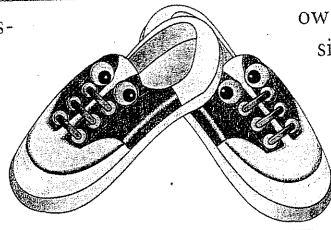


## B. Modern Approaches

### Answering Questions

How do psychologists answer questions?

Psychologists have many questions about Donna's unusual behaviors. For example, why did Donna believe that objects were alive and made their own sounds?



Donna would tell her shoes where she was going so they would take her there.

"My bed was my friend; my coat protected me and kept me inside; things that made noise had their own unique voices, which said vroom, ping, or whatever. I told my shoes where they were going so they would take me there" (Blakely, 1994, p. 14).

Why did Donna initially hear words as meaningless sounds that people were constantly saying to her? Why did she develop her

own signaling system, such as scrunching her toes to signal that no one could reach her? Why did she freeze up when staring at soap bubbles in the sink? In trying to answer questions about Donna's strange and intriguing behaviors, psychologists would use a combination of approaches.

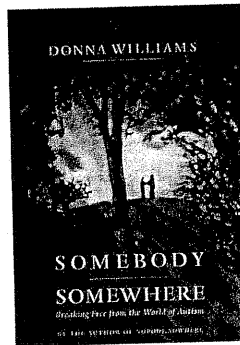
An **approach** refers to a focus or perspective, which may use a particular research method or technique.

The approaches to understanding behavior include the **biological**, **cognitive**, **behavioral**, **psychoanalytic**, **humanistic**, **cross-cultural**, and, most recently, **evolutionary**. We'll summarize these seven approaches and then discuss them in more detail on the following pages.



**1** As a child, was Donna unable to learn that words had meaning because of some problem with the development of her brain?

The **biological approach** focuses on how our genes, hormones, and nervous system interact with our environments to influence learning, personality, memory, motivation, emotions, and coping techniques.



**5** How was Donna able to overcome her early language problems and write a book in four weeks?

The **humanistic approach** emphasizes that each individual has great freedom in directing his or her future, a large capacity for personal growth, a considerable amount of intrinsic worth, and enormous potential for self-fulfillment.



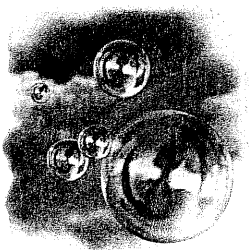
**2** How was Donna able to develop her own signaling system that involved gestures instead of words?

The **cognitive approach** examines how we process, store, and use information and how this information influences what we attend to, perceive, learn, remember, believe, and feel.



**6** Why did her mother believe autism was caused by evil spirits? What do other peoples and cultures believe causes it?

The **cross-cultural approach** examines the influence of cultural and ethnic similarities and differences on the psychological and social functioning of a culture's members.



**3** Why did Donna make it a rule to avoid leaving soap bubbles in the sink?

The **behavioral approach** studies how organisms learn new behaviors or modify existing ones, depending on whether events in their environments reward or punish these behaviors.



**7** How might Donna's unique behaviors help her to adapt to the environment? How did autism evolve during the course of our human ancestry?

The **evolutionary approach** studies how evolutionary ideas, such as adaptation and natural selection, explain human behaviors and mental processes.



**4** Why did Donna develop alternate personalities, such as Willie, who had "hateful glaring eyes, a rigid corpselike stance, and clenched fists"?

The **psychoanalytic approach** stresses the influence of unconscious fears, desires, and motivations on thoughts, behaviors, and the development of personality traits and psychological problems later in life.



By using one or more of these seven approaches, psychologists can look at autism from different viewpoints and stand a better chance of reaching psychology's four goals: to describe, explain, predict, and control behavior. The first six approaches are well-established and commonly used approaches to understanding behavior. We'll use the problems of autism and test anxiety to show how each of these six approaches examines these problems from a different perspective. Then, we'll provide more information about the relatively recent and increasingly popular evolutionary approach.

