues to shape what is deemed appropriate or normal sexuality, targeting everything from body image to products meant

to enhance sex appeal. Media serves to perpetuate a number of social scripts about sexual relationships and the sexual roles of men and women, many of which have been shown to have both empowering and problematic effects on people's (especially women's) developing sexual identities and sexual attitudes.

Cultural Differences: In the West, premarital sex is normative by the late teens, more than a decade before most people enter marriage. In the United States and Canada, and in northern and eastern Europe, cohabitation is also normative; most people have at least one cohabiting partnership before marriage. In southern Europe, cohabiting is still taboo, but premarital sex is tolerated in emerging adulthood. In contrast, both premarital sex and cohabitation remain rare and forbidden throughout Asia. Even dating is discouraged until the late twenties when it would be a prelude to a serious relationship leading to marriage. In cross-cultural comparisons, about three-fourths of emerging adults in the United States and Europe report having had premarital sexual relations by age 20, versus less than one fifth in Japan and South Korea (Hatfield & Rapson, 2006).

Sexual Orientation: A person's **sexual orientation** *is their emotional and sexual attraction to a particular gender.* It is a personal quality that inclines people to feel romantic or sexual attraction (or a combination of these) to persons of a given sex or gender. According to the American Psychological Association (APA) (2016), sexual orientation also refers to a person's sense of identity-based on those attractions, related behaviors, and membership in a community of others who share those attractions. Sexual orientation is independent of gender; for example, a transgender person may identify as heterosexual, homosexual, bisexual, pansexual, polysexual, asexual, or any other kind of sexuality, just like a cisgender person.

Sexual Orientation on a Continuum: Sexuality researcher Alfred Kinsey was among the first to conceptualize sexuality as a continuum rather than a strict dichotomy of gay or straight. To

classify this continuum of heterosexuality and homosexuality, Kinsey et al. (1948) created a seven-point rating scale that ranged from exclusively heterosexual to exclusively homosexual. Research done over several decades has supported this idea that sexual orientation ranges along a continuum, from exclusive attraction to the opposite sex/gender to exclusive attraction to the same sex/gender (Carroll, 2016).

Figure 7.14

Source

Source

However, sexual orientation now can be defined in many ways. **Heterosexuality**, which is often referred to as being straight, *is attraction to individuals of the opposite sex/gender*, while **homosexuality**, being gay or lesbian, *is attraction to individuals of one's own sex/gender*. **Bisexuality** *was a term traditionally used to*

refer to attraction to individuals of either male or female sex, but it has recently been used in nonbinary models of sex and gender (i.e., models that do not assume there are only two sexes or two genders) to refer to attraction to *any* sex or gender. Alternative terms such as **pansexuality** and **polysexuality** have also been developed, *referring to attraction to all sexes/genders and attraction to multiple sexes/ genders, respectively* (Carroll, 2016).

Asexuality *refers to having no sexual attraction to any sex/gender*. According to Bogaert (2015), about one percent of the population is asexual. Being asexual is not due to any physical problems, and the lack of interest in sex does not cause the individual any distress. Asexuality is being researched as a distinct sexual orientation.

Development of Sexual Orientation: According to current scientific understanding, individuals are usually aware of their sexual orientation between middle childhood and early adolescence. However, this is not always the case, and some do not become aware of their sexual orientation until much later in life. It is not necessary to participate in sexual activity to be aware of these emotional, romantic, and physical attractions; people can be celibate and still recognize their sexual orientation. Some researchers argue that sexual orientation is not static and inborn but is instead fluid and changeable throughout the lifespan.

There is no scientific consensus regarding the exact reasons why an individual holds a particular sexual orientation. Research has examined possible biological, developmental, social, and cultural influences on sexual orientation, but there has been no evidence that links sexual orientation to only one factor (APA, 2016). However, biological explanations, that include genetics, birth order, and hormones will be explored further as many scientists support biological processes occurring during the embryonic and early postnatal life as playing the main role in sexual orientation (Balthazart, 2018).

Genetics: Using both twin and familial studies, heredity provides one biological explanation for same-sex orientation. Bailey and

Pillard (1991) studied pairs of male twins and found that the concordance rate for identical twins was 52%, while the rate for fraternal twins was only 22%. Bailey, Pillard, Neale, and Agyei (1993) studied female twins and found a similar difference with a concordance rate of 48% for identical twins and 16% for fraternal twins. Schwartz, Kim, Kolundzija, Rieger, & Sanders (2010) found that gay men had more gay male relatives than straight men, and sisters of gay men were more likely to be lesbians than sisters of straight men.

Figure 7.15

Fraternal Birth Order: The **fraternal birth order effect** *indicates that the probability of a boy identifying as gay increases for each older brother born to the same mother* (Balthazart, 2018; Blanchard, 2001). According to Bogaret et al. "the increased incidence of homosexuality in males with older brothers results from a progressive immunization of the mother against a male-specific cell-adhesion protein that plays a key role in cell-cell interactions, specifically in the process of synapse formation," (as cited in Balthazart, 2018, p. 234). A meta-analysis indicated that the fraternal birth order effect explains the sexual orientation of between 15% and 29% of gay men.

Hormones: Excess or deficient exposure to hormones during prenatal development has also been theorized as an explanation

for sexual orientation. One-third of females exposed to abnormal amounts of prenatal androgens, a condition called congenital adrenal hyperplasia (CAH), identify as bisexual or lesbian (Cohen-Bendahan, van de Beek, & Berenbaum, 2005). In contrast, too little exposure to prenatal androgens may affect male sexual orientation by not masculinizing the male brain (Carlson, 2011).

Sexual Orientation Discrimination: The United States is **heteronormative**, *meaning that society supports heterosexuality as the norm.* Consider, for example, that homosexuals are often asked, "When did you know you were gay?" but heterosexuals are rarely asked, "When did you know you were straight?" (Ryle, 2011). Living in a culture that privileges heterosexuality has a significant impact on the ways in which non-heterosexual people are able to develop and express their sexuality.

Open identification of one's sexual orientation may be hindered by **homophobia** *which encompasses a range of negative attitudes and feelings toward homosexuality or people who are identified or perceived as being lesbian, gay, bisexual, or transgender (LGBT).* It can be expressed as antipathy, contempt, prejudice, aversion, or hatred; it may be based on irrational fear and is sometimes related to religious beliefs (Carroll, 2016). Homophobia is observable in critical and hostile behavior, such as discrimination and violence on the basis of sexual orientations that are non- heterosexual. Recognized types of homophobia include **institutionalized homophobia,** *such as religious and state-sponsored homophobia,* and **internalized homophobia** *in which people with same-sex attractions internalize, or believe, society's negative views and/or hatred of themselves.*

Figure 7.16

Sexual minorities regularly experience stigma, harassment, discrimination, and violence based on their sexual orientation (Carroll, 2016). Research has shown that gay, lesbian, and bisexual teenagers are at a higher risk of depression and suicide due to exclusion from social groups, rejection from peers and family, and negative media portrayals of homosexuals (Bauermeister et al., 2010). Discrimination can occur in the workplace, in housing, at schools, and in numerous public settings. Much of this discrimination is based on stereotypes and misinformation. Major policies to prevent discrimination based on sexual orientation have only come into effect in the United States in the last few years.

The majority of empirical and clinical research on LGBT populations is done with largely white, middle-class, well-educated samples. This demographic limits our understanding of more marginalized sub-populations that are also affected by racism, classism, and other forms of oppression. In the United States, non-Caucasian LGBT individuals may find themselves in a double

minority, in which they are not fully accepted or understood by Caucasian LGBT communities and are also not accepted by their own ethnic group (Tye, 2006). Many people experience racism in the dominant LGBT community where racial stereotypes merge with gender stereotypes.

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Chapter 23: Cognitive Development in Early Adulthood

- Distinguish between formal and post formal thought
- Describe dialectical thought
- Describe the changes in educational attainment and the costs of education
- Describe the benefits of education beyond high school
- Describe the stages in career development, millennial employment, and NEETS
- Describe sexism and how it affects pay, hiring, employment, and education

Beyond Formal Operational Thought: Postformal Thought

As mentioned in chapter 6, according to Piaget's theory adolescents acquire formal operational thought. The hallmark of this type of thinking is the ability to think abstractly or to consider possibilities and ideas about circumstances never directly experienced. Thinking abstractly is only one characteristic of adult thought, however. If you compare a 15-year-old with someone in their late 30s, you would probably find that the latter considers not only what is possible, but also what is likely. Why the change? The adult has gained experience and understands why possibilities do not always become realities. *They learn to base decisions on what is realistic and practical, not idealistic and can make adaptive choices. Adults are also not as influenced by what others think. This advanced type of thinking is referred to as* **Postformal Thought** (Sinnott, 1998).

   Dialectical Thought: In addition to moving toward more practical considerations, thinking in early adulthood may also become more flexible and balanced. Abstract ideas that the adolescent believes in firmly may become standards by which the adult evaluates reality. Adolescents tend to think in **dichotomies**; *ideas are true or false; good or bad, and there is no middle ground.* However, with experience, the adult comes to recognize that there are some right and some wrong in each position, some good or some bad in policy or approach, some truth and some falsity in a particular idea. *This ability to bring together salient aspects of two opposing viewpoints or positions is referred to as* **dialectical thought** and is considered one of the most advanced aspects of postformal thinking (Basseches, 1984). Such thinking is more realistic because very few positions, ideas, situations, or people are completely right or wrong. So, for example, parents who were considered angels or devils by the adolescent eventually become just people with strengths and weaknesses, endearing qualities, and faults to the adult.

Does everyone reach post formal or even formal operational thought? Formal operational thought involves being able to think abstractly; however, this ability does not apply to all situations or all adults. Formal operational thought is influenced by experience and education. Some adults lead lives in which they are not challenged to think abstractly about their world. Many adults do not receive any formal education and are not taught to think abstractly about situations they have never experienced. Further, they are also not exposed to conceptual tools used to formally analyze hypothetical situations. Those who do think abstractly may be able to do so more easily in some subjects than others. For example, psychology majors may be able to think abstractly about psychology but be unable to use abstract reasoning in physics or chemistry. Abstract reasoning in a particular field requires a knowledge base we might not have in all areas. Consequently, our ability to think abstractly often depends on our experiences.

Education

According to the National Center for Higher Education Management Systems (NCHEMS) (2016a, 2016b, 2016c, 2016d), in the United States:

- 84% of 18 to 24-year-olds and 88% of those 25 and older have a high school diploma or its equivalent
- 36% of 18 to 24-year-olds and 7% of 25 to 49-year-olds attend college
- 59% of those 25 and older have completed some college
- 32.5% of those 25 and older have a bachelor's degree or higher, with slightly more women (33%) than men (32%) holding a college degree (Ryan & Bauman, 2016).

The rate of college attainment has grown more slowly in the United

States than in a number of other nations in recent years (OCED, 2014). This may be due to the fact that the cost of attaining a degree is higher in the U.S. than in many other nations.

In 2017, 65% of college seniors who graduated from private and public nonprofit colleges had student loan debt, and nationally owed an average of $28,650, a 1% decline from 2016 (The Institute for College Access & Success (TICAS), 2018). See Figure 7.17 for yearly comparisons.

Figure 7.17

Figure 7.17 Average Debt Borrowed of Graduating Seniors

Adapted from TICAS, 2018

According to the most recent TICAS annual report, the rate of debt varied widely across states, as well as between colleges. The after graduation debt ranged from 18,850 in Utah to $38,500 in Connecticut. Low-debt states are mainly in the West and high-debt states in the Northeast. In recent years there has been a concern about students carrying more debt and being more likely to default when attending for-profit institutions. In 2016, students at for-profit schools borrowed an average of $39,900, which was 41% higher than students at non-profit schools that year. In addition, 30% of students attending for-profit colleges default on their federal student loans. In contrast, the default level of those who attended public institutions is only 4% (TICAS, 2018).

College student debt has become a key issue at both the state and federal political level, and some states have been taking steps

to increase spending and grants to help students with the cost of college. However, 15% of the Class of 2017's college debt was owed to private lenders (TICAS, 2018). Such debt has less consumer protection, fewer options for repayment, and is typically negotiated at a higher interest rate. See Table 7.1 for a debt comparison of 6 U.S. States.

Table 7.1

Table 7.1 Select State Data on Student Debt (2017)

State	Average Debt	Rank	Proportion with Debt
Illinois	29,214	24	61%
Wisconsin	29,569	21	64%
Michigan	31,298	11	58%
Indiana	29,561	22	57%
Utah (lowest)	18,850		38%
Connecticut (highest)	38,500		57%

TICSA, 2017 Data

Graduate School: Larger amounts of student debt actually occur at the graduate level (Kreighbaum, 2019). In 2019, the highest average debts were concentrated in the medical fields. Average median debt for graduate programs including:

- $42,335 for a master's degree
- $95,715 for a doctoral degree
- $141,000 for a professional degree

Worldwide, over 80% of college-educated adults are employed, compared with just over 70% of those with a high school or equivalent diploma, and only 60% of those with no high school diploma (OECD, 2015). Those with a college degree will earn more

over the course of their lifetime. Moreover, the benefits of a college education go beyond employment and finances. The OECD found that around the world, adults with higher educational attainment were more likely to volunteer, felt they had more control over their lives, and thus were more interested in the world around them. Studies of U.S. college students find that they gain a more distinct identity and become more socially competent, less dogmatic and ethnocentric compared to those not in college (Pascarella, 2006).

Is college worth the time and investment? College is certainly a substantial investment each year, with the financial burden falling on students and their families in the U.S., and mainly by the government in many other nations. Nonetheless, the benefits both to the individual and society outweigh the initial costs. As can be seen in Figure 7.18, those in America with the most advanced degrees earn the highest income and have the lowest unemployment.

Figure 7.18
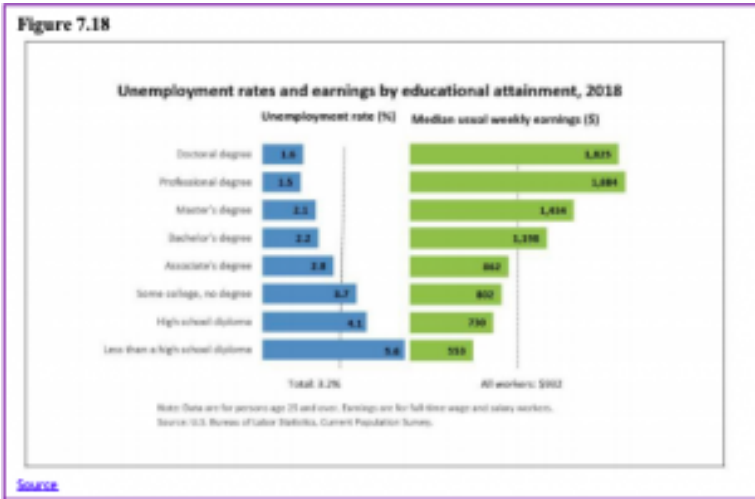
Career Development and Employment

Work plays a significant role in the lives of people, and emerging and early adulthood is the time when most of us make choices that will establish our careers. Career development has a number of stages:

Stage One: As children, we may select careers based on what appears glamorous or exciting to us (Patton & McMahon, 1999). There is little regard in this stage for whether we are suited for our occupational choices.

Stage Two: In the second stage, teens include their abilities and limitations, in addition to the glamour of the occupation when narrowing their choices.

Stage Three: Older teens and emerging adults narrow their choices further and begin to weigh more objectively the requirements, rewards, and downsides to careers, along with comparing possible careers with their own interests, values, and future goals (Patton & McMahon, 1999). However, some young people in this stage "fall-into" careers simply because these were what was available at the time, because of family pressures to pursue particular paths, or because these were high paying jobs, rather than from an intrinsic interest in that career path (Patton & McMahon, 1999).

Stage Four: Super (1980) suggests that by our mid to late thirties, many adults settle in their careers. Even though they might change companies or move up in their position, there is a sense of continuity and forward motion in their career. However, some people at this point in their working life may feel trapped, especially if there is little opportunity for advancement in a more dead-end job.

How have things changed for Millennials compared with previous generations of early adults? In recent years, young adults are more likely to find themselves job-hopping, and periodically returning to school for further education and retraining than in prior generations. However, researchers find that occupational interests

remain fairly stable. Thus, despite the more frequent change in jobs, most people are generally seeking jobs with similar interests rather than entirely new careers (Rottinghaus, Coon, Gaffey & Zytowski, 2007). As of 2016, millennials became the largest generation in the labor force (Fry, 2018) (See Figure 7.19).

Figure 7.19
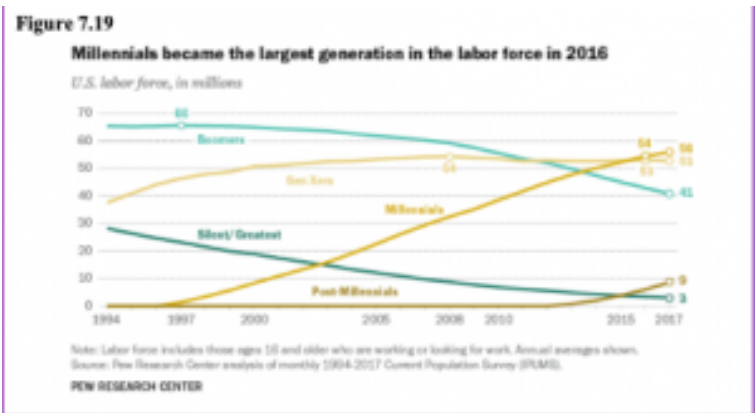
NEETs: Around the world, teens and young adults were some of the hardest hit by the economic downturn in recent years (Desilver, 2016). Consequently, a number of young people have become **NEET**s, *neither employed nor in education or training.* While the number of young people who are NEETs has declined more recently, there is concern that "without assistance, economically inactive young people won't gain critical job skills and will never fully integrate into the wider economy or achieve their full earning potential" (Desilver, 2016, para. 3). In parts of the world where the rates of NEETs are persistently high, there is also concern that having such large numbers of young adults with little opportunity may increase the chances of social unrest.

In the United States, in 2017 over 13% of 15 to 29 year-olds were neither employed nor in school, (Organisation for Economic

Cooperation and Development, (OECD), 2019). This is down from 2013 when approximately 18.5% of this age group fit the category (Desilver, 2016). More young women than men in the United States find themselves unemployed and not in school or training for a job. Additionally, most NEETs have a high school or less education, and Asians are less likely to be NEETs than any other ethnic group in the US (Desilver, 2016).

The rate of NEETs varies around the world, with higher rates found in nations that have been the hardest hit by economic recessions, and government austerity measures. The number of NEETs also varies widely between the genders, although females are more likely to be NEETs in all nations (see Table 7.2).

Table 7.2

Table 7.2 Percentage of Females and Males between the Ages of 15-29 who are NEETs in Select Nations

	Females	Males	Overall
Australia	12.80	9.14	10.9
Canada	11.83	12.46	12.2
Denmark	11.86	11.67	11.8
France	17.75	15.34	16.5
Germany	11.27	7.60	9.3
Italy	26.94	23.38	25.1
Mexico	34.21	7.90	21.2
Russia	16.28	8.66	12.4
Sweden	8.42	7.69	8
Turkey	39.90	15.08	27.2
United Kingdom	13.95	10.50	12.2
United States of America	15.69	10.89	13.3

Adapted from OCED 2019

What role does gender play in career and employment? Gender also has an impact on career choices. Despite the rise in the number of women who work outside of the home, there are some career

fields that are still pursued more by men than women. Jobs held by women still tend to cluster in the service sector, such as education, nursing, and child-care worker. While in more technical and scientific careers, women are greatly outnumbered by men. Jobs that have been traditionally held by women tend to have lower status, pay, benefits, and job security (Bosson, et al., 2019). In recent years, women have made inroads into fields once dominated by males, and today women are almost as likely as men to become medical doctors or lawyers. Despite these changes, women are more likely to have lower-status, and thus less pay than men in these professions. For instance, women are more likely to be a family practice doctor than a surgeon or are less likely to make partner in a law firm (Ceci & Williams, 2007).

Sexism

Sexism or gender discrimination *is prejudice or discrimination based on a person's sex or gender* (Bosson, Vandello, & Buckner, 2019). Sexism can affect any sex that is marginalized or oppressed in society; however, it is particularly documented as affecting females. It has been linked to stereotypes and gender roles and includes the belief that males are intrinsically superior to other sexes and genders. Extreme sexism may foster sexual harassment, rape, and other forms of sexual violence.

Sexism can exist on a societal level, such as in hiring, employment opportunities, and education. In the United States, women are less likely to be hired or promoted in male-dominated professions, such as engineering, aviation, and construction (Blau, Ferber, & Winkler, 2010; Ceci & Williams, 2011). In many areas of the world, young girls are not given the same access to nutrition, healthcare, and education as boys. Sexism also includes people's expectations of how members of a gender group should behave. For example,

women are expected to be friendly, passive, and nurturing; when a woman behaves in an unfriendly or assertive manner, she may be disliked or perceived as aggressive because she has violated a gender role (Rudman, 1998). In contrast, a man behaving in a similarly unfriendly or assertive way might be perceived as strong or even gain respect in some circumstances.

Occupational sexism *involves discriminatory practices, statements, or actions, based on a person's sex, that occur in the workplace.* One form of occupational sexism is wage discrimination. In 2008, the Organisation for Economic Co-operation and Development (OECD) found that while female employment rates have expanded, and gender employment and wage gaps have narrowed nearly everywhere, on average women still have a 20 percent less chance to have a job. The Council of Economic Advisors (2015) found that despite women holding 49.3% of the jobs, they are paid only 78 cents for every $1.00 a man earns. It also found that despite the fact that many countries, including the U.S., have established anti-discrimination laws, these laws are difficult to enforce. A recent example of significant wage inequality occurred among athletes.

Figure 7.20

Source

2019 Women's World Cup: The world witnessed the tremendous athleticism and soccer skills demonstrated by female players from

24 different countries during the 2019 Women's World Cup. Amid the cheering at the end of the final match between the United States and the Netherlands, were chants of "equal pay" (Channick, 2019). Throughout the tournament, attention was focused on the discrepancy between what male soccer players earned compared to the female players. In winning the World Cup, the American women's team earned $4 million as part of a $30 million prize pool (Peterson, 2019). In contrast, the French men's team, who won the Men's World Cup in 2018, earned $38 million as part of the $400 million prize pool. The Federation of Association Football (FIFA) promised to double the prize money to $60 million for the 2023 Women's World Cup, but that still lags far behind the $440 million that will be given out for the Men's World Cup in 2022. In the United States, the women's soccer team generates more revenue and receives higher TV ratings than the men's team, yet the women get paid significantly less. By winning the 2019 Women's World Cup, each woman should receive $200,000, yet if the American men had won the 2018 Men's World Cup, each would have received $1.1 million (Hess, 2019). Because of this discrepancy, in March 2019, 28 members of the women's team filed a lawsuit against the United States Soccer Federation for gender discrimination and unequal pay (Channick, 2019).

Figure 7.21 Megan Rapinoe and Alex Morgan of the United States Women's Soccer Team

Photo: Christopher Simon/Getty-AFP

Factors Affecting Wage Inequality: There are many possible explanations for the wage gap. It has been argued in the past that education may account for the wage gap. However, the wage gap exists at every education level (Bosson et al., 2019). Men with less than high school to men with graduate degrees earn more than women with the same level of education. In addition, women now attain more associates, bachelor's, and master's degrees than men, and very similar levels of professional degrees and doctorates, according to a recent Census survey (U.S. Census Bureau, 2019). As the wage gap still exists in most occupations it cannot be the explanation. Instead, occupational segregation is a likely contributor to the overall wage gap, as women tend to work in very different occupations than men, and those jobs tend to have lower wages. In addition, the entry of women into a field tends to reduce the wages and prestige of the job. Mandel (2013) found that jobs typically held by men who saw the biggest influx of women into those careers also saw the biggest drop in wages.

Sticky floors, *which keep low-wage workers, who are more likely to*

be women and minorities, *from being promoted* contribute to lower wages (Bosson, et al. 2019). Women are disproportionately in low-paid occupations, such as clerical, childcare, and service workers (Hegewisch & Ellis, 2015). They also get paid less than men in the same jobs, as can be seen in Table 7.3 women paid more than men on average; stock clerk. Men are not only being paid more in more masculine jobs but also in jobs typically held by women.

Table 7.3

Table 7.3 The Gender Wage Gap

Occupation	Wage Gap
Stock clerk, order filler	102
Maid, housekeeping cleaner	99
Social worker	94.1
Registered nurse	90.4
Customer service representative	86.8
Secretary/administrative assistant	84.5
Software developer	83.9
Office supervisor	83
Waitress/waiter	82.8
Accountant, auditor	80.8
Janitor, building cleaner	76.9
Driver/sales worker/truck driver	73.7
Police and sheriff's patrol officer	71.2

Adapted from Hegewisch & Ellis (2015).

Other factors include that more than half of men report having negotiated their salary when being hired, compared with 12% of women (Babcock, Gelfand, Small, & Stayn, 2006). However, people perceive women who negotiate more negatively then they do men, as assertive women, but not men, are more likely to be penalized. Women are also more likely to have interruptions in their careers either through the birth of children, or relocation due to a change in their partner's job. Women are also less likely to relocate for the sake of their families when a better job offer comes along, and employers know this. It has been suggested that one reason why males may be offered more money is to keep them from leaving (Baldridge,

Eddleston, & Vega, 2006). Additionally, men are more likely to work overtime.

Barriers to Positions of Power: There are a few barriers to women achieving positions of power. The **glass ceiling** *is the invisible barrier that keeps women and minorities from rising to higher positions regardless of their qualifications* (Bosson et al., 2019). Women hold only 4.5% of CEO positions and 14% of top executive positions around the world (Noland, Moran, & Kotschwar, 2016). In addition, Noland and colleagues found that in a study of nearly 22,000 companies worldwide, in 77% of those firms only 30% of women held an executive position or board seat. There were only 11 companies, or 0.05% of all the firms studied, where women held all the executive positions and board seats. Some researchers see the root cause of this situation in the tacit discrimination based on gender, conducted by current top executives and corporate directors, who are primarily male.

Often the barriers to achieving one's goals are not obvious. For instance, some argue that the gender role stereotypes cast managerial positions as "masculine". Unfortunately, when women do rise to positions of power it is often at a time when a company or country is faced with a major crisis. This is called the **glass cliff,** and it *refers to women and minorities being placed in leadership positions when the risk of failure is high.* For instance, female lawyers are more likely than their male counterparts to lead high-risk cases, and female politicians are more likely to be recommended to run in unwinnable seats (Bruckmuller, Ryan, Floor, & Haslam, 2014).

Worldwide Gender Parity: The World Economic Forum (2017) introduced The Global Gender Gap Report in 2006 as a way of tracking gender-based disparities between men and women in the world. The most recent report in 2017 analyzed 144 countries on gender equality in the areas of economic participation and opportunity, educational attainment, health and survival, and political empowerment. Countries are then ranked to create global awareness of the challenges posed by gender gaps in different areas

of the world. A parity rating of 100% would mean that females and males achieved equality on these measures. Results indicated:

- 68% of gender parity was found worldwide across the four areas. Specifically, there was 96% parity in health outcomes, 95% parity in educational attainment, 58% parity in economic participation, and only 23% parity in political empowerment.
- The top spots were held by smaller Western European countries, particularly the Nordic countries as Iceland (88% parity), Norway (83% parity) and Finland (82% parity) occupied the top three positions.
- The United States ranked 49th with 72% gender parity.
- Following the current trends, it will take 100 years for global gender parity.
- Improving gender parity is expected to provide significant economic gains for a country and closing the occupational gender gaps would be one way to achieve this.

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Chapter 24: Psychosocial Development in Early Adulthood

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Chapter 24 Learning Objectives

</div>

- Describe the relationship between infant and adult temperament
- Explain personality in early adulthood
- Explain the five factor model of personality
- Describe adult attachment styles
- Describe Erikson's stage of intimacy vs. isolation
- Identify the factors affecting attraction
- Differentiate among the types of love
- Describe adult lifestyles, including singlehood, cohabitation, and marriage
- Describe the factors that influence parenting

Temperament and Personality in Adulthood

If you remember from chapter 3, **temperament** is defined as *the innate characteristics of the infant, including mood, activity level,*

and emotional reactivity, *noticeable soon after birth.* Does one's temperament remain stable throughout the lifespan? Do shy and inhibited babies grow up to be shy adults, while the sociable child continues to be the life of the party? Like most developmental research the answer is more complicated than a simple yes or no. Chess and Thomas (1987), who identified children as easy, difficult, slow-to-warm-up or blended, found that children identified as easy grew up to became well-adjusted adults, while those who exhibited a difficult temperament were not as well-adjusted as adults. Kagan (2002) studied the temperamental category of inhibition to the unfamiliar in children. Infants exposed to unfamiliarity reacted strongly to the stimuli and cried loudly, pumped their limbs, and had an increased heart rate. Research has indicated that these highly reactive children show temperamental stability into early childhood, and Bohlin and Hagekull (2009) found that shyness in infancy was linked to social anxiety in adulthood.

An important aspect of this research on inhibition was looking at the response of the amygdala, which is important for fear and anxiety, especially when confronted with possible threatening events in the environment. Using functional magnetic resonance imaging (FMRIs) young adults identified as strongly inhibited toddlers showed heightened activation of the amygdala when compared to those identified as uninhibited toddlers (Davidson & Begley, 2012).

The research does seem to indicate that temperamental stability holds for many individuals through the lifespan, yet we know that one's environment can also have a significant impact. Recall from our discussion on **epigenesis** or *how environmental factors are thought to change gene expression by switching genes on and off.* Many cultural and environmental factors can affect one's temperament, including supportive versus abusive child-rearing, socioeconomic status, stable homes, illnesses, teratogens, etc. Additionally, individuals often choose environments that support their temperament, which in turn further strengthens them (Cain, 2012). In summary, because temperament is genetically driven,

genes appear to be the major reason why temperament remains stable into adulthood. In contrast, the environment appears mainly responsible for any change in temperament (Clark & Watson, 1999).

Everybody has their own unique **personality**; *that is, their characteristic manner of thinking, feeling, behaving, and relating to others* (John, Robins, & Pervin, 2008). Personality traits refer to these characteristics, routine ways of thinking, feeling, and relating to others. Personality integrates one's temperament with cultural and environmental influences. Consequently, there are signs or indicators of these traits in childhood, but they become particularly evident when the person is an adult. Personality traits are integral to each person's sense of self, as they involve what people value, how they think and feel about things, what they like to do, and, basically, what they are like most every day throughout much of their lives.

Table 7.4

Table 7.4 Descriptions of the Big Five Personality Traits

Dimension	Description	Examples of behaviors predicted by the trait
Openness to experience	A general appreciation for art, emotion, adventure, unusual ideas, imagination, curiosity, and variety of experience	Individuals who are highly open to experience tend to have distinctive and unconventional decorations in their home. They are also likely to have books on a wide variety of topics, a diverse music collection, and works of art on display.
Conscientiousness	A tendency to show self-discipline, act dutifully, and aim for achievement	Individuals who are conscientious have a preference for planned rather than spontaneous behavior.
Extraversion	The tendency to experience positive emotions and to seek out stimulation and the company of others	Extroverts enjoy being with people. In groups they like to talk, assert themselves, and draw attention to themselves.
Agreeableness	A tendency to be compassionate and cooperative rather than suspicious and antagonistic toward others; reflects individual differences in general concern for social harmony	Agreeable individuals value getting along with others. They are generally considerate, friendly, generous, helpful, and willing to compromise their interests with those of others.
Neuroticism	The tendency to experience negative emotions, such as anger, anxiety, or depression; sometimes called "emotional instability"	Those who score high in neuroticism are more likely to interpret ordinary situations as threatening and minor frustrations as hopelessly difficult. They may have trouble thinking clearly, making decisions, and coping effectively with stress.

Adapted from John, Naumann, and Soto (2008)

Five-Factor Model: There are hundreds of different personality traits, and all of these traits can be organized into the broad dimensions referred to as the Five-Factor Model (John, Naumann, & Soto, 2008). These five broad domains include Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (Think OCEAN to remember). This applies to traits that you may use to describe yourself. Table 7.4 provides illustrative traits for low and high scores on the five domains of this model of personality.

Does personality change throughout adulthood? Previously the answer was no, but contemporary research shows that although some people's personalities are relatively stable over time, others' are not (Lucas & Donnellan, 2011; Roberts & Mroczek, 2008). Longitudinal studies reveal average changes during adulthood in the expression of some traits (e.g., neuroticism and openness decrease with age and conscientiousness increases) and individual differences in these patterns due to idiosyncratic life events (e.g., divorce, illness). Longitudinal research also suggests that adult personality traits, such as conscientiousness, predict important life outcomes including job success, health, and longevity (Friedman et al., 1993; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007).

The Harvard Health Letter (2012) identifies research correlations between conscientiousness and lower blood pressure, lower rates of diabetes and stroke, fewer joint problems, being less likely to engage in harmful behaviors, being more likely to stick to healthy behaviors, and more likely to avoid stressful situations. Conscientiousness also appears related to career choices, friendships, and stability of marriage. Lastly, a person possessing both self-control and organizational skills, both related to conscientiousness, may withstand the effects of aging better and have stronger cognitive skills than one who does not possess these qualities.

Attachment in Young Adulthood

Hazan and Shaver (1987) described the attachment styles of adults, using the same three general categories proposed by Ainsworth's research on young children: secure, avoidant, and anxious/ambivalent. Hazan and Shaver developed three brief paragraphs describing the three adult attachment styles. Adults were then asked to think about romantic relationships they were in and select the paragraph that best described the way they felt, thought, and behaved in these relationships (See Table 7.5).

   Table 7.5

Table 7.5

Which of the following best describes you in your romantic relationships?

Secure	I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't often worry about being abandoned or about someone getting too close to me.
Avoidant	I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.
Anxious/Ambivalent	I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't stay with me. I want to merge completely with another person, and this sometimes scares people away.

Source

Bartholomew (1990) challenged the categorical view of attachment in adults and suggested that adult attachment was best described as varying along two dimensions; attachment related-anxiety and attachment-related avoidance. **Attachment-related anxiety** *refers to the extent to which an adult worries about whether their partner really loves them.* Those who score high on this dimension fear that their partner will reject or abandon them (Fraley, Hudson, Heffernan, & Segal, 2015). **Attachment-related avoidance** *refers to whether an adult can open up to others, and whether they trust and feel they can depend on others.* Those who score high on attachment-related avoidance are uncomfortable with opening up

and may fear that such dependency may limit their sense of autonomy (Fraley et al., 2015). According to Bartholomew (1990) this would yield four possible attachment styles in adults; secure, dismissing, preoccupied, and fearful-avoidant (see Figure 7.22)

Figure 7.22

Figure 7.22 Four-Category Model with the Two-Dimensions of Attachment

Source: Adapted from Fraley, et al., 2015. p. 355
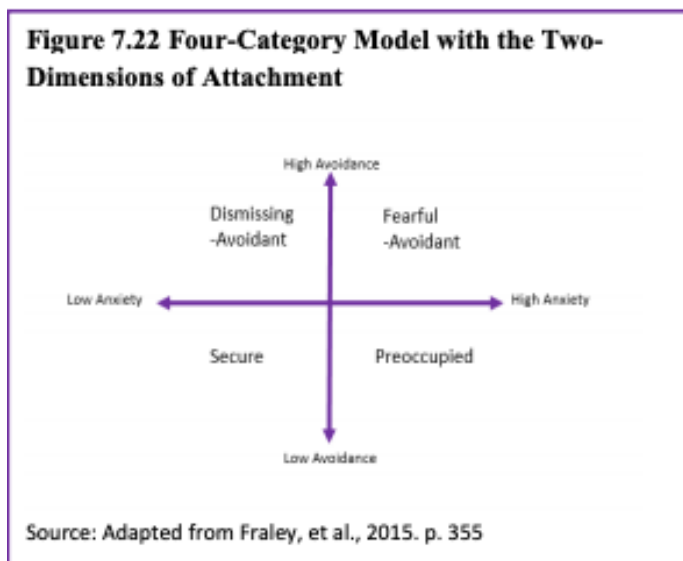
Securely attached adults score lower on both dimensions. They are comfortable trusting their partners and do not worry excessively about their partner's love for them. Adults with a dismissing style score low on attachment-related anxiety, but higher on attachment-related avoidance. Such adults dismiss the importance of relationships. They trust themselves but do not trust others, thus they do not share their dreams, goals, and fears with others. They do not depend on other people and feel uncomfortable when they have to do so.

Those with a preoccupied attachment are low in attachment-related avoidance, but high in attachment-related anxiety. Such adults are often prone to jealousy and worry that their partner does

not love them as much as they need to be loved. Adults whose attachment style is fearful-avoidant score high on both attachment-related avoidance and attachment-related anxiety. These adults want close relationships, but do not feel comfortable getting emotionally close to others. They have trust issues with others and often do not trust their own social skills in maintaining relationships.

Research on attachment in adulthood has found that:

- Adults with insecure attachments report lower satisfaction in their relationships (Butzer, & Campbell, 2008; Holland, Fraley, & Roisman, 2012).
- Those high in attachment-related anxiety report more daily conflict in their relationships (Campbell, Simpson, Boldry, & Kashy, 2005).
- Those with avoidant attachment exhibit less support to their partners (Simpson, Rholes, Oriña, & Grich, 2002).
- Young adults show greater attachment-related anxiety than do middle-aged or older adults (Chopik, Edelstein, & Fraley, 2013).
- Some studies report that young adults show more attachment-related avoidance (Schindler, Fagundes, & Murdock, 2010), while other studies find that middle-aged adults show higher avoidance than younger or older adults (Chopik et al., 2013).
- Young adults with more secure and positive relationships with their parents make the transition to adulthood more easily than do those with more insecure attachments (Fraley, 2013).
- Young adults with secure attachments and authoritative parents were less likely to be depressed than those with authoritarian or permissive parents or who experienced an avoidant or ambivalent attachment (Ebrahimi, Amiri, Mohamadlou, & Rezapur, 2017).

Do people with certain attachment styles attract those with similar styles? When people are asked what kinds of psychological or behavioral qualities they are seeking in a romantic partner, a

large majority of people indicate that they are seeking someone who is kind, caring, trustworthy, and understanding, that is the kinds of attributes that characterize a "secure" caregiver (Chappell & Davis, 1998). However, we know that people do not always end up with others who meet their ideals. Are secure people more likely to end up with secure partners, and, vice versa, are insecure people more likely to end up with insecure partners? The majority of the research that has been conducted to date suggests that the answer is "yes." Frazier, Byer, Fischer, Wright, and DeBord (1996) studied the attachment patterns of more than 83 heterosexual couples and found that, if the man was relatively secure, the woman was also likely to be secure.

One important question is whether these findings exist because (a) secure people are more likely to be attracted to other secure people, (b) secure people are likely to create security in their partners over time, or (c) some combination of these possibilities. Existing empirical research strongly supports the first alternative. For example, when people have the opportunity to interact with individuals who vary in security in a speed-dating context, they express a greater interest in those who are higher insecurity than those who are more insecure (McClure, Lydon, Baccus, & Baldwin, 2010). However, there is also some evidence that people's attachment styles mutually shape one another in close relationships. For example, in a longitudinal study, Hudson, Fraley, Vicary, and Brumbaugh (2012) found that, if one person in a relationship experienced a change in security, his or her partner was likely to experience a change in the same direction.

Do early experiences as children shape adult attachment? The majority of research on this issue is retrospective; that is, it relies on adults' reports of what they recall about their childhood experiences. This kind of work suggests that secure adults are more likely to describe their early childhood experiences with their parents as being supportive, loving, and kind (Hazan & Shaver, 1987). A number of longitudinal studies are emerging that demonstrate prospective associations between early attachment experiences and

adult attachment styles and/or interpersonal functioning in adulthood. For example, Fraley, Roisman, Booth-LaForce, Owen, and Holland (2013) found in a sample of more than 700 individuals studied from infancy to adulthood that maternal sensitivity across development prospectively predicted security at age 18. Simpson, Collins, Tran, and Haydon (2007) found that attachment security, assessed in infancy in the strange situation, predicted peer competence in grades one to three, which, in turn, predicted the quality of friendship relationships at age 16, which, in turn, predicted the expression of positive and negative emotions in their adult romantic relationships at ages 20 to 23.

Figure 7.23

[Image: skeeze]

It is easy to come away from such findings with the mistaken assumption that early experiences "determine" later outcomes. To be clear, attachment theorists assume that the relationship between early experiences and subsequent outcomes is probabilistic, not deterministic. Having supportive and responsive experiences with caregivers early in life is assumed to set the stage for positive social development, but that does not mean that attachment patterns are set in stone. In short, even if an individual has far from optimal experiences in early life, attachment theory suggests that it is possible for that individual to develop well-functioning adult relationships through a number of corrective experiences, including relationships with siblings, other family members, teachers, and close friends. Security is best viewed as a culmination of a person's

attachment history rather than a reflection of his or her early experiences alone. Those early experiences are considered important, not because they determine a person's fate, but because they provide the foundation for subsequent experiences.

Relationships with Parents and Siblings

In early adulthood, the parent-child relationship has to transition toward a relationship between two adults. This involves a reappraisal of the relationship by both parents and young adults.

One of the biggest challenges for parents, especially during emerging adulthood, is coming to terms with the adult status of their children. Aquilino (2006) suggests that parents who are reluctant or unable to do so may hinder young adults' identity development. This problem becomes more pronounced when young adults still reside with their parents. Arnett (2004) reported that leaving home often helped promote psychological growth and independence in early adulthood.

Sibling relationships are one of the longest-lasting bonds in people's lives. Yet, there is little research on the nature of sibling relationships in adulthood (Aquilino, 2006). What is known is that the nature of these relationships change, as adults have a choice as to whether they will maintain a close bond and continue to be a part of the life of a sibling. Siblings must make the same reappraisal of each other as adults, as parents have to with their adult children. Research has shown a decline in the frequency of interactions between siblings during early adulthood, as presumably peers, romantic relationships, and children become more central to the lives of young adults. Aquilino (2006) suggests that the task in early adulthood may be to maintain enough of a bond so that there will be a foundation for this relationship in later life. Those who are successful can often move away from the "older-younger" sibling conflicts of childhood, toward a more equal relationship between

two adults. Siblings that were close to each other in childhood are typically close in adulthood (Dunn, 1984, 2007), and in fact, it is unusual for siblings to develop closeness for the first time in adulthood. Overall, the majority of adult sibling relationships are close (Cicirelli, 2009).

Erikson: Intimacy vs. Isolation

Erikson's (1950, 1968) sixth stage focuses on establishing intimate relationships or risking social isolation. Intimate relationships are more difficult if one is still struggling with identity.

Achieving a sense of identity is a life-long process, as there are periods of identity crisis and stability. However, once identity is established intimate relationships can be pursued. These intimate relationships include acquaintanceships and friendships, but also the more important close relationships, which are the long-term romantic relationships that we develop with another person, for instance, in a marriage (Hendrick & Hendrick, 2000).

Factors influencing Attraction

Because most of us enter into a close relationship at some point, it is useful to know what psychologists have learned about the principles of liking and loving. A major interest of psychologists is the study of interpersonal **attraction**, *or what makes people like, and even love, each other.*

Similarity: One important factor in attraction is a perceived similarity in values and beliefs between the partners (Davis & Rusbult, 2001). The similarity is important for relationships because it is more convenient if both partners like the same activities and because similarity supports one's values. We can feel better about

ourselves and our choice of activities if we see that our partner also enjoys doing the same things that we do. *Having others like and believe in the same things we do makes us feel validated in our beliefs.* This is referred to as **consensual validation** and is an important aspect of why we are attracted to others.

Figure 7.24 Birds of a Feather Flock Together

Source:
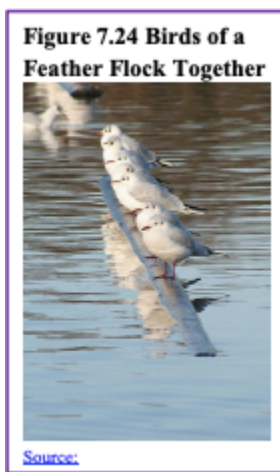
Self-Disclosure: Liking is also enhanced by **self-disclosure**, *the tendency to communicate frequently, without fear of reprisal, and in an accepting and empathetic manner.* Friends are friends because we can talk to them openly about our needs and goals and because they listen and respond to our needs (Reis & Aron, 2008). However, self-disclosure must be balanced. If we open up about the concerns that are important to us, we expect our partner to do the same in return. If the self-disclosure is not reciprocal, the relationship may not last.

Proximity: Another important determinant of liking is **proximity** *or the extent to which people are physically near us.* Research has found that we are more likely to develop friendships with people who are nearby, for instance, those who live in the same dorm that we do, and even with people who just happen to sit nearer to us in our classes (Back, Schmukle, & Egloff, 2008).

Proximity has its effect on liking through the principle of **mere exposure**, which is *the tendency to prefer stimuli (including, but not limited to people) that we have seen more frequently*. The effect of mere exposure is powerful and occurs in a wide variety of situations. Infants tend to smile at a photograph of someone they have seen before more than they smile at a photograph of someone they are seeing for the first time (Brooks-Gunn & Lewis, 1981), and people prefer side-to-side reversed images of their own faces over their normal (nonreversed) face, whereas their friends prefer their normal face over the reversed one (Mita, Dermer, & Knight, 1977). This is expected on the basis of mere exposure since people see their own faces primarily in mirrors, and thus are exposed to the reversed face more often.

Mere exposure may well have an evolutionary basis. We have an initial fear of the unknown, but as things become familiar, they seem more similar and safer, and thus produce more positive affect and seem less threatening and dangerous (Harmon-Jones & Allen, 2001; Freitas, Azizian, Travers, & Berry, 2005). When the stimuli are people, there may well be an added effect. Familiar people become more likely to be seen as part of the ingroup rather than the outgroup, and this may lead us to like them more. Zebrowitz and her colleagues found that we like people of our own race in part because they are perceived as similar to us (Zebrowitz, Bornstad, & Lee, 2007).

Friendships

In our twenties, intimacy needs may be met in friendships rather than with partners. This is especially true in the United States today as many young adults postpone making long-term commitments to partners, either in marriage or in cohabitation. The kinds of

friendships shared by women tend to differ from those shared by men (Tannen, 1990). Friendships between men are more likely to involve sharing information, providing solutions, or focusing on activities rather than discussion problems or emotions. Men tend to discuss opinions or factual information or spend time together in an activity of mutual interest. Friendships between women are more likely to focus on sharing weaknesses, emotions, or problems. Women talk about difficulties they are having in other relationships and express their sadness, frustrations, and joys. These differences in approaches lead to problems when men and women come together. She may want to vent about a problem she is having; he may want to provide a solution and move on to some activity. But when he offers a solution, she thinks he does not care. Friendships between men and women become more difficult because of the unspoken question about whether friendships will lead to romantic involvement. Consequently, friendships may diminish once a person has a partner or single friends may be replaced with a couple of friends.

Love

Sternberg (1988) suggests that there are three main components of love: Passion, intimacy, and commitment (see Figure 7.25). Love relationships vary depending on the presence or absence of each of these components. **Passion** *refers to the intense, physical attraction partners feel toward one another*. **Intimacy** *involves the ability the share feelings, psychological closeness and personal thoughts with the other*. **Commitment** *is the conscious decision to stay together*. Passion can be found in the early stages of a relationship, but intimacy takes time to develop because it is based on the knowledge of the partner. Once intimacy has been established, partners may resolve to stay in the relationship. Although many would agree that all three components are important to a relationship, many love

relationships do not consist of all three. Let's look at other possibilities.

Figure 7.25
Sternberg's Triarchic Theory of Love
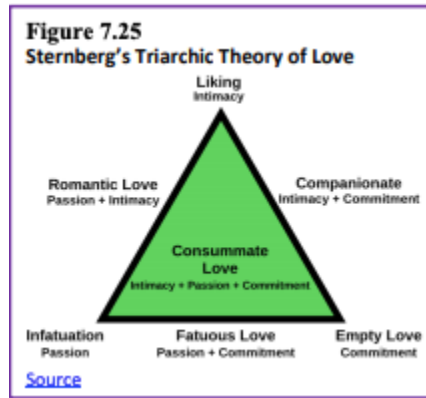
Liking: In this relationship, intimacy or knowledge of the other and a sense of closeness is present. Passion and commitment, however, are not. Partners feel free to be themselves and disclose personal information. They may feel that the other person knows them well and can be honest with them and let them know if they think the person is wrong. These partners are friends. However, being told that your partner "thinks of you as a friend" can be a devastating blow if you are attracted to them and seeking a romantic involvement.

Infatuation: Perhaps, this is Sternberg's version of "love at first sight". Infatuation consists of an immediate, intense physical attraction to someone. A person who is infatuated finds it hard to think of anything but the other person. Brief encounters are played over and over in one's head; it may be difficult to eat and there may be a rather constant state of arousal. Infatuation is rather short-lived, however, lasting perhaps only a matter of months or as long as a year or so. It tends to be based on physical attraction and an image of what one "thinks" the other is all about.

Fatuous Love: However, some people who have a strong physical

attraction push for commitment early in the relationship. Passion and commitment are aspects of fatuous love. There is no intimacy and the commitment is premature. Partners rarely talk seriously or share their ideas. They focus on their intense physical attraction and yet one, or both, is also talking of making a lasting commitment. Sometimes this is out of a sense of insecurity and a desire to make sure the partner is locked into the relationship.

Empty Love: This type of love may be found later in a relationship or in a relationship that was formed to meet needs other than intimacy or passion, including financial needs, childrearing assistance, or attaining/maintaining status. Here the partners are committed to staying in the relationship for the children, because of a religious conviction, or because there are no alternatives. However, they do not share ideas or feelings with each other and have no physical attraction for one another.

Romantic Love: Intimacy and passion are components of romantic love, but there is no commitment. The partners spend much time with one another and enjoy their closeness, but have not made plans to continue. This may be true because they are not in a position to make such commitments or because they are looking for passion and closeness and are afraid it will die out if they commit to one another and start to focus on other kinds of obligations.

Companionate Love: Intimacy and commitment are the hallmarks of companionate love. Partners love and respect one another and they are committed to staying together. However, their physical attraction may have never been strong or may have just died out over time. Nevertheless, partners are good friends and committed to one another.

Consummate Love: Intimacy, passion, and commitment are present in consummate love. This is often perceived by western cultures as "the ideal" type of love. The couple shares passion; the spark has not died, and the closeness is there. They feel like best friends, as well as lovers, and they are committed to staying together.

Adult Lifestyles

Singlehood: Being single is the most common lifestyle for people in their early 20s, and there has been an increase in the number of adults staying single. In 1960, only about 1 in 10 adults age 25 or older had never been married, in 2012 that had risen to 1 in 5 (Wang & Parker, 2014). While just over half (53%) of unmarried adults say they would eventually like to get married, 32 percent are not sure, and 13 percent do not want to get married. It is projected that by the time current young adults reach their mid-40s and 50s, almost 25% of them may not have married. The U.S. is not the only country to see a rise in the number of single adults.

   Table 7.6 lists some of the reasons young adults give for staying single. In addition, adults are marrying later in life, cohabitating, and raising children outside of marriage in greater numbers than in previous generations. Young adults also have other priorities, such as education, and establishing their careers. This may be reflected by changes in attitudes about the importance of marriage. In a recent Pew Research survey of Americans, respondents were asked to indicate which of the following statements came closer to their own views:

Table 7.6 Reasons for Staying Single

Have not met the right person	30%
Do not have financial stability	27%
Not ready to settle down	22%
Too young to marry	22%

Based on Data from Wang & Parker (2014) Pew Research Center

- "Society is better off if people make marriage and having children a priority."
- "Society is just as well off if people have priorities other than marriage and children"

Slightly more adults endorsed the second statement (50%) than those who chose the first (46%), with the remainder either selecting neither, both equally or not responding (Wang & Parker, 2014). Young adults age 18-29 were more likely to endorse this view than adults age 30 to 49; 67 percent and 53 percent respectively. In contrast, those aged 50 or older were more likely to endorse the first statement (53 percent).

Hooking Up: United States demographic changes have significantly affected the romantic relationships among emerging and early adults. As previously described, the age for puberty has declined, while the times for one's first marriage and first child have been pushed to older ages. This results in a "historically unprecedented time gap where young adults are physiologically able to reproduce, but not psychologically or socially ready to settle down and begin a family and child-rearing," (Garcia, Reiber, Massey, & Merriwether, 2012, p. 172). Consequently, according to Bogle (2007, 2008) traditional forms of dating have shifted to more casual **hookups** *that involve uncommitted sexual encounters.*

Figure 7.26

Source
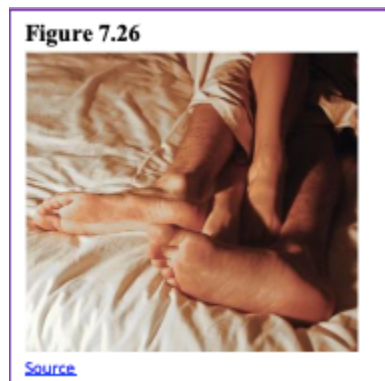
Even though most research on hooking up involves college students, 70% of sexually active 12- 21-year-olds reported having had uncommitted sex during the past year (Grello, Welsh, Harper, & Dickson, 2003). Additionally, Manning, Giordano, and Longmore

(2006) found that 61% of sexually active seventh, ninth, and eleventh graders reported being involved in a sexual encounter outside of a dating relationship.

Friends with Benefits: Hookups are different than those relationships that involve continued mutual exchange. These relationships are often referred to as **Friends with Benefits** (FWB) or "Booty Calls." *These relationships involve friends having casual sex without commitment.*

Hookups do not include a friendship relationship. Bisson and Levine (2009) found that 60% of 125 undergraduates reported a FWB relationship. The concern with FWB is that one partner may feel more romantically invested than the other (Garcia et al., 2012).

Hooking up Gender Differences: When asked about their motivation for hooking up, both males and females indicated physical gratification, emotional gratification, and a desire to initiate a romantic relationship as reasons (Garcia & Reiber, 2008). Although males and females are more similar than different in their sexual behaviors, a consistent finding among the research is that males demonstrate a greater permissiveness to casual sex (Oliver & Hyde, 1993). In another study involving 16,288 individuals across 52 nations, males reported a greater desire of sexual partner variety than females, regardless of relationship status or sexual orientation (Schmitt et al., 2003). This difference can be attributed to gender role expectations for both males and females regarding sexual promiscuity. Additionally, the risks of sexual behavior are higher for females and include unplanned pregnancy, increased sexually transmitted diseases, and susceptibility to sexual violence (Garcia et al., 2012).

Although hooking up relationships have become normalized for emerging adults, some research indicates that the majority of both sexes would prefer a more traditional romantic relationship (Garcia et al., 2012). Additionally, Owen and Fincham (2011) surveyed 500 college students with experience with hookups, and 65% of women and 45% of men reported that they hoped their hookup encounter would turn into a committed relationship. Further, 51% of women

and 42% of men reported that they tried to discuss the possibility of starting a relationship with their hookup partner. Casual sex has also been reported to be the norm among gay men, but they too indicate a desire for romantic and companionate relationships (Clarke & Nichols, 1972).

Emotional Consequences of Hooking up: Concerns regarding hooking up behavior certainly are evident in the research literature. One significant finding is the high comorbidity of hooking up and substance use. Those engaging in non-monogamous sex are more likely to have used marijuana, cocaine, and alcohol, and the overall risks of sexual activity are drastically increased with the addition of alcohol and drugs (Garcia et al., 2012). Regret has also been expressed, and those who had the most regret after hooking up also had more symptoms of depression (Welsh, Grello, & Harper, 2006). Hookups were also found to lower self-esteem, increase guilt, and foster feelings of using someone or feeling used. Females displayed more negative reactions than males, and this may be due to females identifying more emotional involvement in sexual encounters than males.

Hooking up can best be explained by a biological, psychological, and social perspective. Research indicates that emerging adults feel it is necessary to engage in hooking up behavior as part of the sexual script depicted in the culture and media. Additionally, they desire sexual gratification. However, they also want a more committed romantic relationship and may feel regret with uncommitted sex.

Online Dating: The ways people are finding love has changed with the advent of the Internet. Nearly 50 million Americans have tried an online dating website or mobile app (Bryant & Sheldon, 2017). Online dating has also increased dramatically among those aged 18 to 24. Today, one in five emerging adults report using a mobile dating app, while in 2013 only 5% did, and 27% report having used online dating, almost triple the rate in 2013 (Smith & Anderson, 2016).

Figure 7.27

Couples who meet online are more likely to be of different races or ethnicities and political parties, but these differences disappear among young couples

% of U.S. adults who have ever been in a relationship and met their current or most recent partner online/offline saying they and their partner have ...
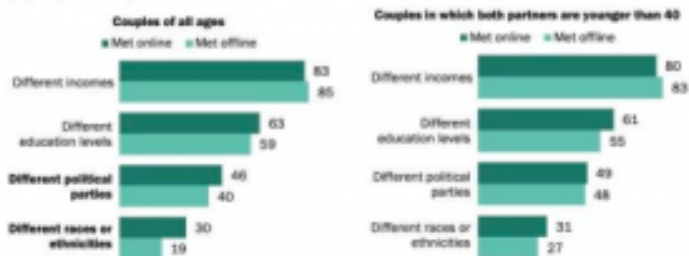
As Finkel, Burnette, and Scissors (2007) found, social networking sites and the Internet perform three important tasks. Specifically, sites provide individuals with access to a database of other individuals who are interested in meeting someone. Dating sites generally reduce issues of proximity, as individuals do not have to be close in proximity to meet. Also, they provide a medium in which individuals can communicate with others. Finally, some Internet dating websites advertise special matching strategies, based on factors such as personality, hobbies, and interests, to identify the "perfect match" for people looking for love online. Social networking sites have provided opportunities for meeting others you would not have normally met. According to a recent survey of couples who met online versus offline (Brown, 2019), those who met online tended to have slightly different levels of education, and political views from their partners, but, the biggest difference was that they were much more likely to come from different racial and ethnic backgrounds (see Figure 7.27). This is not surprising as the average age of the couples who met online was 36, while the average age of couples who met offline was 51. Young adults are more likely to a

relationship with people who are different from them, regardless of how they met.

However, social networking sites can also be forums for unsuspecting people to be duped, as the person may not be who he or she says.

Online communication differs from face-to-face interaction in a number of ways. In face-to-face meetings, people have many cues upon which to base their first impressions. A person's looks, voice, mannerisms, dress, scent, and surroundings all provide information in face-to-face meetings, but in computer-mediated meetings, written messages are the only cues provided. Fantasy is used to conjure up images of voice, physical appearance, mannerisms, and so forth. The anonymity of online involvement makes it easier to become intimate without fear of interdependence. When online, people tend to disclose more intimate details about themselves more quickly. A shy person can open up without worrying about whether or not the partner is frowning or looking away. Someone who has been abused may feel safer in virtual relationships. It is easier to tell one's secrets because there is little fear of loss. One can find a virtual partner who is warm, accepting, and undemanding (Gwinnell, 1998), and exchanges can be focused more on emotional attraction than physical appearance.

To evaluate what individuals are looking for online, Menkin, Robles, Wiley and Gonzaga (2015) reviewed data from an eHarmony.com relationship questionnaire completed by a cross-sectional representation of 5,434 new users. Their results indicated that users consistently valued communication and characteristics, such as personality and kindness over sexual attraction.

Females valued communication over sexual attraction, even more when compared to males, and older users rated sexual attraction as less important than younger users. Alterovitz and Mendelsohn (2011) analyzed 600 Internet personal ads across the lifespan and found that men sought physical attractiveness and offered status-related information more than women, while women were more selective

than men and sought status more than men. These findings were consistent with previous research on gender differences regarding the importance of physical/sexual attraction.

Catfishing and other forms of scamming is an increasing concern for those who use dating and social media sites and apps. **Catfishing** refers to "*a deceptive activity involving the creation of a fake online profile for deceptive purposes*" (Smith, Smith, & Blazka, 2017, p. 33). Notre Dame University linebacker Manti Ta'o fell victim to a catfishing scam. The young woman "Kekua" who he had struck up an online relationship with was a hoax, and he was not the first person to have been scammed by this fictitious woman. A number of US states have passed legislation to address online impersonation, from stealing the information and creating a fake account of a real person to the creation of a fictitious persona with the intent to defraud or harm others (National Conference of State Legislatures, 2017).

Cohabitation: In American society, as well as in a number of other cultures, cohabitation has become increasingly commonplace (Gurrentz, 2018). For many emerging adults, cohabitation has become more commonplace than marriage, as can be seen in Figures 7.28. While marriage is still a more common living arrangement for those 25-34, cohabitation has increased, while marriage has declined, as can be seen in Figure 7.29. Gurrentz also found that cohabitation varies by socioeconomic status. Those who are married tend to have higher levels of education, and thus higher earnings, or earning potential.

Figure 7.28

A higher proportion of 18- to 24-year-olds live with an unmarried partner than a spouse.

Living Arrangements of Young Adults Ages 18 to 34
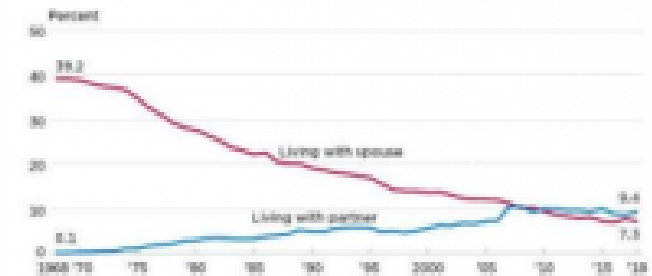
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1968 to 2018.

Figure 7.29

Cohabitation has become more common among 25- to 34-year-olds.

Living Arrangements of Young Adults Ages 25 to 34
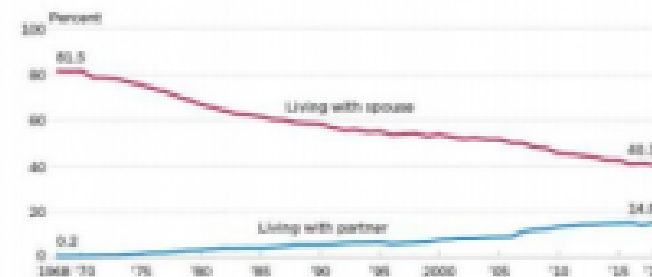
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements, 1968 to 2018.

Copen, Daniels, and Mosher (2013) found that from 1995 to 2010 the median length of the cohabitation relationship had increased regardless of whether the relationship resulted in marriage, remained intact, or had since dissolved. In 1995 the median length of the cohabitation relationship was 13 months, whereas it was 22 months by 2010. Cohabitation for all racial/ethnic groups, except

for Asian women increased between 1995 and 2010 (see Table 7.7). Forty percent of the cohabitations transitioned into marriage within three years, 32% were still cohabitating, and 27% of cohabitating relationships had dissolved within the three years.

Three explanations have been given for the rise of cohabitation in Western cultures. The first notes that the increase in individualism and secularism, and the resulting decline in religious observance, has led to greater acceptance and adoption of cohabitation (Lesthaeghe & Surkyn, 1988). Moreover, the more people view cohabitating couples, the more normal this relationship becomes, and the more couples who will then cohabitate. Thus, cohabitation is both a cause and the effect of greater cohabitation.Three explanations have been given for the rise of cohabitation in Western cultures. The first notes that the increase in individualism and secularism, and the resulting decline in religious observance, has led to greater acceptance and adoption of cohabitation (Lesthaeghe & Surkyn, 1988).

Table 7.7 Percentage of Women by race/ethnicity whose first union was cohabitation

	1995	2006-2010
Hispanic	30%	47%
White	35%	49%
Black	35%	49%
Asian	22%	22%

Based on Data from Copen et al., 2013.

A second explanation focuses on economic changes. The growth of industry and the modernization of many cultures have improved women's social status, leading to greater gender equality and sexual freedom, with marriage, no longer being the only long-term relationship option (Bumpass, 1990). A final explanation suggests that the change in employment requirements, with many jobs now

requiring more advanced education, has led to a competition between marriage and pursuing post-secondary education (Yu & Xie, 2015). This might account for the increase in the age of first marriage in many nations. Taken together, the greater acceptance of premarital sex, and the economic and educational changes would lead to a transition in relationships. Overall, cohabitation may become a step in the courtship processor may, for some, replace marriage altogether.

Similar increases in cohabitation have also occurred in other industrialized countries. For example, rates are high in Great Britain, Australia, Sweden, Denmark, and Finland. In fact, more children in Sweden are born to cohabiting couples than married couples. The lowest rates of cohabitation in industrialized countries are in Ireland, Italy, and Japan (Benokraitis, 2005).

Cohabitation in Non-Western Cultures, The Philippines and China: Similar to other nations, young people in the Philippines are more likely to delay marriage, to cohabitate, and to engage in premarital sex as compared to previous generations (Williams, Kabamalan, & Ogena, 2007).

Despite these changes, many young people are still not in favor of these practices. Moreover, there is still a persistence of traditional gender norms as there are stark differences in the acceptance of sexual behavior out of wedlock for men and women in Philippine society. Young men are given greater freedom. In China, young adults are cohabitating in higher numbers than in the past (Yu & Xie, 2015). Unlike many Western cultures, in China adults with higher, rather than lower, levels of education are more likely to cohabitate. Yu and Xie suggest this may be due to seeing cohabitation as being a more "innovative" behavior and that those who are more highly educated may have had more exposure to Western culture.

Marriage Worldwide: Cohen (2013) reviewed data assessing most of the world's countries and found that marriage has declined universally during the last several decades. This decline has occurred in both poor and rich countries, however, the countries

with the biggest drops in marriage were mostly rich: France, Italy, Germany, Japan, and the U.S. Cohen states that the decline is not only due to individuals delaying marriage but also because of high rates of non- marital cohabitation. Delayed or reduced marriage is associated with higher income and lower fertility rates that are reflected worldwide.

Marriage in the United States: In 1960, 72% of adults age 18 or older were married, in 2010 this had dropped to barely half (Wang & Taylor, 2011). At the same time, the age of first marriage has been increasing for both men and women. In 1960, the average age for first marriage was 20 for women and 23 for men. By 2010 this had increased to 26.5 for women and nearly 29 for men (see Figure 7.30). Many of the explanations for increases in singlehood and cohabitation previously given can also account for the drop and delay in marriage.

Figure 7.30 Marriage in the U.S.
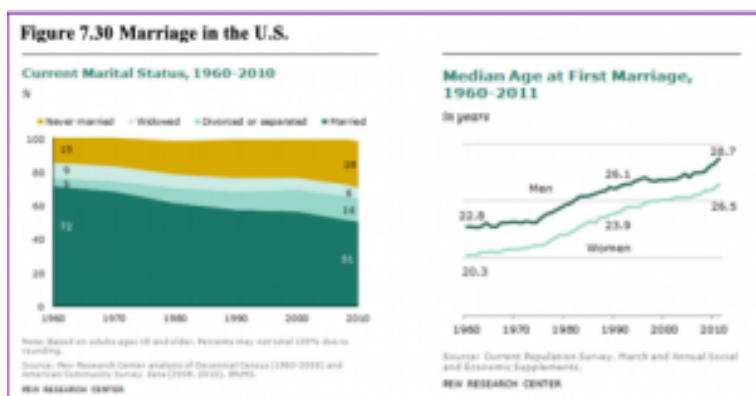
Same-Sex Marriage: On June 26, 2015, the United States Supreme Court ruled that the Constitution guarantees same-sex marriage. The decision indicated that limiting marriage to only heterosexual couples violated the 14th amendment's guarantee of equal protection under the law. This ruling occurred 11 years after same-sex marriage was first made legal in Massachusetts, and at the time

of the high court decision, 36 states and the District of Columbia had legalized same-sex marriage. Worldwide, 29 countries currently have national laws allowing gays and lesbians to marry (Pew Research Center, 2019). As can be seen in Table 7.8, these countries are located mostly in Europe and the Americas.

Table 7.8 Pew Research Center: Countries That Allow Gay Marriage and the Year Passed				
Argentina (2010)	Colombia (2016)	Germany (2017)	The Netherlands (2000)	Spain (2005)
Australia (2017)	Denmark (2012)	Greenland (2015)	New Zealand (2013)	Sweden (2009)
Austria (2019)	Ecuador (2019)	Iceland (2010)	Norway (2009)	Taiwan (2019)
Belgium (2003)	England / Wales (2013)	Ireland (2015)	Portugal (2010)	United States (2015)
Brazil (2013)	Finland (2015)	Luxembourg (2014)	Scotland (2014)	Uruguay (2013)
Canada (2005)	France (2013)	Malta (2017)	South Africa (2006)	

Countries Where Gay Marriage is Legal in Some Jurisdictions

Mexico (2009)	Pew Research Center

Cultural Influences on Marriage: Many cultures have both explicit and unstated rules that specify who is an appropriate mate. Consequently, mate selection is not completely left to the individual. Rules of **endogamy** *indicate the groups we should marry within and those we should not marry in* (Witt, 2009). For example, many cultures specify that people marry within their own race, social class, age group, or religion. Endogamy reinforces the cohesiveness of the group. Additionally, these rules encourage **homogamy** *or marriage between people who share social characteristics*. The majority of marriages in the U. S. are homogamous with respect to race, social class, age and to a lesser extent, religion. Homogamy is also seen in couples with similar personalities and interests.

    Arranged Marriages and Elopement: Historically, marriage was not a personal choice, but one made by one's family. Arranged marriages often ensured proper transference of a family's wealth and the support of ethnic and religious customs. Such marriages were a marriage of families rather than of individuals. In Western Europe, starting in the 18th century the notion of personal choice in

a marital partner slowly became the norm. Arranged marriages were seen as "traditional" and marriages based on love "modern". Many of these early "love" marriages were obtained by eloping (Thornton, 2005).

Around the world, more and more young couples are choosing their partners, even in nations where arranged marriages are still the norm, such as India and Pakistan. Desai and Andrist (2010) found that only 5% of the women surveyed, aged 25-49, had a primary role in choosing their partner. Only 22% knew their partner for more than one month before they were married. However, the younger cohort of women was more likely to have been consulted by their families before their partner was chosen than were the older cohort, suggesting that family views are changing about personal choice. Allendorf (2013) reports that this 5% figure may also underestimate young people's choice, as only women were surveyed. Many families in India are increasingly allowing sons to veto power over the parents' choice of his future spouse, and some families give daughters the same say.

Marital Arrangements in India: As the number of arranged marriages in India is declining, elopement is increasing. Allendorf's (2013) study of a rural village in India, describes the elopement process. In many cases, the female leaves her family home and goes to the male's home, where she stays with him and his parents. After a few days, a member of his family will inform her family of her whereabouts and gain consent for the marriage. In other cases, where the couple anticipates some degree of opposition to the union, the couple may run away without the knowledge of either family, often going to a relative of the male. After a few days, the couple comes back to the home of his parents, where at that point consent is sought from both families. Although, in some cases, families may sever all ties with their child or encourage him or her to abandon the relationship, typically, they agree to the union as the couple has spent time together overnight. Once consent has been given, the couple lives with his family and are considered married. A more formal ceremony takes place a few weeks or months later.

Arranged marriages are less common in the more urban regions of India than they are outside of the cities. In rural regions, often the family farm is the young person's only means of employment. Thus, going against family choices may carry bigger consequences. Young people who live in urban centers have more employment options. As a result, they are often less economically dependent on their families and may feel freer to make their own choices. Thornton (2005) suggests these changes are also being driven by mass media, international travel, and general Westernization of ideas. Besides India, China, Nepal, and several nations in Southeast Asia have seen a decline in the number of arranged marriages, and an increase in elopement or couples choosing their own partners with their families' blessings (Allendorf, 2013).

Predictors of Marital Harmony: Advice on how to improve one's marriage is centuries old. One of today's experts on marital communication is John Gottman. Gottman (1999) differs from many marriage counselors in his belief that having a good marriage does not depend on compatibility. Rather, the way that partners communicate with one another is crucial. At the University of Washington in Seattle, Gottman has measured the physiological responses of thousands of couples as they discuss issues of disagreement. Fidgeting is one's chair, leaning closer to or further away from the partner while speaking, and increases in respiration and heart rate are all recorded and analyzed along with videotaped recordings of the partners' exchanges. Gottman believes he can accurately predict whether or not a couple will stay together by analyzing their communication. In marriages destined to fail, partners engage in the "marriage killers": Contempt, criticism, defensiveness, and stonewalling. Each of these undermines the politeness and respect that healthy marriages require. Stonewalling, or shutting someone out, is the strongest sign that a relationship is destined to fail.

Gottman, Carrere, Buehlman, Coan, and Ruckstuhl (2000) researched the perceptions newlyweds had about their partner and

marriage. The Oral History Interview used in the study, which looks at eight variables in marriage including Fondness/affection, we-ness, expansiveness/ expressiveness, negativity, disappointment, and three aspects of conflict resolution (chaos, volatility, glorifying the struggle), was able to predict the stability of the marriage with 87% accuracy at the four to six year-point and 81% accuracy at the seven to nine year-point. Gottman (1999) developed workshops for couples to strengthen their marriages based on the results of the Oral History Interview. Interventions include increasing the positive regard for each other, strengthening their friendship, and improving communication and conflict resolution patterns.

Accumulated Positive Deposits: When there is a positive balance of relationship deposits this can help the overall relationship in times of conflict. For instance, some research indicates that a husband's level of enthusiasm in everyday marital interactions was related to a wife's affection in the midst of conflict (Driver & Gottman, 2004), showing that being pleasant and making deposits can change the nature of the conflict. Also, Gottman and Levenson (1992) found that couples rated as having more pleasant interactions, compared with couples with less pleasant interactions, reported marital problems as less severe, higher marital satisfaction, better physical health, and less risk for divorce. Finally, Janicki, Kamarck, Shiffman, and Gwaltney (2006) showed that the intensity of conflict with a spouse predicted marital satisfaction unless there was a record of positive partner interactions, in which case the conflict did not matter as much.

Again, it seems as though having a positive balance through prior positive deposits helps to keep relationships strong even in the midst of conflict.

Intimate Partner Abuse

Violence in romantic relationships is a significant concern for

women in early adulthood as females aged 18 to 34 generally experience the highest rates of intimate partner violence.

According to the most recent Violence Policy Center (2018) study, more than 1,800 women were murdered by men in 2016. The study found that nationwide, 93% of women killed by men were murdered by someone they knew, and guns were the most common weapon used. The national rate of women murdered by men in single victim/single offender incidents dropped 24%, from 1.57 per 100,000 in 1996 to 1.20 per 100,000 in 2016. However, since reaching a low of 1.08 per 100,000 women in 2014, the 2016 rate increased by 11%.

Intimate partner violence is often divided into **situational couple violence**, *which is the violence that results when heated conflict escalates*, and **intimate terrorism**, *in which one partner consistently uses fear and violence to dominate the other* (Bosson, et al., 2019). Men and women equally use and experience situational couple violence, while men are more likely to use intimate terrorism than are women. Consistent with this, a national survey described below, found that female victims of intimate partner violence experience different patterns of violence, such as rape, severe physical violence, and stalking than male victims, who most often experienced more slapping, shoving, and pushing.

Figure 7.32

Source

The last National Intimate Partner and Sexual Violence Survey (NISVS) was conducted in 2015 (Smith et al., 2018). The NISVS examines the prevalence of intimate partner violence, sexual violence, and stalking among women and men in the United States over the respondent's lifetime and during the 12 months before the interview. A total of 5,758 women and 4,323 men completed the survey. Based on the results, women are disproportionately affected by intimate partner violence, sexual violence, and stalking. Results included:

- Nearly 1 in 3 women and 1 in 6 men experienced some form of contact sexual violence during their lifetime.
- Nearly 1 in 5 women and 1 in 39 men have been raped in their lifetime.
- Approximately 1 in 6 women and 1 in 10 men experienced sexual coercion (e.g., sexual pressure from someone in authority, or being worn down by requests for sex).
- Almost 1 in 5 women have been the victim of severe physical violence by an intimate partner, while 1 in 7 men have experienced the same.
- 1 in 6 women has been stalked during their lifetime, compared to 1 in 19 men.
- More than 1 in 4 women and more than 1 in 10 men have experienced contact sexual violence, physical violence, or stalking by an intimate partner and reported significant short- or long-term impacts, such as post-traumatic stress disorder symptoms and injury.
- An estimated 1 in 3 women experienced at least one act of psychological aggression by an intimate partner during their lifetime.
- Men and women who experienced these forms of violence were more likely to report frequent headaches, chronic pain, difficulty with sleeping, activity limitations, poor physical health, and poor mental health than men and women who did not experience these forms of violence.

Parenthood

Parenthood is undergoing changes in the United States and elsewhere in the world. Children are less likely to be living with both parents, and women in the United States have fewer children than they did previously. The average fertility rate of women in the United States was about seven children in the early 1900s and has remained relatively stable at 2.1 since the 1970s (Hamilton, Martin, & Ventura, 2011; Martinez, Daniels, & Chandra, 2012). Not only are parents having fewer children, but the context of parenthood has also changed. Parenting outside of marriage has increased dramatically among most socioeconomic, racial, and ethnic groups, although college-educated women are substantially more likely to be married at the birth of a child than are mothers with less education (Dye, 2010).

Figure 7.33

Source

People are having children at older ages, too. This is not surprising given that many of the age markers for adulthood have been delayed, including marriage, completing education, establishing oneself at work, and gaining financial independence. In 2014 the

average age for American first-time mothers was 26.3 years (CDC, 2015a). The birth rate for women in their early 20s has declined in recent years, while the birth rate for women in their late 30s has risen. In 2011, 40% of births were to women ages 30 and older. For Canadian women, birth rates are even higher for women in their late 30s than in their early 20s. In 2011, 52% of births were to women ages 30 and older, and the average first-time Canadian mother was 28.5 years old (Cohn, 2013). Improved birth control methods have also enabled women to postpone motherhood.

Despite the fact that young people are more often delaying childbearing, most 18- to 29-year-olds want to have children and say that being a good parent is one of the most important things in life (Wang & Taylor, 2011).

Influences on Parenting: Parenting is a complex process in which parents and children influence on another. There are many reasons that parents behave the way they do. The multiple influences on parenting are still being explored. Proposed influences on parenting include Parent characteristics, child characteristics, and contextual can sociocultural characteristics. (Belsky, 1984; Demick, 1999).

Parent Characteristics: Parents bring unique traits and qualities to the parenting relationship that affect their decisions as parents. These characteristics include the age of the parent, gender, beliefs, personality, developmental history, knowledge about parenting and child development, and mental and physical health. Parents' personalities affect parenting behaviors. Mothers and fathers who are more agreeable, conscientious, and outgoing are warmer and provide more structure to their children. Parents who are more agreeable, less anxious, and less negative also support their children's autonomy more than parents who are anxious and less agreeable (Prinzie, Stams, Dekovic, Reijntes, & Belsky, 2009). Parents who have these personality traits appear to be better able to respond to their children positively and provide a more consistent, structured environment for their children.

Parents' developmental histories, or their experiences as children,

also affect their parenting strategies. Parents may learn parenting practices from their own parents. Fathers whose own parents provided monitoring, consistent and age-appropriate discipline, and warmth was more likely to provide this constructive parenting to their own children (Kerr, Capaldi, Pears, & Owen, 2009). Patterns of negative parenting and ineffective discipline also appear from one generation to the next. However, parents who are dissatisfied with their own parents' approach may be more likely to change their parenting methods with their own children.

Figure 7.34

Source

Child Characteristics: Parenting is **bidirectional.** *Not only do parents affect their children, but children also influence their parents.* Child characteristics, such as gender, birth order, temperament, and health status, affect parenting behaviors and roles. For example, an infant with an easy temperament may enable parents to feel more effective, as they are easily able to soothe the child and elicit smiling and cooing. On the other hand, a cranky or fussy infant elicits fewer positive reactions from his or her parents and may result in parents feeling less effective in the parenting role (Eisenberg et al., 2008). Over time, parents of more difficult children may become more punitive and less patient with their children (Clark, Kochanska, & Ready, 2000; Eisenberg et al., 1999; Kiff, Lengua, & Zalewski, 2011).

Parents who have a fussy, difficult child are less satisfied with their marriages and have greater challenges in balancing work and family roles (Hyde, Else-Quest, & Goldsmith, 2004). Thus, child temperament, as previously discussed in chapter 3, is one of the child characteristics that influence how parents behave with their children.

Another child characteristic is the gender of the child. Parents respond differently to boys and girls. Parents often assign different household chores to their sons and daughters. Girls are more often responsible for caring for younger siblings and household chores, whereas boys are more likely to be asked to perform chores outside the home, such as mowing the lawn (Grusec, goodnow, & Cohen, 1996). Parents also talk differently with their sons and daughters, providing more scientific explanations to their sons and using more emotional words with their daughters (Crowley, Callanan, Tenenbaum, & Allen, 2001).

Contextual Factors and Sociocultural Characteristics: The parent-child relationship does not occur in isolation. Sociocultural characteristics, including economic hardship, religion, politics, neighborhoods, schools, and social support, also influence parenting. Parents who experience economic hardship are more easily frustrated, depressed, and sad, and these emotional characteristics affect their parenting skills (Conger & Conger, 2002). Culture also influences parenting behaviors in fundamental ways. Although promoting the development of skills necessary to function effectively in one's community is a universal goal of parenting, the specific skills necessary vary widely from culture to culture. Thus, parents have different goals for their children that partially depend on their culture (Tamis-LeMonda et al., 2008). Parents vary in how much they emphasize goals for independence and individual achievements, maintaining harmonious relationships, and being embedded in a strong network of social relationships. Other important contextual characteristics, such as the neighborhood, school, and social networks, also affect parenting, even though these settings do not always include both the child and the parent

(Brofenbrenner, 1989). Culture is also a contributing contextual factor, as discussed previously in chapter four. For example, Latina mothers who perceived their neighborhood as more dangerous showed less warmth with their children, perhaps because of the greater stress associated with living a threatening environment (Gonzales et al., 2011). The different influences are shown in Figure 7.35.

Figure 7.35 Influences on Parenting

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Attribution

PART XI
DEVELOPMENT IN MIDDLE ADULTHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

Vignette

Seth is a 44 y/o Caucasian male. He grew up in a small town with six siblings and his parents worked hard in a factory their whole lives. His parents had little education but had high hopes for their children and always said "if you work hard, you can achieve anything" and he believed this. Seth started

Photo by Sharon McCutcheon on Unsplash

working when he was 15 y/o, graduated high school at 18 y/o, and then joined the Air Force. He went to college after serving his term but had to work during this time to afford school and pay his bills. It took 6 years, but he was able to earn a degree in Accounting, and he was very proud of his accomplishment.

Seth got married a couple of years after graduating college but divorced after 8 years. They did not have any children. He then began to experience some health issues which caused him to miss so much work that he was eventually laid off. Seth struggled to find work with another accounting firm and then suffered a stroke. He had saved up some money and had hoped this would help him remain some financial stability while looking for another job but lost this sense of security after paying for the hospital bills. He then realized he had no other choice but to apply for benefits and financial assistance from the government.

Seth decides to seek some support through the VA. He is connected with a Social Worker who helps him apply for the needed resources. He states "I can't believe it's come to this. I never thought I'd have to get help like this. It's just been so hard since I lost my job last year". The Social Worker recognizes Seth has faced some stressors over the past few years and explores to see if he feels there may be some benefit in seeing a therapist at the VA. Seth states "You know, I'd never thought

I'd be asking for financial help like this and it's been tough. I could probably use some help to figure out how this has all been affecting me".

Critical Thinking:

1.   What stage of Erikson's Theory of Psychosocial Development are they currently in? Are they meeting the goals of this stage? Examples? Are they demonstrating any struggles with their goals in this stage? Examples?
2.   What theory, approach, or perspective from previous Dimensions (PIE, Biopsychosocial, Sociocultural, or Social Change) would you use to assess this client? Why?
3.   What do you feel are the most important aspects (physical development, attachment, sexual development, etc) to consider for this client? Why?

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Chapter 25: Physical Development in Middle Adulthood

Each person experiences age-related physical changes based on many factors: *biological factors, such as molecular and cellular changes, and oxidative damage are called **primary aging**, while *aging that occurs due to controllable factors, such as an unhealthy lifestyle*

including lack of physical exercise and poor diet, is called **secondary aging** (Busse, 1969). These factors are shown in Figure 8.1

Figure 8.1 Contributors to Aging
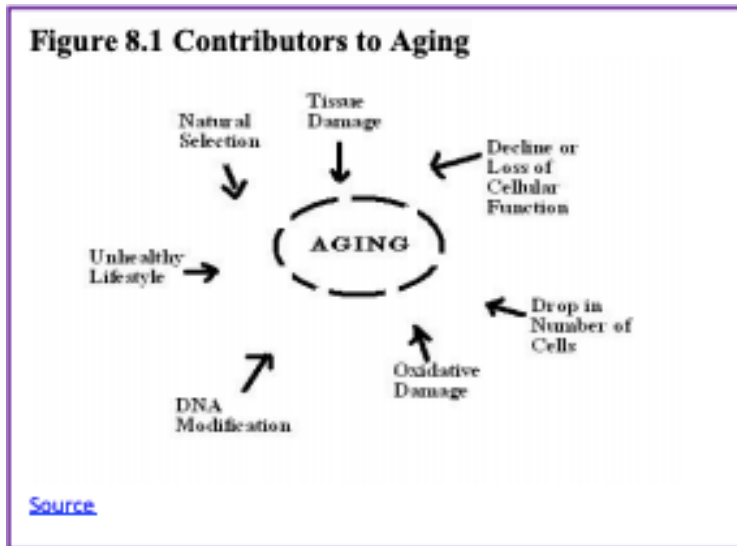
Getting out of shape is not an inevitable part of aging; it is probably due to the fact that middle- aged adults become less physically active and have experienced greater stress. Smoking tobacco, drinking alcohol, poor diet, stress, physical inactivity, and chronic disease, such as diabetes or arthritis, reduce overall health. However, there are things can be done to combat many of these changes by adopting healthier lifestyles.

Physical Changes

Hair: When asked to imagine someone in middle adulthood, we often picture someone with the beginnings of wrinkles and gray or thinning hair. What accounts for these physical changes?