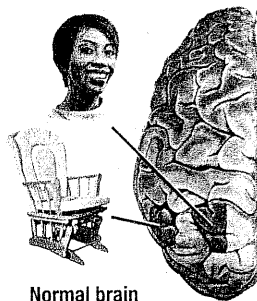
## Biological Approach

### Are their brains different?

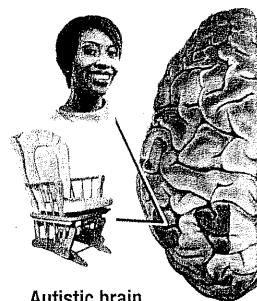
As Donna explains, autism has a huge effect on all parts of her life. “Autism makes me feel everything at once without knowing what I am feeling. Or it cuts me off from feeling anything at all” (D. Williams, 1994, p. 237). Donna’s description of how autism so drastically affects her life raises questions about whether her brain has not developed normally or functions differently. To answer these questions, researchers use the biological approach.

The **biological approach** examines how our genes, hormones, and nervous system interact with our environments to influence learning, personality, memory, motivation, emotions, and other traits and abilities.

Autism is thought to originate in early brain development. In children with autism, brain cells appear to connect irregularly, leading to abnormal functioning in brain areas responsible for thoughts, movement, and emotions. These abnormalities may explain why these children seem uninterested in their environment and in social interaction. Brain imaging research has shown that children with autism show different brain activity than other children while looking at faces (D. S. Fox, 2009). For example, the top figure shows that the normal brain uses one area (blue—fusiform gyrus) to process **faces** of people and a different area (red—inferior temporal gyrus) to process inanimate **objects**, such as a chair. The bottom figure shows that the autistic brain uses the area that processes inanimate objects (red—inferior temporal gyrus) to also process human faces (R. T. Schultz et al., 2000). This study uses the biological approach to look inside the brain to explain why people with autism show little interest in looking at a person’s face during social interactions or in identifying facial emotional expressions.



Normal brain



Autistic brain

Psychobiologists, researchers who use the biological approach, have shown that genetic factors influence a range of human behaviors, which we’ll discuss throughout this text. The genes (p. 68) use a chemical alphabet to write instructions for the development of the brain and body and the manufacture of chemicals that affect mental health, learning, emotions, and everything we do (Rutter & Silberg, 2002). For example, it is known that autism runs in families, and this genetic involvement is supported by the finding that if one identical twin has autism, then there is as high as a 90% chance the other twin will have signs of autism (M. H. Lewis & Lazoritz, 2005). Researchers recently identified a number of genes involved in autism (Arking et al., 2008; Weiss et al., 2008) and are now using genetic screening to help identify the causes of autism (Cai et al., 2008).

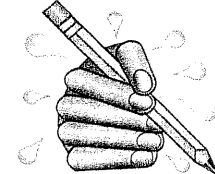
Also using the biological approach, researchers found that social problems associated with autism are linked to less activity in brain cells responsible for human empathy (mirror neurons). These cells allow us to put ourselves in other people’s shoes and experience how they feel. Reduced activity in these cells helps explain why children with autism misunderstand verbal and nonverbal cues, suggesting different emotions felt by others, including joy, sadness, and anger, and why they have difficulty empathizing with others (Dapretto et al., 2006; Iacoboni, 2008).

Essentially, psychobiologists study how the brain affects the mind, and vice versa. They may study an experience that many students are familiar with, called test anxiety.

## Biological Approach to Test Anxiety

### Why do my hands sweat?

You’ve probably experienced one component of test anxiety, called the emotional component. This component includes a variety of physiological responses, such as increased heart rate, dry mouth, and sweaty palms. An interesting feature of sweaty palms, called palmar sweating, is that it is caused by stressful feelings and is not related to changes in room temperature (L. A. Goldsmith, 2008). In fact, palmar sweating is one of the measures used in the lie detector test, which we’ll discuss in Module 16.

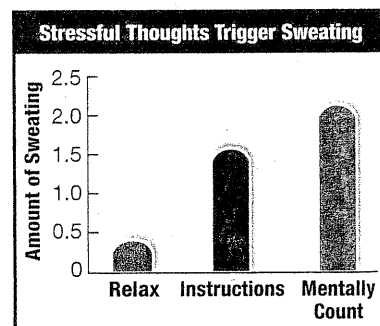


Sweaty hands often indicate stress.

As you take an exam—or even think about taking one—your stressful thoughts trigger the emotional component, which can interfere with processing information and increase your chances of making mistakes (Cassady & Johnson, 2002).

The graph on the right shows how easily your stressful thoughts can trigger palmar sweating, which is one measure of the emotional component of test anxiety. As subjects listened to instructions telling them to do mental arithmetic, which involved them counting backward from 100 in steps of 7, there was a significant increase in palmar sweating. Then, once subjects started to actually do the mental arithmetic, their palmar sweating increased even more (Kobayashi et al., 2003). If simply listening to instructions about having to do a simple task of counting backward increased palmar sweating, a sign of physiological and emotional arousal, imagine the increased arousal that occurs while taking an exam!

In fact, symptoms of test anxiety may include shaky legs, racing heart, physical illness, or even crying during an exam (Strauss, 2004). In Module 21, we’ll describe several methods of controlling stress that will be useful in controlling the emotional component of test anxiety.



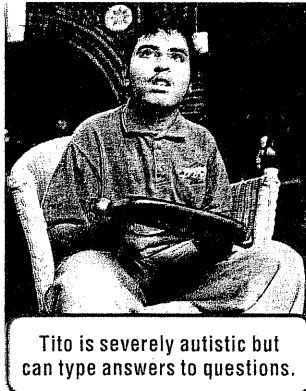
## Cognitive Approach

### Was Donna an unusual autistic?

Individuals with autism usually have difficulty developing language skills. For example, Donna writes, "Autism makes me hear other people's words but be unable to know what the words mean. Autism stops me from finding and using my own words when I want to. Or makes me use all the words and silly things I do not want to say" (D. Williams, 1994, p. 237). Although Donna did not understand words until she was an adolescent, she eventually learned to both speak and write, has written several creative books (D. Williams, 1992, 1994, 1999, 2004), and has learned French and German. Because of her remarkable language abilities, Donna is said to be a high-functioning autistic, or *savant*. To discover why individuals with autism differ in their language and social skills, psychologists use the cognitive approach.

The **cognitive approach** focuses on how we process, store, and use information and how this information influences what we attend to, perceive, learn, remember, believe, and feel.

Unlike Donna Williams, who speaks fluently and is considered a high-functioning autistic, the photo on the right shows Tito Mukhopadhyay, a teenager with severe autism who often seems overcome by various movements, whose speech is virtually unintelligible, but who has the unusual ability to answer questions or explain what he's thinking or doing by writing or typing on the keyboard he is holding. For example, when Tito was being tested in a laboratory, he repeatedly stopped and started bursts of activity, standing and spinning, making loud smacking noises, or flapping his fingers. When asked why he does this, Tito didn't answer verbally but wrote, "I am calming myself. My senses are so disconnected I lose my body, so I flap. If I don't do this, I feel scattered and anxious" (Blakeslee, 2002, p. D1). Tito has written books inviting others to share in his inner life (Mukhopadhyay, 2000, 2003, 2008).



Tito is severely autistic but can type answers to questions.

In his writings, he explains that his brain has difficulty processing different senses at the same time, such as sound, sight, and touch. This is the reason he avoids eye contact when talking with people, as he usually chooses to focus on hearing (McEdwards, 2008). Thus, there is a cognitive difference between normal individuals who can respond simultaneously to more than one sensory input, such as seeing and hearing, and individuals with autism who are limited to concentrating on one sense at a time.

Some cognitive researchers combine the study of cognitive skills with identifying their corresponding areas in the brain. This exciting new approach is called cognitive neuroscience (Purves et al., 2008).

**Cognitive neuroscience** involves taking pictures and identifying the structures and functions of the living brain during performance of a variety of mental or cognitive processes, such as thinking, planning, naming, and recognizing objects.

For example, when listening to a conversation, 95% of right-handers use primarily the left sides of their brains and very little of the right sides to process this verbal information. In contrast, researchers found that individuals with autism used primarily the

right sides of their brains and very little of the left sides when listening to a conversation (E. J. Flagg et al., 2005). This reversing of brain sides as well as difficulties in processing verbal information may help explain why autistic individuals have problems acquiring cognitive, language, and communication skills.