Hair color is due to a pigment called melanin which is produced by hair follicles (Martin, 2014). With aging, the hair follicles produce less melanin, and this causes the hair to become gray. Hair color typically starts turning lighter at the temples, but eventually all the hair will become white. For many, graying begins in the 30s, but it is largely determined by your genes. Gray hair occurs earlier in white people and later in Asians.

Genes also determine how much hair remains on your head. Almost everyone has some hair loss with aging, and the rate of hair growth slows with aging. Many hair follicles stop producing new hairs and hair strands become smaller. Men begin showing signs of balding by 30 and some are nearly bald by 60. Male-pattern baldness is related to testosterone and is identified by a receding hairline followed by hair loss at the top of the head. Figure 8.2 shows tennis champion Andre Agassi's characteristic male- patterned baldness. Women can also develop female- patterned baldness as their hair becomes less dense and the scalp becomes visible (Martin, 2014). Sudden hair loss, however, can be a symptom of a health problem.

Figure 8.2 Andre Agassi

Source

Skin: Skin continues to dry out and is prone to more wrinkling, particularly on the sensitive face area. Wrinkles, or creases in the skin, are a normal part of aging. As we get older, our skin dries and loses the underlying layer of fat, so our face no longer appears smooth. Loss of muscle tone and thinning skin can make the face appear flabby or drooping. Although wrinkles are a natural part of aging and genetics plays a role, frequent sun exposure and smoking will cause wrinkles to appear sooner. Dark spots and blotchy skin also occur as one ages and are due to exposure to sunlight (Moskowitz, 2014). Blood vessels become more apparent as the skin continues to dry and get thinner.

Sarcopenia: *The loss of muscle mass and strength that occurs with aging* is referred to as **sarcopenia** (Morley, Baumgartner, Roubenoff, Mayer, & Nair, 2001). Sarcopenia is thought to be a significant factor in the frailty and functional impairment that occurs when older. The decline of growth and anabolic hormones, especially testosterone, and decreased physical activity have been implicated as causes of sarcopenia (Proctor, Balagopal, & Nair, 1998). This decline in muscle mass can occur as early as 40 years of age and contributes significantly to a decrease in life quality, increase in health care costs, and early death in older adults (Karakelides & Nair, 2005). Exercise is certainly important to increase strength, aerobic capacity, and muscle protein synthesis, but unfortunately it does not reverse all the age-related changes that occur. The muscle-to-fat ratio for both men and women also changes throughout middle adulthood, with an accumulation of fat in the stomach area.

Lungs: The lungs serve two functions: Supply oxygen and remove carbon dioxide. Thinning of the bones with age can change the shape of the rib cage and result in a loss of lung expansion. Age-related changes in muscles, such as the weakening of the diaphragm, can also reduce lung capacity. Both of these changes will lower oxygen levels in the blood and increase the levels of carbon dioxide. Experiencing shortness of breath and feeling tired can result (NIH, 2014b). In middle adulthood, these changes and their effects are often minimal, especially in people who are non-

smokers and physically active. However, in those with chronic bronchitis, or who have experienced frequent pneumonia, asthma other lung-related disorders, or who are smokers, the effects of these normal age changes can be more pronounced.

Sensory Changes

Vision: A normal change of the eye due to age is **presbyopia**, which is Latin for "old vision." *It refers to a loss of elasticity in the lens of the eye that makes it harder for the eye to focus on objects that are closer to the person.* When we look at something far away, the lens flattens out; when looking at nearby objects tiny muscle fibers around the lens enable the eye to bend the lens. With age these muscles weaken and can no longer accommodate the lens to focus the light. Anyone over the age of 35 is at risk for developing presbyopia. According to the National Eye Institute (NEI) (2016), signs that someone may have presbyopia include:

- Hard time reading small print
- Having to hold reading material farther than arm's distance
- Problems seeing objects that are close
- Headaches
- Eyestrain

Figure 8.3 Interior of the Human Eye
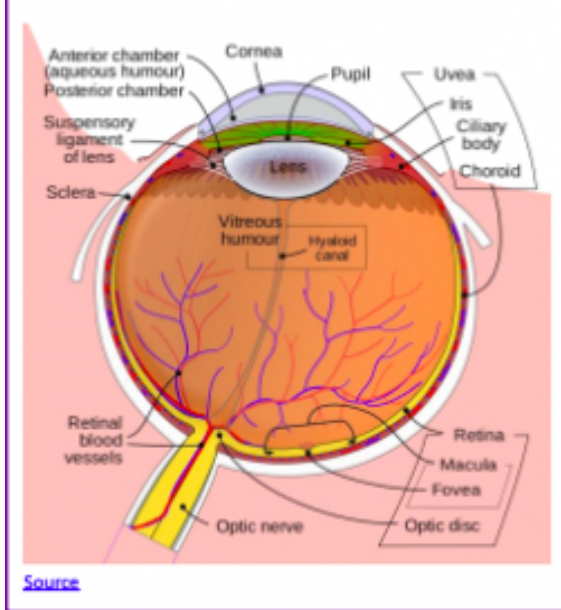
Another common eye problem people experience as they age are **floaters**, *little spots or "cobwebs" that float around the field of vision.* They are most noticeable if you are looking at the sky on a sunny day, or at a lighted blank screen. Floaters occur when the vitreous, a gel-like substance in the interior of the eye, slowly shrinks. As it shrinks, it becomes somewhat stringy, and these strands can cast tiny shadows on the retina. In most cases, floaters are harmless, more of an annoyance than a sign of eye problems. However, floaters that appear suddenly, or that darken and obscure vision can be a sign of more serious eye problems, such a retinal tearing, infection, or inflammation. People who are very nearsighted (myopic), have diabetes, or who have had cataract surgery are also more likely to have floaters (NEI, 2009).

During midlife, adults may begin to notice a drop in **scotopic**

sensitivity, *the ability to see in dimmer light.* By age 60, the retina receives only one third as much light as it did at age 20, making working in dimmer light more difficult (Jackson & Owsley, 2000). Night vision is also affected as the pupil loses some of its ability to open and close to accommodate drastic changes in light. Eyes become more sensitive to glare from headlights and street lights making it difficult to see people and cars, and movements outside of our direct line of sight (NIH, 2016c).

Finally, some people experience **dry eye syndrome**, which *occurs when the eye does not produce tears properly, or when the tears evaporate too quickly because they are not the correct consistency* (NEI, 2013). While dry eye can affect people at any age, nearly 5 million Americans over the age of 50 experience dry eye. It affects women more than men, especially after menopause. Women who experienced an early menopause may be more likely to experience dry eye, which can cause surface damage to the eye.

Hearing: Hearing problems increase during middle adulthood. According to a recent UK study (Dawes et al., 2014), the rate of hearing problems in their sample doubled between the ages of 40 and 55 and tripled by age 64. Similar statistics are found in U.S. samples of middle-aged adults. Prior to age 40, about 5.5% of adults report hearing problems. This jumps to 19% among 40 to 69 year-olds (American Psychological Association, 2016). Middle-aged adults may experience more problems understanding speech when in noisy environments, in comparison to younger adults (Füllgrabe, Moore, & Stone, 2015; Neidleman, Wambacq, Besing, Spitzer, & Koehnke, 2015). As we age we also lose the ability to hear higher frequencies (Humes, Kewley-Port, Fogerty, & Kinney, 2010). Hearing changes are more common among men than women, but males may underestimate their hearing problems (Uchida, Nakashima, Ando, Niino, & Shimokata, 2003). For many adults, hearing loss accumulates after years of being exposed to intense noise levels. Men are more likely to work in noisy occupations. Hearing loss is also exacerbated by cigarette smoking, high blood pressure,

diabetes, and stroke. Most hearing loss could be prevented by guarding against being exposed to extremely noisy environments.

Figure 8.4
Incidence of Hearing Impairment in UK Adults

Adapted from Dawes, et al., (2014).
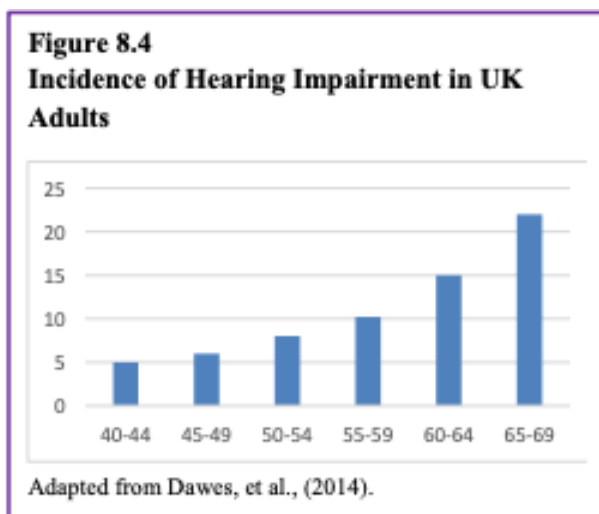
Health Concerns

Heart Disease: According to the most recent National Vital Statistics Reports (Kochanek, Murphy, Xu, & Arias, 2019) heart disease continues to be the number one cause of death for Americans as it claimed 23% of those who died in 2017. It is also the number one cause of death worldwide (World Health Organization, 2018). Heart disease develops slowly over time and typically appears in midlife (Hooker & Pressman, 2016).

Heart disease can include heart defects and heart rhythm problems, as well as narrowed, blocked, or stiffened blood vessels referred to as cardiovascular disease. The blocked blood vessels prevent the body and heart from receiving adequate blood. **Atherosclerosis,** *or a buildup of fatty plaque in the arteries*, is the most common cause of cardiovascular disease. The plaque buildup

thickens the artery walls and restricts the blood flow to organs and tissues. Cardiovascular disease can lead to a heart attack, chest pain (angina), or stroke (Mayo Clinic, 2014a). Figure 8.5 illustrates atherosclerosis.

Figure 8.5 Atherosclerosis

Source
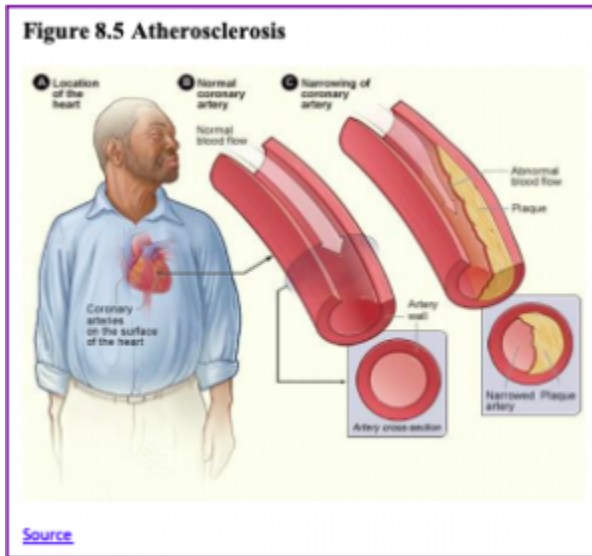
Symptoms of cardiovascular disease differ for men and women. Males are more likely to suffer chest pain, while women are more likely to demonstrate shortness of breath, nausea, and extreme fatigue. Symptoms can also include pain in the arms, legs, neck, jaw, throat, abdomen or back (Mayo Clinic, 2014a). According to the Mayo Clinic (2014a) there are many risk factors for developing heart disease, including medical conditions, such as high blood pressure, high cholesterol, diabetes, and obesity. Other risk factors include:

- **Advanced Age**-increased risk for narrowed arteries and weakened or thickened heart muscle.
- **Sex**-males are at greater risk, but a female's risk increases after menopause.

- **Family History**-increased risk, especially if male parent or brother developed heart. disease before age 55 or female parent or sister developed heart disease before age 65.
- **Smoking**-nicotine constricts blood vessels and carbon monoxide damages the inner lining.
- **Poor Diet**-a diet high in fat, salt, sugar, and cholesterol.
- **Excessive Alcohol Consumption**-alcohol can raise the level of bad fats in the blood and increase blood pressure
- **Stress-**unrelieved stress can damage arteries and worsen other risk factors.
- **Poor Hygiene-**establishing good hygiene habits can prevent viral or bacterial infections that can affect the heart. Poor dental care can also contribute to heart disease.

Complications of heart disease can include heart failure, when the heart cannot pump enough blood to the meet the body's needs, and a heart attack, such as when a blood clot blocks the blood flow to the heart. This blockage can damage or destroy a part of the heart muscle, and atherosclerosis is a factor in a heart attack. Treatment for heart disease includes medication, surgery, and lifestyle changes including exercise, healthy diet, and refraining from smoking.

Sudden cardiac arrest is the unexpected loss of heart functioning, breathing, and consciousness, often caused by an arrhythmia or abnormal heartbeat. The heartbeat may be too quick, too slow, or irregular. With a healthy heart, it is unlikely for a fatal arrhythmia to develop without an outside factor, such as an electric shock or illegal drugs. If not treated immediately, sudden cardiac arrest can be fatal and result in sudden cardiac death.

Hypertension, or *high blood pressure, is a serious health problem that occurs when the blood flows with a greater force than normal.* One in three American adults (70 million people) have hypertension and only half have it under control (Nwankwo, Yoon, Burt, & Gu, 2013). It can strain the heart, increase the risk of heart attack and stroke, or damage the kidneys (CDC, 2014a). Uncontrolled high blood pressure in early and middle adulthood can also damage the

brain's white matter (axons) and may be linked to cognitive problems later in life (Maillard et al., 2012). Normal blood pressure is under 120/80 (see Table 8.1). The first number is the **systolic pressure**, *which is the pressure in the blood vessels when the heartbeats*. The second number is the **diastolic pressure**, *which is the pressure in the blood vessels when the heart is at rest*. High blood pressure is sometimes referred to as the *silent killer*, as most people with hypertension experience no symptoms. Making positive lifestyle changes can often reduce blood pressure.

Table 8.1 Blood Pressure Levels

	Systolic Pressure	Diastolic Pressure
Normal	Under 120	Under 80
Elevated	120-129	Under 80
Hypertension Stage 1	130-139	80-89
Hypertension Stage 2	>140	>90

Source: adapted from American Heart Association (2017)

Risk factors for high blood pressure include:

- Family history of hypertension
- A diet that is too high in sodium often found in processed foods, and too low in potassium
- Sedentary lifestyle and Obesity
- Too much alcohol consumption
- Tobacco use, as nicotine raises blood pressure (CDC, 2014b)

Cancer: After heart disease, cancer was the second leading cause of death for Americans in 2017 as it accounted for 21.3% of all deaths (Kochanek et al., 2016). According to the National Institutes of Health (2015), **cancer** *is the name given to a collection of related diseases in which the body's cells begin to divide without stopping and spread into surrounding tissues*. These extra cells can divide, and form growths called tumors, which are typically masses of tissue. Cancerous tumors are malignant, which means they can invade

nearby tissues. When removed malignant tumors may grow back. Unlike malignant tumors, benign tumors do not invade nearby tissues. Benign tumors can sometimes be quite large, and when removed usually do not grow back. Although benign tumors in the body are not cancerous, benign brain tumors can be life-threatening.

Cancer cells can prompt nearby normal cells to form blood vessels that supply the tumors with oxygen and nutrients, which allows them to grow. These blood vessels also remove waste products from the tumors. Cancer cells can also hide from the immune system, a network of organs, tissues, and specialized cells that protects the body from infections and other conditions. Lastly, cancer cells can metastasize, which means they can break from where they first formed, called the primary cancer, and travel through the lymph system or blood to form new tumors in other parts of the body. This new metastatic tumor is the same type as the primary tumor (National Institutes of Health, 2015). Figure 8.6 illustrates how cancers can metastasize.

Figure 8.6

Metastasis

Source
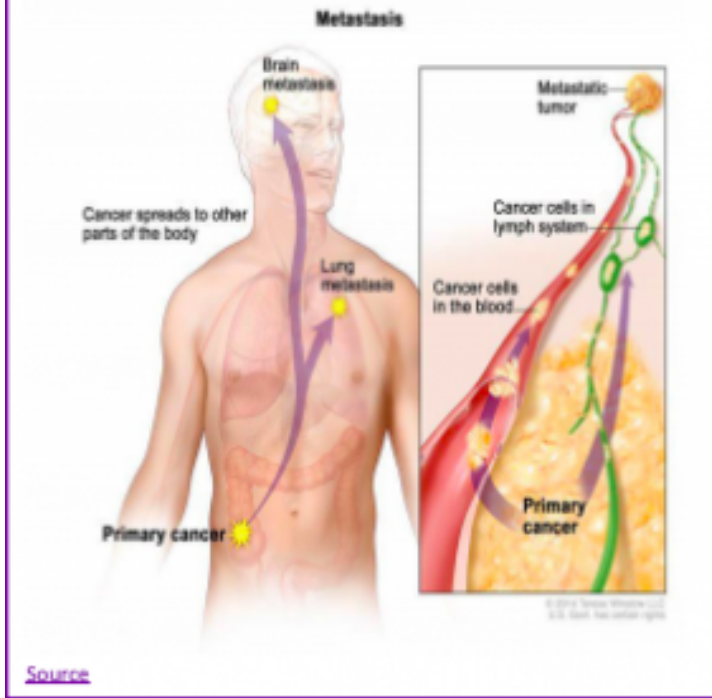
Cancer can start almost anywhere in the human body. While normal cells mature into very distinct cell types with specific functions, cancer cells do not and continue to divide without stopping. Further, cancer cells are able to ignore the signals that normally tell cells to stop dividing or to begin a process known as programmed cell death which the body uses to get rid of unneeded cells. With the growth of cancer cells, normal cells are crowded out and the body is unable to work the way it is supposed to. For example, the cancer cells in lung cancer form tumors which interfere with the functioning of the lungs and how oxygen is transported to the rest of the body.

There are more than 100 types of cancer. The American Cancer

Society assembles a list of the most common types of cancers in the United States. To qualify for the 2016 list, the estimated annual incidence had to be 40, 000 cases or more. The most common type of cancer on the list is breast cancer, with more than 249,000 new cases expected in 2016. The next most common cancers are lung cancer and prostate cancer. Table 8.2 lists the estimated number of new cases and deaths for each common cancer type for 2019 (American Cancer Society, 2019).

Table 8.2 2019 Estimates of Cancer Types

Cancer Type	Estimated New Cases	Estimated Deaths
Bladder	80,470	17,670
Breast (Female – Male)	268,600-2670	41,760-500
Colon	101,420	51,020
Kidney and Renal Pelvis	73,820	14,770
Leukemia (All Types)	61,780	22,840
Lung (Including Bronchus)	228,150	142,670
Melanoma	32,110	12,960
Non-Hodgkin Lymphoma	74,200	19,970
Pancreatic	56,770	45,750
Prostate	174,650	31,620
Thyroid	52,070	2,170
Uterine	75,050	16,410

Source

Cholesterol *is a waxy fatty substance carried by lipoprotein molecules in the blood.* It is created by the body to create hormones and digest fatty foods and is also found in many foods. Your body needs cholesterol, but too much can cause heart disease and stroke. Two important kinds of cholesterol are low-density lipoprotein (LDL) and high-density lipoprotein (HDL). The third type of fat is called triglycerides. Your total cholesterol score is based on all three types of lipids (see Table 8.3). Total cholesterol is calculated by adding HDL plus LDL plus 20% of the Triglycerides.

Table 8.3 Normal Levels of Cholesterol

	Normal
Total Cholesterol	Less than 200mg/dl*
LDL	Less than 100mg/dl
HDL	40mg/dl or higher
Triglycerides	Less than 150mg/dl
***Cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dl) of blood.**	

Source: adapted from CDC (2015).

LDL cholesterol makes up the majority of the body's cholesterol, however, it is often referred to as "bad" cholesterol because at high levels it can form plaque in the arteries leading to heart attack and stroke. HDL cholesterol often referred to as "good" cholesterol, absorbs cholesterol and carries it back to the liver, where it is then flushed from the body. Higher levels of HDL can reduce the risk of heart attack and stroke. Triglycerides are a type of fat in the blood used for energy. High levels of triglycerides can also increase your risk for heart disease and stroke when coupled with high LDL and low HDL. All adults 20 or older should have their cholesterol checked. In early adulthood, doctors may check every few years if the numbers have previously been normal, and there are no other signs of heart disease. In middle adulthood, this may become part of the annual check-up (CDC, 2015).

Risk factors for high cholesterol include: A family history for high cholesterol, diabetes, a diet high in saturated fats, trans fat, and cholesterol, physical inactivity, and obesity. Almost 32% of American adults have high LDL cholesterol levels, and the majority do not have it under control, nor have they made lifestyle changes (CDC, 2015).

Diabetes (Diabetes Mellitus) *is a disease in which the body does not control the amount of glucose in the blood.* This disease occurs when the body does not make enough insulin or does not use it the way it should (NIH, 2016a). Insulin is a type of hormone that

helps glucose in the blood enter cells to give them energy. In adults, 90% to 95% of all diagnosed cases of diabetes are type 2 (American Diabetes Association (ADA), 2016). Type 2 diabetes usually begins with **insulin resistance,** *a disorder in which the cells in the muscles, liver, and fat tissue do not use insulin properly* (CDC, 2014d). As the need for insulin increases, cells in the pancreas gradually lose the ability to produce enough insulin. In some Type 2 diabetics, pancreatic beta cells will cease functioning, and the need for insulin injections will become necessary. Some people with diabetes experience insulin resistance with only minor dysfunction of the beta-cell secretion of insulin. Other diabetics experience only slight insulin resistance, with the primary cause being a lack of insulin secretion (CDC, 2014d).

Figure 8.7

Source (CDC, 2014d).
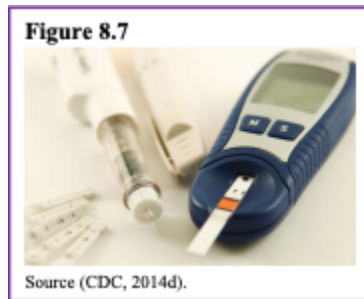
One in three adults are estimated to have prediabetes, and 9 in 10 of them do not know. According to the CDC (2014d) without intervention, 15% to 30% of those with prediabetes will develop diabetes within 5 years. In 2015, 30.2 million people (9.4% of the population) were living with diabetes in America, mostly adults age 18 and up (CDC, 2017). Table 8.4 shows the numbers in millions and percentage of adults, by age and gender, with both diagnosed and undiagnosed diabetes. The median age of diagnosis is 54 (CDC, 2014d). During middle adulthood, the number of people with diabetes dramatically increases; with 4.3 million living with diabetes prior to age 45, to over 13 million between the ages of 45 to 64;

a four-fold increase. Men are slightly more likely to experience diabetes than are women.

Table 8.4 Estimated Number and Percentage of Adults age 18 and over with Diabetes in 2015 According to the CDC

Characteristic	Diagnosed diabetes No. in millions (95% CI)ᵃ	Undiagnosed diabetes No. in millions (95% CI)ᵃ	Total diabetes No. in millions (95% CI)ᵃ
Total	23.0 (21.1–25.1)	7.2 (6.0–8.6)	30.2 (27.9–32.7)
Age in years			
18–44	3.0 (2.6–3.6)	1.6 (1.1–2.3)	4.6 (3.8–5.5)
45–64	10.7 (9.3–12.2)	3.6 (2.8–4.6)	14.3 (12.7–16.1)
≥65	9.9 (9.0–11.0)	2.1 (1.4–3.0)	12.0 (10.7–13.4)
Sex			
Women	11.7 (10.5–13.1)	3.1 (2.4–4.1)	14.9 (13.5–16.4)
Men	11.3 (10.2–12.4)	4.0 (3.0–5.5)	15.3 (13.8–17.0)

Figure 8.8 Ethnic Differences in Diabetes Diagnosis
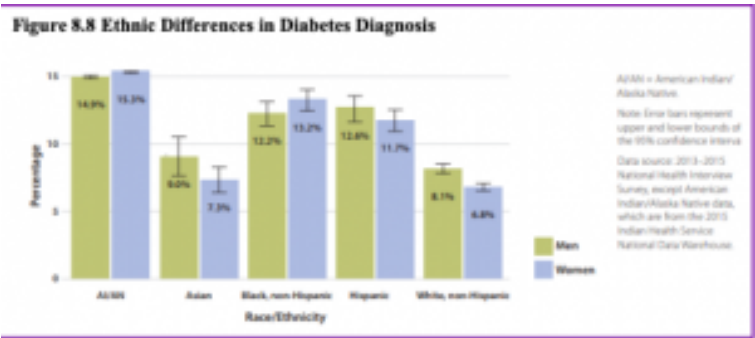
Diabetes also affects ethnic and racial groups differently. Non-Hispanic Whites are less likely to be diagnosed with diabetes than are Asian Americans, Hispanics, non-Hispanic Blacks, and American Indians/Alaskan Natives. However, these general figures hide the variations within these groups. For instance, the rate of diabetes was less for Central, South, and Cuban Americans than for Mexican Americans and Puerto Ricans, and less for Alaskan Natives than the American Indians of southern Arizona (CDC, 2017). Additionally, educational attainment, which is linked to one's economic level, is

correlated with diabetes. Percentages includes: Less than a high school degree (21.6%), high school degree (9.5%), and more than a high school degree (7.2%).

The risk factors for diabetes include:

- Those over age 45
- Obesity
- Family history of diabetes
- History of gestational diabetes (see Chapter 2)
- Race and ethnicity
- Physical inactivity
- Diet.

Diabetes has been linked to numerous health complications. Adults with diabetes are 1.7 times more likely to have cardiovascular disease, 1.8 times more likely to experience a heart attack, and 1.5 times more likely to experience stroke than adults without diabetes. Diabetes can cause blindness and other eye problems. Between 40%-45% of Americans with diabetes have some degree of **diabetic retinopathy**, which is *damage to the small blood vessels in the retina that may lead to loss of vision* (NEI, 2015). More than 4% showed advanced diabetic retinopathy. Diabetes is linked as the primary cause of almost half (44%) of new cases of kidney failure each year. About 60% of non-traumatic limb amputations occur in people with diabetes. Diabetes has been linked to hearing loss, tinnitus (ringing in the ears), gum disease, and neuropathy (nerve disease) (CDC, 2014d).

Typical tests for diabetes include a fasting glucose test and the A1C (See Table 8.5). Fasting glucose levels should be under 100mg/dl (ADA, 2016). The A1C provides information about the average levels of blood glucose over the last 3 months (NIH, 2014a). The A1C should be under 5.7, where a 5.0 = 97mg/dl and a 6.0 = 126 mg/dl (ADA, 2016).

Table 8.5 Diagnostic Blood Tests for Diabetes

	Normal	Prediabetes	Diabetes
Fasting Glucose	Below 100mg/dl	100-125mg/dl	126mg/dl +
A1C	Under 5.7	5.7-6.9	7+

Adapted from the American Diabetes Association (2016)

Metabolic Syndrome *is a cluster of several cardiometabolic risk factors, including large waist circumference, high blood pressure, and elevated triglycerides, LDL, and blood glucose levels, which can lead to diabetes and heart disease* (Crist et al., 2012). The prevalence of metabolic syndrome in the U.S. is approximately 34% and is especially high among Hispanics and African Americans (Ford, Li, & Zhao, 2010). Prevalence increases with age, peaking in one's 60s (Ford et al., 2010). Metabolic syndrome increases morbidity from cardiovascular disease and diabetes (Hu et al., 2004; Malik, 2004). Hu and colleagues found that even having one or two of the risk factors for metabolic syndrome increased the risk of mortality. Crist et al. (2012) found that increasing aerobic activity and reducing weight led to a drop in many of the risk factors of metabolic syndrome, including a reduction in waist circumference and blood pressure, and an increase in HDL cholesterol.

Rheumatoid arthritis (RA) *is an inflammatory disease that causes pain, swelling, stiffness, and loss of function in the joints* (NIH, 2016b). RA occurs when the immune system attacks the membrane lining the joints (see Figure 8.8). RA is the second most common form of arthritis after osteoarthritis, which is the normal wear and tear on the joints discussed in chapter 9. Unlike osteoarthritis, RA is symmetric in its attack of the body, thus, if one shoulder is affected so is the other. In addition, those with RA may experience fatigue and fever. Below are the common features of RA (NIH, 2016b).

Figure 8.9

Normal Joint (Representation)

Joint Affected by Rheumatoid Arthritis (Representation)

Source
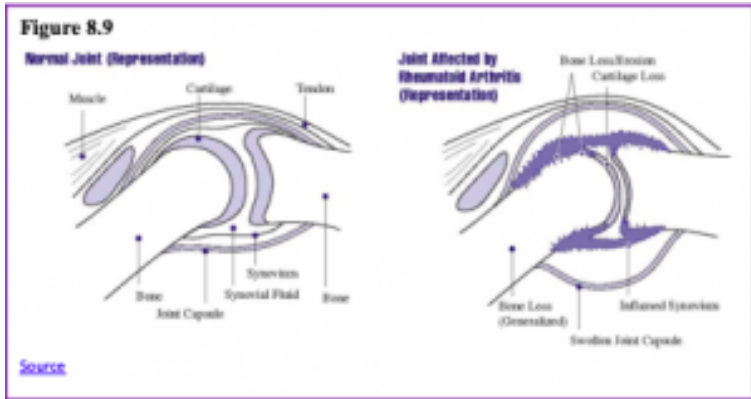
Features of Rheumatoid Arthritis

- Tender, warm, swollen joints
- Symmetrical pattern of affected joints
- Joint inflammation *often* affecting the wrist and finger joints closest to the hand
- Joint inflammation *sometimes* affecting other joints, including the neck, shoulders, elbows, hips, knees, ankles, and feet
- Fatigue, occasional fevers, a loss of energy
- Pain and stiffness lasting for more than 30 minutes in the morning or after a long rest
- Symptoms that last for many years
- Variability of symptoms among people with the disease.

About 1.5 million people (approximately 0.6%) of Americans experience rheumatoid arthritis. It occurs across all races and age groups, although the disease often begins in middle adulthood and occurs with increased frequency in older people. Like some other forms of arthritis, rheumatoid arthritis occurs much more frequently in women than in men. About two to three times as many

women as men have the disease (NIH, 2016b). The lifetime risk for RA for women is 3.6% and 1.7% for men (Crowson, et al., 2011).

Genes play a role in the development of RA. However, individual genes by themselves confer only a small risk of developing the disease, as some people who have these particular genes never develop RA. Scientists think that something must occur to trigger the disease process in people whose genetic makeup makes them susceptible to rheumatoid arthritis. For instance, some scientists also think hormonal factors may be involved. In women who experience RA, the symptoms may improve during pregnancy and flare after pregnancy. Women who use oral contraceptives may increase their likelihood of developing RA. This suggests hormones, or possibly deficiencies or changes in certain hormones, may increase the risk of developing RA in a genetically susceptible person (NIH, 2016b).

Rheumatoid arthritis can affect virtually every area of a person's life, and it can interfere with the joys and responsibilities of work and family life. Fortunately, current treatment strategies allow most people with RA to lead active and productive lives. Pain-relieving drugs and medications can slow joint damage and establishing a balance between rest and exercise can also lessen the symptoms of RA (NIH, 2016b).

Fatty liver disease (hepatic steatosis) *refers to the accumulation of fat in the liver*. The liver normally contains little fat, and anything below 5% of liver weight is considered normal. This disease is present in 33% of American adults. In the past, the main cause of fat accumulation in the liver was due to excessive alcohol consumption, often eventually leading to cirrhosis and liver failure. Today, increased caloric intake, especially resulting in obesity, and little physical activity are the main causes. Mild to moderate levels of hepatic steatosis can be reversed through healthy lifestyle changes (Nassir, Rector, Hammoud, & Ibdah, 2015).

Digestive Issues

Heartburn, also called acid indigestion or pyrosis, is a common digestive problem in adults and *is the result of stomach acid backing up into the esophagus.* Prolonged contact with the digestive juices injures the lining of the esophagus and causes discomfort. Heartburn that occurs more frequently may be due to gastroesophageal reflux disease or GERD. Normally the lower sphincter muscle in the esophagus keeps the acid in the stomach from entering the esophagus. In GERD this muscle relaxes too frequently and the stomach acid flows into the esophagus. In the U.S., 60 million people experience heartburn at least once a month, and 15 million experience it every day. Prolonged problems with heartburn can lead to more serious complications, including esophageal cancer, one of the most lethal forms of cancer in the U.S. Problems with heartburn can be linked to eating fatty or spicy foods, caffeine, smoking, and eating before bedtime (American College of Gastroenterology, 2016a).

Figure 8.10
Digestive System
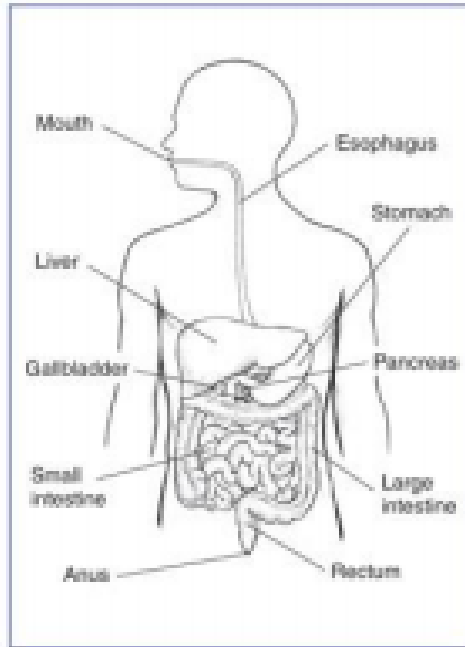
Source

    Gallstones *are hard particles, including fatty materials, bile pigments, and calcium deposits, that can develop in the gallbladder.* Ranging in size from a grain of sand to a golf ball, they typically take years to develop, but in some people have developed over the course of a few months. About 75% of gallstones do not create any symptoms, but those that do may cause sporadic upper abdominal pain when stones block bile or pancreatic ducts. If stones become lodged in the ducts, it may necessitate surgery or other medical

intervention as it could become life-threatening if left untreated (American College of Gastroenterology, 2016b).

Gallstones are present in about 20% of women and 10% of men over the age of 55 (American College of Gastroenterology, 2016b). Risk factors include a family history of gallstones, diets high in calories and refined carbohydrates (such as, white bread and rice), diabetes, metabolic syndrome, Crohn's disease, and obesity, which increases the cholesterol in the bile and thus increases the risk of developing gallstones (NIH, 2013).

Sleep

According to the American Academy of Sleep Medicine (Kasper, 2015) adults require at least 7 hours of sleep per night to avoid the health risks associated with chronic sleep deprivation. Less than 6 hours and more than 10 hours is also not recommended for those in middle adulthood (National Sleep Foundation, 2015). Not surprisingly, many Americans do not receive the 7-9 hours of sleep recommended. In 2013, only 59% of U.S. adults met that standard, while in 1942, 84% did (Jones, 2013). This means 41% of Americans receive less than the recommended amount of nightly sleep. Additional results included that in 1993, 67% of Americans felt they were getting enough sleep, but in 2013 only 56% felt they received as much sleep as needed. Additionally, 43% of Americans in 2013 believed they would feel better with more sleep.

Sleep problems: According to the Sleep in America poll (National Sleep Foundation, 2015), 9% of Americans report being diagnosed with a sleep disorder, and of those 71% have sleep apnea and 24% suffer from insomnia. Pain is also a contributing factor in the difference between the amount of sleep Americans say they need and the amount they are getting. An average of 42 minutes of sleep debt occur for those with chronic pain, and 14 minutes for those who have suffered from acute pain in the past week. Stress and overall poor health are also key components of shorter sleep durations and worse sleep quality. Those in midlife with lower life satisfaction experienced greater delay in the onset of sleep than those with higher life satisfaction. Delayed onset of sleep could be

the result of worry and anxiety during midlife, and improvements in those areas should improve sleep. Lastly, menopause can affect a woman's sleep duration and quality (National Sleep Foundation, 2016).

Children in the home and sleep: As expected, having children at home affects the amount of sleep one receives. According to a 2016 National Center for Health Statistics analysis (CDC, 2016) having children decreases the amount of sleep an individual receives, however, having a partner can improve the amount of sleep for both males and females. Table 8.6 illustrates the percentage of individuals not receiving seven hours of sleep per night based on parental role.

Table 8.6 Presence of Children and Sleep

Demographic	Sleep Less than 7 hours
Single Mothers	43.5%
Mothers with Partner	31.2%
Women without Children	29.7%
Single Fathers	37.5%
Fathers with Partner	34.1%
Men without Children	32.3%

Adapted from data from CDC (2016)

Negative consequences of insufficient sleep: There are many consequences of too little sleep, and they include physical, cognitive, and emotional changes. Sleep deprivation suppresses immune responses that fight off infection, and can lead to obesity, memory impairment, and hypertension (Ferrie et al., 2007; Kushida, 2005). Insufficient sleep is linked to an increased risk for colon

cancer, breast cancer, heart disease and type 2 diabetes (Pattison, 2015). A lack of sleep can increase stress as cortisol (a stress hormone) remains elevated which keeps the body in a state of alertness and hyperarousal which increases blood pressure. Sleep is also associated with longevity. Dew et al. (2003) found that older adults who had better sleep patterns also lived longer. During deep sleep a growth hormone is released which stimulates protein synthesis, breaks down fat that supplies energy, and stimulates cell division. Consequently, a decrease in deep sleep contributes to less growth hormone being released and subsequent physical decline seen in aging (Pattison, 2015).

Figure 8.11 The Importance of Sleep

Source

Sleep disturbances can also impair glucose functioning in middle adulthood. Caucasian, African American, and Chinese non-shift-working women aged 48–58 years who were not taking insulin-related medications, participated in the Study of Women's Health across the Nation (SWAN) Sleep Study and were subsequently examined approximately 5 years later (Taylor et al., 2016). Body mass index (BMI) and insulin resistance were measured at two-time points. Results indicated that irregular sleep schedules, including highly variable bedtimes and staying up much later than usual, are associated in midlife women with insulin resistance, which is an important indicator of metabolic health, including diabetes risk.

Diabetes risk increases in midlife women, and irregular sleep schedules may be an important reason because irregular bedtime schedules expose the body to varying levels of light, which is the most important timing cue for the body's circadian clock. By disrupting circadian timing, bedtime variability may impair glucose metabolism and energy homeostasis.

Exercise, Nutrition, and Weight

The impact of exercise: Exercise is a powerful way to combat the changes we associate with aging. Exercise builds muscle, increases metabolism, helps control blood sugar, increases bone density, and relieves stress. Unfortunately, fewer than half of midlife adults exercise and only about 20 percent exercise frequently and strenuously enough to achieve health benefits. Many stop exercising soon after they begin an exercise program, particularly those who are very overweight. The best exercise programs are those that are engaged in regularly, regardless of the activity. A well-rounded program that is easy to follow includes walking and weight training. Having a safe, enjoyable place to walk can make the difference in whether or not someone walks regularly. Weight lifting and stretching exercises at home can also be part of an effective program. Exercise is particularly helpful in reducing stress in midlife. Walking, jogging, cycling, or swimming can release the tension caused by stressors. Learning relaxation techniques can also have healthful benefits. Exercise can be thought of as preventative health care. Promoting exercise for the 78 million "baby boomers" may be one of the best ways to reduce health care costs and improve quality of life (Shure & Cahan, 1998).

According to the Office of Disease Prevention and Health Promotion (2008), the following are exercise guidelines for adults:

- Adults should avoid being inactive. Any activity will result in

some health benefits.

- For substantial health benefits, adults should engage in at least 150 minutes per week of moderate-intensity exercise OR at least 75 minutes of vigorous-intensity aerobic activity. Aerobic activity should occur for at least 10 minutes and preferably spread throughout the week.
- For more extensive health benefits, adults can increase their aerobic activity to 300 minutes per week of moderate-intensity OR 150 minutes per week of vigorous-intensity aerobic activity.
- Adults should also participate in muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on two or more days per week.

Nutritional concerns: Aging brings about a reduction in the number of calories a person requires (see Table 8.7 for estimated caloric needs in middle-aged adults). Many Americans respond to weight gain by dieting. However, eating less does not typically mean eating right and people often suffer vitamin and mineral deficiencies as a result. All adults need to be especially cognizant of the amount of sodium, sugar, and fat they are ingesting.

Table 8.7 Estimated Calorie Needs per Day, by Age, Sex, & Physical Activity Level

| Age | Males | | | Females[d] | | |
	Sedentary[a]	Moderately Active[b]	Active[c]	Sedentary[a]	Moderately Active[b]	Active[c]
36-40	2400	2600	2800	1800	2000	2200
41-45	2200	2600	2800	1800	2000	2200
46-50	2200	2400	2800	1800	2000	2200
51-55	2200	2400	2800	1600	1800	2200
56-60	2200	2400	2600	1600	1800	2200
61-65	2000	2400	2600	1600	1800	2000

Source: Adapted from 2015-2020 Dietary Guidelines for Americans

[a]Sedentary means a lifestyle that includes only the physical activity of independent living
[b]Moderate activity means a lifestyle that includes physical activity equivalent to walking more than 1.5 to 3 miles per day at 3 or 4 miles per hour, in addition to the activities of independent living.
[c]Active means a lifestyle that includes physical activity of walking more than 3 miles per day at 3 or 4 miles per hour, in addition to the activities of independent living.
[d]Estimates for females do not include women who are pregnant or breastfeeding

Excess Sodium: According to dietary guidelines, adults should consume less than 2,300mg (1 teaspoon) per day of sodium. The American Heart Association (2016) reports that the average sodium intake among Americans is 3440mg per day. Processed foods are the main culprits of excess sodium. High sodium levels in the diet is correlated with increased blood pressure, and its reduction does show corresponding drops in blood pressure. Adults with high blood pressure are strongly encouraged to reduce their sodium intake to 1500mg (U.S. Department of Health and Human Services & U.S. Department of Agriculture (USHHS & USDA), 2015).

Excess Fat: Dietary guidelines also suggests that adults should consume less than 10 percent of calories per day from saturated fats. The American Heart Association (2016) says optimally we should aim for a dietary pattern that achieves 5% to 6% of calories from saturated fat. In a 2000 calorie diet that is about 120 calories from saturated fat. In the average American diet about 34.3% of the diet comes from fat, with 15.0% from saturated fat (Berglund et al., 1999). Diets high in fat not only contribute to weight gain, but have been linked to heart disease, stroke, and high cholesterol.

Added Sugar: According to the recent Dietary Guidelines for Americans (USHHS & USDA, 2015) eating healthy means adults should consume less than 10 percent of calories per day from added sugars. Yet, currently, about 15% of the calories in the American adult diet come from added sugars, or about 22 teaspoons of sugar per day (NIH, 2014c). Excess sugar not only contributes to weight gain but diabetes and other health problems.

Metabolism and Weight Gain: One of the common complaints of midlife adults is weight gain, especially the accumulation of fat in the abdomen, which is often referred to as the middle-aged spread (Lachman, 2004). Men tend to gain fat on their upper abdomen and back, while women tend to gain more fat on their waist and upper arms. Many adults are surprised at this weight gain because their diets have not changed, however, their metabolism has slowed during midlife. **Metabolism** *is the process by which the body converts*

food and drink into energy. The calories consumed are combined with oxygen to release the energy needed to function (Mayo Clinic, 2014b). People who have more muscle burn more calories, even at rest, and thus have a higher metabolism.

Figure 8.12 Exercise is Very Important in Middle Age

Source

However, as you get older, the amount of muscle decreases. Consequently, fat accounts for more of one's weight in midlife. and fat slows down the number of calories burned. To compensate, midlife adults have to increase their level of exercise, eat less, and watch their nutrition to maintain their earlier physique.