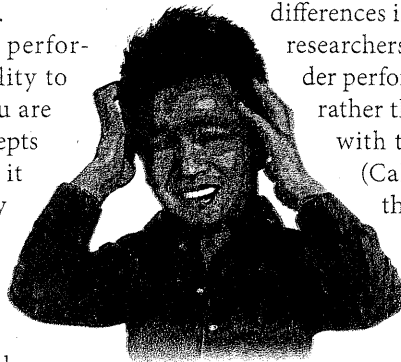
Recently, the cognitive approach and its newer relative, cognitive neuroscience, have become popular because they have proved useful in answering questions about emotions, personality, cognitive skills, and social behaviors (Cacioppo et al., 2005; Harmon-Jones & Winkielman, 2007). For example, the cognitive approach has much to say about test anxiety, especially about worrying too much.

## Cognitive Approach to Test Anxiety

### Can you worry too much?

Students who experience test anxiety must deal with two components. The first component, which we already described, is increased physiological arousal, which is the emotional component. The second component is the cognitive component, which is excessive worrying, usually about doing poorly on exams.

Excessive worrying about your performance can interfere with your ability to read accurately, understand what you are reading, and identify important concepts (Cassady & Johnson, 2002). Thus, it is easy to see how excessive anxiety and worrying can decrease students' confidence and impair their studying and academic performance (Cassady, 2004; Flippo et al., 2009; Miesner & Maki, 2007). Research



measuring students' test anxiety in elementary school, college, and graduate school shows that females report significantly greater test anxiety than males (Chapell et al., 2005; Lynch, 2008; Reteguiz, 2006). Even though females report greater test anxiety, there is no difference in their academic performance when compared to males (Chapell et al. 2005).

The reason females report greater worry and anxiety than males, yet demonstrate the same academic performance, may have something to do with differences in how the sexes channel their worry and anxiety. For instance, researchers found that the cognitive component could either help or hinder performance. Students who channeled their worry into complaining rather than studying performed poorly because their worry interfered with their reading and caused them to make more reading errors (Calvo & Carreiras, 1993). In contrast, students who channeled their worry into studying performed better and achieved higher grades because they were better prepared (Endler et al., 1994).

These studies indicate that the cognitive component of test anxiety—excessive worrying—may either help or hinder cognitive performance, depending on how students channel their worries.

## Behavioral Approach

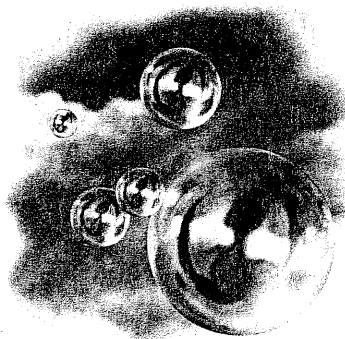
### No leaving soap suds in the sink!

#### Why have a "no soap suds" rule?

If Donna happened to leave soap suds in the sink, she might see a rainbow of colors reflected in the bubbles. She would become so completely absorbed in looking at the brilliant colors that she could not move; she would be in a state of temporary paralysis. Donna made her "no soap suds" rule to prevent the environment from triggering an autistic behavior—temporary paralysis. Donna and her husband, who is also autistic, have developed many rules to control some of their unwanted behaviors. Here are some of their rules: *No lining feet up with furniture; No making the fruit in the bowl symmetrical; No reading newspaper headlines in gas stations or at newsstands* (Blakely, 1994, p. 43). These rules, which help Donna and her husband avoid performing repetitive and stereotyped behaviors, illustrate the behavioral approach.

The **behavioral approach** analyzes how organisms learn new behaviors or modify existing ones, depending on whether events in their environments reward or punish these behaviors.

Donna and her husband's rules are examples of a basic behavioral principle: Rewards or punishments can modify, change, or control behavior. Psychologists use behavioral principles to teach people to be more assertive or less depressed, to toilet train young children, and to change many other behaviors. Psychologists use behavioral principles to train animals to press levers, to



Seeing a dazzling rainbow in soap suds stopped Donna in her tracks.

use symbols to communicate, and to perform behaviors on cue in movies and television shows.

Largely through the creative work and original ideas of B. F. Skinner (1989), the behavioral approach has grown into a major force in psychology. Skinner's ideas stress the study of observable behaviors, the importance of environmental reinforcers (reward and punishment), and the exclusion of mental processes. His ideas, often referred to as strict behaviorism, continue to have an impact on psychology. In Module 10 we'll explain how Skinner's ideas were integrated into a program that taught autistic children new social behaviors that enabled them to enter and do well in public grade schools.

However, some behaviorists, such as Albert Bandura (2001a), disagree with strict behaviorism and have formulated a theory that includes mental or cognitive processes in addition to observable behaviors. According to Bandura's *social cognitive approach*, our behaviors are influenced not only by environmental events and reinforcers but also by observation, imitation, and thought processes. In Module 10, we'll discuss how Bandura's ideas explain why some children develop a fear of bugs.

Behaviorists have developed a number of techniques for changing behaviors that can be applied to both animals and humans. Next, you will see how they have used self-management skills to reduce the cognitive component of test anxiety.

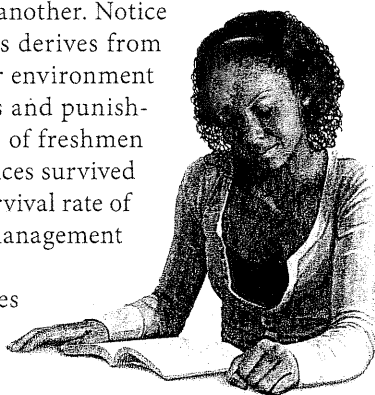
## Behavioral Approach to Test Anxiety

#### Can I redirect my worrying?

We discussed how excessive worrying, which is the cognitive component of test anxiety, can improve test performance if you can channel your worry into studying for exams. One method to redirect worry into studying more is to use a system of *self-management* based on a number of behavioral principles (D. V. Kennedy & Doepke, 1999).

Researchers found that the following self-management practices are related to increasing studying time and achieving better grades: (1) select a place that you use exclusively for study; (2) reward yourself for studying; (3) keep a record of your study time; (4) establish priorities among projects; (5) specify a time for each task; and (6) complete one task before going on to another. Notice that each of these self-management practices derives from our basic behavioral principle: Events in your environment can modify your behaviors through rewards and punishments. As the graph on the right shows, 53% of freshmen who learned and used self-management practices survived into their sophomore year compared to the survival rate of only 7% of freshmen who did not learn self-management practices (Long et al., 1994).

In later modules, we'll give many examples of how behavioral principles can be used to modify a wide range of behaviors and thought patterns.



#### Effectiveness of Self-Management

Researchers identified freshmen who had poor study skills and divided them into two groups. One group was given a self-management course to improve their study skills, while a second group was not.

7% of freshmen who **did not take** the self-management course survived into the second semester of their sophomore year.

53% of freshmen who **did take** the self-management course survived into the second semester of their sophomore year.

## Psychoanalytic Approach

### How was Donna's childhood?

When she was about 3 years old, Donna faced a number of personal problems: having an alcoholic mother who hit and verbally abused her, having a father who was often gone, and being sent to a "special needs" school. Apparently in trying to deal with these problems, Donna developed other personalities. One personality was Willie, a child with "hateful glaring eyes, a pinched-up mouth, rigid corpselike stance, and clenched fists," who stamped and spit but also did well in school. The other was Carol, a charming, cooperative little girl who could act normal and make friends (S. Reed & Cook, 1993). Why Donna developed other personalities to deal with difficult childhood experiences would be carefully looked at in the psychoanalytic approach (Lanyado & Horne, 1999).

The **psychoanalytic approach** is based on the belief that childhood experiences greatly influence the development of later personality traits and psychological problems. It also stresses the influence of unconscious fears, desires, and motivations on thoughts and behaviors.