Obesity: As discussed in the early adulthood chapter, obesity is a significant health concern for adults throughout the world, and especially America. Obesity rates continue to increase and the current rate for those 40-59 is 42.8%, which is the highest percentage per age group (CDC, 2017). Being overweight is associated with a myriad of health conditions including diabetes, high blood pressure, and heart disease. New research is now linking obesity to Alzheimer's disease. Chang et al. (2016) found that being overweight in midlife was associated with earlier onset of Alzheimer's disease. The study looked at 1,394 men and women

who were part of the Baltimore Longitudinal Study of Aging. Their average age was around 60, and they were followed for 14 years. Results indicated that people with the highest body mass index, or BMI, at age 50 were more likely to develop Alzheimer's disease. In fact, each one-point increase in BMI was associated with getting Alzheimer's six to seven months earlier. Those with the highest BMIs also had more brain changes typical of Alzheimer's, even if they did not have symptoms of the disease. Scientists speculate that fat cells may produce harmful chemicals that promote inflammation in blood vessels throughout the body, including in the brain. The conclusion of the study was that a healthy BMI at midlife may delay the onset of Alzheimer's disease.

Concluding Thoughts: Many of the changes that occur in midlife can be easily compensated for, such as buying glasses, exercising, and watching what one eats. However, the percentage of middle adults who have a significant health concern has increased in the past 15 years. According to the 2016 United Health Foundation's America's Health Rankings Senior Report, the next generation of seniors will be less healthy than the current seniors (United Health Foundation, 2016). The study compared the health of middle-aged Americans (50-64 years of age) in 2014 to middle-aged Americans in 1999. Results indicated that in the past 15 years the prevalence of diabetes has increased by 55% and the prevalence of obesity has increased by 25%. At the state level, Massachusetts ranked first for healthy seniors, while Louisiana ranked last. Illinois ranked 36th, while Wisconsin scored higher at 13th.

What can we conclude from this information? Lifestyle has a strong impact on the health status of midlife adults, and it becomes important for midlife adults to take preventative measures to enhance physical well-being. Those midlife adults who have a strong sense of mastery and control over their lives, who engage in challenging physical and mental activity, who engage in weight-bearing exercise, monitor their nutrition, receive adequate sleep,

and make use of social resources are most likely to enjoy a plateau of good health through these years (Lachman, 2004).

Climacteric

The **climacteric**, *or the midlife transition when fertility declines*, is biologically based but impacted by the environment. During midlife, men may experience a reduction in their ability to reproduce. Women, however, lose their ability to reproduce once they reach menopause.

Female Sexual and Reproductive Health: **Perimenopause** *refers to a period of transition in which a woman's ovaries stop releasing eggs and the level of estrogen and progesterone production decreases.* **Menopause** *is defined as 12 months without menstruation.* The average age of menopause is approximately 51, however, many women begin experiencing symptoms in their 40s. These symptoms occur during perimenopause, which can occur 2 to 8 years before menopause (Huang, 2007). A woman may first begin to notice that her periods are more or less frequent than before. After a year without menstruation, a woman is considered menopausal and no longer capable of reproduction.

Figure 8.13

Symptoms of
Menopause

Systemic
- Weight gain
- Heavy night sweats

Headache

Palpitations

Breasts
- Enlargement
- Pain

Skin
- Hot flashes
- Dryness
- Itching
- Thinning
- Tingling

Joints
- Soreness
- Stiffness

Back pain

Urinary
- Incontinence
- Urgency

Psychological
- Dizziness
- Interrupted sleeping patterns
- Anxiety
- Poor memory
- Inability to concentrate
- Depressive mood
- Irritability
- Mood swings
- Less interest in sexual activity

Transitional menstruations
- Shorter or longer cycles
- Bleeding between periods

Vaginal
- Dryness
- Painful intercourse

Source

Symptoms: The symptoms that occur during perimenopause and menopause are typically caused by the decreased production of estrogen and progesterone (North American Menopause Society, 2016). The shifting hormones can contribute to the inability to fall asleep. Additionally, the declining levels of estrogen may make a woman more susceptible to environmental factors and stressors which disrupt sleep. A **hot flash** *is a surge of adrenaline* that can awaken the brain from sleep. It often produces sweat and a change of temperature that can be disruptive to sleep and comfort levels. Unfortunately, it may take time for the adrenaline to recede and allow sleep to occur again (National Sleep Foundation, 2016).

The loss of estrogen also affects vaginal lubrication which

diminishes and becomes waterier and can contribute to pain during intercourse. The vaginal wall also becomes thinner, and less elastic. Estrogen is also important for bone formation and growth, and decreased estrogen can cause osteoporosis resulting in decreased bone mass. Depression, irritability, and weight gain are often associated with menopause, but they are not menopausal (Avis, Stellato & Crawford, 2001; Rossi, 2004). Weight gain can occur due to an increase in intra-abdominal fat followed by a loss of lean body mass after menopause (Morita et al., 2006). Consequently, women may need to change their lifestyle to counter any weight gain. Depression and mood swings are more common during menopause in women who have prior histories of these conditions rather than those who have not.

Additionally, the incidence of depression and mood swings is not greater among menopausal women than non-menopausal women. Figure 8.12 identifies symptoms experienced by women during menopause, however, women vary greatly in the extent to which these symptoms are experienced. Most American women go through menopause with few problems (Carroll, 2016). Overall, menopause is not seen as universally distressing (Lachman, 2004).

Hormone Replacement Therapy: Concerns about the effects of hormone replacement has changed the frequency with which estrogen replacement and hormone replacement therapies have been prescribed for menopausal women. Estrogen replacement therapy was once commonly used to treat menopausal symptoms. However, more recently, hormone replacement therapy has been associated with breast cancer, stroke, and the development of blood clots (NIH,

2007). Most women do not have symptoms severe enough to warrant estrogen or hormone replacement therapy. If so, they can be treated with lower doses of estrogen and monitored with more frequent breast and pelvic exams. There are also some other ways to reduce symptoms. These include avoiding caffeine and alcohol, eating soy, remaining sexually active, practicing relaxation techniques, and using water-based lubricants during intercourse.

Menopause and Ethnicity: In a review of studies that mentioned menopause, symptoms varied greatly across countries, geographic regions, and even across ethnic groups within the same region (Palacios, Henderson, & Siseles, 2010). For example, the Study of Women's Health across the Nation (SWAN) examined 14,906 white, African American, Hispanic, Japanese American, and Chinese American women's menopausal experiences (Avis et al., 2001). After controlling for age, educational level, general health status, and economic stressors, white women were more likely to disclose symptoms of depression, irritability, forgetfulness, and headaches compared to women in the other racial/ethnic groups. African American women experienced more night sweats, but this varied across research sites. Finally, Chinese American and Japanese American reported fewer menopausal symptoms when compared to the women in the other groups. Overall, the Chinese and Japanese groups reported the fewest symptoms, while white women reported more mental health symptoms and African American women reported more physical symptoms.

Cultural Differences: Cultural influences seem to also play a role in the way menopause is experienced. Further, the prevalence of language specific to menopause is an important indicator of the occurrence of menopausal symptoms in a culture. Hmong tribal women living in Australia and Mayan women report that there is no word for "hot flashes" and both groups did not experience these symptoms (Yick-Flanagan, 2013). When asked about physical changes during menopause, the Hmong women reported lighter or no periods. They also reported no emotional symptoms and found the concept of emotional difficulties caused by menopause amusing (Thurston & Vissandjee, 2005). Similarly, a study with First Nation women in Canada found there was no single word for "menopause" in the Oji-Cree or Ojibway languages, with women referring to menopause only as "that time when periods stop" (Madden, St Pierre-Hansen & Kelly, 2010).

Figure 8.14
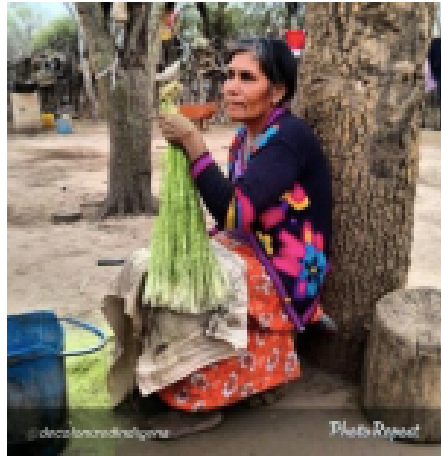
Source

    While some women focus on menopause as a loss of youth, womanhood, and physical attractiveness, career-oriented women tend to think of menopause as a liberating experience. Japanese women perceive menopause as a transition from motherhood to a more whole person, and they no longer feel obligated to fulfill certain expected social roles, such as the duty to be a mother (Kagawa-Singer, Wu, & Kawanishi, 2002). In India, 94% of women said they welcomed menopause. Aging women gain status and prestige and no longer have to go through self- imposed menstrual restrictions, which may contribute to Indian women's experiences (Kaur, Walia, & Singh, 2004). Overall, menopause signifies many different things to women around the world and there is no typical experience. Further, normalizing rather than pathologizing menopause is supported by research and women's experiences.

    Male Sexual and Reproductive Health: Although males can continue to father children throughout middle adulthood, erectile

dysfunction (ED) becomes more common. Erectile dysfunction refers to the inability to achieve an erection or an inconsistent ability to achieve an erection (Swierzewski, 2015). Intermittent ED affects as many as 50% of men between the ages of 40 and 70. About 30 million men in the United States experience chronic ED and the percentages increase with age. Approximately 4% of men in their 40s, 17% of men in their 60s, and 47% of men older than 75 experience chronic ED.

Causes for ED are primarily due to medical conditions, including diabetes, kidney disease, alcoholism, and atherosclerosis (build-up of plaque in the arteries). Plaque is made up of fat, cholesterol, calcium and other substances found in the blood. Over time plaque builds up, hardens, and restricts the blood flow in the arteries (NIH, 2014d). This build-up limits the flow of oxygenated blood to organs and the penis. Overall, diseases account for 70% of chronic ED, while psychological factors, such as stress, depression, and anxiety account for 10%-20% of all cases. Many of these causes are treatable, and ED is not an inevitable result of aging.

Figure 8.15 Medical Check-ups are Important for Men

Source

Men during middle adulthood may also experience prostate enlargement, which can interfere with urination and deficient testosterone levels which decline throughout adulthood, but especially after age 50. *If testosterone levels decline significantly*, it is

referred to as **andropause or late-onset hypogonadism.** Identifying whether testosterone levels are low is difficult because individual blood levels vary greatly. Low testosterone is not a concern unless it accompanied by negative symptoms such as low sex drive, ED, fatigue, loss of muscle, loss of body hair, or breast enlargement. Low testosterone is also associated with medical conditions, such as diabetes, obesity, high blood pressure, and testicular cancer. The effectiveness of supplemental testosterone is mixed, and long term testosterone replacement therapy for men can increase the risk of prostate cancer, blood clots, heart attack, and stroke (WebMD, 2016). Most men with low testosterone do not have related problems (Berkeley Wellness, 2011).

The Climacteric and Sexuality

Sexuality is an important part of people's lives at any age, and many older adults are very interested in staying sexually active (Dimah & Dimah, 2004). According to the National Survey of Sexual Health and Behavior (NSSHB) (Center for Sexual Health Promotion, 2010), 74% of males and 70% of females aged 40-49 engaged in vaginal intercourse during the previous year, while 58% of males and 51% of females aged 50-59 did so.

Despite these percentages indicating that middle adults are sexually active, age-related physical changes can affect sexual functioning. For women, decreased sexual desire and pain during vaginal intercourse because of menopausal changes have been identified (Schick et al., 2010). A woman may also notice less vaginal lubrication during arousal which can affect overall pleasure (Carroll, 2016). Men may require more direct stimulation for an erection and the erection may be delayed or less firm (Carroll, 2016). As previously discussed men may experience erectile dysfunction or experience medical conditions (such as diabetes or heart disease)

that impact sexual functioning. Couples can continue to enjoy physical intimacy and may engage in more foreplay, oral sex, and other forms of sexual expression rather than focusing as much on sexual intercourse.

Figure 8.16

Source

The risk of pregnancy continues until a woman has been without menstruation for at least 12 months, however, and couples should continue to use contraception. People continue to be at risk of contracting sexually transmitted infections, such as genital herpes, chlamydia, and genital warts. In 2014, 16.7% of the country's new HIV diagnoses (7,391 of 44,071) were among people 50 and older, according to the Centers for Disease Control and Prevention (2014e). This was an increase from 15.4% in 2005. Practicing safe sex is important at any age, but unfortunately, adults over the age of 40 have the lowest rates of condom use (Center for Sexual Health Promotion, 2010). This low rate of condom use suggests the need to enhance education efforts for older individuals regarding STI risks and prevention. Hopefully, when partners understand how aging affects sexual expression, they will be less likely to misinterpret these changes as a lack of sexual interest or displeasure in the partner and more able to continue to have satisfying and safe sexual relationships.

Brain Functioning

The brain at midlife has been shown to not only maintain many of the abilities of young adults but also gain new ones. Some individuals in middle age actually have improved cognitive functioning (Phillips, 2011). The brain continues to demonstrate plasticity and rewires itself in middle age based on experiences. Research has demonstrated that older adults use more of their brains than younger adults. In fact, older adults who perform the best on tasks are more likely to demonstrate bilateralization than those who perform worst. Additionally, the amount of white matter in the brain, which is responsible for forming connections among neurons, increases into the 50s before it declines.

Emotionally, the middle-aged brain is calmer, less neurotic, more capable of managing emotions, and better able to negotiate social situations (Phillips, 2011). Older adults tend to focus more on positive information and less on negative information than those younger. In fact, they also remember positive images better than those younger. Additionally, the older adult's amygdala responds less to negative stimuli. Lastly, adults in middle adulthood make better financial decisions, which seems to peak at age 53, and show better economic understanding. Although greater cognitive variability occurs among middle adults when compared to those both younger and older, those in midlife with cognitive improvements tend to be more physically, cognitively, and socially active.

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Chapter 26: Cognitive Development in Middle Adulthood

Crystalized versus Fluid Intelligence

Intelligence is influenced by heredity, culture, social contexts, personal choices, and certainly age. One distinction in specific intelligence noted in adulthood is between fluid intelligence, which refers to the capacity to learn new ways of solving problems and performing activities quickly and abstractly and **crystallized intelligence**, *which refers to the accumulated knowledge of the world we have acquired throughout our lives* (Salthouse, 2004). This intelligence is distinct, and crystallized intelligence increases with age, while fluid intelligence tends to decrease with age (Horn, Donaldson, & Engstrom, 1981; Salthouse, 2004).

   Research demonstrates that older adults have more crystallized intelligence as reflected in semantic knowledge, vocabulary, and language. As a result, adults generally outperform younger people on measures of history, geography, and even on crossword puzzles, where this information is useful (Salthouse, 2004). It is this superior knowledge, combined with a slower and more complete processing style, along with a more sophisticated understanding of the workings
of the world around them, that gives older adults the advantage of "wisdom" over the advantages of fluid intelligence which favors the young (Baltes, Staudinger, & Lindenberger, 1999; Scheibe, Kunzmann, & Baltes, 2009).

Figure 8.17

Fluid and Crystallized Intelligence Across the Lifespan
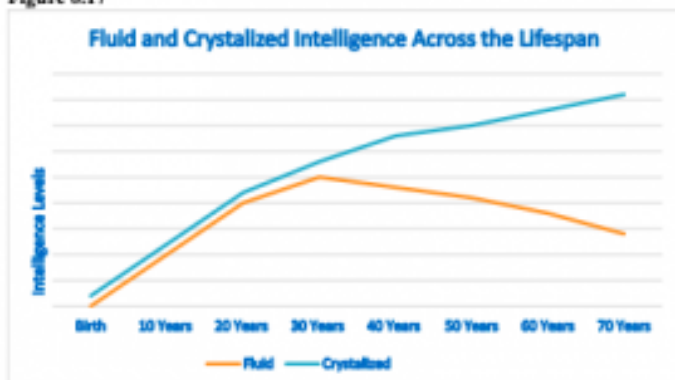
Adapted from Horn, Donaldson and Engstrom (1981)

The differential changes in crystallized versus fluid intelligence help explain why older adults do not necessarily show poorer performance on tasks that also require experience (i.e., crystallized intelligence), although they show poorer memory overall. A young chess player may think more quickly, for instance, but a more experienced chess player has more knowledge to draw on.

Seattle Longitudinal Study: The Seattle Longitudinal Study has tracked the cognitive abilities of adults since 1956. Every seven years the current participants are evaluated, and new individuals are also added. Approximately 6000 people have participated thus far, and 26 people from the original group are still in the study today. Current results demonstrate that middle-aged adults perform better on four out of six cognitive tasks than those same individuals did when they were young adults. Verbal memory, spatial skills, inductive reasoning (generalizing from particular examples), and vocabulary increase with age until one's 70s (Schaie, 2005; Willis & Shaie, 1999). However, numerical computation and perceptual speed decline in middle and late adulthood (see Figure 8.18).

Figure 8.18 Seattle Longitudinal Study ages 25 to 88
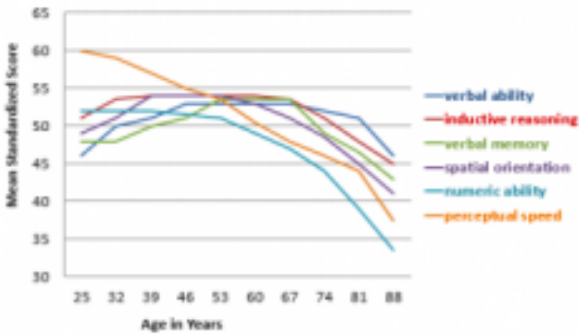
Cognitive skills in the aging brain have been studied extensively in pilots, and similar to the Seattle Longitudinal Study results, older pilots show declines in processing speed and memory capacity, but their overall performance seems to remain intact. According to Phillips (2011), researchers tested pilots age 40 to 69 as they performed on flight simulators. Older pilots took longer to learn to use the simulators but performed better than younger pilots at avoiding collisions.

Flow *is the mental state of being completely present and fully absorbed in a task* (Csikszentmihalyi, 1990). When in a state of flow, the individual is able to block outside distractions and the mind is fully open to producing. Additionally, the person is achieving great joy or intellectual satisfaction from the activity and accomplishing a goal. Further, when in a state of flow, the individual is not concerned with extrinsic rewards. Csikszentmihalyi (1996) used his theory of flow to research how some people exhibit high levels of creativity as he believed that a state of flow is an important factor in creativity (Kaufman & Gregoire, 2016). Other characteristics of creative people identified by Csikszentmihalyi (1996) include curiosity and drive, value for intellectual endeavors, and an ability to lose our sense of self and feel a part of something greater. In addition, he believed that the tortured creative person was a myth and that creative

people were very happy with their lives. According to Nakamura and Csikszentmihalyi (2002), people describe flow as the height of enjoyment. The more they experience it, the more they judge their lives to be gratifying. The qualities that allow for flow are well-developed in middle adulthood.

Tacit knowledge *is the knowledge that is pragmatic or practical and learned through experience rather than explicitly taught,* and it also increases with age (Hedlund, Antonakis, & Sternberg, 2002). Tacit knowledge might be thought of as "know-how" or "professional instinct." It is referred to as tacit because it cannot be codified or written down. It does not involve academic knowledge, rather it involves being able to use skills and to problem-solve in practical ways. Tacit knowledge can be understood in the workplace and used by blue-collar workers, such as carpenters, chefs, and hairdressers.

Middle Adults Returning to Education

Midlife adults in the United States often find themselves in college classrooms. In fact, the rate of enrollment for older Americans entering college, often part-time or in the evenings, is rising faster than traditionally aged students. Students over age 35, accounted for 17% of all college and graduate students in 2009, and are expected to comprise 19% of that total by 2020 (Holland, 2014). In some cases, older students are developing skills and expertise in order to launch a second career or to take their career in a new direction. Whether they enroll in school to sharpen particular skills, to retool and reenter the workplace, or to pursue interests that have previously been neglected, older students tend to approach the learning process differently than younger college students (Knowles, Holton, & Swanson, 1998).

The mechanics of cognition, such as working memory and speed of

processing, gradually decline with age. However, they can be easily compensated for through the use of higher-order cognitive skills, such as forming strategies to enhance memory or summarizing and comparing ideas rather than relying on rote memorization (Lachman, 2004). Although older students may take a bit longer to learn the material, they are less likely to forget it quickly. Adult learners tend to look for relevance and meaning when learning information. Older adults have the hardest time learning material that is meaningless or unfamiliar. They are more likely to ask themselves, "Why is this important?" when being introduced to information or when trying to memorize concepts or facts. Older adults are more task-oriented learners and want to organize their activity around problem-solving.

Rubin et al. (2018) surveyed university students aged 17-70 regarding their satisfaction and approach to learning in college. Results indicated that older students were more independent, inquisitive, and motivated intrinsically compared to younger students. Additionally, older women processed information at a deeper learning level and expressed more satisfaction with their education.

To address the educational needs of those over 50, The American Association of Community Colleges (2016) developed the **Plus 50 Initiative** *that assists community college in creating or expanding programs that focus on workforce training and new careers for the plus-50 population.* Since 2008 the program has provided grants for programs to 138 community colleges affecting over 37, 000 students. The participating colleges offer workforce training programs that prepare 50 plus adults for careers in such fields as early childhood educators, certified nursing assistants, substance abuse counselors, adult basic education instructors, and human resources specialists. These training programs are especially beneficial as 80% of people over the age of 50 say they will retire later in life than their parents or continue to work in retirement, including in a new field.

Gaining Expertise: The Novice and the Expert

Expertise *refers to specialized skills and knowledge that pertain to a particular topic or activity.* In contrast, a **novice** *is someone who has limited experiences with a particular task.* Everyone develops some level of "selective" expertise in things that are personally meaningful to them, such as making bread, quilting, computer programming, or diagnosing illness. Expert thought is often characterized as intuitive, automatic, strategic, and flexible.

- **Intuitive:** Novices follow particular steps and rules when problem-solving, whereas experts can call upon a vast amount of knowledge and past experience. As a result, their actions appear more intuitive than formulaic. Novice cooks may slavishly follow the recipe step by step, while chefs may glance at recipes for ideas and then follow their own procedure.
- **Automatic:** Complex thoughts and actions become more routine for experts. Their reactions appear instinctive over time, and this is because expertise allows us to process information faster and more effectively (Crawford & Channon, 2002).
- **Strategic:** Experts have more effective strategies than non-experts. For instance, while both skilled and novice doctors generate several hypotheses within minutes of an encounter with a patient, the more skilled clinicians' conclusions are likely to be more accurate. In other words, they generate better hypotheses than the novice. This is because they are able to discount misleading symptoms and other distractors and hone in on the most likely problem the patient is experiencing (Norman, 2005). Consider how your note-taking skills may have changed after being in school over a number of years. Chances are you do not write down everything the instructor says, but the more central ideas. You may have even come up with your own short forms for commonly mentioned

words in a course, allowing you to take down notes faster and more efficiently than someone who may be a novice academic note taker.

- **Flexible:** Experts in all fields are more curious and creative; they enjoy a challenge and experiment with new ideas or procedures. The only way for experts to grow in their knowledge is to take on more challenging, rather than routine tasks.

Expertise takes time. It is a long-process resulting from experience and practice (Ericsson, Feltovich, & Prietula, 2006). Middle-aged adults, with their store of knowledge and experience, are likely to find that when faced with a problem they have likely faced something similar before. This allows them to ignore the irrelevant and focus on the important aspects of the issue. Expertise is one reason why many people often reach the top of their careers in middle adulthood.

However, expertise cannot fully make-up for all losses in general cognitive functioning as we age. The superior performance of older adults in comparison to younger novices appears to be task-specific (Charness & Krampe, 2006). As we age, we also need to be more deliberate in our practice of skills in order to maintain them. Charness and Krampe (2006) in their review of the literature on aging and expertise, also note that the rate of return for our effort diminishes as we age. In other words, increasing practice does not recoup the same advances in older adults as similar efforts do at younger ages.

Work at Midlife

Who is the U.S. workforce? The civilian, non-institutionalized workforce; the population of those aged 16 and older, who are employed has steadily declined since it reached its peak in the late

1990s when 67% of the civilian workforce population was employed. In 2012 the rate had dropped to 64% and by 2019 it declined to 62.9% (Bureau of Labor Statistics, 2019). The U.S. population is expected to grow more slowly based on census projections for the next few years. Those new entrants to the labor force, adults age 16 to 24, are the only population of adults that will shrink in size over the next few years by nearly half a percent, while those age 55 and up will grow by 2.3% over current rates, and those age 65 to 74 will grow by nearly 4% (Monthly Labor Review (MLR), 2013). In 1992, 26% of the population was 55+, by 2022 it is projected to be 38%. Table 8.8 shows the rates of employment by age. In 2002, baby boomers were between the ages of 38 to 56, the prime employment group. In 2012, the youngest baby boomers were 48 and the oldest had just retired (age 66). These changes might explain some of the steady declines in work participation as this large population cohort ages out of the workforce.

In 2012, 53% of the workforce was male. For both genders and for most age groups the rate of participation in the labor force has declined from 2002 to 2012, and it is projected to decline further by 2022. The exception is among the older middle-age groups (the baby boomers), and especially for women 55 and older.

Table 8.8
Percentage of the non-institutionalized civilian workforce employed by gender & age.

	Males			Females		
	2002	2012	2022*	2002	2012	2022*
16-19	47.5	34	27.8	47.3	34.6	26.7
20-24	80.7	74.5	69.9	72.1	67.4	64.7
25-34	92.4	89.5	88.8	75.1	74.1	73.4
35-44	92.1	90.7	90.4	76.4	74.8	73.3
45-54	88.5	86.1	85.1	76	74.7	74.9
55-59	78	78	77.8	63.8	67.3	73.3
60-64	57.6	60.5	64.3	44.1	50.4	55.6
16+ totals	74.1	70.2	67.6	59.6	57.7	56

*Projected rates of employment (adapted from Monthly Labor Review, 2013).

Hispanic males have the highest rate of participation in the labor

force. In 2012, 76% of Hispanic males, compared with 71% of White, 72% of Asians, and 64% of Black men ages 16 or older were employed. Among women, Black women were more likely to be participating in the workforce (58%) compared with almost 57% of Hispanic and Asian, and 55% of White females. The rates for all racial and ethnic groups are expected to decline by 2022 (MLR, 2013).

Climate in the Workplace for Middle-aged Adults: A number of studies have found that job satisfaction tends to peak in middle adulthood (Besen, Matz-Costa, Brown, Smyer, & Pitt- Catsouphers, 2013; Easterlin, 2006). This satisfaction stems from not only higher wages, but often greater involvement in decisions that affect the workplace as they move from worker to supervisor or manager. Job satisfaction is also influenced by being able to do the job well, and after years of experience at a job, many people are more effective and productive. Another reason for this peak in job satisfaction is that at midlife many adults lower their expectations and goals (Tangri, Thomas, & Mednick, 2003). Middle-aged employees may realize they have reached the highest they are likely to in their careers. This satisfaction at work translates into lower absenteeism, greater productivity, and less job-hopping in comparison to younger adults (Easterlin, 2006).

However, not all middle-aged adults are happy in the workplace. Women may find themselves up against the glass ceiling. This may explain why females employed at large corporations are twice as likely to quit their jobs as are men (Barreto, Ryan, & Schmitt, 2009). Another problem older workers may encounter is job **burnout**, defined as *unsuccessfully managed workplace stress* (World Health Organization, 2019). Burnout consists of:

- Feelings of energy depletion or exhaustion
- Increased mental distance from one's job, or feelings of job negativism or cynicism
- Reduced professional efficacy

American workers may experience more burnout than do workers in many other developed nations because most developed nations guarantee by law a set number of paid vacation days (International Labour Organization, ILO, 2011), the United States does not (U.S. Department of Labor, 2016).

Figure 8.20 Average Annual Hours Actually Worked per Worker
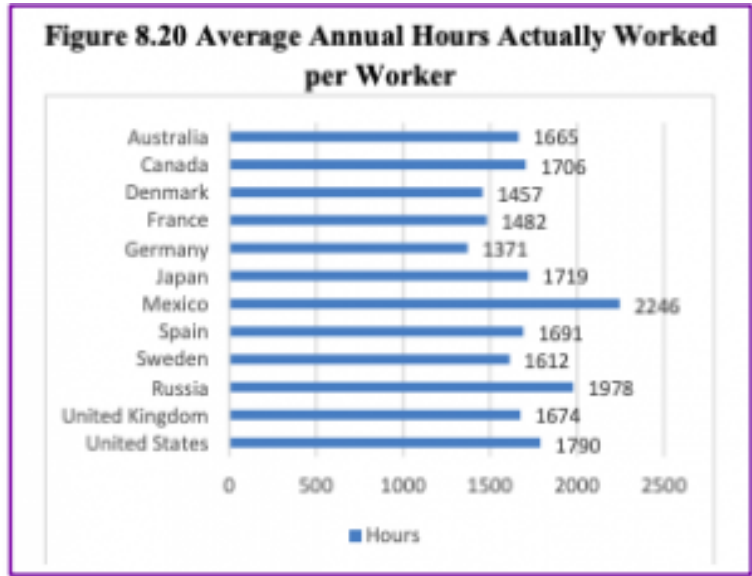
Not all employees are covered under overtime pay laws (U.S. Department of Labor, 2016). This is important when you considered that the 40-hour workweek is a myth for most Americans. Only 4 in 10 U.S. workers work the typical 40-hour workweek. The average workweek for many is almost a full day longer (47 hours), with 39% working 50 or more hours per week (Saad, 2014). In comparison to workers in many other developed nations, American workers work more hours per year (Organisation for Economic Cooperation and Development, OECD, 2016). As can be seen in Figure 8.20, Americans work more hours than most European nations, especially western and northern Europe, although they work fewer hours than workers in other nations, especially Mexico.

Challenges in the Workplace for Middle-aged Adults: In recent years middle-aged adults have been challenged by economic downturns, starting in 2001, and again in 2008. Fifty-five percent of adults reported some problems in the workplace, such as fewer hours, pay-cuts, having to switch to part-time, etc., during the most recent economic recession (see Figure 8.21, Pew Research Center, 2010a). While young adults took the biggest hit in terms of levels of unemployment, middle-aged adults also saw their overall financial resources suffer as their retirement nest eggs disappeared and house values shrank, while foreclosures increased (Pew Research Center, 2010b). Not surprisingly this age group reported that the recession hit them worse than did other age groups, especially those aged 50-64. Middle-aged adults who find themselves unemployed are likely to remain unemployed longer than those in early adulthood (U.S. Government Accountability Office, 2012). In the eyes of employers, it may be more cost-effective to hire a young adult, despite their limited experience, as they would be starting out at lower levels of the pay scale. In addition, hiring someone who is 25 and has many years of work ahead of them versus someone who is 55 and will likely retire in 10 years may also be part of the decision to hire a younger worker (Lachman, 2004). American workers are also competing with global markets and changes in technology. Those who are able to keep up with all these changes or are willing to uproot and move around the country or even the world have a better chance of finding work. The decision to move may be easier for people who are younger and have fewer obligations to others.

Figure 8.21
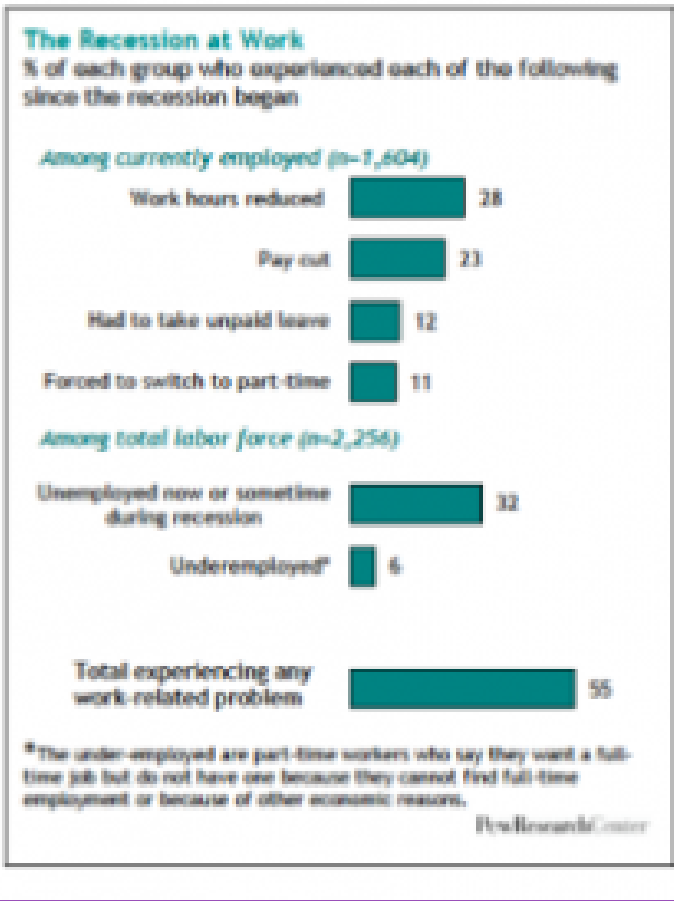
Leisure

As most developed nations restrict the number of hours an employer can demand that an employee work per week, and require

employers to offer paid vacation time, what do middle-aged adults do with their *time off from work and duties*, referred to as **leisure**? Around the world, the most common leisure activity in both early and middle adulthood is watching television (Marketing Charts Staff, 2014). On average, middle-aged adults spend 2-3 hours per day watching TV (Gripsrud, 2007) and watching TV accounts for more than half of all the leisure time (see Figure 8.22).

Figure 8.22

Average hours per day spent in leisure and sports activities by gender, 2014 annual averages
Watching TV accounts for more than half of leisure time
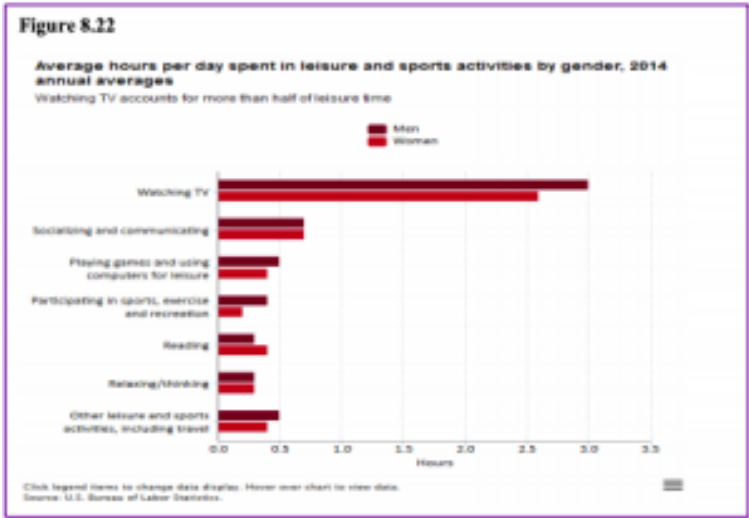
In the United States, men spend about 5 hours more per week in leisure activities, especially on weekends, than do women (Drake, 2013; U.S. Bureau of Labor Statistics, 2016). The leisure gap between mothers and fathers is slightly smaller, about 3 hours a week, than among those without children under age 18 (Drake, 2013). Those age 35-44 spend less time on leisure activities than any other age group, 15 or older (U.S. Bureau of Labor Statistics, 2016). This is not surprising as this age group is more likely to be parents and still working up the ladder of their career, so they may feel they have less time for leisure.

Americans have less leisure time than people in many other developed nations. As you read earlier, there are no laws in many job sectors guaranteeing paid vacation time in the United States (see Figure 8.23). Ray, Sanes, and Schmitt (2013) report that several other nations also provide additional time off for young and older workers and for shift workers. In the United States, those in higher-paying jobs and jobs covered by a union contract are more likely to have paid vacation time and holidays (Ray & Schmitt, 2007).

Figure 8.23 Legally Mandated Time Off
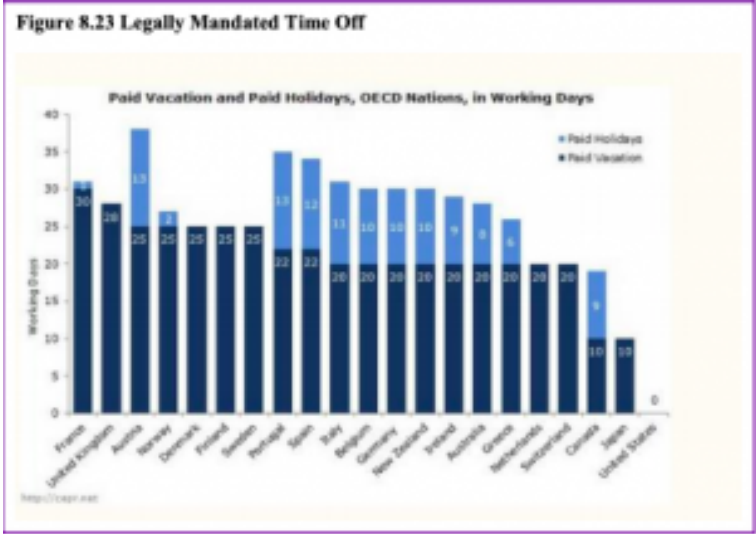
But do U.S. workers take their time off? According to Project Time-Off (2016), 55% of U.S. workers in 2015 did not take all of their paid vacation and holiday leave. A large percentage of this leave is lost. It cannot be rolled over into the next year or paid out. A total of 658 million vacation days or an average of 2 vacation days per worker was lost in 2015. The reasons most often given for not taking time off was worry that there would be a mountain of work to return to (40%), a concern that no one else could do the job (35%), not being able to afford a vacation (33%), feeling it was harder to take time away when you have or are moving up in the

company (33%), and not wanting to seem replaceable (22%). Since 2000, more American workers are willing to work for free rather than take the time that is allowed to them. A lack of support from their boss and even their colleagues to take a vacation is often a driving force in deciding to forgo time off. In fact, 80% of the respondents to the survey above said they would take time away if they felt they had support from their boss. Two-thirds reported that they hear nothing, mixed messages, or discouraging remarks about taking their time off. Almost a third (31%) feel they should contact their workplace, even while on vacation.

The benefits of taking time away from work: Several studies have noted the benefits of taking time away from work. It reduces job stress burnout (Nimrod, Kleiber, & Berdychevesky, 2012), improves both mental health (Qian, Yarnal, & Almeida, 2013) and physical health (Stern & Konno, 2009), especially if that leisure time also includes moderate physical activity (Lee et al., 2015). Leisure activities can also improve productivity and job satisfaction (Kühnel & Sonnentag, 2011) and help adults deal with balancing family and work obligations (Lee, et al., 2015).

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Chapter 27: Psychosocial Development in Middle Adulthood

There are many socioemotional changes that occur in how middle-aged adults perceive themselves. While people in their early 20s may emphasize how old they are to gain respect or to be viewed as experienced, by the time people reach their 40s they tend to emphasize how young they are. For instance, a few 40-year-olds cut each other down for being so young stating: "You're only 43? I'm 48!" A previous focus on the future gives way to an emphasis on the present. Neugarten (1968) notes that in midlife, people no longer think of their lives in terms of how long they have lived. Rather, life is thought of in terms of how many years are left.

Midlife Crisis?

In 1978 Daniel Levinson published a book entitled *The Seasons of a Man's Life* in which he presented a theory of development in adulthood. Levinson's work was based on in-depth interviews with 40 men between the ages of 35-45. Levinson (1978) indicated that adults go through stages and have an image of the future that motivates them. This image is called "the dream" and for the men interviewed, it was a dream of how their career paths would progress and where they would be at midlife. According to Levinson the midlife transition (40-45) was a time of reevaluating previous commitments; making dramatic changes if necessary; giving expression to previously ignored talents or aspirations, and feeling more of a sense of urgency about life and its meaning. By the time the men entered middle adulthood (45-50), they believed they committed to the new choices made and placed one's energies into these commitments.

Levinson believed that a midlife crisis was a normal part of development as the person is more aware of how much time has gone by and how much time is left. The future focus of early adulthood gives way to an emphasis on the present in midlife, and

the men interviewed had difficulty reconciling the "dream" they held about the future with the reality they experienced. Consequently, they felt impatient and were no longer willing to postpone the things they had always wanted to do. Although Levinson believed his research demonstrated the existence of a midlife crisis, his study has been criticized for his research methods, including small sample size, similar ages, and concerns about a cohort effect. In fact, other research does not support his theory of the midlife crisis.

Vaillant (2012) believed that it was the cross-sectional design of Levinson's study that led to the erroneous conclusion of an inevitable midlife crisis. Instead, he believed that longitudinal studies of an individual's entire life were needed to determine the factors associated with optimum health and potential. Vaillant was one of the main researchers in the 75-year-old Harvard Study of Adult Development, and he considered a midlife crisis to be a rare occurrence among the participants (Vaillant, 1977). Additional findings of this longitudinal study will be discussed in the next chapter in late adulthood.

Most research suggests that most people in the United States today do not experience a midlife crisis. Results of a 10-year study conducted by the MacArthur Foundation Research Network on Successful Midlife Development, based on telephone interviews with over 3,000 midlife adults, suggest that the years between 40 and 60 are ones marked by a sense of well-being. Only 23% of the participants reported experiencing a midlife crisis. The crisis tended to occur among the highly educated and was triggered by a major life event rather than out of fear of aging (Research Network on Successful Midlife Development, 2007).

Stress

Figure 8.24 Are you Stressed?
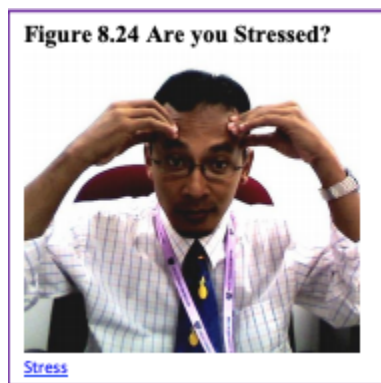
Stress

We all know that stress plays a major role in our mental and physical health, but what exactly is stress? The term **stress** *is defined as a pattern of physical and psychological responses in an organism after it perceives a threatening event that disturbs its homeostasis and taxes its abilities to cope with the event* (Hooker & Pressman, 2016). Stress was originally derived from the field of mechanics where it is used to describe materials under pressure. The word was first used in a psychological manner by researcher Hans Selye, who was examining the effect of an ovarian hormone that he thought caused sickness in a sample of rats. Surprisingly, he noticed that almost any injected hormone produced this same sickness. He smartly realized that it was not the hormone under investigation that was causing these problems, but instead, the aversive experience of being handled and injected by researchers led to high physiological arousal, and eventually to health problems like ulcers. Selye (1946) coined the term **stressor** *to label a stimulus that had this effect on the body (that is, causing stress).* He developed a model of the stress response called the **General Adaptation Syndrome**, *which is a three-phase model of stress, which includes*

a mobilization of physiological resources phase, a coping phase, and an exhaustion phase (i.e., when an organism fails to cope with the stress adequately and depletes its resources). Figure 8.25 illustrates the General Adaptation Syndrome.

Figure 8.25 General Adaptation Syndrome
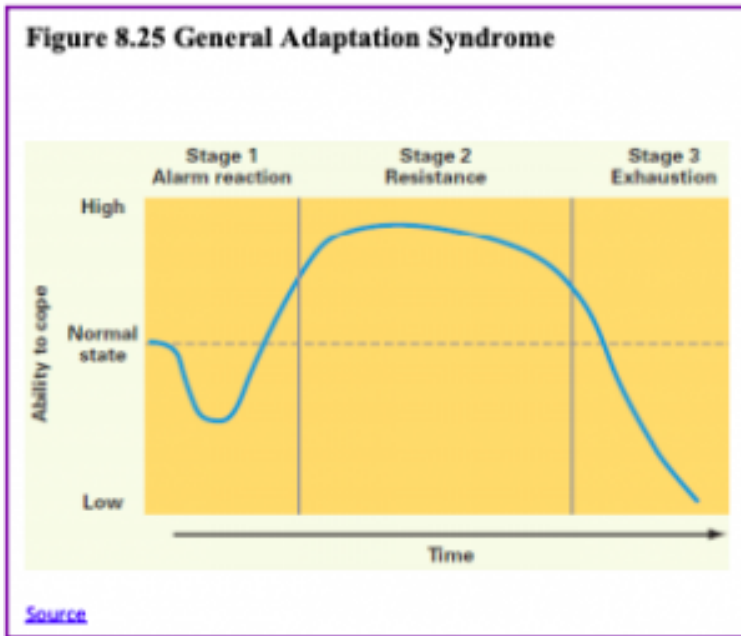
Psychologists have studied stress in a myriad of ways, and it is not just a major life stressor (e.g., a family death, a natural disaster) that increases the likelihood of getting sick. Stress can result from negative events, chronically difficult situations, a biological fight-or-flight response, and as clinical illness, such as post-traumatic stress disorder (PTSD). Even small daily hassles, like getting stuck in traffic or fighting with your friend, can raise your blood pressure, alter your stress hormones, and even suppress your immune system function (DeLongis, Folkman, & Lazarus, 1988; Twisk, Snel, Kemper, & van Machelen, 1999). Stress continues to be one of the most

important and well-studied psychological correlates of illness because excessive stress causes potentially damaging wear and tear on the body and can influence almost any disease process.

   Dispositions and Stress: Negative dispositions and personality traits have been strongly tied to an array of health risks. One of the earliest negative trait-to-health connections was discovered in the 1950s by two cardiologists. They made the interesting discovery that there were common behavioral and psychological patterns among their heart patients that were not present in other patient samples. *This pattern included being competitive, impatient, hostile, and time urgent.* They labeled it **Type A Behavior**. Importantly, it was found to be associated with double the risk of heart disease as compared with **Type B Behavior** (*absence of Type A behaviors*) (Friedman & Rosenman, 1959). Since the 1950s, researchers have discovered that it is the hostility and competitiveness components of Type A that are especially harmful to heart health (Iribarren et al., 2000; Matthews, Glass, Rosenman, & Bortner, 1977; Miller, Smith, Turner, Guijarro, & Hallet, 1996). Hostile individuals are quick to get upset, and this angry arousal can damage the arteries of the heart. In addition, given their negative personality style, hostile people often lack a heath-protective supportive social network.

Social Relationships and Stress: Research has shown that the impact of social isolation on our risk for disease and death is similar in magnitude to the risk associated with smoking regularly (Holt-Lunstad, Smith, & Layton, 2010; House, Landis, & Umberson, 1988). In fact, the importance of social relationships for our health is so significant that some scientists believe our body has developed a physiological system that encourages us to seek out our relationships, especially in times of stress (Taylor et al., 2000). **Social integration** *is the concept used to describe the number of social roles that you have* (Cohen & Willis, 1985). For example, you might be a daughter, a basketball team member, a Humane Society volunteer, a coworker, and a student. Maintaining these different roles can improve your health via encouragement from those around you to

maintain a healthy lifestyle. Those in your social network might also provide you with social support (e.g., when you are under stress). This support might include emotional help (e.g., a hug when you need it), tangible help (e.g., lending you money), or advice. By helping to improve health behaviors and reduce stress, social relationships can have a powerful, protective impact on health, and in some cases, might even help people with serious illnesses stay alive longer (Spiegel, Kraemer, Bloom, & Gottheil, 1989).

Figure 8.26 Social support is important for handling stress

Caregiving and Stress: A disabled child, spouse, parent, or other family member is part of the lives of some midlife adults. According to the National Alliance for Caregiving (2015), 40 million Americans provide unpaid caregiving. The typical caregiver is a 49-year-old female currently caring for a 69-year-old female who needs care because of a long-term physical condition. Looking more closely at the age of the recipient of caregiving, the typical caregiver for those 18-49 years of age is a female (61%) caring mostly for her own child (32%) followed by a spouse or partner (17%). When looking at older

recipients (50+) who receive care, the typical caregiver is female (60%) caring for a parent (47%) or spouse (10%).

Caregiving places enormous stress on the caregiver. Caregiving for a young or adult child with special needs was associated with poorer global health and more physical symptoms among both fathers and mothers (Seltzer, Floyd, Song, Greenberg, & Hong, 2011). Marital relationships are also a factor in how caring affects stress and chronic conditions. Fathers who were caregivers identified more chronic health conditions than non-caregiving fathers, regardless of marital quality. In contrast, caregiving mothers reported higher levels of chronic conditions when they reported a high level of marital strain (Kang & Marks, 2014). Age can also make a difference in how one is affected by the stress of caring for a child with special needs. Using data from the Study of Midlife in the United States, Ha, Hong, Seltzer, and Greenberg (2008) found that older parents were significantly less likely to experience the negative effects of having a disabled child than younger parents. They concluded that an age-related weakening of the stress occurred over time. This follows with the greater emotional stability noted at midlife.

Currently, 25% of adult children, mainly baby boomers, provide personal or financial care to a parent (Metlife, 2011). Daughters are more likely to provide basic care and sons are more likely to provide financial assistance. Adult children 50+ who work and provide care to a parent are more likely to have fair or poor health when compared to those who do not provide care. Some adult children choose to leave the workforce, however, the cost of leaving the workforce early to care for a parent is high. For females, lost wages and social security benefits equal $324,044, while for men it equals $283,716 (Metlife, 2011). This loss can jeopardize the adult child's financial future. Consequently, there is a need for greater workplace flexibility for working caregivers.

Spousal Care: Certainly, caring for a disabled spouse would be a difficult experience that could negatively affect one's health.

However, research indicates that there can be a positive health effect on caring for a disabled spouse. Beach, Schulz, Yee, and Jackson (2000) evaluated health-related outcomes in four groups: Spouses with no caregiving needed (Group 1), living with a disabled spouse but not providing care (Group 2), living with a disabled spouse and providing care (Group 3), and helping a disabled spouse while reporting caregiver strain, including elevated levels of emotional and physical stress (Group 4). Not surprisingly, the participants in Group 4 were the least healthy and identified poorer perceived health, an increase in health-risk behaviors, and an increase in anxiety and depression symptoms. However, those in Group 3 who provided care for a spouse, but did not identify caregiver strain, actually identified decreased levels of anxiety and depression compared to Group 2 and were actually similar to those in Group 1. It appears that greater caregiving involvement was related to better mental health as long as the caregiving spouse did not feel the strain. The beneficial effects of helping identified by the participants were consistent with previous research (Krause, Herzog, & Baker, 1992; Schulz et al., 1997).

When caring for a disabled spouse, gender differences have also been identified. Female caregivers of a spouse with dementia experienced more burden, had poorer mental and physical health, exhibited increased depressive symptomatology, took part in fewer health-promoting activities, and received fewer hours of help than male caregivers (Gibbons et al., 2014). This study was consistent with previous research findings that women experience more caregiving burden than men, despite similar caregiving situations (Torti, Gwyther, Reed, Friedman, & Schulman, 2004; Yeager, Hyer, Hobbs, & Coyne, 2010). Explanations for why women do not use more external support, which may alleviate some of the burdens, include women's expectations that they should assume caregiving roles (Torti et al, 2004) and their concerns with the opinions of others (Arai, Sugiura, Miura, Washio, & Kudo, 2000). Also contributing to women's poorer caregiving outcomes is that disabled males are more aggressive than females, especially males

with dementia who display more physical and sexual aggression toward their caregivers (Eastley & Wilcock, 1997; Zuidema, de Jonghe, Verhey, & Koopmans, 2009). Female caregivers are certainly at risk for negative consequences of caregiving, and greater support needs to be available to them.

Figure 8.27 Caregiving for females is associated with greater stress
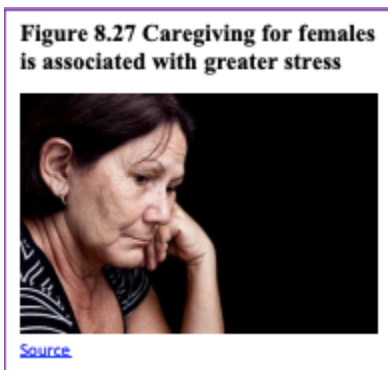
Source

Stress Management: On a scale from 1 to 10, those Americans aged 39-52 rated their stress at 5.3, and those aged 53-71 rated their stress at 3.9 (American Psychological Association, 2017). The most common sources of stress included the future of our nation, money, work, current political climate, and violence and crime. Given that these sources of our stress are often difficult to change, a number of interventions have been designed to help reduce the aversive responses to duress, especially related to health. For example, relaxation activities and forms of meditation are techniques that allow individuals to reduce their stress via breathing exercises, muscle relaxation, and mental imagery. Physiological arousal from stress can also be reduced via **biofeedback,** *a technique where the individual is shown bodily information that is not normally available to them (e.g., heart rate), and then taught strategies to alter this signal.* This type of intervention has even shown promise in reducing heart and hypertension risk, as well as other serious conditions (Moravec, 2008; Patel, Marmot, & Terry, 1981). Reducing stress does not have

to be complicated. For example, exercise is a great stress reduction activity (Salmon, 2001) that has a myriad of health benefits.

Coping Strategies: Coping is often classified into two categories: Problem-focused coping or emotion-focused coping (Carver, Scheier, & Weintraub, 1989). **Problem-focused coping** *is thought of as actively addressing the event that is causing stress in an effort to solve the issue at hand.* For example, say you have an important exam coming up next week. A problem-focused strategy might be to spend additional time over the weekend studying to make sure you understand all of the material. **Emotion-focused coping**, on the other hand, *regulates the emotions that come with stress.* In the above examination example, this might mean watching a funny movie to take your mind off the anxiety you are feeling. In the short term, emotion-focused coping might reduce feelings of stress, but problem-focused coping seems to have the greatest impact on mental wellness (Billings & Moos, 1981; Herman-Stabl, Stemmler, & Petersen, 1995). That being said, when events are uncontrollable (e.g., the death of a loved one), emotion-focused coping directed at managing your feelings, at first, might be the better strategy. Therefore, it is always important to consider the match of the stressor to the coping strategy when evaluating its plausible benefits.

Figure 8.28 How do you cope with stress when stuck in traffic?

Source

Erikson: Generativity vs Stagnation

According to Erikson (1950, 1982) **generativity** *encompasses procreativity, productivity, and creativity.* This stage includes the generation of new beings, new products, and new ideas, as well as self-generation concerned with further identity development. Erikson believed that the stage of generativity, during which one established a family and career, was the longest of all the stages. Individuals at midlife are primarily concerned with leaving a positive legacy of themselves, and parenthood is the primary generative type. Erikson understood that work and family relationships may be in conflict due to the obligations and responsibilities of each, but he believed it was overall a positive developmental time. In addition to being parents and working, Erikson also described individuals being involved in the community during this stage. A sense of stagnation occurs when one is not active in generative matters, however, stagnation can motive a person to redirect energies into more meaningful activities.

Erikson identified "virtues" for each of his eight stages, and the virtue emerging when one achieves generativity is "Care". Erikson believed that those in middle adulthood should "take care of the persons, the products, and the ideas one has learned to care for" (Erikson, 1982, p. 67). Further, Erikson believed that the strengths gained from the six earlier stages are essential for the generational task of cultivating strength in the next generation. Erikson further argued that generativity occurred best after the individual had resolved issues of identity and intimacy (Peterson & Duncan, 2007).

Research has demonstrated that generative adults possess many positive characteristics, including good cultural knowledge and healthy adaptation to the world (Peterson & Duncan, 2007). Using the Big 5 personality traits, generative women and men scored high on conscientiousness, extraversion, agreeableness, openness to experience, and low on neuroticism (de St. Aubin & McAdams, 1995; Peterson, Smirles, & Wentworth, 1997). Additionally, women

scoring high in generativity at age 52, were rated high in positive personality characteristics, satisfaction with marriage and motherhood, and successful aging at age 62 (Peterson & Duncan, 2007). Similarly, men rated higher in generativity at midlife were associated with stronger global cognitive functioning (e.g., memory, attention, calculation), stronger executive functioning (e.g., response inhibition, abstract thinking, cognitive flexibility), and lower levels of depression in late adulthood (Malone, Liu, Vaillant, Rentz, & Waldinger, 2016).

Figure 8.29 Generativity at Midlife

Source

Erikson (1982) indicated that at the end of this demanding stage, individuals may withdraw as generativity is no longer expected in late adulthood. This releases elders from the task of caretaking or working. However, not feeling needed or challenged may result in stagnation, and consequently one should not fully withdraw from generative tasks as they enter Erikson's last stage in late adulthood.

Midlife Relationships

The sandwich generation refers to adults who have at least one parent age 65 or older and are either raising their own children or providing support for their grown children. According to a recent

Pew Research survey, 47% of middle-aged adults are part of this sandwich generation (Parker & Patten, 2013). In addition, 15% of middle-aged adults are providing financial support to an older parent while raising or supporting their own children (see Figure 8.30). According to the same survey, almost half (48%) of middle-aged adults, have supported their adult children in the past year, and 27% are the primary source of support for their grown children.

Figure 8.30

Middle-Aged Adults "Sandwiched" Between Aging Parents and Kids

% of adults ages 40 to 59 who ...

■ 2012 ■ 2005

	2012	2005
Have a parent 65+ and are raising a minor child or supporting a grown child	47	45
Provided financial support to parent 65+ and child any age in the past year	15	12

Note: Based on all adults ages 40 to 59: for 2012, n=844; for 2005, n=1,185.

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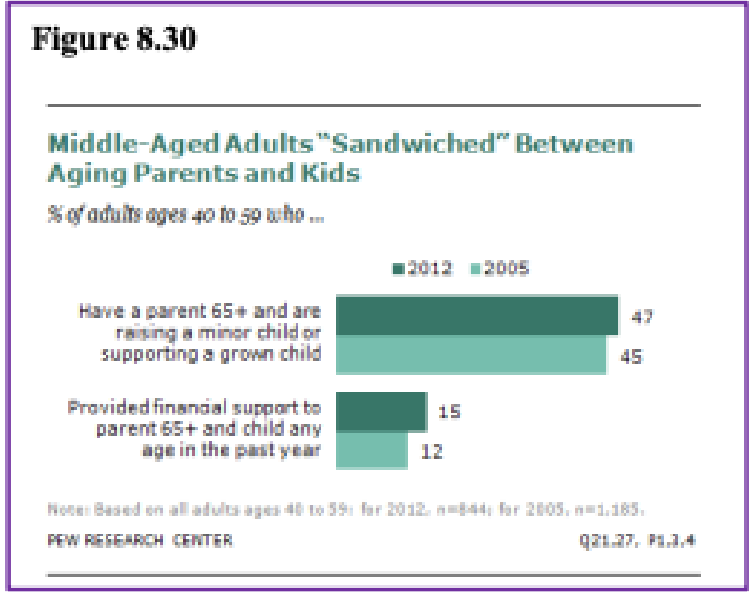
Seventy-one percent of the sandwich generation is age 40-59, 19% were younger than 40, and 10% were 60 or older. Hispanics are more likely to find themselves supporting two generations; 31% have parents 65 or older and a dependent child, compared with 24% of whites and 21% of blacks (Parker & Patten, 2013). Women are more likely to take on the role of care provider for older parents in the U.S. and Germany (Pew Research, 2015). About 20% of women say they have helped with personal care, such as getting dressed or bathing, of aging parents in the past year, compared with 8% of men

in the U.S. and 4% in Germany. In contrast, in Italy men are just as likely (25%) as women (26%) to have provided personal care.

The Pew survey found that almost 33% of the sandwich-generation adults were more likely to say they always feel rushed, while only 23% of other adults said this. However, the survey suggests that those who were supporting both parents and children reported being just as happy as those middle-aged adults who did not find themselves in the sandwich generation (Parker & Patten, 2013). Adults who are supporting both parents and children did report greater financial strain (see Figure 8.31). Only 28% reported that they were living comfortably versus 41% of those who were not also supporting their parents. Almost 33% were just making ends meet, compared with 17% of those who did not have the additional financial burden of aging parents.

Figure 8.31

Financial Stress and the Sandwich Generation

Q: How would you describe your household's financial situation? (%)

| | Sandwich Generation | |
	Supporting parent 65+	Not supporting parent 65+
Live comfortably	28	41
Meet basic expenses with a little left over	30	31
Just meet basic expenses	30	17
Don't have enough to meet basic expenses	11	10

Notes: Based on "sandwich generation," n=553. First column refers to those who gave financial support to a parent within the past year; the second column refers to those who did not. "Don't know/Refused" responses not shown.

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Kinkeeping: At midlife adults may find themselves as **kinkeeper**. In all families, there is a *person or persons who keep the family connected and who promote solidarity and continuity in the family* (Brown & DeRycke, 2010). Who in your own family do you count on to organize family gatherings? Who knows the history of your family? Who do people turn to in your family for advice and support? Who works to strengthen the bonds between members of your family?

These are your family's kin keepers, and they are usually women (Leach & Braithwaite, 1996; Brown & DeRycke, 2010). Leach and Braithwaite found that 86% of their respondents named a woman as their family's kinkeeper, and Brown and DeRycke found that mothers, maternal grandmothers, and paternal grandmothers were more likely to be a family's kinkeeper than were fathers, young adult children, and grandfathers combined. Brown and DeRycke also found that among young adults, women were more likely to be a kinkeeper than were young adult men.

Kinkeeping can be a source of distress when it interferes with other obligations (Gerstel & Gallagher, 1993). Gerstel and Gallagher found that on average, kin keepers provide almost a full week of work each month to kinkeeping (almost 34 hours). They also found that the more activities the kinkeeper took on, and the more kin they helped the more stress and higher the levels of depression a kinkeeper experienced. However, unlike other studies on kinkeeping, Gerstel and Gallagher also included a number of activities that would be considered more "caregiving," such as providing transportation, making repairs, providing meals, etc. in addition to the usual activities of kinkeeping.

Empty nest: The **empty nest** or post-parental period *refers to the time period when children are grown up and have left home* (Dennerstein, Dudley & Guthrie, 2002). For most parents, this occurs during midlife. This time is recognized as a "normative event" as parents are aware that their children will become adults and eventually leave home (Mitchell & Lovegreen, 2009). The empty nest creates complex emotions, both positive and negative, for many

parents. Some theorists suggest this is a time of role loss for parents, others suggest it is one of role strain relief (Bouchard, 2013).

The role loss hypothesis predicts that when people lose an important role in their life they experience a decrease in emotional well-being. It is from this perspective that the concept of the **empty nest syndrome** emerged, which *refers to great emotional distress experienced by parents, typically mothers, after children have left home*. The empty nest syndrome is linked to the absence of alternative roles for the parent in which they could establish their identity (Borland, 1982). In Bouchard's (2013) review of the research, she found that few parents reported loneliness or a big sense of loss once all their children had left home.

In contrast, the role stress relief hypothesis suggests that the empty nest period should lead to more positive changes for parents, as the responsibility of raising children has been lifted. The role strain relief hypothesis was supported by many studies in Bouchard's (2013) review. A consistent finding throughout the research literature is that raising children has a negative impact on the quality of marital relationships (Ahlborg, Misvaer, & Möller, 2009; Bouchard, 2013). Most studies have reported that marital satisfaction often increases during the launching phase of the empty nest period and that this satisfaction endures long after the last child has left home (Gorchoff, John, & Helson, 2008).

However, most of the research on the post-parental period has been with American parents. A number of studies in China suggest that empty-nesters, especially in more rural areas of China, report greater loneliness and depression than their counterparts with children still at home (Wu et al., 2010). Family support for the elderly by their children is a cherished Chinese tradition (Wong & Leung, 2012). With children moving from the rural communities to the larger cities for education and employment this may explain the more pessimistic reaction of Chinese parents than in American samples. The loss of an adult child in a rural region may mean a loss of family income for aging parents. Empty-nesters in urban regions of China did not report the same degree of distress (Su et al., 2012),

suggesting that it not so much the event of children leaving, but the additional hardships this may place on aging parents.

Boomerang Kids: As you read in Chapter 7, young adults are living with their parents for a longer duration and in greater numbers than previous generations. In addition to those in early adulthood who are not leaving the home of their parents, there are also *young adults who are returning after having lived independently outside the home*, and these are called **boomerang kids**. Figure 8.32 shows the number of American young people 25-35 who were living at home based on their generation (Fry, 2017). Figure 8.33 shows that more young adults 18-34 in Europe are also living with their parents (Desilver, 2016). Many of the same financial reasons that are influencing young people's decisions to delay exit from the home of their parents are underlying their decisions to return home. In addition, to financial reasons, some boomerang kids are returning because of emotional distress, such as mental health issues (Sandberg-Thoma, Snyder, & Jang, 2015).

Figure 8.32

Millennials are the generation most likely to live at home

% of 25- to 35-year-olds living in parent(s)' home

Millennials in 2016	15%
Gen Xers in 2000	10
Late Boomers in 1990	11
Early Boomers in 1981	8
Silents in 1964	8
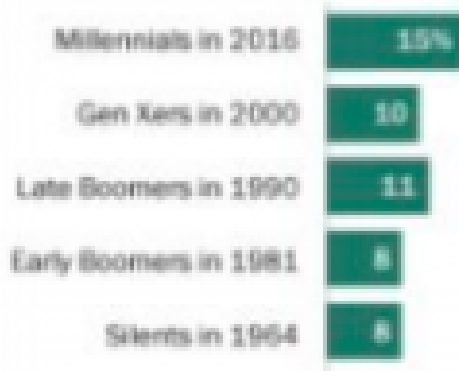
Note: "Living in parent(s)' home" means residing in a household headed by a parent.
Source: Pew Research Center analysis of 1964, 1981, 1990, 2000 and 2016 Current Population Survey, Annual Social and Economic Supplements.

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What is the effect on parents when their adult children return

home? Certainly, there is considerable research that shows that the stress of raising children can have a negative impact on parents' well-being and that when children leave home many couples experience less stress and greater life satisfaction (see the section on the empty nest). Early research in the 1980s and 1990s supported the notion that boomerang children, along with those who were failing to exit the home, placed greater financial hardship on the parents, and the parents reported more negative perceptions of this living arrangement (Aquilino, 1991). Recent surveys suggest that today's parents are more tolerant of this, perhaps because this is becoming a more normative experience than in the past. Moreover, children who return are more likely to have had good relationships with their parents growing up, so there may be less stress between parents and their adult children who return (Sandberg-Thoma et al., 2015). Parents of young adults who have moved back home because of economic reasons report that they are just as satisfied with their life as are parents whose adult children are still living independently (Parker, 2012). Parker found that adult children age 25 and older are more likely to contribute financially to the family or complete chores and other household duties. Parker also found that living in a multigenerational household may be acting as an economic safety net for young adults. In comparison to young adults who were living outside of the home, those living with their parents were less likely to be living in poverty (17% versus 10%).

So far, we have considered the impact that adult children who have returned home or have yet to leave the nest have on the lives of middle-aged parents. What about the effect on parents who have adult children dealing with personal problems, such as alcoholism, chronic health concerns, mental health issues, trouble with the law, poor social relationships, or academic or job-related problems, even if they are not living at home? The life course perspective proposes the idea of **linked lives** (Greenfield & Marks, 2006). *The notion that people in important relationships, such as children and parents, mutually influence each other's developmental pathways.* In

previous chapters, you have read about the effects that parents have on their children's development, but this relationship is bidirectional. The problems faced by children, even when those children are adults, influence the lives of their parents. Greenfield and Marks found in their study of middle-aged parents and their adult children, those parents whose children were dealing with personal problems reported more negative affect, lower self-acceptance, poorer parent-child interactions, and more family relationship stress. The more problems the adult children were facing, the worse the lives and emotional health of their parents, with single parents faring the worst.

Figure 8.33

Many young Europeans live with their parents, especially in southern and eastern Europe

Share of young adults (ages 18-34) living with their parents, 2014

Note: In Iceland and Cyprus, not shown, 56% and 53% of young adults lived with their parents in 2014, respectively.
Source: Eurostat

Middle Adult Lifestyles

Singlehood: According to a Pew Research study, 16 per 1,000 adults age 45 to 54 and 7 per 1000 age 55 and over have never married in

the U. S. (Wang & Parker, 2014). However, some of them may be living with a partner. In addition, some singles at midlife may be single through divorce or widowhood. DePaulo (2014) has challenged the idea that singles, especially the always single, fair worse emotionally and in health when compared to those married. DePaulo suggests there is a bias in how studies examine the benefits of marriage. Most studies focus on comparisons between married versus not married, which do not include a separate comparison between those always single, and those who are single because of divorce or widowhood. Her research has found that those who are married may be more satisfied with life than the divorced or widowed, but there is little difference between married and always single, especially when comparing those who are recently married with those who have been married for four or more years. It appears that once the initial blush of the honeymoon wears off, those who are wedded are no happier or healthier than those who remained single. This might also suggest that there may be problems with how the "married" category is also seen as one homogeneous group.

Online Dating: Montenegro (2003) surveyed over 3,000 singles aged 40–69, and almost half of the participants reported their most important reason for dating was to have someone to talk to or do things with. Additionally, sexual fulfillment was also identified as an important goal for many. Alterovitz & Mendelsohn (2013) reviewed online personal ads for men and women over age 40 and found that romantic activities and sexual interests were mentioned at similar rates among the middle-age and young-old age groups, but less for the old-old age group.

Marriage: As you read in Chapter 7, there has been a number of changes in the marriage rate as more people are cohabitating, more are deciding to stay single, and more are getting married at a later age. As you can see in Figure 8.34, 48% of adults age 45-54 are married; either in their first marriage (22%) or have remarried (26%). This makes marriage the most common relationship status for middle-aged adults in the United States. Marital satisfaction

tends to increase for many couples in midlife as children are leaving home (Landsford, Antonucci, Akiyama, & Takahashi, 2005). Not all researchers agree. They suggest that those who are unhappy with their marriage are likely to have gotten divorced by now, making the quality of marriages later in life only look more satisfactory (Umberson, Williams, Powers, Chen, & Campbell, 2005).

Figure 8.34

Age Composition, by Present Marital Status
%

■ 18-34   ■ 35-44   ■ 45-54   ■ 55 and older

	18-34	35-44	45-54	55 and older
In first marriage	20	22	22	36
Remarried	5	16	26	53
Divorced	9	18	27	45

Note: "Remarried" includes only those who are currently in a second or higher order marriage. "Divorced" includes all currently divorced adults, including those who had been in a remarriage. Figures may not add to 100% due to rounding.

Source: Pew Research Center analysis of 2013 American Community Survey (1% IPUMS)

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Divorce: Livingston (2014) found that 27% of adults age 45 to 54 were divorced (see Figure 8.32). Additionally, 57% of divorced adults were women. This reflects the fact that men are more likely to remarry than are women. Two-thirds of divorces are initiated by women (AARP, 2009). Most divorces take place within the first 5 to 10 years of marriage. This timeline reflects people's initial attempts to salvage the relationship. After a few years of limited success, the couple may decide to end the marriage. It used to be that divorce after having been married for 20 or more years was rare, but in

recent years the divorce rate among more long-term marriages has been increasing. Brown and Lin (2013) note that while the divorce rate in the U.S. has declined since the 1990s, the rate among those 50 and older has doubled. They suggest several reasons for the "graying of divorce". There is less stigma attached to divorce today than in the past. Some older women are out-earning their spouses, and thus may be more financially capable of supporting themselves, especially as most of their children have grown. Finally, given increases in human longevity, the prospect of living several more years or decades with an incompatible spouse may prompt middle-aged and older adults to leave the marriage.

Gottman and Levenson (2000) found that the divorces in early adulthood were angrier and conflictual, with each partner blaming the other for the failures in the marriage. In contrast, they found that at midlife divorces tended to be more about having grown apart or cooling off of the relationship. A survey by AARP (2009) found that men and women had diverse motivations for getting a divorce. Women reported concerns about the verbal and physical abusiveness of their partner (23%), drug/alcohol abuse (18%), and infidelity (17%). In contrast, men mentioned they had simply fallen out of love (17%), no longer shared interests or values (14%), and infidelity (14%). Both genders felt their marriage had been over long before the decision to divorce was made, with many of the middle-aged adults in the survey reporting that they stayed together because they were still raising children. Females also indicated that they remained in their marriage due to financial concerns, including the loss of health care (Sohn, 2015). However, only 1 in 4 adults regretted their decision to divorce.

The effects of divorce are varied. Overall, young adults struggle more with the consequences of divorce than do those at midlife, as they have a higher risk of depression or other signs of problems with psychological adjustment (Birditt & Antonucci, 2013). Divorce at midlife is more stressful for women. In the AARP (2009) survey, 44% of middle-aged women mentioned financial problems after

divorcing their spouse, in comparison only 11% of men reported such difficulties. However, a number of women who divorce in midlife report that they felt a great release from their day-to-day sense of unhappiness. Hetherington and Kelly (2002) found that among the divorce **enhancers**, *those who had used the experience to better themselves and seek more productive intimate relationships*, and the **competent loners**, *those who used their divorce experience to grow emotionally, but who choose to stay single*, the overwhelming majority were women.

Dating Post-Divorce: Most divorced adults have dated by one year after filing for divorce (Anderson et al., 2004; Anderson & Greene, 2011). One in four recent filers report having been in or were currently in a serious relationship, and over half were in a serious relationship by one year after filing for divorce. Not surprisingly, younger adults were more likely to be dating than were middle-aged or older adults, no doubt due to the larger pool of potential partners from which they could to draw. Of course, these relationships will not all end in marriage. Teachman (2008) found that more than two-thirds of women under the age of 45 had cohabited with a partnership between their first and second marriages.

Dating for adults with children can be more of a challenge. Courtships are shorter in remarriage than in first marriages. When couples are "dating", there is less going out and more time spent in activities at home or with the children. So the couple gets less time together to focus on their relationship. Anxiety or memories of past relationships can also get in the way. As one Talmudic scholar suggests "when a divorced man marries a divorced woman, four go to bed." (Secombe & Warner, 2004).

Post-divorce parents **gatekeep,** *that is, they regulate the flow of information about their new romantic partner to their children*, in an attempt to balance their own needs for romance with consideration regarding the needs and reactions of their children. Anderson et al. (2004) found that almost half (47%) of dating parents gradually introduce their children to their dating partner, giving both their romantic partner and children time to adjust and get to know each

other. Many parents who use this approach do so to avoid their children having to keep meeting someone new until it becomes clearer that this relationship might be more than casual. It might also help if the adult relationship is on the firmer ground so it can weather any initial push back from children when it is revealed. Forty percent are open and transparent about the new relationship at the outset with their children. Thirteen percent do not reveal the relationship until it is clear that cohabitation and or remarriage is likely. Anderson and colleagues suggest that practical matters influence which gatekeeping method parents may use. Parents may be able to successfully shield their children from a parade of suitors if there is reliable childcare available. The age and temperament of the child, along with concerns about the reaction of the ex-spouse, may also influence when parents reveal their romantic relationships to their children.

Rates of remarriage: The rate for remarriage, like the rate for marriage, has been declining overall. In 2013 the remarriage rate was approximately 28 per 1,000 adults 18 and older. This represents a 44% decline since 1990 and a 16% decline since 2008 (Payne, 2015). Brown and Lin (2013) found that the rate of remarriage dropped more for younger adults than middle-aged and older adults, and Livingston (2014) found that as we age we are more likely to have remarried (see Figure 8.35). This is not surprising as it takes some time to marry, divorce, and then find someone else to marry. However, Livingston found that unlike those younger than 55, those 55 and up are remarrying at a higher rate than in the past. In 2013, 67% of adults 55-64 and 50% of adults 65 and older had remarried, up from 55% and 34% in 1960, respectively.

Figure 8.35

Remarriage by Age
% of the previously married who ever remarried

Age	%
18-24	29
25-34	43
35-44	57
45-54	63
55-64	67
65 and older	50
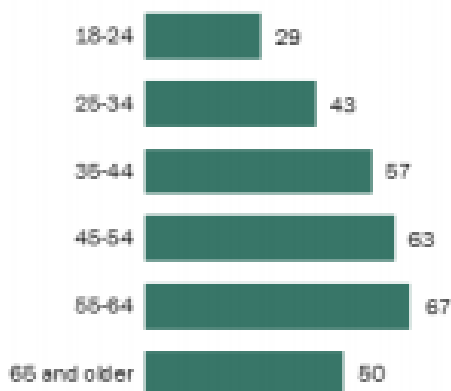
Note: Previously married are those eligible for remarriage.

Source: Pew Research Center analysis of 2013 American Community Survey (1% IPUMS)

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Men have a higher rate of remarriage at every age group starting at age 25 (Payne, 2015). Livingston (2014) reported that in 2013, 64% of divorced or widowed men compared with 52% of divorced or widowed women had remarried. However, this gender gap has narrowed over time. Even though more men still remarry, they are remarrying at a slower rate. In contrast, women are remarrying today more than they did in 1980. This gender gap has closed mostly among young and middle-aged adults but still persists among those 65 and older.

In 2012, Whites who were previously married were more likely to

remarry than were other racial and ethnic groups (Livingston, 2014). Moreover, the rate of remarriage has increased among Whites, while the rate of remarriage has declined for other racial and ethnic groups. This increase is driven by White women, whose rate of remarriage has increased, while the rate for White males has declined.

Success of Remarriage: Reviews are mixed as to the happiness and success of remarriages. While some remarriages are more successful, especially if the divorce motivated the adult to engage in self-improvement and personal growth (Hetherington & Kelly, 2002), a number of divorced adults end up in very similar marriages the second or third time around (Hetherington & Kelly, 2002). Remarriages have challenges that are not found in first marriages that may create additional stress in the marital relationship. There can often be a general lack of clarity in family roles and expectations when trying to incorporate new kin into the family structure, even determining the appropriate terms for this kin, along with their roles can be a challenge.

Partners may have to navigate carefully their role when dealing with their partners' children. All of this may lead to greater dissatisfaction and even resentment among family members. Even though remarried couples tend to have more realistic expectations for marriage, they tend to be less willing to stay in unhappy situations. The rate of divorce among remarriages is higher than among first marriages (Payne, 2015), which can add additional burdens, especially when children are involved.

Children's Influence on Repartnering: Does having children affect whether a parent remarries? Goldscheider and Sassler (2006) found children residing with their mothers reduces the mothers' likelihood of marriage, only with respect to marrying a man without children. Further, having children in the home appears to increase single men's likelihood of marrying a woman with children (Stewart, Manning, & Smock, 2003). There is also some evidence that individuals who participated in a stepfamily while growing up may

feel better prepared for stepfamily living as adults. Goldscheider and Kaufman (2006) found that having experienced family divorce as a child is associated with a greater willingness to marry a partner with children.

Figure 8.36

Source

When children are present after divorce, one of the challenges the adults encounter is how much influence the child will have when selecting a new partner. Greene, Anderson, Hetherington, Forgatch, and DeGarmo (2003) identified two types of parents. The child-focused parent allows the child's views, reactions, and needs to influence the partnering. In contrast, the adult-focused parent expects that their child can adapt and should accommodate to parental wishes. Anderson and Greene (2011) found that divorced custodial mothers identified as more adult-focused tended to be older, more educated, employed, and more likely to have been married longer. Additionally, adult-focused mothers reported having less rapport with their children, spent less time in joint activities with their children, and the child reported lower rapport with their mothers. Lastly, when the child and partner were resisting one another, adult-focused mothers responded more to the concerns of the partner, while the child-focused mothers responded more to the concerns of the child. Understanding the

implications of these two different perspectives can assist parents in their attempts to partner.

Grandparents

In addition to maintaining relationships with their children and aging parents, many people in middle adulthood take on yet another role, becoming a grandparent. The role of grandparents varies around the world. In multigenerational households, grandparents may play a greater role in the day-to-day activities of their grandchildren. While this family dynamic is more common in Latin America, Asia, and Africa, it has been on the increase in the U.S. (Pew Research Center, 2010).

The degree of grandparent involvement also depends on the proximity of the grandparents' home to their grandchildren. In developed nations, the greater mobility of society can mean that grandparents may live long distances from their grandchildren. Technology has brought grandparents and their more distant grandchildren together. Sorenson and Cooper (2010) found that many of the grandfathers they interviewed would text, email, or Skype with their grandchildren in order to stay in touch.

Figure 8.37

Source

Cherlin and Furstenberg (1986) described three styles of grandparents. Thirty percent of grandparents were **remote** as they *rarely saw their grandchildren*. Usually, they lived far away from their grandchildren but may also have had a distant relationship. Contact was typically made on special occasions, such as holidays or birthdays. Fifty-five percent of grandparents were described as **companionate** as *they did things with their grandchildren but had little authority or control over them*. They preferred to spend time with them without interfering in parenting. They were more like friends to their grandchildren. Fifteen percent of grandparents were described as **involved** *as they took a very active role in their grandchild's life*. The involved grandparent had frequent contact with and authority over the grandchild, and their grandchildren might even have lived with them. Grandmothers, more so than grandfathers, played this role. In contrast, more grandfathers than grandmothers saw their role as a family historian and family advisor (Neugarten and Weinstein, 1964).

Bengtson (2001) suggests that grandparents adopt different styles with different grandchildren, and over time may change styles as circumstances in the family change. Today more grandparents are the sole care providers for grandchildren or may step in at times of crisis. With these changes, grandparents are redefining how they see their role in the family with fewer adopting a more formal role (Hayslip, Henderson & Shore, 2003).

Early research on grandparents has routinely focused on grandmothers, with grandfathers often becoming invisible members of the family (Sorensen & Cooper, 2010). Yet, grandfathers stress the importance of their relationships with their grandchildren as strongly as do grandmothers (Waldrop et al., 1999). For some men, this may provide them with the opportunity to engage in activities that their occupations, as well as their generation's views of fatherhood and masculinity, kept them from engaging in with their own children (Sorenson & Cooper, 2010).

Many of the grandfathers in Sorenson and Cooper's study felt that being a grandfather was easier and a lot more enjoyable. Even

among grandfathers that took on a more involved role, there was still a greater sense that they could be more light-hearted and flexible in their interactions with their grandchildren. Many grandfathers reported that they were more openly affectionate with their grandchildren than they had been with their own children.

Friendships

Adults of all ages who reported having a confidante or close friend with whom they could share personal feelings and concerns believed these friends contributed to a sense of belonging, security, and overall wellbeing (Dunér & Nordstrom, 2007). Having a close friend is a factor in significantly lower odds of psychiatric morbidity including depression and anxiety (Harrison, Barrow, Gask, & Creed, 1999; Newton et al., 2008). The availability of a close friend has also been shown to lessen the adverse effects of stress on health (Kouzis & Eaton, 1998; Hawkley et al., 2008; Tower & Kasl, 1995). Additionally, poor social connectedness in adulthood is associated with a larger risk of premature mortality than cigarette smoking, obesity, and excessive alcohol use (Holt-Lunstad, Smith, & Layton, 2010).

Figure 8.38

Source

Female friendships and social support networks at midlife contribute significantly to a woman's feeling of life satisfaction and well-being (Borzumato-Gainey, Kennedy, McCabe, & Degges-White, 2009). Degges-White and Myers (2006) found that women who have supportive people in their life experience greater life satisfaction than do those who live a more solitary life. A friendship network or the presence of a confidant have both been identified for their importance to women's mental health (Baruch & Brooks-Gunn, 1984). Unfortunately, with numerous caretaking responsibilities at home, it may be difficult for women to find time and energy to enhance the friendships that provide an increased sense of life satisfaction (Borzumato-Gainey et al., 2009). Emslie, Hunt, and Lyons (2013) found that for men in midlife, the shared consumption of alcohol was important to creating and maintaining male friends. Drinking with friends was justified as a way for men to talk to each other, provide social support, relax, and improve mood. Although the social support provided when men drink together can be helpful, the role of alcohol in male friendships can lead to health-damaging behavior from excessive drinking.

The importance of social relationships begins in early adulthood by laying down a foundation for strong social connectedness and facilitating comfort with intimacy (Erikson, 1959). To determine the impact of the quantity and quality of social relationships in young adulthood on middle adulthood, Carmichael, Reis, and Duberstein (2015) assessed individuals at age 50 on measures of social connection (types of relationships and friendship quality) and psychological outcomes (loneliness, depression, psychological well-being). Results indicated that the number of social interactions at age 20 and the quality, not quantity, of social interaction at age 30 predicted midlife social interactions. Those individuals who had high levels of social information seeking (quantity) at age 20 followed by less quantity in social relationships but greater emotional closeness (quality), resulted in positive psychosocial adjustment at midlife.

Continuing to socialize widely in one's 30s appeared to negatively affect the development of intimacy, and consequently resulted in worse psychological outcomes at age 50.

Internet Friendships: What influence does the Internet have on friendships? It is not surprising that people use the Internet with the goal of meeting and making new friends (Fehr, 2008; McKenna, 2008). Researchers have wondered if the issue of not being face-to-face reduces the authenticity of relationships, or if the Internet really allows people to develop deep, meaningful connections. Interestingly, research has demonstrated that virtual relationships are often as intimate as in-person relationships; in fact, Bargh and colleagues found that online relationships are sometimes more intimate (Bargh, McKenna, & Fitsimons, 2002). This can be especially true for those individuals who are more socially anxious and lonely as such individuals are more likely to turn to the Internet to find new and meaningful relationships (McKenna, Green, & Gleason, 2002). McKenna and colleagues suggest that for people who have a hard time meeting and maintaining relationships, due to shyness, anxiety, or lack of face-to-face social skills, the Internet provides a safe, nonthreatening place to develop and maintain relationships. Similarly, Benford (2008) found that for high-functioning autistic individuals, the Internet facilitated communication and relationship development with others, which would have been more difficult in face-to-face contexts, leading to the conclusion that Internet communication could be empowering for those who feel frustrated when communicating face to face.

Workplace Friendships: Friendships often take root in the workplace, due to the fact that people are spending as much, or more, time at work than they are with their family and friends (Kaufman & Hotchkiss, 2003). Often, it is through these relationships that people receive mentoring and obtain social support and resources, but they can also experience conflicts and the potential for misinterpretation when sexual attraction is an issue. Indeed, Elsesser and Peplau (2006) found that many workers

reported that friendships grew out of collaborative work projects, and these friendships made their days more pleasant.

Figure 8.39

Source

In addition to those benefits, Riordan and Griffeth (1995) found that people who worked in an environment where friendships could develop and be maintained were more likely to report higher levels of job satisfaction, job involvement, and organizational commitment, and they were less likely to leave that job. Similarly, a Gallup poll revealed that employees who had close friends at work were almost 50% more satisfied with their jobs than those who did not (Armour, 2007).