In the late 1800s, Sigmund Freud, a physician, treated a number of patients with psychological problems. On the basis of insights from therapy sessions, Freud proposed some revolutionary ideas about the human mind and personality development. For example, one hallmark of Sigmund Freud's psychoanalytic approach is the



Donna had an alcoholic and verbally abusive mother and a mostly absent father.

idea that the first five years have a profound effect on later personality development. According to the psychoanalytic approach, Donna's first five years with a verbally abusive mother and mostly absent father would profoundly affect her later personality development.

In addition, Freud reasoned that thoughts or feelings that make us feel fearful or guilty, that threaten our self-esteem, or that come from unresolved sexual conflicts are automatically placed deep into our unconscious. In turn, these unconscious, threatening thoughts and feelings give rise to anxiety, fear, or psychological problems. Because Freud's patients could not uncover their unconscious fears, he developed several techniques, such as dream interpretation, to bring hidden fears to the surface. Freud's belief in an unconscious force that influenced human thought and behavior was another of his revolutionary ideas (Fayek, 2005).

Many of Freud's beliefs, such as the existence of unconscious feelings and fears, have survived, while other ideas, such as the all-importance of a person's first five years, have received less support. Many of Freud's terms, such as *id*, *ego*, *superego*, and *libido*, have become part of our everyday language. We'll discuss Freud's theory of personality in Module 19.

Unlike the biological, cognitive, and behavioral approaches, the psychoanalytic approach would search for hidden or unconscious forces underlying test anxiety.

## Psychoanalytic Approach to Test Anxiety

### Is test anxiety related to procrastination?

We discussed two components of test anxiety—excessive worrying and increased physiological responses—that can impair a student's performance on exams. Researchers also found that students with high test anxiety are much more likely to procrastinate than students with low test anxiety (N. A. Milgram et al., 1992).

**Procrastination** refers to the tendency to always put off completing a task to the point of feeling anxious or uncomfortable about one's delay.

Researchers estimate that about 20% of adults are chronic procrastinators and from 80 to 95% of students procrastinate or

deliberately delay completing assignments or studying for exams (Gura, 2008b; E. Hoover, 2005; Steel, 2007). Some of

The best thing for you to do is to put off doing anything for a few more days.

the more obvious reasons students give for procrastinating include being lazy or undisciplined, lacking motivation, and not knowing how to organize their time or set deadlines (Ariely & Wertenbroch, 2002).

However, the psychoanalytic approach would look beneath these obvious reasons and try to identify

unconscious personality problems that may underlie procrastination and test anxiety. Because unconscious reasons for procrastination and test anxiety are difficult to uncover, psychologists use a variety of standard personality tests in their research.

Based on personality tests, researchers concluded that students who are regular procrastinators may have low self-esteem, are too dependent on others, or have such a strong fear of failure that they do not start the task (Blunt & Pychyl, 2000). Personality tests also show that neuroticism (persistent anxiety; see p. 463) and an external locus of control (feeling little control over events; see p. 459) are associated with test anxiety (Carden et al., 2004; Chamorro-Premuzic et al., 2008). Thus, the psychoanalytic approach points to underlying personality problems as the probable cause of procrastination and test anxiety.

The psychoanalytic approach would also study how childhood experiences may have led to procrastination. For instance, researchers found that procrastinators tend to be raised by authoritarian parents who stress overachievement, set unrealistic goals for their children, or link achievement to giving parental love and approval. A child who is raised by parents like these may feel anxious when he or she fails at some task and will be tempted to put off such tasks in the future (Pychyl et al., 2002).

Psychologists know that ingrained personality characteristics, such as procrastination, remain relatively stable and persist across time unless a person makes a deliberate effort to change them. In Modules 21, 23, and 24, we'll discuss several methods that psychologists have developed to change personality characteristics.





## B. Modern Approaches

### Humanistic Approach

#### What was Donna's potential?

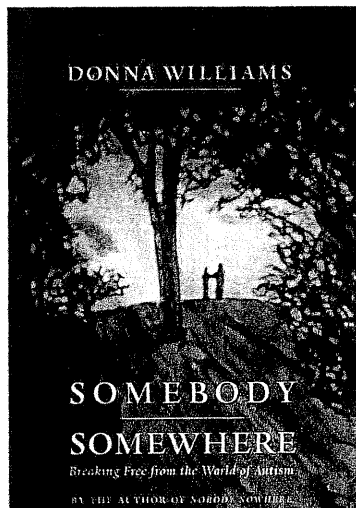
Donna says that one reason she wrote her books was to escape her prison of autism. Autism has trapped her in a world where she sometimes blinks compulsively, switches lights on and off for long periods of time, rocks back and forth, freezes up, stares off into space without being able to stop herself, hates to be touched, cannot stand to enter public places, and hates to make eye contact with others (D. Williams, 1992).