Women in Midlife

In Western society, aging for women is much more stressful than for men as society emphasizes youthful beauty and attractiveness (Slevin, 2010). The description that aging men are viewed as "distinguished" and aging women are viewed as "old" is referred

to as the double standard of aging (Teuscher & Teuscher, 2006). Since women have traditionally been valued for their reproductive capabilities, they may be considered old once they are postmenopausal. In contrast, men have traditionally been valued for their achievements, competence, and power, and therefore are not considered old until they are physically unable to work (Carroll, 2016). Consequently, women experience more fear, anxiety, and concern about their identity as they age, and may feel pressure to prove themselves as productive and valuable members of society (Bromberger, Kravitz, & Chang, 2013).

Attitudes about aging, however, do vary by race, culture, and sexual orientation. In some cultures, aging women gain greater social status. For example, as Asian women age, they attain greater respect and have greater authority in the household (Fung, 2013). Compared to white women, Black and Latina's women possess fewer stereotypes about aging (Schuler et al., 2008). Lesbians are also more positive about aging and looking older than heterosexual women (Slevin, 2010). The impact of media certainly plays a role in how women view aging by selling anti-aging products and supporting cosmetic surgeries to look younger (Gilleard & Higgs, 2000).

Religion and Spirituality

Grzywacz and Keyes (2004) found that in addition to personal health behaviors, such as regular exercise, healthy weight, and not smoking, social behaviors, including involvement in religious-related activities, have been shown to be positively related to optimal health. However, it is not only those who are involved in a specific religion that benefit, but so too do those identified as being spiritual. According to Greenfield, Vaillant, and Marks (2009) **religiosity** *refers to engaging with a formal religious group's doctrines, values, traditions, and co-members.* In contrast,

spirituality *refers to an individual's intrapsychic sense of connection with something transcendent (that which exists apart from and not limited by the material universe) and the subsequent feelings of awe, gratitude, compassion, and forgiveness.* Research has demonstrated a strong relationship between spirituality and psychological well-being, irrespective of an individual's religious participation (Vaillant, 2008). Additionally, Sawatzky, Ratner, & Chiu (2005) found that spirituality was related to a higher quality of life for both individuals and societies.

Figure 8.40

Source

Based on reports from the 2005 National Survey of Midlife in the United States, Greenfield et al. (2009) found that higher levels of spirituality were associated with lower levels of negative affect and higher levels of positive affect, personal growth, purpose in life, positive relationships with others, self-acceptance, environmental mastery, and autonomy. In contrast, formal religious participation was only associated with higher levels of purpose in life and personal growth among just older adults and lower levels of autonomy. In summary, it appears that formal religious

participation and spirituality relate differently to an individual's overall psychological well-being.

Age: Older individuals identify religion/spirituality as being more important in their lives than those younger (Beit-Hallahmi & Argyle, 1998). This age difference has been explained by several factors including that religion and spirituality assist older individuals in coping with age-related losses, provide opportunities for socialization and social support in later life, and demonstrate a cohort effect in that older individuals were socialized more to be religious and spiritual than those younger (Greenfield et al., 2009).

Gender: In the United States, women report identifying as being more religious and spiritual than men do (de Vaus & McAllister, 1987). According to the Pew Research Center (2016), women in the United States are more likely to say religion is very important in their lives than men (60% vs. 47%). American women also are more likely than American men to say they pray daily (64% vs. 47%) and attend religious services at least once a week (40% vs. 32%). Theories to explain this gender difference include that women may benefit more from the social-relational aspects of religion/ spirituality because social relationships more strongly influence women's mental health. Additionally, women have been socialized to internalize the behaviors linked with religious values, such as cooperation and nurturance, more than males (Greenfield et al., 2009).

Worldwide: To measure the religious beliefs and practices of men and women around the world, the Pew Research Center (2016) conducted surveys of the general population in 84 countries between 2008 and 2015. Overall, an estimated 83% of women worldwide identified with religion compared with 80% of men. This equaled 97 million more women than men identifying with a religion. There were no countries in which men were more religious than women by 2 percentage points or more. Among Christians, women reported higher rates of weekly church attendance and higher rates of daily prayer. In contrast, Muslim women and Muslim men showed similar levels of religiousness, except the frequency of

attendance at worship services. Because of religious norms, Muslim men worshiped at a mosque more often than Muslim women. Similarly, Jewish men attended a synagogue more often than Jewish women. In Orthodox Judaism, communal worship services cannot take place unless a minyan, or quorum of at least 10 Jewish men, is present, thus ensuring that men will have high rates of attendance. Only in Israel, where roughly 22% of all Jewish adults self-identify as Orthodox, did a higher percentage of men than women report engaging in daily prayer.

Figure 8.41

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Attribution

DEVELOPMENT IN LATE ADULTHOOD

Learning Objectives:

- Explore and connect Psychosocial, Cognitive, and Psychosexual Development
- Explore and connect another Theory, Approach, or Perspective to work in critical thinking skills for client assessments
- Exploring important aspects of a person's experience and ability to justify why they are important

Vignette

Alaina is an 85 y/o African American woman who lives alone with her small dog, Gus. Alaina lost her husband a few years ago after a painful battle with prostate cancer.

Alaina and her husband had a wonderful, supportive relationship. Alaina cared for

Photo by Vladimir Soares on Unsplash

her husband throughout his illness, but it took a toll on her both physically and emotionally. She still struggles with grief over his death and has days where she still cries uncontrollably. Her family checks in on her often but struggle with knowing what to do on days she is experiencing deep sadness. Gus has been a great support for her and has been critical in helping her get through some of her hardest times.

Alaina is aware of the changes that occurred over the years in the neighborhood where she has so many memories and enjoyed life for so long. Despite the increasing crime, she continues to feel safe in her home as she maintains relationships with her friends who live close by and with the support of her church family, who also check in on her weekly.

Alaina has been experiencing some increased health problems recently. She suffers from back pains, osteoporosis, and diabetes. She has been prescribed several medications to manage her health issues and has been experiencing increased side effects due to the new medicines. Alaina works hard to maintain her daily routine but her friends have noticed that she has started to engage in some unusual behaviors, such as walking without Gus or being out alone after dark, as well as self-report she has had some dizzy spells and was falling more. Her friends have shared their concerns with her children, and they have decided to meet with their mother to find out more information to determine how to best support her needs.

References

https://www.cswe.org/Education-Resources.aspx

Chapter 28: Physical Development in Late Adulthood

Chapter 28 Learning Objectives

- Describe different theories of aging
- Describe the changes in physical appearance in late adulthood
- Describe the sensory changes in late adulthood
- Describe chronic health conditions during late adulthood
- Describe the importance of nutrition and exercise in late adulthood
- Describe the physical and functional changes in the brain during late adulthood
- Explain what happens in Parkison's disease
- Explain how sleep patterns change in late adulthood
- Explain how sexuality changes in late adulthood

Theories of Aging

Why do we age? There are many theories that attempt to explain how we age, however, researchers still do not fully understand what factors contribute to the human lifespan (Jin, 2010). Research on aging is constantly evolving and includes a variety of studies involving genetics, biochemistry, animal models, and human longitudinal studies (NIA, 2011a). According to Jin (2010), modern biological theories of human aging involve two categories. The first is **Programmed Theories** *that follow a biological timetable, possibly a continuation of childhood development.* This timetable would depend on "changes in gene expression that affect the systems responsible for maintenance, repair, and defense responses," (p. 72). The second category includes **Damage or Error Theories** *which emphasize environmental factors that cause cumulative damage in organisms.* Examples from each of these categories will be discussed.

Figure 9.10

Source

Genetics: One's genetic make-up certainly plays a role in longevity, but scientists are still attempting to identify which genes are responsible. Based on animal models, some genes promote longer life, while other genes limit longevity. Specifically, longevity may be due to genes that better equip someone to survive a disease. For others, some genes may accelerate the rate of aging, while

others decrease the rate. To help determine which genes promote longevity and how they operate, researchers scan the entire genome and compare genetic variants in those who live longer with those who have an average or shorter lifespan. For example, a National Institutes of Health study identified genes possibly associated with blood fat levels and cholesterol, both risk factors for coronary disease and early death (NIA, 2011a).

Researchers believe that it is most likely a combination of many genes that affect the rate of aging.

Evolutionary Theory: Evolutionary psychology emphasizes the importance of natural selection; that is, those genes that allow one to survive and reproduce will be more likely to be transmitted to offspring. Genes associated with aging, such as Alzheimer's Disease, do not appear until after the individual has passed their main reproductive years. Consequently, natural selection has not eliminated these damaging disorders from the gene pool. If these detrimental disorders occurred earlier in the development cycle, they may have been eliminated already (Gems, 2014).

Cellular Clock Theory: This theory suggests that biological aging is due to the fact that normal cells cannot divide indefinitely. This is known as the Hayflick limit and is evidenced in cells studied in test tubes, which divide about 40-60 times before they stop (Bartlett, 2014). But what is the mechanism behind this cellular senescence? *At the end of each chromosomal strand is a sequence of DNA that does not code for any particular protein, but protects the rest of the chromosome*, which is called a **telomere**. With each replication, the telomere gets shorter. Once it becomes too short the cell does one of three things. *It can stop replicating by turning itself off*, called **cellular senescence.** *It can stop replicating by dying*, called **apoptosis.** Or, as in the development of cancer, it can continue to divide and become abnormal. Senescent cells can also create problems. While they may be turned off, they are not dead, thus they still interact with other cells in the body and can lead to an increased risk of disease. When we are young, senescent cells may

reduce our risk of serious diseases such as cancer, but as we age they increase our risk of such problems (NIA, 2011a). Understanding why cellular senescence changes from being beneficial to being detrimental are still under investigation. The answer may lead to some important clues about the aging process.

Figure 9.11 Telomeres and Cellular Senescence

TELOMERE SHORTENS AFTER MULTIPLE REPLICATIONS

TELOMERE AT SENESCENCE

Adapted from National Institute on Aging
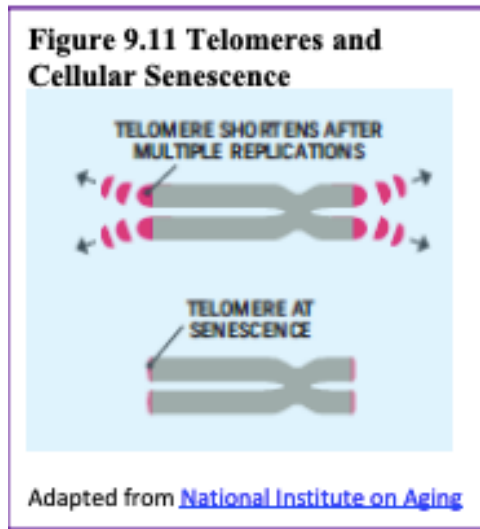
DNA Damage: Over time DNA, which contains the genetic code for all organisms, accumulates damage. This is usually not a concern as our cells are capable of repairing damage throughout our life. Further, some damage is harmless. However, some damage cannot be repaired and remains in our DNA. Scientists believe that this damage, and the body's inability to fix itself, is an important part of aging (NIA, 2011a). As DNA damage accumulates with increasing age, it can cause cells to deteriorate and malfunction (Jin, 2010). Factors that can damage DNA include ultraviolet radiation, cigarette smoking, and exposure to hydrocarbons, such as auto exhaust and coal (Dollemore, 2006).

Mitochondrial Damage: Damage to mitochondrial DNA can lead to a decaying of the **mitochondria,** *which is a cell organelle that*

uses oxygen to produce energy from food. The mitochondria convert oxygen to adenosine triphosphate (ATP) which provides the energy for the cell. When damaged, mitochondria become less efficient and generate less energy for the cell and can lead to cellular death (NIA, 2011a).

Free Radicals: When the mitochondria use oxygen to produce energy, they also produce potentially harmful byproducts called oxygen free radicals (NIA, 2011a). The **free radicals** *are missing an electron and create instability in surrounding molecules by taking electrons from them.*

Figure 9.12 Free Radicals

Source
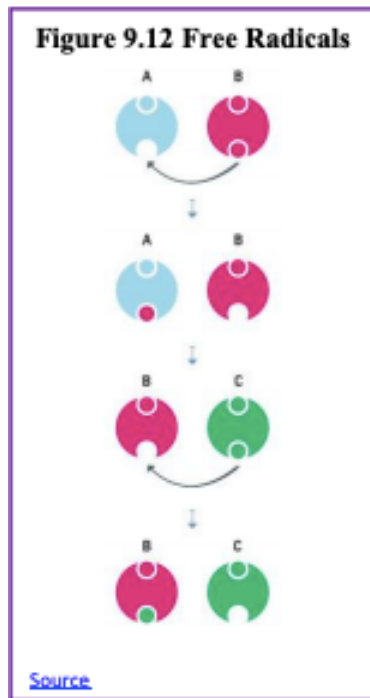
There is a snowball effect (A takes from B and then B takes from C, etc.) that creates more free radicals that disrupt the cell and causes

it to behave abnormally (See Figure 9.11). Some free radicals are helpful as they can destroy bacteria and other harmful organisms, but for the most part, they cause damage in our cells and tissue. Free radicals are identified with disorders seen in those of advanced age, including cancer, atherosclerosis, cataracts, and neurodegeneration. Some research has supported adding antioxidants to our diets to counter the effects of free radical damage because the antioxidants can donate an electron that can neutralize damaged molecules. However, the research on the effectiveness of antioxidants is not conclusive (Harvard School of Public Health, 2016).

Immune and Hormonal Stress Theories: Ever notice how quickly U.S. presidents seem to age? Before and after photos reveal how stress can play a role in the aging process.

Figure 9.13 Former President Obama

Barack Obama 2008
Source

Barack Obama 2012
Source

To understand how this stress affects aging, researchers note that both problems with the innate and adaptive immune system play a key role. The **innate immune system** *is made up of the skin, mucous membranes, cough reflex, stomach acid, and specialized cells that alert the body of an impending threat.* With age these cells lose their

ability to communicate as effectively, making it harder for the body to mobilize its defenses. The **adaptive immune system** *includes the tonsils, spleen, bone marrow, thymus, circulatory system and the lymphatic system that work to produce and transport T cells.* T-cells, *or lymphocytes*, fight bacteria, viruses, and other foreign threats to the body. T-cells are in a "naïve" state before they are programmed to fight an invader and become "memory cells". These cells now remember how to fight a certain infection should the body ever come across this invader again. Memory cells can remain in your body for many decades, and why the measles vaccine you received as a child is still protecting you from this virus today. As older adults produce fewer new T-cells to be programmed, they are less able to fight off new threats and new vaccines work less effectively. The reason why the shingles vaccine works well with older adults is that they already have some existing memory cells against the varicella virus. The shingles vaccine is acting as a booster (NIA, 2011a).

Hormonal Stress Theory, also known as **Neuroendocrine Theory of Aging,** *suggests that as we age the ability of the hypothalamus to regulate hormones in the body begins to decline to lead to metabolic problems* (American Federation of Aging Research (AFAR) 2011). This decline is linked to an excess of the stress hormone cortisol. While many of the body's hormones decrease with age, cortisol does not (NIH, 2014a). The more stress we experience, the more cortisol released, and the more hypothalamic damage that occurs. Changes in hormones have been linked to several metabolic and hormone-related problems that increase with age, such as diabetes (AFAR, 2011), thyroid problems (NIH, 2013), osteoporosis, and orthostatic hypotension (NIH, 2014a).

Physical Changes of Aging

The Baltimore Longitudinal Study on Aging (BLSA) (NIA, 2011b)

began in 1958 and has traced the aging process in 1,400 people from age 20 to 90. Researchers from the BLSA have found that the aging process varies significantly from individual to individual and from one organ system to another. However, some key generalization can be made including:

- Heart muscles thicken with age
- Arteries become less flexible
- Lung capacity diminishes
- Kidneys become less efficient in removing waste from the blood
- Bladder loses its ability to store urine
- Brain cells also lose some functioning, but new neurons can also be produced.

Many of these changes are determined by genetics, lifestyle, and disease. Other changes in late adulthood include:

Body Changes: Everyone's body shape changes naturally as they age. According to the National Library of Medicine (2014) after age 30 people tend to lose lean tissue, and some of the cells of the muscles, liver, kidney, and other organs are lost. Tissue loss reduces the amount of water in your body and bones may lose some of their minerals and become less dense (a condition called osteopenia in the early stages and osteoporosis in the later stages). The amount of body fat goes up steadily after age 30, and older individuals may have almost one third more fat compared to when they were younger. Fat tissue builds up toward the center of the body, including around the internal organs.

Skin, Hair and Nails: With age skin becomes thinner, less elastic, lose fat, and no longer looks plump and smooth. Veins and bones can be seen easier, and scratches, cuts, and bumps can take longer to heal. Years exposed to the sun may lead to wrinkles, dryness, age spots, and cancer. Older people may bruise more easily, and it can take longer for these bruises to heal. Some medicines or illnesses may also cause bruising. Gravity can cause the skin to sag

and wrinkle, and smoking can wrinkle the skin. Also, seen in older adults are age spots, previously called "liver spots". They look like flat, brown spots and are often caused by years in the sun. Skin tags are small, usually flesh-colored growths of skin that have a raised surface. They become common as people age, especially for women, but both age spots and skin tags are harmless (NIA, 2015f).

Nearly everyone has hair loss as they age, and the rate of hair growth slows down as many hair follicles stop producing new hairs (U.S. National Library of Medicine, 2019). The loss of pigment and subsequent graying begun in middle adulthood continues in late adulthood. The body and face also lose hair. Facial hair may grow coarser. For women, this often occurs around the chin and above the upper lip. For men, the hair of the eyebrows, ears, and nose may grow longer. Nails, particularly toenails, may become hard and thick.

Figure 9.14
Aging changes in nails

Lengthwise ridges may develop in the fingernails and toenails. However, pits, lines, changes in shape or color should be checked by a healthcare provider as they can be related to nutritional deficiencies or kidney disease (U.S. National Library of Medicine).

Height and Weight: The tendency to become shorter as one age

occurs among all races and both sexes. Height loss is related to aging changes in the bones, muscles, and joints. People typically lose almost one-half inch every 10 years after age 40, and height loss is even more rapid after age 70. A total of 1 to 3 inches in height is lost with aging. Changes in body weight vary for men and women. Men often gain weight until about age 55, and then begin to lose weight later in life, possibly related to a drop in the male sex hormone testosterone. Women usually gain weight until age 65, and then begin to lose weight. Weight loss later in life occurs partly because fat replaces lean muscle tissue, and fat weighs less than muscle. Diet and exercise are important factors in weight changes in late adulthood (National Library of Medicine, 2014).

Figure 9.15 Bone Growth Changes
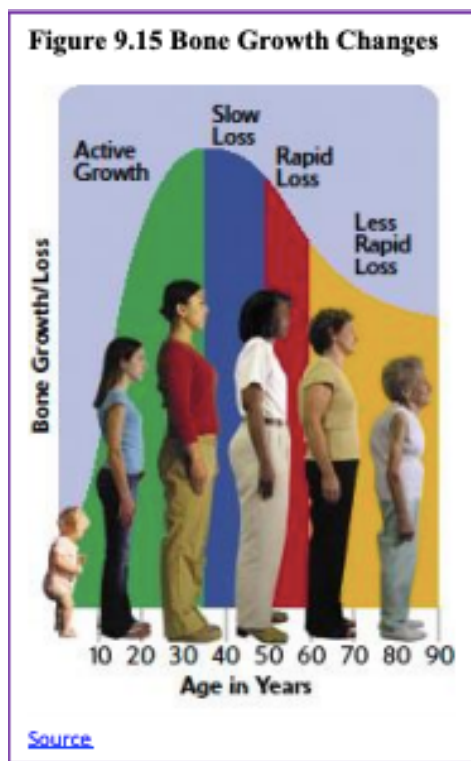
Sarcopenia *is the loss of muscle tissue as a natural part of aging.* Sarcopenia is most noticeable in men, and physically inactive people can lose as much as 3% to 5% of their muscle mass each decade after age 30, but even when active muscle loss still occurs (Webmd, 2016). Symptoms include a loss of stamina and weakness, which can decrease physical activity and subsequently further shrink muscles. Sarcopenia typically happens faster around age 75, but it may also speed up as early as 65 or as late as 80. Factors involved in sarcopenia include a reduction in nerve cells responsible for sending signals to the muscles from the brain to begin moving, a decrease in the ability to turn protein into energy, and not receiving enough calories or protein to sustain adequate muscle mass. Any loss of muscle is important because it lessens strength and mobility, and sarcopenia is a factor in frailty and the likelihood of falls and fractures in older adults. Maintaining strong leg and heart muscles are important for independence. Weight-lifting, walking, swimming, or engaging in other cardiovascular exercises can help strengthen the muscles and prevent atrophy.

Sensory Changes in Late Adulthood

Vision: In late adulthood, all the senses show signs of decline, especially among the oldest-old. In the last chapter, you read about the visual changes that were beginning in middle adulthood, such as presbyopia, dry eyes, and problems seeing in dimmer light. By later adulthood, these changes are much more common. Three serious eye diseases are more common in older adults: Cataracts, macular degeneration, and glaucoma. Only the first can be effectively cured in most people.

Cataracts are *a clouding of the lens of the eye.* The lens of the eye is made up of mostly water and protein. The protein is precisely arranged to keep the lens clear, but with age, some of the protein starts to clump. As more of the protein clumps together the clarity

of the lens is reduced. While some adults in middle adulthood may show signs of cloudiness in the lens, the area affected is usually small enough to not interfere with vision. More people have problems with cataracts after age 60 (NIH, 2014b) and by age 75, 70% of adults will have problems with cataracts (Boyd, 2014). Cataracts also cause a discoloration of the lens, tinting it more yellow and then brown, which can interfere with the ability to distinguish colors such as black, brown, dark blue, or dark purple.

Risk factors besides age include certain health problems such as diabetes, high blood pressure, and obesity, behavioral factors such as smoking, other environmental factors such as prolonged exposure to ultraviolet sunlight, previous trauma to the eye, long-term use of steroid medication, and a family history of cataracts (NEI, 2016a; Boyd, 2014). Cataracts are treated by removing and replacing the lens of the eye with a synthetic lens. In developed countries, such as the United States, cataracts can be easily treated with surgery. However, in developing countries, access to such operations are limited, making cataracts the leading cause of blindness in late adulthood in the least developed countries (Resnikoff, Pascolini, Mariotti & Pokharel, 2004). As shown in Figure 9.16, areas of the world with limited medical treatment for cataracts often results in people living more years with a serious disability. For example, of those living in the darkest red color on the map, more than 990 out of 100,00 people have a shortened lifespan due to the disability caused by cataracts.

Figure 9.16

Disability-adjusted life years for cataracts per 100,000 inhabitants in 2004:[51]

no data		540–630	
<90		630–720	
90–180		720–810	
180–270		810–900	
270–360		900–990	
360–450		>990	
450–540			
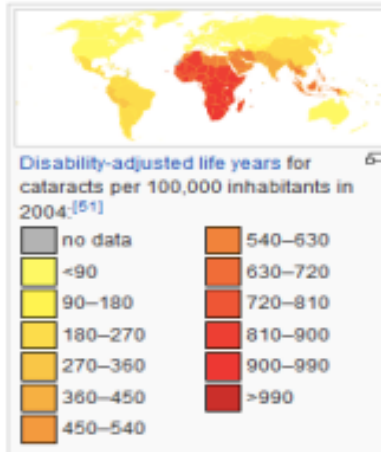
Source

Older adults are also more likely to develop **age-related macular degeneration**, which is *the loss of clarity in the center field of vision, due to the deterioration of the macula, the center of the retina.* Macular degeneration does not usually cause total vision loss, but the loss of the central field of vision can greatly impair day-to-day functioning. There are two types of macular degeneration: dry and wet. The dry type is the most common form and occurs when tiny pieces of a fatty protein called drusen form beneath the retina. Eventually the macular becomes thinner and stops working properly (Boyd, 2016). About 10% of people with macular degeneration have the wet type, which causes more damage to their central field of vision than the dry form. This form is caused by abnormal development of blood vessels beneath the retina. These vessels may leak fluid or blood causing more rapid loss of vision than the dry form.

The risk factors for macular degeneration include smoking, which doubles your risk (NIH, 2015a); race, as it is more common among

Caucasians than African Americans or Hispanics/Latinos; high cholesterol; and a family history of macular degeneration (Boyd, 2016). At least 20 different genes have been related to this eye disease, but there is no simple genetic test to determine your risk, despite claims by some genetic testing companies (NIH, 2015a). At present, there is no effective treatment for the dry type of macular degeneration. Some research suggests that certain patients may benefit from a cocktail of certain antioxidant vitamins and minerals, but the results are mixed at best. They are not a cure for the disease nor will they restore the vision that has been lost. This "cocktail" can slow the progression of visual loss in some people (Boyd, 2016; NIH, 2015a). For the wet type medications that slow the growth of abnormal blood vessels, and surgery, such as laser treatment to destroy the abnormal blood vessels may be used. Only 25% of those with the wet version may see improvement with these procedures (Boyd, 2016).

A third vision problem that increases with age is **glaucoma**, which *is the loss of peripheral vision, frequently due to a buildup of fluid in the eye that damages the optic nerve.* As you age the pressure in the eye may increase causing damage to the optic nerve. The exterior of the optic nerve receives input from retinal cells on the periphery, and as glaucoma progresses more and more of the peripheral visual field deteriorates toward the central field of vision. In the advanced stages of glaucoma, a person can lose their sight. Fortunately, glaucoma tends to progress slowly (NEI, 2016b). Glaucoma is the most common cause of blindness in the U.S. (NEI, 2016b). African Americans over age 40 and everyone else over age 60 has a higher risk for glaucoma.

Figure 9.17 Normal Vision vs. Cataracts, Macular Degeneration and Glaucoma

Source

Those with diabetes, and with a family history of glaucoma also have a higher risk (Owsley et al., 2015). There is no cure for glaucoma, but its rate of progression can be slowed, especially with early diagnosis. Routine eye exams to measure eye pressure and examination of the optic nerve can detect both the risk and presence of glaucoma (NEI, 2016b). Those with elevated eye pressure are given medicated eye drops. Reducing eye pressure lowers the risk of developing glaucoma or slow its progression in those who already have it.

Hearing: As you read in Chapter 8, our hearing declines both in terms of the frequencies of sound we can detect, and the intensity of sound needed to hear as we age. These changes continue in late adulthood. Almost 1 in 4 adults aged 65 to 74 and 1 in 2 aged 75 and older have disabling hearing loss (NIH, 2016). Table 9.4 lists some common signs of hearing loss.

Table 9.3 Common Signs of Hearing Loss

Have trouble hearing over the telephone

Find it hard to follow conversations when two or more people are talking

Often ask people to repeat what they are saying

Need to turn up the TV volume so loud that others complain

Have a problem hearing because of background noise

Think that others seem to mumble

Cannot understand when women and children are speaking

Adapted from NIA, 2015c

Presbycusis is a *common form of hearing loss in late adulthood that results in a gradual loss of hearing*. It runs in families and affects hearing in both ears (NIA, 2015c). Older adults may also notice **tinnitus**, *a ringing, hissing, or roaring sound in the ears*. The exact cause of tinnitus is unknown, although it can be related to hypertension and allergies. It may come and go or persist and get worse over time (NIA, 2015c). The incidence of both presbycusis and tinnitus increase with age and males have higher rates of both around the world (McCormak, Edmondson-Jones, Somerset, & Hall, 2016).

Your auditory system has two jobs: To help you to hear, and to help you maintain balance. Your balance is controlled by the brain receiving information from the shifting of hair cells in the inner ear about the position and orientation of the body. With age this

function of the inner ear declines which can lead to problems with balance when sitting, standing, or moving (Martin, 2014).

Taste and Smell: Our sense of taste and smell are part of our *chemical sensing system*. Our sense of taste, or gustation, appears to age well. Normal taste occurs when molecules that are released by chewing food stimulate taste buds along with the tongue, the roof of the mouth, and in the lining of the throat. These cells send messages to the brain, where specific tastes are identified. After age 50 we start to lose some of these sensory cells. Most people do not notice any changes in taste until one's 60s (NIH: Senior Health, 2016b). Given that the loss of taste buds is very gradual, even in late adulthood, many people are often surprised that their loss of taste is most likely the result of a loss of smell.

Table 9.4

Types of Smell Disorders	
Presbyosmia	Smell loss due to aging
Hyposmia	Loss of only certain odors
Anosmia	Total loss of smell
Dysosmia	Change in the perception of odors. Familiar odors are distorted.
Phantosmia	Smell odors that are not present

Adapted from NIH Senior Health: Problems with Smell

Our sense of smell, or olfaction, decreases more with age, and problems with the sense of smell are more common in men than in women. Almost 1 in 4 males in their 60s have a disorder with the sense of smell, while only 1 in 10 women do (NIH: Senior Health, 2016b). This *loss of smell due to aging* is called **presbyopia**. Olfactory cells are located in a small area high in the nasal cavity. These cells are stimulated by two pathways; when we inhale through the nose, or via the connection between the nose and the throat when we chew and digest food. It is a problem with this second pathway that explains why some foods such as chocolate or coffee seem tasteless

when we have a head cold. There are several types of loss of smell. *Total loss of smell*, or **anosmia**, is extremely rare.

Problems with our chemical senses can be linked to other serious medical conditions such as Parkinson's, Alzheimer's, or multiple sclerosis (NIH: Senior Health, 2016a). Any sudden change should be checked out. Loss of smell can change a person's diet, with either a loss of enjoyment of food and eating too little for balanced nutrition or adding sugar and salt to foods that are becoming blander to the palette.

Touch: Research has found that with age, people may experience reduced or changed sensations of vibration, cold, heat, pressure, or pain (Martin, 2014). Many of these changes are also aligned with a number of medical conditions that are more common among the elderly, such as diabetes. However, there are changes in the touch sensations among healthy older adults. The ability to detect changes in pressure have been shown to decline with age, with it being more pronounced by the 6th decade and diminishing further with advanced age (Bowden & McNelty, 2013). Yet, there is considerable variability, with almost 40% showing sensitivity that is comparable to younger adults (Thornbury & Mistretta, 1981). However, the ability to detect the roughness/smoothness or hardness/softness of an object shows no appreciable change with age (Bowden & McNulty, 2013). Those who show increasing insensitivity to pressure, temperature, or pain are at risk for injury (Martin, 2014).

Pain: According to Molton and Terrill (2014), approximately 60%-75% of people over the age of 65 reports at least some chronic pain, and this rate is even higher for those individuals living in nursing homes. Although the presence of pain increases with age, older adults are less sensitive to pain than younger adults (Harkins, Price, & Martinelli, 1986). Farrell (2012) looked at research studies that included neuroimaging techniques involving older people who were healthy and those who experienced a painful disorder. Results indicated that there were age-related decreases in brain volume in those structures involved in pain. Especially noteworthy were changed in the prefrontal cortex, brainstem, and hippocampus.

Women are more likely to identify feeling pain than men (Tsang et al., 2008). Women have fewer opioid receptors in the brain, and women also receive less relief from opiate drugs (Garrett, 2015).

Figure 9.18
Pain from Arthritis

Source
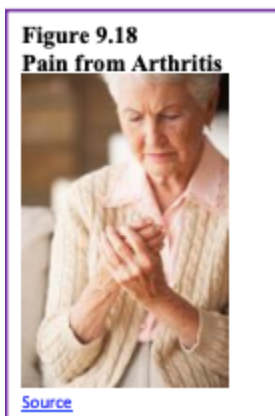
Because pain serves as an important indicator that there is something wrong, a decreased sensitivity to pain in older adults is a concern because it can conceal illnesses or injuries requiring medical attention.

Chronic health problems, including arthritis, cancer, diabetes, joint pain, sciatica, and shingles are responsible for most of the pain felt by older adults (Molton & Terrill, 2014). Cancer is a special concern, especially "breakthrough pain" which is a severe pain that comes on quickly while a patient is already medicated with a long-acting painkiller. It can be very upsetting, and after one attack many people worry it will happen again. Some older individuals worry about developing an addiction to pain medication, but if the medicine is taken exactly as prescribed, addiction should not be a concern (NIH, 2015b). Lastly, side effects from pain medicine including constipation, dry mouth, and drowsiness may occur that can adversely affect the elder's life.

Some older individuals put off going to the doctor because they think pain is just part of aging and nothing can help. Of course, this

is not true. Managing pain is crucial to ensure feelings of well-being for older adults. When chronic pain is not managed, the individual will restrict their movements for fear of feeling pain or injuring themselves further. This lack of activity will result in more restrictions, further decreased participation, and greater disability (Jensen, Moore, Bockow, Ehde, & Engel, 2011). A decline in physical activity because of pain is also associated with weight gain and obesity in adults (Strine, Hootman, Chapman, Okoro, & Balluz, 2005). Additionally, sleep and mood disorders, such as depression, can also occur (Moton & Terrill, 2014). Learning to cope effectively with pain is an important consideration in late adulthood and working with one's primary physician or a pain specialist is recommended (NIH, 2015b).

For those 65 and older, 35% have a disability of some type. Figure 9.19 identifies the percentage of those who have a disability based on the type.

Figure 9.19 Percentage of adults 65 and older with a disability in 2017

Independent living difficulty — 15%
Self-care difficulty — 8%
Ambulatory difficulty — 23%
Cognitive difficulty — 9%
Vision difficulty — 7%
Hearing difficulty — 15%
Any disability — 35%

Source
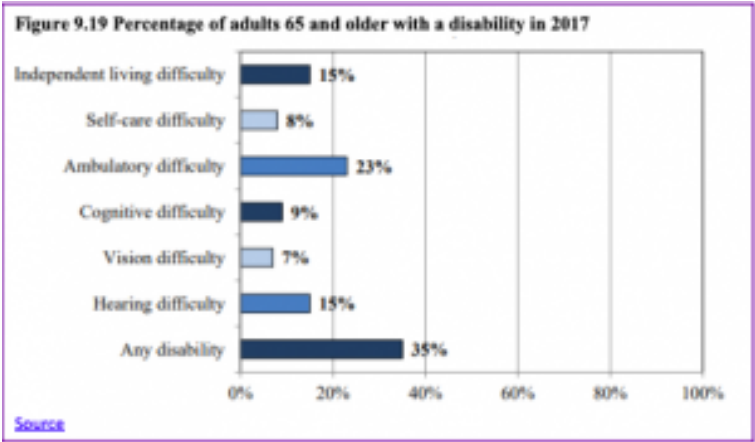
Nutrition

A healthy diet is necessary for older adults to increase mental

acuteness, resistance to illness and disease, boost energy levels, improve immune system strength, recuperation speed, and have greater effectiveness in the management of chronic health problems (Mayer, 2016). The new MyPlate for Older Adults, a website from Tufts University, suggests that older adults should strive for 50% of their diet is fruits and vegetables; 25% grains, many of which should be whole grains; and 25% protein-rich foods, such as nuts, beans, fish, lean meat, poultry, and fat-free and low-fat dairy products such as milk, cheeses, and yogurts. Unfortunately, changes in sensory functions, such as smell and taste, along with loss of teeth, can derail an older adult's ability to eat right.

Figure 9.20 Couple enjoying lunch

Older adults are likely to use salt and sugar to flavor foods that no longer taste the way they once did. Several government websites provide older adults with alternatives to the salt shaker to make foods more palatable.

Chronic Conditions

Chronic illnesses *are illnesses that are ongoing, generally incurable conditions that require continuous medical attention and affect daily*

life. As individuals live longer, diseases that affect older individuals will become more prevalent, and the burden of chronic illness grows with age. Less than 50% of adults 50-64 have a chronic condition, 90% aged 75 and up do (Cohen, 2011). Almost 80% have at least one chronic disease, and 77% have at least two (National Council on Aging, 2019). Older women are more likely to have a chronic condition than are older men (83% vs. 88%) (CDC, 2009). Table 9.6 lists the percentage of older adults who have certain chronic illnesses based on the National Health Survey conducted in 2014. Other studies place the figure of diabetes in older adults at 26% (CDC, 2014).

Table 9.5

Percentage of Older Adults with Chronic Conditions	
High cholesterol	58.2
Hypertension	56.7
Arthritis	48.7
Cancer	23.1
Diabetes	20.5
Heart disease	17.9
Ulcers	11.3
Stroke	7.2
Asthma	6.9
Kidney disease	5.1
Chronic bronchitis	5.0
Emphysema	4.0

Adapted from CDC National Health Interview 2014

Cancer and Major Cardiovascular Disease: As discussed in chapter 8, cancer and cardiovascular disease are the overall leading causes of death, and they are especially high reasons for death in middle and late adults. Table 9.7 identifies the percentages of deaths due to cancer and cardiovascular disease for selected age groups in 2016; the most recent year for data (Heron, 2018).

   Cancer: Advancing age is a significant risk factor for cancer, with persons over 65 accounting for 60% of newly diagnosed cancer and

70% of all cancer deaths (Berger et al., 2006). Additionally, more than 70% of the mortality associated including prostate, bladder, colon, uterus, pancreas, stomach, rectum and lung occurs in patients 65 and older. Other conditions that affect the elderly can occur with cancer, including anemia, coronary artery diseases, congestive heart failure, chronic obstructive pulmonary diseases, renal insufficiency, cerebrovascular diseases, neurovascular complications of diabetes mellitus, and arthritis that restricts mobility (Balducci & Extermann, 2000). Comorbidity will complicate treatment.

Table 9.6 Death Percentages for Cancer and Heart Disease for Selected Age Groups

2016 CAUSES OF DEATH	45-64	65+	85+
CANCER	29.2	21.1	12.1
HEART DISEASE	20.9	25.3	25.3

Source

Balducci and Extermann (2000) examined several concerns about cancer treatment in the elderly. With aging, there is a decline in multiple organ systems that can adversely affect the ability of medications to treat cancer. Chemotherapy has been found to compromise the cognitive function of those being treated for cancer, and it may further exacerbate dementia and elderly cognitive declines. Frail individuals, defined as having limited life expectancy and near-to- exhausted functional reserves, are also not considered candidates for more toxic forms of chemotherapy. With cancer, the prevalence and risk of malnutrition are higher and diminished visual and hearing function makes elderly cancer patients more susceptible to environmental injury. Screening for depression is also recommended because depression is associated

with weight loss, failure to thrive, and may reduce the motivation to receive treatment. Consequently, depression has been associated with decreased survival rates in the elderly. Due to the projected increase in the total number of older patients with cancer, it is recommended that physicians and caretakers have expertise in both oncology and geriatrics (Berger et al., 2006).

Heart Disease: There are changes to the heart that happen with age, and some may increase a person's risk of heart disease. These include stiffening blood vessels and valves, which may result in leaks or problems pumping blood out of the heart (NIA, 2012). As previously stated, heart disease is the leading cause of death for those in late adulthood (CDC, 2016b). There are different types of heart disease, and as already discussed in chapter 8, the most common is atherosclerosis, the buildup of fatty deposits or plaques in the walls of arteries. As plaque builds up, blood is unable to flow normally and bring oxygen throughout the body, including to the heart. Depending on where the buildup is, atherosclerosis can cause a heart attack, leg pain, or a stroke. However, Atherosclerosis is not part of normal aging. Many of the problems older people have with their heart and blood vessels are caused by disease and not by aging. For example, an older heart can normally pump blood as strong as a younger heart, while less ability to pump blood is caused by disease. Therefore, leading a heart-healthy lifestyle is most important to keeping one's heart strong in late adulthood.

Arthritis: Arthritis and other rheumatic conditions are the most common cause of disability among US adults and have been the most common cause of disability among US adults for the past 15 years (NIH: National Institute of Arthritis and Musculoskeletal and Skin Diseases, 2014). According to the NIH, approximately 62% of adults with arthritis are 65 years old and up. Almost 1 in 2 older adults with arthritis have some degree of mobility limitations, such as climbing stairs, walking, and grasping objects. The pain and other limitations of arthritis can also increase the risk of depression and other forms of mental distress. Osteoarthritis is the most common

type of arthritis. "When the cartilage, the slick, cushioning surface on the ends of bones wears away, bone rubs against bone, causing pain, swelling, and stiffness. Over time, joints can lose strength and pain may become chronic" (Arthritis Foundation, 2017, para 3). Common risk factors for osteoarthritis include genetics, obesity, age, previous injury, and other medical conditions.

Osteoporosis and Kyphosis: Osteoporosis *is a disease that thins and weakens bones to the point that they become fragile and break easily.* After age 50, 1 in 2 women and 1 in 4 men will experience an osteoporosis-related fracture in their lifetime, often leading to hip, spine, and wrist fractures (Dailey & Cravedi, 2006). Broken hips are a very serious problem as we age. They greatly increase the risk of death, especially during the year after they break (NIH Senior Health, 2015). In the U.S., more than 53 million adults either already have osteoporosis or at high risk due to low bone mass (NIH Senior Health, 2015). *As bones weaken in the spine, adults gradually lose height and their posture becomes hunched over, which is called* **Kyphosis**. Over time a bent spine can make it hard to walk or even sit up. Adults can prevent the loss of bone mass by eating a healthy diet with enough calcium and vitamin D, regularly exercising, limiting alcohol, and not smoking (National Osteoporosis Foundation, 2016).

**Figure 9.21
Osteoporosis**

Source

Chronic obstructive pulmonary disease (COPD) *is a progressive lung disease in which the airways become damaged making it difficult to breathe.* COPD includes problems such as emphysema and chronic bronchitis (NIH Senior Health, 2013). COPD kills more than 120,000 people every year, making it one of the leading causes of death. COPD was once considered a "man's disease". However, since 2000, 58% of those with COPD are women and they comprise 8% of all women (American Lung Association, 2019). Research has indicated that women may be more susceptible to the effects of cigarette smoke due to having smaller lungs and estrogen worsening the effects.

Figure 9.22

COPD: What is COPD?
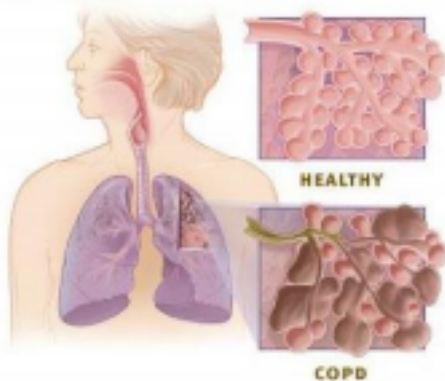
HEALTHY

COPD

Healthy airways and air sacs in the lungs are elastic—they try to bounce back to their original shape after being stretched or filled with air. In people with COPD, the air sacs no longer bounce back to their original shape. The airways can also become swollen or thicker than normal, and mucus production might increase.

Source

Figure 9.22 compares healthy to damaged lungs due to COPD. As COPD develops slowly, people may not notice the early signs and may attribute the shortness of breath to age or lack of physical exercise. Most people are not diagnosed until midlife or late adulthood. There is no cure as the damage cannot be reversed. Treatments aim at slowing further damage. Cigarette smoking is the leading cause of COPD, but other types of tobacco smoking, such as a pipe or cigar, can cause COPD, especially if the smoke is inhaled. Heavy or long-term exposure to second-hand smoke can also lead to COPD (NIH Senior Health, 2013). COPD can also occur in people who have long term exposure to other environmental irritants, such as chemical fumes, and dust from the environment and workplace.

About 1 in every 1,600 to 5,000 people have a risk for COPD because of a recessive genetic condition known as alpha-1

antitrypsin (AAT) deficiency (NIH, 2011). AAT is a protein made in the liver that protects organs, especially the lungs, from the effects of other harmful proteins. In those with the genetic defect, the AAT protein created is the wrong shape and cannot leave the liver. This can lead to a heightened risk for lung disease, and even liver disease, as the excess of the AAT protein can lead to **cirrhosis**, *which is a disease in which the liver becomes scarred and does not function properly*. While some people with ATT deficiency are not affected and live a normal life, COPD is more likely to occur in such individuals if their lungs are exposed to environmental irritants.

Shingles: According to the National Institute on Aging (2015e), the **shingle** *is a disease that affects your nerves*. Shingles are caused by the same virus as chickenpox, the varicella-zoster virus (VZV). After you recover from chickenpox, the virus continues to live in some of your nerve cells. It is usually inactive, and most adults live with VZV in their bodies and never get shingles. However, the virus will become active in one in three adults. Instead of causing chickenpox again, it produces shingles. A *risk factor for shingles includes advanced age as people have a* harder time fighting off infections as they get older. About half of all shingles cases are in adults age 60 or older, and the chance of getting shingles becomes much greater by age 70. Other factors that weaken an individual's ability to fight infections, such as cancer, HIV infections, or other medical conditions, can put one at a greater risk for developing shingles.

Figure 9.23 Shingles Rash

Shingles

Source

Shingles result in pain, burning, tingling, or itching in the affected area, as well as a rash and blisters. Typically, shingles develop only on one side of the body or face and in a small area rather than all over. Most cases of shingles last 3 to 5 weeks. After the shingles rash goes away, some people may be left with ongoing pain, called post-herpetic neuralgia (PHN) in the area where the rash had been (NIA, 2015e). The older one is when getting shingles, the greater the chance of developing PHN. Some people with PHN find it hard to go about their daily activities, like dressing, cooking and eating. They can also suffer from depression, anxiety, and sleeplessness. Medicines can help with pain and usually, PHN will disappear. Unfortunately, the blisters from shingles may become infected or leave a scar. Blisters near or in the eye can cause lasting eye damage or blindness. A brief paralysis of the face, hearing loss, and very rarely, swelling of the brain (encephalitis) can also occur. There is a shingles vaccine that is recommended for those aged 50 and older. Shingles are not contagious, but one can catch chickenpox from someone with shingles.

Beliefs about Health: Despite the fact that the majority of older adults have at least one chronic illness, most rate their overall health positively (Graham, 2019). Based on the results of the CDC's 2017

National Health Interview Survey, 82% of those aged 65-74 and 73% of those 75 and older rated their health as excellent, very good or good. Because older adults focus more on emotional well-being, positive social relationships, remaining active, and overall life satisfaction, poor physical functioning is not considered as important. Older adults often look to those who are worse off than themselves, including those having died or are in a nursing home, and consequently feel more positive about themselves. This perspective is in contrast to those younger who believe that there should not be anything wrong with them, and consequently experience negative feelings when they have an illness. Older adults expect there will be some deterioration in their health and are able to adapt to it. Similarly, most older adults identify positive mental health in conjunction with their physical health.

Brain Functioning

Research has demonstrated that the brain loses 5% to 10% of its weight between 20 and 90 years of age (Fjell & Walhovd, 2010). This decrease in brain volume appears to be due to the shrinkage of neurons, lower number of synapses, and shorter length of axons. According to Garrett (2015), the normal decline in cognitive ability throughout the lifespan has been associated with brain changes, including the reduced activity of genes involved in memory storage, synaptic pruning, plasticity, and glutamate and GABA (neurotransmitters) receptors. There is also a loss in white matter connections between brain areas. Without myelin, neurons demonstrate slower conduction and impede each other's actions. A loss of synapses occurs in specific brain areas, including the hippocampus (involved in memory) and the basal forebrain region. Older individuals also activate larger regions of their attentional and executive networks, located in the parietal and prefrontal cortex, when they perform complex tasks. This increased activation

correlates with reduced performance on both executive tasks and tests of working memory when compared to those younger (Kolb & Whishaw, 2011).

Continued Neurogenesis: Researchers at the University of Chicago found that new neurons continued to form into old age. Tobin et al. (2019) examined the post-mortem brain tissue of individuals between the ages of 79 and 99 (average age 90.6) and found evidence of neurogenesis in the hippocampus. Approximately 2000 neural progenitor cells and 150, 000 developing neurons were found per brain, although the number of developing neurons was lower in people with cognitive impairments or Alzheimer's disease. Tobin et al. hypothesized that the lower levels of neurogenesis in the hippocampus were associated with symptoms of cognitive decline and reduced synaptic plasticity.

The brain in late adulthood also exhibits considerable plasticity, and through practice and training, the brain can be modified to compensate for any age-related changes (Erber & Szuchman, 2015). Park and Reuter-Lorenz (2009) proposed the **Scaffolding Theory of Aging and Cognition** *which states that the brain adapts to neural atrophy (dying of brain cells) by building alternative connections, referred to as scaffolding.* This scaffolding allows older brains to retain high levels of performance. Brain compensation is especially noted in the additional neural effort demonstrated by those individuals who are aging well. For example, older adults who performed just as well as younger adults on a memory task used both prefrontal areas, while only the right prefrontal cortex was used in younger participants (Cabeza, Anderson, Locantore, & McIntosh, 2002). Consequently, this decrease in brain lateralization appears to assist older adults with their cognitive skills.

Healthy Brain Functioning: Cheng (2016) found that physical activity and stimulating cognitive activity resulted in significant reductions in the risk of neurocognitive disorders in longitudinal studies. Physical activity, especially aerobic exercise, is associated with less age-related gray and white matter loss, as well and

diminished neurotoxins in the brain. Overall, physical activity preserves the integrity of neurons and brain volume. Cognitive training improves the efficiency of the prefrontal cortex and executive functions, such as working memory, and strengthens the plasticity of neural circuits. Both activities support **cognitive reserve,** or *"the structural and dynamic capacities of the brain that buffer against atrophies and lesions"* (p. 85). Although it is optimal to begin physical and cognitive activities earlier in life, it is not too late to start these programs in late adulthood to improve one's cognitive health.

Figure 9.24 Exercise is Important to Brain Functioning

Source

Can we improve brain functioning? Many training programs have been created to improve brain functioning. ACTIVE (Advanced Cognitive Training for Independent and Vital Elderly), a study conducted between 1999 and 2001 in which 2,802 individuals age 65 to 94, suggests that the answer is "yes". These racially diverse participants received 10 group training sessions and 4 follow up sessions to work on tasks of memory, reasoning, and speed of

processing. These mental workouts improved cognitive functioning even 5 years later. Many of the participants believed that this improvement could be seen in everyday tasks as well (Tennstedt et al., 2006). However, programs for the elderly on memory, reading, and processing speed training demonstrate that there is an improvement in the specific tasks trained, but there is no generalization to other abilities (Jarrett, 2015). Further, these programs have not been shown to delay or slow the progression of Alzheimer's disease. Although these programs are not harmful, "physical exercise, learning new skills, and socializing remain the most effective ways to train your brain" (p. 207). These activities appear to build a reserve to minimize the effects of primary aging of the brain.

Parkinson's disease *is characterized by motor tremors, loss of balance, poor coordination, rigidity, and difficulty moving* (Garrett, 2015). Parkinson's affects approximately 1% of those over the age of 60, and it appears more frequently in family members in a little less than 10% of cases. Twenty-eight chromosomal areas have been implicated in Parkinson's disease, but environmental factors have also been identified and include brain injury. Being knocked unconscious once increases the risk by 32% and being knocked out several times increases the risk by 174% (Garrett, 2015). Other environmental influences include toxins, industrial chemicals, carbon monoxide, herbicides and pesticides (Olanow & Tatton, 1999). The symptoms are due to the deterioration of the substantia nigra, an area in the midbrain whose neurons send dopamine-releasing axons to the basal ganglia which affect motor activity. Treatment typically includes the medication levodopa (L-dopa), which crosses the blood-brain barrier and is converted into dopamine in the brain. Deep brain stimulation, which involves inserting an electrode into the brain that provides electrical stimulation, has resulted in improved motor functioning (Garrett, 2015).

Sleep

Similar to other adults, older adults need between 7 to 9 hours of sleep per night, *but they tend to go to sleep earlier and get up earlier than those younger. This pattern is called* **advanced sleep phase syndrome** and is based on changes in circadian rhythms (National Sleep Foundation, 2009). There are sleep problems in older adults, and insomnia is the most common problem in those 60 and older (NIA, 2016). People with **insomnia** *have trouble falling asleep and staying asleep.* There are many reasons why older people may have insomnia, including certain medications, being in pain, having a medical or psychiatric condition, and even worrying before bedtime about not being able to sleep. Using over the counter sleep aids or medication may only work when used for a short time. Consequently, sleep problems should be discussed with a health care professional.

Also, common in older adults are sleep disorders, including sleep apnea, restless legs syndrome, periodic limb movement disorder, and rapid eye movement sleep behavior disorder (NIA, 2016). **Sleep apnea** *refers to repeated short pauses in breathing, while an individual sleeps, which can lead to reduced oxygen in the blood.* Snoring is a common symptom of sleep apnea and it often worsens with age. Untreated sleep apnea can lead to impaired daytime functioning, high blood pressure, headaches, stroke, and memory loss. **Restless legs syndrome** *feels like there is tingling, crawling, or pins and needles in one or both legs, and this feeling is worse at night.*

Periodic limb movement disorder *causes people to jerk and kick their legs every 20 to 40 seconds during sleep.* **Rapid eye movement sleep behavior disorder** *occurs when one's muscles can move during REM sleep and sleep is disrupted.*

According to the National Sleep Foundation (2009), there are many medical conditions that affect sleep and include gastroesophageal reflux disease, diabetes mellitus, renal failure, respiratory diseases such as asthma, and immune disorders. Diseases such as Parkinson's

disease and multiple sclerosis also commonly cause problems sleeping. Lastly, Alzheimer's disease can interfere with sleeping patterns. Individuals may wake up many times during the night, wander when up, and yell which can alter the amount of time they sleep. Both minor and major sleep problems in older adults can lead to increased risk of accidents, falls, chronic fatigue, decreased quality of life, cognitive decline, reduced immune function, and depression (Buman, 2013).

Figure 9.25 Exercise Improves Sleep

Source

Sexuality

Because of sleep problems experienced by those in late adulthood, research has looked into whether exercise can improve their quality of sleep. Results show that 150 minutes per week of exercise can improve sleep quality (Buman, 2013). This amount of exercise is also recommended to improve other health areas including lowering the risk for heart disease, diabetes, and some cancers. Aerobic activity, weight training, and balance programs are all recommended. For those who live in assisted living facilities even light exercise, such as stretching and short walks, can improve sleep. High-intensity activity is not necessary to see improvements. Overall, the effects of

exercise on sleep may actually be even larger for older adults since their sleep quality may not be ideal to start.

Figure 9.26

Source
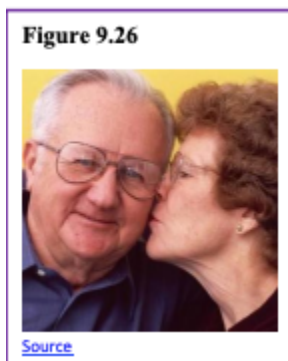
According to Kane (2008), older men and women are often viewed as genderless and asexual. There is a stereotype that elderly individuals no longer engage in sexual activity and when they do, they are perceived to have committed some kind of offense. These ageist myths can become internalized, and older people have a more difficult time accepting their sexuality (Gosney, 2011). Additionally, some older women indicate that they no longer worry about sexual concerns anymore once they are past the childbearing years.

In reality, many older couples find greater satisfaction in their sex life than they did when they were younger. They have fewer distractions, more time and privacy, no worries about getting pregnant, and greater intimacy with a lifelong partner (NIA, 2013). Results from the National Social Life Health, and Aging Project indicated that 72% of men and 45.5% of women aged 52 to 72 reported being sexually active (Karraker, DeLamater, & Schwarz, 2011). Additionally, the National Survey of Sexual Health data indicated that 20%-30% of individuals remain sexually active well into their 80s (Schick et al., 2010). However, there are issues that occur in older adults that can adversely affect their enjoyment of healthy sexual relationships.

Causes of Sexual Problems: According to the National Institute on Aging (2013), chronic illnesses including arthritis (joint pain), diabetes (erectile dysfunction), heart disease (difficulty achieving orgasm for both sexes), stroke (paralysis), and dementia (inappropriate sexual behavior) can all adversely affect sexual functioning. Hormonal changes, physical disabilities, surgeries, and medicines can also affect a senior's ability to participate in and enjoy sex. How one feels about sex can also affect performance. For example, a woman who is unhappy about her appearance as she ages may think her partner will no longer find her attractive. A focus on youthful physical beauty for women may get in the way of her enjoyment of sex. Likewise, most men have a problem with erectile dysfunction (ED) once in a while, and some may fear that ED will become a more common problem as they age. If there is a decline in sexual activity for a heterosexual couple, it is typically due to a decline in the male's physical health (Erber & Szuchman, 2015).

Overall, the best way to experience a healthy sex life in later life is to keep sexually active while aging. However, the lack of an available partner can affect heterosexual women's participation in a sexual relationship. Beginning at age 40 there are more women than men in the population, and the ratio becomes 2 to 1 at age 85 (Karraker et al., 2011). Because older men tend to pair with younger women when they become widowed or divorced, this also decreases the pool of available men for older women (Erber & Szuchman, 2015). In fact, a change in marital status does not result in a decline in the sexual behavior of men aged 57 to 85 years old, but it does result in a decline for similar-aged women (Karraker et al., 2011).

Concluding Thoughts: Key players in improving the quality of life among older adults will be those adults themselves. By exercising, reducing stress, stopping smoking, limiting the use of alcohol, and consuming more fruits and vegetables, older adults can expect to live longer and more active lives (He et al., 2005). Stress reduction, both in late adulthood and earlier in life, is also crucial. The reduction of societal stressors can promote active life expectancy.

In the last 40 years, smoking rates have decreased, but obesity has increased, and physical activity has only modestly increased.

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Chapter 29: Cognitive Development in Late Adulthood

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Chapter 29 Learning Objectives

- Describe how memory changes for those in late adulthood
- Describe the theories for why memory changes occur
- Describe how cognitive losses in late adulthood are exaggerated
- Explain the pragmatics and mechanics of intelligence
- Define what is a neurocognitive disorder
- Explain Alzheimer's disease and other neurocognitive disorders
- Describe work and retirement in late adulthood
- Describe how those in late adulthood spend their leisure time

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How Does Aging Affect Information Processing?

There are numerous stereotypes regarding older adults as being forgetful and confused, but what does the research on memory and cognition in late adulthood reveal? Memory comes in many types, such as working, episodic, semantic, implicit, and prospective. There are also many processes involved in memory, thus it should not be a surprise that there are declines in some types of memory and memory processes, while other areas of memory are maintained or even show some improvement with age. In this section, we will focus on changes in memory, attention, problem-solving, intelligence, and wisdom, including the exaggeration of losses stereotyped in the elderly.

Memory

Figure 9.27

Source
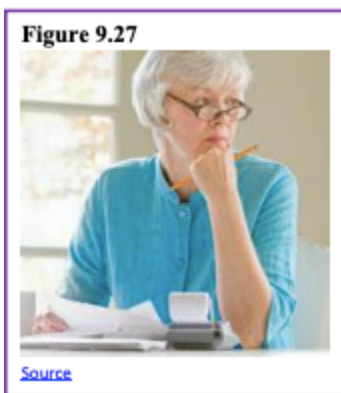
Changes in Working Memory: As discussed in chapter 4, working memory is the more active, effortful part of our memory system. Working memory is composed of three major systems: The

phonological loop *that maintains information about auditory stimuli*, the **visuospatial sketchpad**, *that maintains information about visual stimuli*, and the **central executive,** *that oversees working memory, allocating resources where needed and monitoring whether cognitive strategies are being effective* (Schwartz, 2011). Schwartz reports that it is the central executive that is most negatively impacted by age. In tasks that require allocation of attention between different stimuli, older adults fair worse than do younger adults. In a study by Göthe, Oberauer, and Kliegl (2007) older and younger adults were asked to learn two tasks simultaneously. Young adults eventually managed to learn and perform each task without any loss in speed and efficiency, although it did take considerable practice. None of the older adults were able to achieve this. Yet, older adults could perform at young adult levels if they had been asked to learn each task individually. Having older adults learn and perform both tasks together was too taxing for the central executive. In contrast, working memory tasks that do not require much input from the central executive, such as the digit span test, which uses predominantly the phonological loop, we find that older adults perform on par with young adults (Dixon & Cohen, 2003).

Changes in Long-term Memory: As you should recall, long-term memory is divided into semantic (knowledge of facts), episodic (events), and implicit (procedural skills, classical conditioning, and priming) memories. Semantic and episodic memory is part of the explicit memory system, which requires conscious effort to create and retrieve. Several studies consistently reveal that episodic memory shows greater age-related declines than semantic memory (Schwartz, 2011; Spaniol, Madden, & Voss, 2006). It has been suggested that episodic memories may be harder to encode and retrieve because they contain at least two different types of memory, the event and when and where the event took place. In contrast, semantic memories are not tied to any particular timeline. Thus, only the knowledge needs to be encoded or retrieved

(Schwartz, 2011). Spaniol et al. (2006) found that retrieval of semantic information was considerably faster for both younger and older adults than the retrieval of episodic information, with there being little difference between the two age groups for semantic memory retrieval. They note that older adults' poorer performance on episodic memory appeared to be related to slower processing of the information and the difficulty of the task. They found that as the task became increasingly difficult, the gap between each age groups' performance increased for episodic memory more so than for semantic memory.

Studies that test general knowledge (semantic memory), such as politics and history (Dixon, Rust, Feltmate, & See, 2007), or vocabulary/lexical memory (Dahlgren, 1998) often find that older adults outperform younger adults. However, older adults do find that they experience more *"blocks" at retrieving information that they know.* In other words, they experience more **tip-of-the-tongue** (TOT) events than do younger adults (Schwartz, 2011).

Implicit memory requires little conscious effort and often involves skills or more habitual patterns of behavior. This type of memory shows few declines with age. Many studies assessing implicit memory measure the effects of priming. **Priming** *refers to changes in behavior as a result of frequent or recent experiences.* If you were shown pictures of food and asked to rate their appearance and then later were asked to complete words such as s_ _ p, you may be more likely to write soup than soap, or ship. The images of food "primed" your memory for words connected to food. Does this type of memory and learning change with age? The answer is typically "no" for most older adults (Schacter, Church, & Osowiecki, 1994).

Prospective memory *refers to remembering things we need to do in the future*, such as remembering a doctor's appointment next week or to take medication before bedtime. It has been described as "the flip-side of episodic memory" (Schwartz, 2011, p. 119). Episodic memories are the recall of events in our past, while the focus of

prospective memories is of events in our future. In general, humans are fairly good at prospective memory if they have little else to do in the meantime. However, when there are competing tasks that are also demanding our attention, this type of memory rapidly declines. The explanation given for this is that this form of memory draws on the central executive of working memory, and when this component of working memory is absorbed in other tasks, our ability to remember to do something else in the future is more likely to slip out of memory (Schwartz, 2011). However, prospective memories are often divided into **time-based prospective memories**, *such as having to remember to do something at a future time*, or **event-based prospective memories**, *such as having to remember to do something when a certain event occurs*. When age-related declines are found, they are more likely to be time-based, than event-based, and in laboratory settings rather than in the real-world, where older adults can show comparable or slightly better prospective memory performance (Henry, MacLeod, Phillips & Crawford, 2004; Luo & Craik, 2008). This should not be surprising given the tendency of older adults to be more selective in where they place their physical, mental, and social energy. Having to remember a doctor's appointment is of greater concern than remembering to hit the space-bar on a computer every time the word "tiger" is displayed.

Figure 9.28 Aids for Prospective Memory

Source
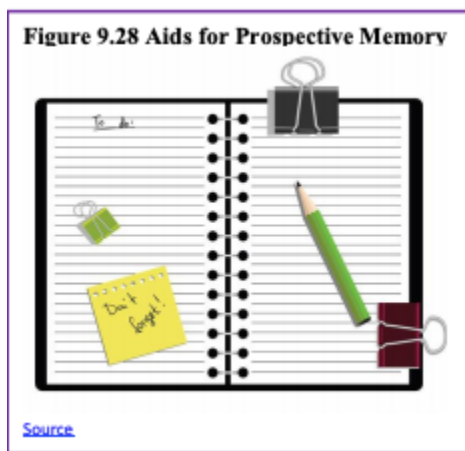
Recall versus Recognition: Memory performance often depends on whether older adults are asked to simply recognize previously learned material or recall material on their own. Generally, for all humans, recognition tasks are easier because they require less cognitive energy. Older adults show roughly equivalent memory to young adults when assessed with a recognition task (Rhodes, Castel, & Jacoby, 2008). With recall measures, older adults show memory deficits in comparison to younger adults. While the effect is initially not that large, starting at age 40 adults begin to show declines in recall memory compared to younger adults (Schwartz, 2011).

The Age Advantage: Fewer age differences are observed when memory cues are available, such as for recognition memory tasks, or when individuals can draw upon acquired knowledge or experience. For example, older adults often perform as well if not better than young adults on tests of word knowledge or vocabulary. With age often comes expertise, and research has pointed to areas where aging experts perform quite well. For example, older typists were found to compensate for age-related declines in speed by looking farther ahead at the printed text (Salthouse, 1984). Compared to younger players, older chess experts focus on a smaller set of possible moves, leading to greater cognitive efficiency (Charness, 1981). Accrued knowledge of everyday tasks, such as grocery prices, can help older adults to make better decisions than young adults (Tentori, Osheron, Hasher, & May 2001).

Figure 9.29

Source

Attention and Problem Solving

Changes in Attention in Late Adulthood: Changes in sensory functioning and speed of processing information in late adulthood often translate into changes in attention (Jefferies et al., 2015). Research has shown that older adults are less able to selectively focus on information while ignoring distractors (Jefferies et al., 2015; Wascher, Schneider, Hoffman, Beste, & Sänger, 2012), although Jefferies and her colleagues found that when given double-time, older adults could perform at young adult levels. Other studies have also found that older adults have greater difficulty shifting their attention between objects or locations (Tales, Muir, Bayer, & Snowden, 2002). Consider the implication of these attentional changes for older adults.

How do changes or maintenance of cognitive ability affect older adults' everyday lives? Researchers have studied cognition in the context of several different everyday activities. One example is driving. Although older adults often have more years of driving experience, cognitive declines related to reaction time or attentional processes may pose limitations under certain circumstances (Park & Gutchess, 2000). In contrast, research on interpersonal problem solving suggested that older adults use more effective strategies than younger adults to navigate through social and emotional problems (Blanchard-Fields, 2007). In the context of work, researchers rarely find that older individuals perform poorer on the job (Park & Gutchess, 2000). Similar to everyday problem solving, older workers may develop more efficient strategies and rely on expertise to compensate for cognitive decline.

Problem Solving: Problem-solving tasks that require processing non-meaningful information quickly (a kind of task that might be part of a laboratory experiment on mental processes) declines with age. However, many real-life challenges facing older adults do not rely on the speed of processing or making choices on one's own. Older adults resolve everyday problems by relying on input from

others, such as family and friends. They are also less likely than younger adults to delay making decisions on important matters, such as medical care (Strough, Hicks, Swenson, Cheng & Barnes, 2003; Meegan & Berg, 2002).

What might explain these deficits as we age? The **processing speed theory**, proposed by Salthouse (1996, 2004), *suggests that as the nervous system slows with advanced age our ability to process information declines.* This slowing of processing speed may explain age differences in many different cognitive tasks. For instance, as we age, working memory becomes less efficient (Craik & Bialystok, 2006). Older adults also need a longer time to complete mental tasks or make decisions. Yet, when given sufficient time older adults perform as competently as do young adults (Salthouse, 1996). Thus, when speed is not imperative to the task healthy older adults do not show cognitive declines.

In contrast, **inhibition theory** *argues that older adults have difficulty with inhibitory functioning, or the ability to focus on certain information while suppressing attention to less pertinent information tasks* (Hasher & Zacks, 1988). Evidence comes from directed forgetting research. In **directed forgetting** *people are asked to forget or ignore some information, but not other information.* For example, you might be asked to memorize a list of words but are then told that the researcher made a mistake and gave you the wrong list and asks you to "forget" this list. You are then given a second list to memorize. While most people do well at forgetting the first list, older adults are more likely to recall more words from the "forget-to-recall" list than are younger adults (Andrés, Van der Linden, & Parmentier, 2004).

Cognitive losses exaggerated: While there are information processing losses in late adulthood, the overall loss has been exaggerated (Garrett, 2015). One explanation is that the type of tasks that people are tested on tend to be meaningless. For example, older individuals are not motivated to remember a random list of words in a study, but they are motivated for more meaningful material related to their life, and consequently perform better on those tests.

Another reason is that the research is often cross-sectional. When age comparisons occur longitudinally, however, the amount of loss diminishes (Schaie, 1994). A third reason is that the loss may be due to a lack of opportunity in using various skills. When older adults practiced skills, they performed as well as they had previously. Although diminished performance speed is especially noteworthy in the elderly, Schaie (1994) found that statistically removing the effects of speed diminished the individual's performance declines significantly. In fact, Salthouse and Babcock (1991) demonstrated that processing speed accounted for all but 1% of age-related differences in working memory when testing individuals from 18 to 82. Finally, it is well established that our hearing and vision decline as we age. Longitudinal research has proposed that deficits in sensory functioning explain age differences in a variety of cognitive abilities (Baltes & Lindenberger, 1997). Not surprisingly, more years of education, and subsequently higher income, are associated with the higher cognitive level and slower cognitive decline (Zahodne, Stern, & Manly, 2015).

Figure 9.30

Source

Intelligence and Wisdom

When looking at scores on traditional intelligence tests, tasks measuring verbal skills show minimal or no age-related declines,

while scores on performance tests, which measure solving problems quickly, decline with age (Botwinick, 1984). This profile mirrors crystallized and fluid intelligence. As you recall from the last chapter, [crystallized intelligence](#) encompasses abilities that draw upon experience and knowledge. Measures of crystallized intelligence include vocabulary tests, solving number problems, and understanding texts. [Fluid intelligence](#) refers to information processing abilities, such as logical reasoning, remembering lists, spatial ability, and reaction time. Baltes (1993) introduced two additional types of intelligence to reflect cognitive changes in aging. **Pragmatics of intelligence** *are cultural exposure to facts and procedures that are maintained as one age and are similar to crystallized intelligence.* **Mechanics of intelligence** *are dependent on brain functioning and decline with age, similar to fluid intelligence.* Baltes indicated that pragmatics of intelligence show a little decline and typically increase with age.

Additionally, the pragmatics of intelligence may compensate for the declines that occur with the mechanics of intelligence. In summary, global cognitive declines are not as typical as one age, and individuals compensate for some cognitive declines, especially processing speed.

Wisdom *is the ability to use accumulated knowledge about practical matters that allow for sound judgment and decision making.* A wise person is insightful and has knowledge that can be used to overcome obstacles in living. Does aging bring wisdom? While living longer brings experience, it does not always bring wisdom. Paul Baltes and his colleagues (Baltes & Kunzmann, 2004; Baltes & Staudinger, 2000) suggest that wisdom is rare. In addition, the emergence of wisdom can be seen in late adolescence and young adulthood, with there being few gains in wisdom over the course of adulthood (Staudinger & Gluck, 2011). This would suggest that factors other than age are stronger determinants of wisdom. Occupations and experiences that emphasize others rather than self, along with personality characteristics, such as openness to experience and generativity, are more likely to provide the building

blocks of wisdom (Baltes & Kunzmann, 2004). Age combined with certain types of experience and/or personality brings wisdom.

Neurocognitive Disorders

Historically, the term dementia was used to refer to an individual experiencing difficulties with memory, language, abstract thinking, reasoning, decision making, and problem-solving (Erber & Szuchman (2015). However, in the latest edition of the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) (American Psychiatric Association, 2013) the term dementia has been replaced by the neurocognitive disorder. A **major neurocognitive disorder** *is diagnosed as a significant cognitive decline from a previous level of performance in one or more cognitive domains and interferes with independent functioning*, while a **minor neurocognitive disorder** *is diagnosed as a modest cognitive decline from a previous level of performance in one or more cognitive domains and does not interfere with independent functioning*. There are several different neurocognitive disorders that are typically demonstrated in late adulthood and determining the exact type can be difficult because the symptoms may overlap with each other. Diagnosis often includes a medical history, physical exam, laboratory tests, and changes noted in behavior. Alzheimer's disease, vascular neurocognitive disorder and neurocognitive disorder with Lewy bodies will be discussed below.

   Alzheimer's Disease: Probably the most well-known and most common neurocognitive disorder for older individuals is Alzheimer's disease. In 2016 an estimated 5.4 million Americans were diagnosed with Alzheimer's disease (Alzheimer's Association, 2016), which was approximately one in nine aged 65 and over. By 2050 the number of people age 65 and older with Alzheimer's disease is projected to be 13.8 million if there are no medical breakthroughs to prevent or cure the disease. Alzheimer's disease

is the 6th leading cause of death in the United States, but the 5th leading cause for those 65 and older. Among the top 10 causes of death in America, Alzheimer's disease is the only one that cannot be prevented, cured, or even slowed. Current estimates indicate that Alzheimer's disease affects approximately 50% of those identified with a neurocognitive disorder (Cohen & Eisdorfer, 2011).

Figure 9.31

THE ALZHEIMER'S TIMELINE

1. Early brain changes
2. Subtle decline in thinking
3. Memory changes, confusion
4. Inability to bathe, dress or eat without help
5. Loss of ability to communicate and recognize loved ones

Source:
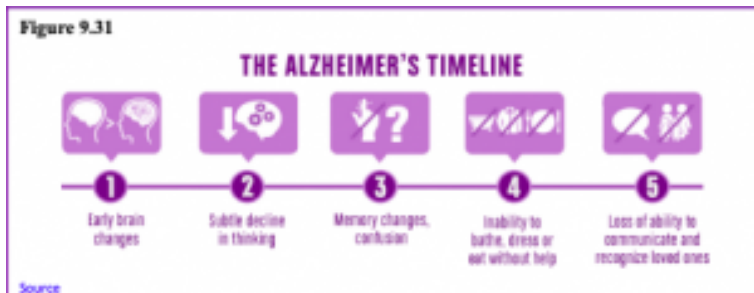
Alzheimer's disease has a gradual onset with subtle personality changes and memory loss that differs from normal age-related memory problems occurring first. Confusion, difficulty with change, and deterioration in language, problem-solving skills, and personality become evident next. In the later stages, the individual loses physical coordination and is unable to complete everyday tasks, including self-care and personal hygiene (Erber & Szuchman, 2015). Lastly, individuals lose the ability to respond to their environment, to carry on a conversation, and eventually to control movement (Alzheimer's Association, 2016). On average people with Alzheimer's survive eight years, but some may live up to 20 years. The disease course often depends on the individual's age and whether they have other health conditions.

The greatest risk factor for Alzheimer's disease is age, but there are genetic and environmental factors that can also contribute. Some forms of Alzheimer's are hereditary, and with the early onset type, several rare genes have been identified that directly cause

Alzheimer's. People who inherit these genes tend to develop symptoms in their 30s, 40s, and 50s. Five percent of those identified with Alzheimer's disease are younger than age 65. When Alzheimer's disease is caused by deterministic genes, it is called familial Alzheimer's disease (Alzheimer's Association, 2016). Traumatic brain injury is also a risk factor, as well as obesity, hypertension, high cholesterol, and diabetes (Carlson, 2011).

Beta Amyloid and Tau: According to Erber and Szuchman (2015) the problems that occur with Alzheimer's disease are due to the "death of neurons, the breakdown of connections between them, and the extensive formation of plaques and tau, which interfere with neuron functioning and neuron survival" (p. 50). Plaques are abnormal formations of protein pieces called beta-amyloid. Beta-amyloid comes from a larger protein found in the fatty membrane surrounding nerve cells. Because beta-amyloid is sticky, it builds up into plaques (Alzheimer's Association, 2016). These plaques appear to block cell communication and may also trigger an inflammatory response in the immune system, which leads to further neuronal death.

Tau is an important protein that helps maintain the brain's transport system. When tau malfunctions, it changes into twisted strands called tangles that disrupt the transport system. Consequently, nutrients and other supplies cannot move through the cells and they eventually die. The death of neurons leads to the brain shrinking and affecting all aspects of brain functioning. For example, the hippocampus is involved in learning and memory, and the brain cells in this region are often the first to be damaged. This is why memory loss is often one of the earliest symptoms of Alzheimer's disease. Figures 9.32 and 9.33 illustrate the difference between an Alzheimer's brain and a healthy brain.

Figure 9.32 Plaques and Tangles

Normal | Alzheimer

Neurofibrillary tangles

Neuron

Amyloid plaques

Source

Figure 9.33

Healthy Brain | Severe AD

Source
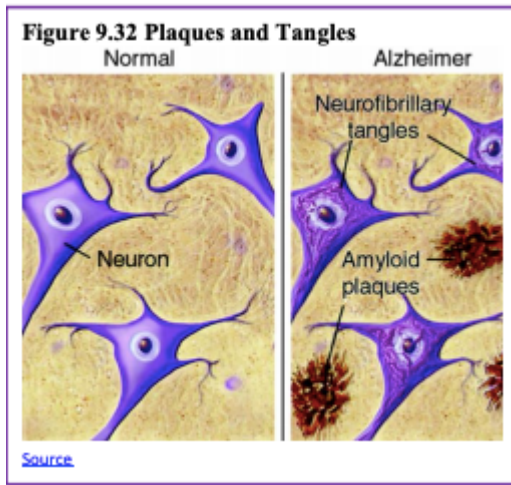
Washington University School of Medicine (2019) reported that researchers associated with the School of Medicine discovered that failing immune cells, known as microglia, appear to be the link between amyloid and tau, which are the two damaging proteins of Alzheimer's disease. Amyloid plaques, which appear first, do not cause Alzheimer's, but the presence of amyloid leads to the formation of tau tangles, which are responsible for the memory loss and cognitive deficits seen in those with Alzheimer's disease. It appears that weakening microglia causes the amyloid plaques to injure nearby neurons, thus creating a toxic environment that increases the formation and spread of tau tangles. These findings could lead to a new approach for developing therapies for Alzheimer's.

Sleep Deprivation and Alzheimer's: Studies suggest that sleep
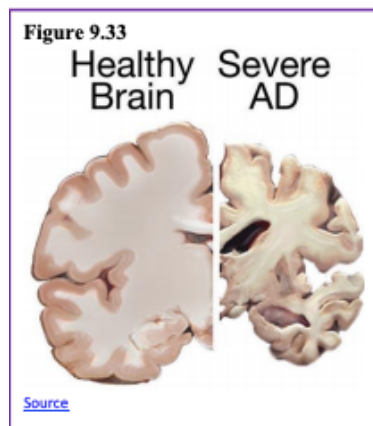
plays a role in clearing both beta-amyloid and tau out of the brain. Shokri-Kojori et al. (2018) scanned participants' brains after getting a full night's rest and after 31 hours without sleep. Beta-amyloid increased by about 5% in the participants' brains after losing a night of sleep. These changes occurred in brain regions that included the thalamus and hippocampus, which are associated with the early stages of Alzheimer's disease. Shokri-Kojori et al. also found that participants with the largest increases in beta-amyloid reported the worst mood after sleep deprivation. These findings support other studies that have found that the hippocampus and thalamus are involved in mood disorders.

Additionally, Holth et al. (2019) found that healthy adults who remained awake all day and night had tau levels that were elevated by about 50 percent. Once tau begins to accumulate in brain tissue, the protein can spread from one brain area to the next along with neural connections. Holth et al. also found that older people who had more tau tangles in their brains by PET scanning had a less slow-wave, deep sleep. Holth et al. concluded that good sleep habits and/or treatments designed to encourage plenty of high-quality sleep might play an important role in slowing Alzheimer's disease. In contrast, poor sleep might worsen the condition and serve as an early warning sign of Alzheimer's disease.

Healthy Lifestyle Combats Alzheimer's: Dhana and colleagues with the Rush University Medical Center in Chicago examined how healthy lifestyle mitigates the risk of Alzheimer's disease (Natanson, 2019). The researchers followed a diverse group of 2765 participants for 9 years and focused on five low-risk lifestyle factors: healthy diet, at least 150 minutes/week of moderate to vigorous physical activity, not smoking, light to moderate alcohol intake, and engaging in cognitively stimulating activities.

Figure 9.34

Results indicated that those who adopted four or five low-risk lifestyle factors had a 60% lower risk of Alzheimer's disease when compared with participants who did not follow any or only one of the low-risk factors. The authors concluded that incorporating these lifestyle changes can have a positive effect on one's brain functioning and lower the risk for Alzheimer's disease.

Vascular Neurocognitive Disorder is the second most common neurocognitive disorder affecting 0.2% in the 65-70 years age group and 16% of individuals 80 years and older (American Psychiatric Association, 2013). The vascular neurocognitive disorder is associated with a blockage of cerebral blood vessels that affects one part of the brain rather than a general loss of brain cells seen with Alzheimer's disease. Personality is not as affected in vascular neurocognitive disorder, and more males are diagnosed than females (Erber and Szuchman, 2015). It also comes on more abruptly than Alzheimer's disease and has a shorter course before death. Risk factors include smoking, diabetes, heart disease, hypertension, or a history of strokes.

Neurocognitive Disorder with Lewy bodies: According to the National Institute on Aging (2015a), Lewy bodies are microscopic protein deposits found in neurons seen postmortem. They affect chemicals in the brain that can lead to difficulties in thinking,

movement, behavior, and mood. Neurocognitive Disorder with Lewy bodies is the third most common form and affects more than 1 million Americans. It typically begins at age 50 or older and appears to affect slightly more men than women. The disease lasts approximately 5 to 7 years from the time of diagnosis to death but can range from 2 to 20 years depending on the individual's age, health, and severity of symptoms. Lewy bodies can occur in both the cortex and brain stem which results in cognitive as well as motor symptoms (Erber & Szuchman, 2015). The movement symptoms are similar to those with Parkinson's disease and include tremors and muscle rigidity. However, the motor disturbances occur at the same time as the cognitive symptoms, unlike Parkinson's disease when the cognitive symptoms occur well after the motor symptoms.

Individuals diagnosed with Neurocognitive Disorder with Lewy bodies also experience sleep disturbances, recurrent visual hallucinations, and are at risk for falling.

Work, Retirement, and Leisure

Work: According to the United States Census Bureau, in 1994, approximately 12% of those employed were 65 and over, and by 2016, the percentage had increased to 18% of those employed (McEntarfer, 2019). Looking more closely at the age ranges, more than 40% of Americans in their 60s are still working, while 14% of people in their 70s and just 4% of those 80 and older are currently employed (Livingston, 2019). Even though they make up a smaller number of workers overall, those 65- to 74-year-old and 75-and-older age groups are projected to have the fastest rates of growth in the next decade. See Figure 9.35 for the projected annual growth rate in the labor force by age in percentages, 2014-2024.

Figure 9.35 2014-2024 Percentage Labor Growth by Age Group

Source
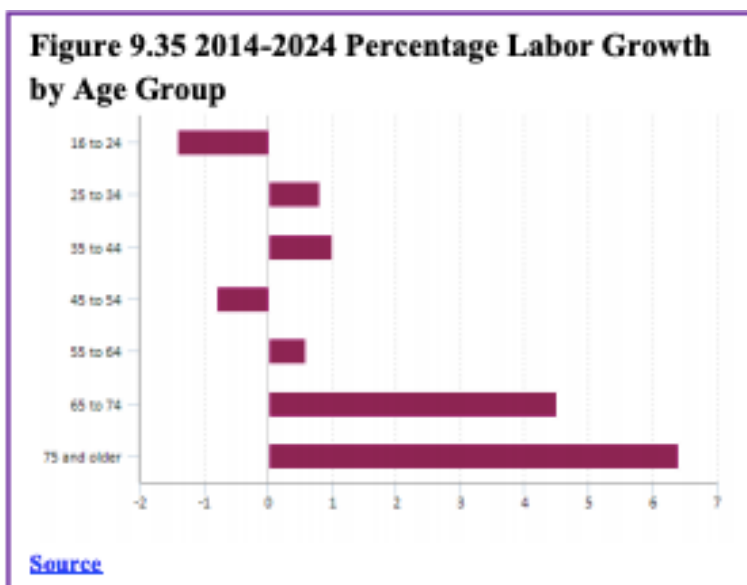
Livingston (2019) reported that similar to other age groups, those with higher levels of education are more likely to be employed. Approximately 37% of adults who are 60 and older and have a bachelor's degree or more are working. In contrast, 31% with some college experience and 21% of those with a high school diploma or less are still working at age 60 and beyond. Additionally, men 60 and older are more likely to be working than women (33% vs. 24%). Not only are older persons working more, but they are also earning more than previously, and their growth in earnings is greater compared to workers of other ages (McEntarfer, 2019).

Older adults are proving just as capable as younger adults at the workplace. In fact, jobs that require social skills, accumulated knowledge, and relevant experiences favor older adults (Erber & Szuchman, 2015). Older adults also demonstrate lower rates of absenteeism and greater investment in their work.

Transitioning into Retirement: For most Americans, retirement is a process and not a one-time event (Quinn & Cahill, 2016). Sixty

percent of workers transition straight to bridge jobs, which are often part-time and occur between a career and full retirement. About 15% of workers get another job after being fully retired. This may be due to not having adequate finances after retirement or not enjoying their retirement. Some of these jobs may be in **encore careers** or *work in a different field from the one in which they retired.* Approximately 10% of workers begin phasing into retirement by reducing their hours. However, not all employers will allow this due to pension regulations.

Retirement age changes: Looking at retirement data, the average age of retirement declined from more than 70 in 1910 to age 63 in the early 1980s. However, this trend has reversed and the current average age is now 65. Additionally, 18.5% of those over the age of 65 continue to work (US Department of Health and Human Services, 2012) compared with only 12% in 1990 (U. S. Government Accountability Office, 2011). With individuals living longer, once retired the average amount of time a retired worker collects social security is approximately 17-18 years (James, Matz-Costa, & Smyer, 2016).

When to retire: Laws often influence when someone decides to retire. In 1986 the Age Discrimination in Employment Act (ADEA) was amended, and mandatory retirement was eliminated for most workers (Erber & Szuchman, 2015). Pilots, air traffic controllers, federal law enforcement, national park rangers, and firefighters continue to have enforced retirement ages. Consequently, for most workers, they can continue to work if they choose and are able. Social security benefits also play a role. For those born before 1938, they can receive full social security benefits at age 65. For those born between 1943 and 1954, they must wait until age 66 for full benefits, and for those born after 1959, they must wait until age 67 (Social Security Administration, 2016). Extra months are added to those born in years between. For example, if born in 1957, the person must wait until 66 years and 6 months. The longer one waits to receive social security, the more money will be paid out. Those retiring at age 62, will only receive 75% of their monthly

benefits. Medicare health insurance is another entitlement that is not available until one is aged 65.

Delayed Retirement: Older adults primarily choose to delay retirement due to economic reasons (Erber & Szchman, 2015). Financially, continuing to work provides not only added income but also does not dip into retirement savings which may not be sufficient. Historically, there have been three parts to retirement income; that is, social security, a pension plan, and individual savings (Quinn & Cahill, 2016). With the 2008 recession, pension plans lost value for most workers. Consequently, many older workers have had to work later in life to compensate for absent or minimal pension plans and personal savings. Social security was never intended to replace full income, and the benefits provided may not cover all the expenses, so elders continue to work. Unfortunately, many older individuals are unable to secure later employment, and those especially vulnerable include persons with disabilities, single women, the oldest- old, and individuals with intermittent work histories.

Figure 9.36

Source

Some older adults delay retirement for psychological reasons, such as health benefits and social contacts. Recent research indicates that delaying retirement has been associated with helping one live longer. When looking at both healthy and unhealthy retirees, a one-year delay in retiring was associated with a decreased risk of death from all causes (Wu, Odden, Fisher, & Stawski, 2016). When individuals are forced to retire due to health concerns or downsizing, they are more likely to have negative physical and psychological consequences (Erber & Szuchman, 2015).

Retirement Stages: Atchley (1994) identified several phases that individuals go through when they retire:

- **Remote pre-retirement phase** *includes fantasizing about what one wants to do in retirement*
- **Immediate pre-retirement phase** *when concrete plans are established*
- **Actual retirement**
- **Honeymoon phase** *when retirees travel and participate in activities they could not do while working*
- **Disenchantment phase** *when retirees experience an emotional let-down*
- **Reorientation phase** *when the retirees attempt to adjust to retirement by making less hectic plans and getting into a regular routine*

Not everyone goes through every stage, but this model demonstrates that retirement is a process.

Post-retirement: Those who look most forward to retirement and have plans are those who anticipate adequate income (Erber & Szuchman, 2015). This is especially true for males who have worked consistently and have a pension and/or adequate savings. Once retired, staying active and socially engaged is important. Volunteering, caregiving, and informal helping can keep seniors engaged. Kaskie, Imhof, Cavanaugh, and Culp (2008) found that 70% of retirees who are not involved in productive activities spent most

of their time watching TV, which is correlated with negative affect. In contrast, being productive improves well-being.

Elder Education: Attending college is not just for the young as discussed in the previous chapter. There are many reasons why someone in late adulthood chooses to attend college.

Figure 9.37

Source

PNC Financial Services surveyed retirees aged 70 and over and found that 58% indicated that they had retired before they had planned (Holland, 2014). Many of these individuals chose to pursue additional training to improve skills to return to work in a second career. Others may be looking to take their career in a new direction. For some older students who no longer are focus on financial reasons, returning to school is intended to enable them to pursue work that is personally fulfilling. Attending college in late adulthood is also a great way for seniors to stay young and keep their minds sharp. Even if an elder chooses not to attend college for a degree, there are many continuing education programs on topics of interest available. In 1975, a nonprofit educational travel organization called Elderhostel began in New Hampshire with five programs for several hundred retired participants (DiGiacomo,

2015). This program combined college classroom time with travel tours and experiential learning experiences. In 2010 the organization changed its name to Road Scholar, and it now serves 100,000 people per year in the U.S. and in 150 countries. Academic courses, as well as practical skills such as computer classes, foreign languages, budgeting, and holistic medicines, are among the courses offered. Older adults who have higher levels of education are more likely to take continuing education. However, offering more educational experiences to a diverse group of older adults, including those who are institutionalized in nursing homes, can bring enhance the quality of life.

Leisure: During the past 10 years, leisure time for Americans 60 and older has remained at about 7 hours a day. However, the amount of time spent on TVs, computers, tablets or other electronic devices has risen almost 30 minutes per day over the past decade (Livingston, 2019). Those 60 and older now spend more than half of their daily leisure time (4 hours and 16 minutes) in front of screens. Screen time has increased for those in their 60s, 70s, 80s and beyond, and across genders and education levels. This rise in screen time coincides with significant growth in the use of digital technology by older Americans. In 2000, 14% of those aged 65 and older used the Internet, and now 73% are users and 53% own smartphones. Alternatively, the time spent on other recreational activities, such as reading or socializing, has gone down slightly. People with less education spend more of their leisure time on screens and less time reading compared with those with more education. Less-educated adults also spend less time exercising: 12 minutes a day for those with a high school diploma or less, compared with 26 minutes for college graduates.

Figure 9.38

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Attribution

Chapter 30: Psychosocial Development in Late Adulthood

Chapter 30 Learning Objectives

- Explain the stereotypes of those in late adulthood and how it impacts their lives
- Summarize Erikson's eight psychosocial tasks of integrity vs. despair
- Explain how self-concept and self-esteem affect those in late adulthood
- Identify sources of despair and regret
- Describe paths to integrity, including the activity, socioemotional selectivity, and convoy theories
- Describe the continuation of generativity in late adulthood
- Describe the relationships those in late adulthood have with their children and other family members
- Describe singlehood, marriage, widowhood, divorce, and remarriage in late adulthood
- Describe the different types of residential living in late adulthood

- Describe friendships in late life
- Explain concerns experienced by those in late adulthood, such as abuse and mental health issues
- Explain how those in late adulthood use strategies to compensate for losses

Ageism

Stereotypes of people in late adulthood lead many to assume that aging automatically brings poor physical health and mental decline. These stereotypes are reflected in everyday conversations, the media, and even in greeting cards (Overstreet, 2006). Age is not revered in the United States, and so laughing about getting older in birthday cards is one way to get relief. The negative attitudes people have about those in late adulthood are examples of **ageism** *or prejudice based on age*. The term ageism was first used in 1969, and according to Nelson (2016), ageism remains one of the most institutionalized forms of prejudice today.

Figure 9.39

Nelson (2016) reviewed the research on ageism and concluded that when older individuals believed their culture's negative stereotypes about those who are old, their memory and cognitive skills declined. In contrast, older individuals in cultures, such as China, that held more positive views on aging did not demonstrate cognitive deficits. It appears that when one agrees with the stereotype, it becomes a **self-fulfilling prophecy** *or the belief in one's ability results in actions that make it come true.* Being the target of stereotypes can adversely affect individuals' *performance on tasks because they worry they will confirm the cultural stereotypes.* This is known as **stereotype threat**, and it was originally used to explain race and gender differences in academic achievement (Gatz et al., 2016). Stereotype threat research has demonstrated that older adults who internalize the aging stereotypes will exhibit worse memory performance, worse physical performance, and reduced self-efficacy (Levy, 2009).

In terms of physically taking care of themselves, those who believe

in negative stereotypes are less likely to engage in preventative health behaviors, less likely to recover from illnesses, and more likely to feel stress and anxiety, which can adversely affect immune functioning and cardiovascular health (Nelson, 2016). Additionally, individuals who attribute their health problems to their age had a higher death rate. Similarly, doctors who believe that illnesses are just a natural consequence of aging are less likely to have older adults participate in clinical trials or receive life-sustaining treatment. In contrast, those older adults who possess positive and optimistic views of aging are less likely to have physical or mental health problems and are more likely to live longer. Removing societal stereotypes about aging and helping older adults reject those notions of aging is another way to promote health and life expectancy among the elderly.

Minority status: Older minority adults accounted for approximately 21% of the U. S. population in 2012 but are expected to reach 39% of the population in 2050 (U. S. Census Bureau, 2012). Unfortunately, racism is a further concern for minority elderly already suffering from ageism. Older adults who are African American, Mexican American, and Asian American experience psychological problems that are often associated with discrimination by the White majority (Youdin, 2016). Ethnic minorities are also more likely to become sick, but less likely to receive medical intervention. Older, minority women can face *ageism, racism, and sexism often referred to as* **triple jeopardy** (Hinze, Lin, & Andersson, 2012), which can adversely affect their life in late adulthood.

Poverty rates: According to Quinn and Cahill (2016), the poverty rate for older adults varies based on gender, marital status, race, and age. Women aged 65 or older were 70% more likely to be poor than men, and older women aged 80 and above have higher levels of poverty than those younger. Married couples are less likely to be poor than nonmarried men and women, and poverty is more prevalent among older racial minorities. In 2012 the poverty rates for White older men (5.6%) and White older women (9.6%) were

lower than for Black older men (14%), Black older women (21%), Hispanic older men (19%), and Hispanic older women (22%).

Living Arrangements **Do those in late adulthood primarily live alone?** No. In 2017, of those 65 years of age and older, approximately 72% of men and 48% of women lived with their spouse or partner (Administration on Aging, 2017). Between 1900 and 1990 the number of older adults living alone increased, most likely due to improvements in health and longevity during this time (see Figure 9.40). Since 1990 the number of older adults living alone has declined, because of older women more likely to be living with their spouse or children (Stepler, 2016c). Women continue to make up the majority of older adults living alone in the U.S., although that number has dropped from those living alone in 1990 (Stepler, 2016a). Older women are more likely to be unmarried, living with children, with other relatives or non-relatives. Older men are more likely to be living alone than they were in 1990, although older men are more likely to reside with their spouses. The rise in divorce among those in late adulthood, along with the drop-in remarriage rate, has resulted in slightly more older men living alone today than in the past (Stepler, 2016c).

Older adults who live alone report feeling more financially strapped than do those living with others (Stepler, 2016d). According to a Pew Research Center Survey, only 33% of those living alone reported they were living comfortably, while nearly 49% of those living with others said they were living comfortably. Similarly, 12% of those living alone, but only 5% of those living with others, reported that they lacked money for basic needs (Stepler, 2016d).

Figure 9.40 Living Arrangements for those 65 and older in 2017

Men

8%

20%

72%

- Living with spouse or partner
- Living alone
- Other

Women

18%

48%

34%

- Living with spouse or partner
- Living alone
- Other
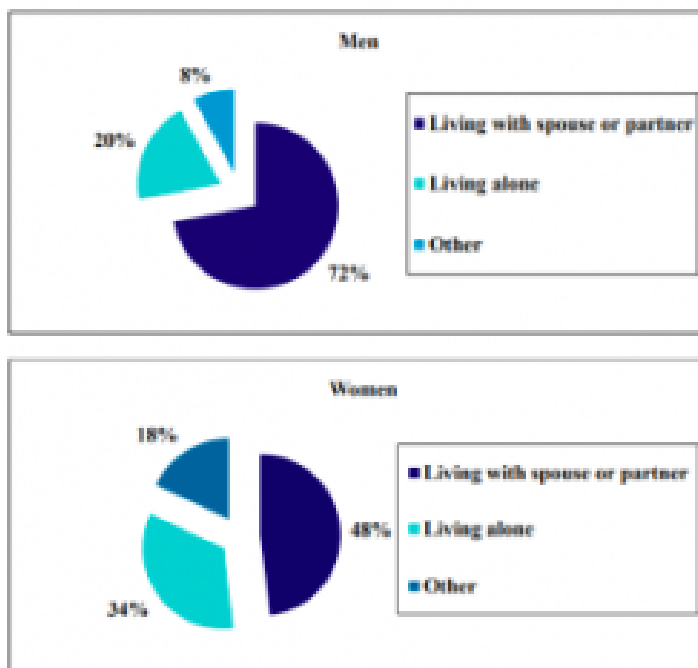
Source

Do those in late adulthood primarily live with family members? No, but according to the Pew Research Center, there has been an increase in the number of families living in multigenerational housing; that is three generations living together than in previous generations (Cohn & Passel, 2018). In 2016, a record 64 million Americans, or 20% of the population, lived in a house with at least two adult generations. However, ethnic differences are noted in the percentage of multigenerational households with Hispanic (27%), Black (26%), and Asian (29%) families living together in greater

numbers than White families (16%). Consequently, the majority of older adults wish to live independently for as long as they are able.

Do those in late adulthood move after retirement? No. According to Erber and Szuchman (2015), the majority of those in late adulthood remains in the same location, and often in the same house, where they lived before retiring. Although some younger late adults (65-74 years) may relocate to warmer climates, once they are older (75-84 years) they often return to their home states to be closer to adult children (Stoller & Longino, 2001). Despite the previous trends, however, the recent housing crisis has kept those in late adulthood in their current suburban locations because they are unable to sell their homes (Erber & Szuchman, 2015).

Do those in late adulthood primarily live in institutions? No. Only a small portion (3.2%) of adults older than 65 lived in an institution in 2015 (United States Department of Health and Human Services, 2015). However, as individuals increase in age the percentage of those living in institutions, such as a nursing home, also increases. Specifically: 1% of those 65-74, 3% of those 75-84, and 10% of those 85 years and older lived in an institution in 2015. Due to the increasing number of baby boomers reaching late adulthood, the number of people who will depend on long-term care is expected to rise from 12 million in 2010 to 27 million in 2050 (United States Senate Commission on Long-Term Care, 2013). To meet this higher demand for services, a focus on the least restrictive care alternatives has resulted in a shift toward home and community-based care instead of placement in a nursing home (Gatz et al., 2016).

Erikson: Integrity vs. Despair

How do people cope with old age? According to Erikson, the last psychosocial stage is **Integrity vs. Despair.** This stage includes, "*a retrospective accounting of one's life to date; how much one embraces life as having been well lived, as opposed to regretting missed*

opportunities," (Erikson, 1982, p. 112). Those in late adulthood need to achieve both the acceptance of their life and the inevitability of their death (Barker, 2016). This stage includes finding meaning in one's life and accepting one's accomplishments, but also acknowledging what in life has not gone as hoped. It is also feeling a sense of contentment and accepting others' deficiencies, including those of their parents. This acceptance will lead to integrity, but if elders are unable to achieve this acceptance, they may experience despair. Bitterness and resentment in relationships and life events can lead one to despair at the end of life. According to Erikson (1982), successful completion of this stage leads to wisdom in late life.

Erikson's theory was the first to propose a lifespan approach to development, and it has encouraged the belief that older adults still have developmental needs. Prior to Erikson's theory, older adulthood was seen as a time of social and leisure restrictions and a focus primarily on physical needs (Barker, 2016). The current focus on aging well by keeping healthy and active helps to promote integrity. There are many avenues for those in late adulthood to remain vital members of society, and they will be explored next.

Staying Active: Many older adults want to remain active and work toward replacing opportunities lost with new ones. Those who prefer to keep themselves busy demonstrate the **Activity Theory**, *which states that greater satisfaction with one's life occurs with those who remain active* (Lemon, Bengston, & Peterson, 1972). Not surprisingly, more positive views on aging and greater health are noted with those who keep active than those who isolate themselves and disengage from others. Community, faith-based, and volunteer organizations can all provide those in late adulthood with opportunities to remain active and maintain social networks. Erikson's concept of generativity applies to many older adults, just as it did in midlife.

Figure 9.41

Source

Generativity in Late Adulthood

Research suggests that generativity is not just a concern for midlife adults, but for many elders, concerns about future generations continue into late adulthood. As previously discussed, some older adults are continuing to work beyond age 65. Additionally, they are volunteering in their community and raising their grandchildren in greater numbers.

Volunteering: Many older adults spend time volunteering. Hooyman and Kiyak (2011) found that religious organizations are the primary settings for encouraging and providing opportunities to volunteer. Hospitals and environmental groups also provide volunteer opportunities for older adults. While volunteering peaks in middle adulthood, it continues to remain high among adults in their 60s, with about 40% engaging in volunteerism (Hooyman & Kiyak, 2011). While the number of older adults volunteering their time does decline with age, the number of hours older adults volunteer does not show much decline until they are in their late 70s (Hendricks & Cutler, 2004). African-American older adults volunteer at higher levels than other ethnic groups (Taylor, Chatters, & Leving, 2004). Taylor and colleagues attribute this to the higher involvement in

religious organizations by older African-Americans. Volunteering aids older adults as much as it does the community at large. Older adults who volunteer experience more social contact, which has been linked to higher rates of life satisfaction, and lower rates of depression and anxiety (Pilkington, Windsor, & Crisp, 2012).

Figure 9.42

Source

Longitudinal research also finds a strong link between health in later adulthood and volunteering (Kahana, Bhatta, Lovegreen, Kahana, & Midlarsky, 2013). Lee and colleagues found that even among the oldest-old, the death rate of those who volunteer is half that of non-volunteers (Lee, Steinman, & Tan, 2011). However, older adults who volunteer may already be healthier, which is why they can volunteer compared to their less healthy age mates. New opportunities exist for older adults to serve as virtual volunteers by dialoguing online with others from around the world and sharing their support, interests, and expertise. These volunteer opportunities range from helping teens with their writing to communicating with 'neighbors' in villages of developing countries. Virtual volunteering is available to those who cannot engage in face-to-face interactions, and it opens up a new world of possibilities and ways to connect, maintain identity, and be productive.

Grandparents Raising Grandchildren: According to the 2014 American Community Survey (U.S. Census, 2014a), over 5.5 million children under the age of 18 were living in families headed by a grandparent. This was more than half a million increase from 2010. While most grandparents raising grandchildren are between the ages of 55 and 64, approximately 25% of grandparents raising their grandchildren are 65 and older (Office on Women's Health, 2010a). For many grandparents, parenting a second time can be harder. Older adults have far less energy, and often the reason why they are now acting as parents to their grandchildren is that traumatic events. A survey by AARP (Goyer, 2010) found that grandparents were raising their grandchildren because the parents had problems with drugs and alcohol, had a mental illness, was incarcerated, had divorced, had a chronic illness, was homeless, had neglected or abused the child, were deployed in the military, or had died. While most grandparents state they gain great joy from raising their grandchildren, they also face greater financial, health, education, and housing challenges that often derail their retirement plans than do grandparents who do not have primary responsibility for raising their grandchildren.

Figure 9.43

Source

Social Networks in Late Adulthood

   A person's social network consists of the people with whom one is directly involved, such as family, friends, and acquaintances (Fischer, 1982). As individuals age, changes occur in these social networks, and The Convoy Model of Social Relations and Socioemotional Selectivity Theory address these changes (Wrzus, Hanel, Wagner, & Neyer, 2013). Both theories indicate that less close relationships will decrease as one age, while close relationships will persist. However, the two theories differ in explaining why this occurs.

   The **Convoy Model of Social Relations** *suggests that the social connections that people accumulate differ in levels of closeness and are held together by exchanges in social support* (Antonucci, 2001; Kahn & Antonucci, 1980). According to the Convoy Model, relationships with a spouse and family members, people in the innermost circle of the convoy, should remain stable throughout the lifespan. In contrast, coworkers, neighbors, and acquaintances, people in the periphery of the convoy, should be less stable. These peripheral relationships may end due to changes in jobs, social roles, location, or other life events. These relationships are more vulnerable to changing situations than family relationships. Therefore, the frequency, type, and reciprocity of the social exchanges with peripheral relationships decrease with age.

   The **Socioemotional Selectivity Theory** *focuses on changes in motivation for actively seeking social contact with others* (Carstensen, 1993; Carstensen, Isaacowitz & Charles, 1999). This theory proposes that with increasing age, our motivational goals change based on how much time one has left to live. Rather than focusing on acquiring information from many diverse social relationships, as noted with adolescents and young adults, older adults focus on the emotional aspects of relationships. To optimize the experience of positive affect, older adults actively restrict their

social life to prioritize time spent with emotionally close significant others. In line with this theory, older marriages are found to be characterized by enhanced positive and reduced negative interactions and older partners show more affectionate behavior during conflict discussions than do middle-aged partners (Carstensen, Gottman, & Levenson, 1995). Research showing that older adults have smaller networks compared to young adults, and tend to avoid negative interactions, also supports this theory.

Figure 9.44

Source

Relationship with Adult Children: Many older adults provide financial assistance and/or housing to adult children. There is more support going from the older parent to the younger adult children than in the other direction (Fingerman & Birditt, 2011). In addition to providing for their own children, many elders are raising their grandchildren. Consistent with socioemotional selectivity theory, older adults seek and are helped by, their adult children providing emotional support (Lang & Schütze, 2002). Lang and Schütze, as part of the Berlin Aging Study (BASE), surveyed adult children (mean age 54) and their aging parents (mean age 84). They found that the older parents of adult children who provided emotional support, such as showing tenderness toward their parent, cheering the parent up when he or she was sad, tended to report greater life satisfaction. In contrast, older adults whose children provided informational support, such as providing advice to the parent, reported less life satisfaction. Lang and Schütze found that older

adults wanted their relationship with their children to be more emotionally meaningful. Daughters and adult children who were younger tended to provide such support more than sons and adult children who were older. Lang and Schütze also found that adult children who were more autonomous rather than emotionally dependent on their parents, had more emotionally meaningful relationships with their parents, from both the parents' and adult children's point of view.

Friendships: Friendships are not formed in order to enhance status or careers, and may be based purely on a sense of connection or the enjoyment of being together. Most elderly people have at least one close friend. These friends may provide emotional as well as physical support. Being able to talk with friends and rely on others is very important during this stage of life. Bookwala, Marshall, and Manning (2014) found that the availability of a friend played a significant role in protecting health from the impact of widowhood. Specifically, those who became widowed and had a friend as a confidante reported significantly lower somatic depressive symptoms, better self-rated health, and fewer sick days in bed than those who reported not having a friend as a confidante. In contrast, having a family member as a confidante did not provide health protection for those recently widowed.

Loneliness or Solitude: Loneliness is the discrepancy between the social contact a person has and the contacts a person wants (Brehm, Miller, Perlman, & Campbell, 2002). It can result from social or emotional isolation. Women tend to experience loneliness due to social isolation; men from emotional isolation. Loneliness can be accompanied by a lack of self-worth, impatience, desperation, and depression. Being alone does not always result in loneliness. For some, it means solitude. Solitude involves gaining self-awareness, taking care of the self, being comfortable alone, and pursuing one's interests (Brehm et al., 2002). In contrast, loneliness is perceived as social isolation.

For those in late adulthood, loneliness can be especially detrimental. Novotney (2019) reviewed the research on loneliness

and social isolation and found that loneliness was linked to a 40% increase in risk for dementia and a 30% increase in the risk of stroke or coronary heart disease. This was hypothesized to be due to a rise in stress hormones, depression, and anxiety, as well as the individual lacking encouragement from others to engage in healthy behaviors. In contrast, older adults who take part in social clubs and church groups have a lower risk of death. Opportunities to reside in mixed-age housing and continuing to feel like a productive member of society have also been found to decrease feelings of social isolation, and thus loneliness.

Late Adult Lifestyles

Marriage: As can be seen in Figure 9.45, the most common living arrangement for older adults in 2015 was marriage (AOA, 2017). Although this was more common for older men.

Widowhood: Losing one's spouse is one of the most difficult transitions in life. The Social Readjustment Rating Scale, commonly known as the Holmes-Rahe Stress Inventory, rates the death of a spouse as the most significant stressor (Holmes & Rahe, 1967). The loss of a spouse after many years of marriage may make an older adult feel adrift in life. They must remake their identity after years of seeing themselves as a husband or wife. Approximately, 1 in 3 women aged 65 and older are widowed, compared with about 1 in 10 men.

Figure 9.45 Marital Status: Age 65+ in 2017
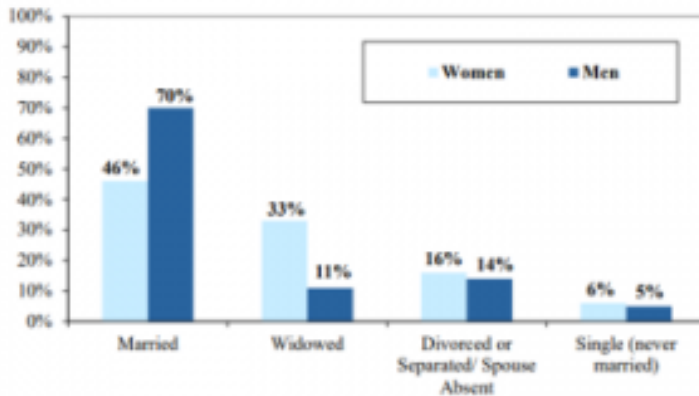
Loneliness is the biggest challenge for those who have lost their spouse (Kowalski & Bondmass, 2008). However, several factors can influence how well someone adjusts to this event. Older adults who are more extroverted (McCrae & Costa, 1988) and have higher self-efficacy, (Carr, 2004b) often fare better. Positive support from adult children is also associated with fewer symptoms of depression and better adjustment in the months following widowhood (Ha, 2010).

The context of death is also an important factor in how people may react to the death of a spouse. The stress of caring for an ill spouse can result in a mixed blessing when the ill partner dies (Erber & Szchman, 2015). The death of a spouse who died after a lengthy illness may come as a relief for the surviving spouse, who may have had the pressure of providing care for someone who was increasingly less able to care for themselves. At the same time, this sense of relief may be intermingled with guilt for feeling relief at the passing of their spouse. The emotional issues of grief are complex and will be discussed in more detail in chapter 10.

Widowhood also poses health risks. The **widowhood mortality**

effect *refers to the higher risk of death after the death of a spouse* (Sullivan & Fenelon, 2014). Subramanian, Elwert, and Christakis (2008) found that widowhood increases the risk of dying from almost all causes.

However, research suggests that the predictability of the spouse's death plays an important role in the relationship between widowhood and mortality. Elwert and Christakis (2008) found that the rate of mortality for widows and widowers was lower if they had time to prepare for the death of their spouses, such as in the case of a terminal illness like Parkinson's or Alzheimer's. Another factor that influences the risk of mortality is gender. Men show a higher risk of mortality following the death of their spouse if they have higher health problems (Bennett, Hughes, & Smith, 2005). In addition, widowers have a higher risk of suicide than do widows (Ruckenhauser, Yazdani, & Ravaglia, 2007).

Divorce: As noted in Chapter 8, older adults are divorcing at higher rates than in prior generations. However, adults age 65 and over are still less likely to divorce than middle-aged and young adults (Wu & Schimmele, 2007). Divorce poses a number of challenges for older adults, especially women, who are more likely to experience financial difficulties and are more likely to remain single than are older men (McDonald & Robb, 2004). However, in both America (Lin, 2008) and England (Glaser, Stuchbury, Tomassini, & Askham, 2008) studies have found that the adult children of divorced parents offer more support and care to their mothers than their fathers. While divorced, older men may be better off financially and are more likely to find another partner, they may receive less support from their adult children.

Figure 9.46

Source

Dating: Due to changing social norms and shifting cohort demographics, it has become more common for single older adults to be involved in dating and romantic relationships (Alterovitz & Mendelsohn, 2011). An analysis of widows and widowers ages 65 and older found that 18 months after the death of a spouse, 37% of men and 15% of women were interested in dating (Carr, 2004a). Unfortunately, opportunities to develop close relationships often diminish in later life as social networks decrease because of retirement, relocation, and the death of friends and loved ones (de Vries, 1996). Consequently, older adults, much like those younger, are increasing their social networks using technologies, including e-mail, chat rooms, and online dating sites (Fox, 2004; Wright & Query, 2004; Papernow, 2018).

Interestingly, older men and women parallel online dating information as those younger. Alterovitz and Mendelsohn (2011) analyzed 600 internet personal ads from different age groups, and across the life span, men sought physical attractiveness and offered status-related information more than women. With advanced age, men desired women increasingly younger than themselves, whereas women desired older men until ages 75 and over when they sought men younger than themselves. Research has previously shown that older women in romantic relationships are not interested in becoming a caregiver or becoming widowed for a second time (Carr,

2004a). Additionally, older men are more eager to partner than are older women (Davidson, 2001; Erber & Szuchman, 2015). Concerns expressed by older women included not wanting to lose their autonomy, care for a potentially ill partner, or merge their finances with someone (Watson & Stelle, 2011).

Older dating adults also need to know about threats to sexual health, including being at risk for sexually transmitted diseases, including chlamydia, genital herpes, and HIV. Nearly 25% of people living with HIV/AIDS in the United States are 50 or older (Office on Women's Health, 2010b). Githens and Abramsohn (2010) found that only 25% of adults 50 and over who were single or had a new sexual partner used a condom the last time they had sex. Robin (2010) stated that 40% of those 50 and over have never been tested for HIV. These results indicated that educating all individuals, not just adolescents, on healthy sexual behavior is important.

Remarriage and Cohabitation: Older adults who remarry often find that their remarriages are more stable than those of younger adults. Kemp and Kemp (2002) suggest that greater emotional maturity may lead to more realistic expectations regarding marital relationships, leading to greater stability in remarriages in later life. Older adults are also more likely to be seeking companionship in their romantic relationships. Carr (2004a) found that older adults who have considerable emotional support from their friends were less likely to seek romantic relationships. In addition, older adults who have divorced often desire the companionship of intimate relationships without marriage. As a result, cohabitation is increasing among older adults, and like remarriage, cohabitation in later adulthood is often associated with more positive consequences than it is in younger age groups (King & Scott, 2005). No longer being interested in raising children, and perhaps wishing to protect family wealth, older adults may see cohabitation as a good alternative to marriage. In 2014, 2% of adults age 65 and up were cohabitating (Stepler, 2016b).

Living Apart Together: In addition to cohabiting there has been

an increase in **living apart together (LAT)**, which is "*a monogamous intimate partnership between unmarried individuals who live in separate homes but identify themselves as a committed couple*" (Benson & Coleman, 2016, p. 797). This trend has been found in several nations and is motivated by:

- A strong desire to be independent in day-to-day decisions
- Maintaining their own home
- Keeping boundaries around established relationships
- Maintaining financial stability

Besides the desire to be autonomous, there is also a need for companionship, sexual intimacy, and emotional support. According to Bensen and Coleman, there are differences in LAT among older and younger adults. Those who are younger often enter into LAT out of circumstances, such as the job market, and they frequently view this arrangement as a transitional stage. In contrast, 80% of older adults reported that they did not wish to cohabitate or marry. For some, it was a conscious choice to live more independently. For instance, older women desired the LAT lifestyle as a way of avoiding the traditional gender roles that are often inherent in relationships where the couple lives together. However, some older adults become LATs because they fear social disapproval from others if they were to live together.

Gay and Lesbian Elders

Approximately 3 million older adults in the United States identify as lesbian or gay (Hillman & Hinrichsen, 2014). By 2025 that number is expected to rise to more than 7 million (National Gay and Lesbian Task Force, 2006). Despite the increase in numbers, older lesbian and gay adults are one of the least researched demographic groups, and the research there is portrayed a population faced with

discrimination. According to the Centers for Disease Control and Prevention (2011), compared to heterosexuals, lesbian and gay adults experience both physical and mental health differences. More than 40% of lesbian and gay adults ages 50 and over suffer from at least one chronic illness or disability and compared to heterosexuals they are more likely to smoke and binge drink (Hillman & Hinrichsen, 2014). Additionally, gay older adults have an increased risk of prostate cancer (Blank, 2005) and infection from HIV and other sexually transmitted illnesses (Centers for Disease Control and Prevention, 2008). When compared to heterosexuals, lesbian and gay elders have less support from others as they are twice as likely to live alone and four times less likely to have adult children (Hillman & Hinrichsen, 2014).

Lesbian and gay older adults who belong to ethnic and cultural minorities, conservative religions, and rural communities may face additional stressors. Ageism, heterocentrism, sexism, and racism can combine cumulatively and impact the older adult beyond the negative impact of each individual form of discrimination (Hillman & Hinrichsen, 2014). David and Knight (2008) found that older gay black men reported higher rates of racism than younger gay black men and higher levels of perceived ageism than older gay white men.

LGBT Elder Care: Approximately 7 million LGBT people over age 50 will reside in the United States by 2030, and 4.7 million of them will need elder care. Decisions regarding elder care are often left for families, and because many LGBT people are estranged from their families, they are left in a vulnerable position when seeking living arrangements (Alleccia & Bailey, 2019). A history of discriminatory policies, such as housing restricted to married individuals involving one man and one woman, and stigma associated with LGBT people make them especially vulnerable to negative housing experiences when looking for eldercare.

Figure 9.47

Source

Although lesbian and gay older adults face many challenges, more than 80% indicate that they engage in some form of wellness or spiritual activity (Fredrickson-Goldsen et al., 2011). They also gather social support from friends and "family members by choice" rather than legal or biological relatives (Hillman & Hinrichsen, 2014). This broader social network provides extra support to gay and lesbian elders.

An important consideration when reviewing the development of gay and lesbian older adults is the cohort in which they grew up (Hillman & Hinrichsen, 2014). The oldest lesbian and gay adults came of age in the 1950s when there were no laws to protect them from victimization. The baby boomers, who grew up in the 1960s and 1970s, began to see states repeal laws that criminalized homosexual behavior. Future lesbian and gay elders will have different experiences due to the legal right for same-sex marriage and greater societal acceptance. Consequently, just like all those in late adulthood, understanding that gay and lesbian elders are a heterogeneous population is important when understanding their overall development.

Current research indicates that at least 1 in 10, or approximately 4.3 million, older Americans are affected by at least one form of elder abuse per year (Roberto, 2016). Those between 60 and 69 years

of age are more susceptible than those older. This may be because younger older adults more often live with adult children or a spouse, two groups with the most likely abusers.

Cognitive impairment, including confusion and communication deficits, is the greatest risk factor for elder abuse, while a decline in overall health resulting in a greater dependency on others is another. Having a disability also places an elder at a higher risk for abuse (Youdin, 2016). Definitions of elder abuse typically recognize five types of abuse as shown in Table 9.8

The consequences of elder abuse are significant and include injuries, new or exacerbated health conditions, hospitalizations, premature institutionalization, and early death (Roberto, 2016). Psychological and emotional abuse is considered the most common form, even though it is underreported and may go unrecognized by the elder. Continual emotional mistreatment is very damaging as it becomes internalized and results in late-life emotional problems and impairment. Financial abuse and exploitation is increasing and costs seniors nearly 3 billion dollars per year (Lichtenberg, 2016). Financial abuse is the second most common form after emotional abuse and affects approximately 5% of elders. Abuse and neglect occurring in a nursing home is estimated to be 25%-30% (Youdin, 2016). Abuse of nursing home residents is more often found in facilities that are run down and understaffed

Type	Description
Physical Abuse	Physical force resulting in injury, pain, or impairment
Sexual Abuse	Nonconsensual sexual contact
Psychological and Emotional Abuse	Infliction of distress through verbal or nonverbal acts such as yelling, threatening, or isolating
Financial Abuse and Exploitation	Improper use of an elder's finances, property, or assets
Neglect and Abandonment	Intentional or unintentional refusal or failure to fulfill caregiving duties to an elder

Older women are more likely to be victims than men, and one reason is due to women living longer. Additionally, a family history of violence makes older women more vulnerable, especially for physical and sexual abuse (Acierno et al., 2010). However, Kosberg (2014) found that men were less likely to report abuse. Recent research indicated no differences among ethnic groups in abuse prevalence, however, cultural norms regarding what constitutes abuse differ based on ethnicity. For example, Dakin and Pearlmutter found that working-class White women did not consider verbal abuse as elder abuse, and higher socioeconomic status African American and White women did not consider financial abuse as a form of elder abuse (as cited in Roberto, 2016, p. 304).

Perpetrators of elder abuse are typically family members and include spouses/partners and older children (Roberto, 2016). Children who are abusive tend to be dependent on their parents for financial, housing, and emotional support. Substance use, mental illness, and chronic unemployment increase dependency on parents, which can then increase the possibility of elder abuse. Prosecuting a family member who has financially abused a parent is very difficult. The victim may be reluctant to press charges and the court dockets are often very full resulting in long waits before a case is heard. According to Tanne, family members abandoning older family members with severe disabilities in emergency rooms is a growing problem as an estimated 100,000 are dumped each year (as cited in Berk, 2007). Paid caregivers and professionals trusted to make decisions on behalf of an elder, such as guardians and lawyers, also perpetuate abuse. When elders feel they have social support and are engaged with others, they are less likely to suffer abuse.

Substance Abuse and the Elderly

Alcohol and drug problems, particularly prescription drug abuse, have become a serious health concern among older adults. Although

people 65 years of age and older make up only 13% of the population, they account for almost 30% of all medications prescribed in the United States. According to the National Council on Alcoholism and Drug Dependence (NCADD) (2015), the following statistics illustrate the significance of substance abuse for those in late adulthood:

- There are 2.5 million older adults with an alcohol or drug problem.
- Six to eleven percent of elderly hospital admissions, 14 percent of elderly emergency room admissions, and 20 percent of elderly psychiatric hospital admissions are a result of alcohol or drug problems.
- Widowers over the age of 75 have the highest rate of alcoholism in the U.S.
- Nearly 50 percent of nursing home residents have alcohol-related problems.
- Older adults are hospitalized as often for alcoholic related problems as for heart attacks.
- Nearly 17 million prescriptions for tranquilizers are prescribed for older adults each year. Benzodiazepines, a type of tranquilizing drug, are the most commonly misused and abused prescription medications.

Risk factors for psychoactive substance abuse in older adults include social isolation, which can lead to depression (Youdin, 2016). This can be caused by the death of a spouse/partner, family members and/or friends, retirement, moving, and reduced activity levels. Additionally, medical conditions, chronic pain, anxiety, and stress can all lead to the abuse of substances.

Diagnosis Difficulties: Using criteria from the Diagnostic and Statistical Manual of Disorder-5th Edition (American Psychiatric Association, 2013), diagnosing older adults with a substance use disorder can be difficult (Youdin, 2016). For example, compared to

adolescents and younger adults, older adults are not looking to get high, but rather become dependent by accident.

Additionally, stereotypes of older adults, which include memory deficits, confusion, depression, agitation, motor problems, and hostility, can result in a diagnosis of cognitive impairment instead of a substance use disorder. Further, a diagnosis of a substance use disorder involves impairment in work, school, or home obligations, and because older adults are not typically working, in school or caring for children, these impairments would not be exhibited. Stigma and shame about use, as well as the belief that one's use is a private matter, may keep older adults from seeking assistance. Lastly, physicians may be biased against asking those in late adulthood if they have a problem with drugs or alcohol (NCADD, 2015).

Abused Substances: Drugs of choice for older adults include alcohol, benzodiazepines, opioid prescription medications, and marijuana. The abuse of prescription medications is expected to increase significantly. Siriwardena, Qureshi, Gibson, Collier, and Lathamn (2006) found that family physicians prescribe benzodiazepines and opioids to older adults to deal with psychosocial and pain problems rather than prescribe alternatives to medication such as therapy. Those in late adulthood are also more sensitive to the effects of alcohol than those younger because of an age-related decrease in the ratio between lean body mass and fat (Erber & Szuchman, 2015).

Figure 9.48

Source

Additionally, "liver enzymes that metabolize alcohol become less efficient with age and central nervous system sensitivity to drugs increase with age" (p.134). Those in late adulthood are also more likely to be taking other medications, and this can result in unpredictable interactions with psychoactive substances (Youdin, 2016).

Cannabis Use: Blazer and Wu (2009) found that adults aged 50-64 were more likely to use cannabis than older adults. These "baby boomers" with the highest cannabis use included men, those unmarried/unpartnered, and those with depression. In contrast to the negative effects of cannabis, which include panic reactions, anxiety, perceptual distortions and exacerbation of mood and psychotic disorders, cannabis can provide benefits to an older adults with medical conditions (Youdin, 2016). For example, cannabis can be used in the treatment of multiple sclerosis, Parkinson's disease, chronic pain, and fatigue and nausea from the effects of chemotherapy (Williamson & Evans, 2000).

Future Substance Abuse Concerns: There will be an increase in the number of seniors abusing substances in the future because the baby boomer generation has a history of having been exposed to, and having experienced, psychoactive substance use over their adult life. This is a significant difference between the current and

previous generations of older adults (National Institutes of Health, 2014c). Efforts will be needed to adequately address these future substance abuse issues for the elderly due to both the health risks for them and the expected burden on the health care system.

Successful Aging

Although definitions of successful aging are value-laden, Rowe and Kahn (1997) defined three criteria of successful aging that are useful for research and behavioral interventions.

They include:

- Relative avoidance of disease, disability, and risk factors, like high blood pressure, smoking, or obesity
- Maintenance of high physical and cognitive functioning
- Active engagement in social and productive activities

For example, research has demonstrated that age-related declines in cognitive functioning across the adult life span may be slowed through physical exercise and lifestyle interventions (Kramer & Erickson, 2007).

Another way that older adults can respond to the challenges of aging is through compensation. Specifically, **selective optimization with compensation** is used when the elder *makes adjustments, as needed, in order to continue living as independently and actively as possible* (Baltes & Dickson, 2001). When older adults lose functioning, referred to as loss-based selection, they may first use new resources/technologies or continually practice tasks to maintain their skills. However, when tasks become too difficult, they may compensate by choosing other ways to achieve their goals. For example, a person who can no longer drive needs to find alternative transportation, or a person who is compensating for having less

energy learns how to reorganize the daily routine to avoid over-exertion.

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Additional Resources

Below you will find some additional videos that can be used to support your learning.

Theory Videos:

*Conflict Theory – https://www.youtube.com/watch?v=LPYTndFFTko

*Functionalist Theory – https://www.youtube.com/watch?v=-83vVeSC2_g

*Symbolic Interaction Theory – https://www.youtube.com/watch?v=Ux2E6uhEVk0

*Dramaturgical Approach – https://www.youtube.com/watch?v=UH7eOrP64q4

TEDx Talks:

*The power of privilege – https://www.youtube.com/watch?v=N0acvkHIiZs

*Let's talk about race – https://www.youtube.com/watch?v=Rf8q-8gbfrw

*Trauma & Play Therapy: Holding Hard Stories – https://www.youtube.com/watch?v=SbeS5iezIDA

*Teens, Technology, and Transformation – https://www.youtube.com/watch?v=341hHTShopM

*Why does it take so long to grow up today? – https://www.youtube.com/watch?v=fv8KpQY0m6o

*I Am Not A Monster: Schizophrenia – https://www.youtube.com/watch?v=xbagFzcyNiM

*Menopause is Misunderstood – https://www.youtube.com/watch?v=w42_7cANRyA

*Midlife crisis needs a rebrand – https://www.youtube.com/watch?v=pnl5LUiAfd0

*Abuse hurts at any age – https://www.youtube.com/watch?v=UCcsxslz5Fc

Developmental Stages:

*Incredible Real Photography of the journey from a sperm to human baby – Developing in the Womb – https://www.youtube.com/watch?v=OD1gW88Lm-Y

*Fetal development month by month: Stages of Baby Growth in the Womb – https://www.youtube.com/watch?v=WtDknjng8TA

*An Experiment by Joseph Campos: The Visual Cliff – https://www.youtube.com/watch?v=p6cqNhHrMJA

*The Strange Situation – Mary Ainsworth, 1969 – https://www.youtube.com/watch?v=m_6rQk7jlrc

*Still Face Experiment: Dr. Edward Tronick – https://www.youtube.com/watch?v=apzXGEbZht0

*InBrief: Early Childhood Mental Health – https://www.youtube.com/watch?v=L41k2p-YRCs

*Dan Siegel – "The Adolescent Brain" – https://www.youtube.com/watch?v=0O1u5OEc5eY

*Four Horsemen of the Apocalypse – https://www.youtube.com/watch?v=1o30Ps-_8is

*The Sandwich Generation – Trailer – https://www.youtube.com/watch?v=YhXrHD7qWDk

*Into the Fog: Living with Early-Onset Alzheimer's –
https://www.youtube.com/watch?v=UxSznEIOUXA

*"Death by Rollercoaster" – The Euthanasia Coaster –
https://www.youtube.com/watch?v=eKmKLZOAT38

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