Even though Donna has serious life challenges, she strives toward reaching her potential, and her achievements are impressive. She has published autobiographies and textbooks on autism. Her creative paintings and sculptures can be seen at exhibits. Donna is also a singer-songwriter who has released two incredible albums. Also, she married a man she refers to as a “diamond of a person” (D. Williams, 2009).

Donna's struggle to free herself from autism, develop close personal relationships, and reach her potential characterizes the humanistic approach.

The **humanistic approach** emphasizes that each individual has great freedom in directing his or her future, a large capacity for achieving personal growth, a considerable amount of intrinsic worth, and enormous potential for self-fulfillment.

Donna echoes the humanistic approach when she writes, “Autism tried to rob me of life, of friendship, of caring, of sharing, of showing interest, of using my intelligence . . . it tries to bury me alive. . . .” The last words in her book are “I CAN



Although the majority of people with autism have difficulty with language, Donna has an amazing ability for written and spoken language.

FIGHT AUTISM. . . I WILL CONTROL IT. . . IT WILL NOT CONTROL ME” (D. Williams, 1994, p. 238).

Humanists believe that, like Donna, we may have to struggle to reach our potential, but we have control of our fate and are free to become whatever we are capable of being. The humanistic approach emphasizes the positive side of human nature, its creative tendencies, and its inclination to build caring relationships. This concept of human nature—freedom, potential, creativity—is the most distinctive feature of the humanistic approach and sets it far apart from the behavioral and psychoanalytic approaches (Giorgi, 2005).

The humanistic approach officially began in the early 1960s with the publication of the *Journal of Humanistic Psychology*. One of the major figures behind establishing the journal and the humanistic approach was Abraham Maslow, who had become dissatisfied with the behavioral and psychoanalytic approaches. To paraphrase

Maslow (1968), the humanistic approach was to be a new way of perceiving and thinking about the individual's capacity, freedom, and potential for growth. Many of humanism's ideas have been incorporated into approaches for counseling and psychotherapy.

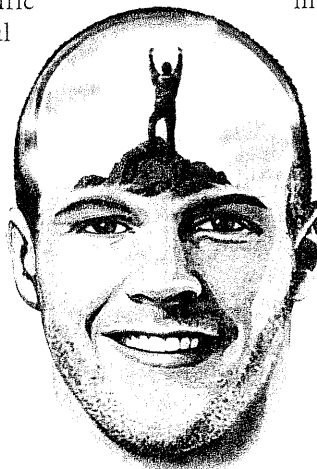
Because of its free-will concept of human nature and lack of experimental methods, many behaviorists regard the humanistic approach as more of a philosophy of life than a science of human behavior.

The humanistic approach also applies to dealing with a student's problems, such as test anxiety and procrastination.

### Humanistic Approach to Test Anxiety

#### How can students reach their potentials?

The first year of college can be a difficult adjustment for many students, since it is more demanding and stressful than high school. Researchers wanted to learn which specific factors lead to high academic performance and successful adjustment among first-year college students. They found that students who were confident in their academic abilities performed significantly better than students who were less confident, and they adjusted better to college. Also, students who had higher expectations for academic success, such as performing well in courses, received better grades (Chemers et al., 2001). Based on these findings, it is evident that believing in one's abilities and potential is an important factor in being a successful student. These results may be useful for educators in helping students who do poorly in school to not give up but rather try to develop their academic potential.



Psychologists have also studied students whose academic performance ranged from poor to very good in order to develop a profile of a successful student. Studies showed that successful students share a number of similar characteristics: they feel competent about meeting the demands of their classes; they believe they can handle test situations; they are very good at organizing their study time and leisure time; they prepare themselves for tests and do not procrastinate (Kleijn et al., 1994).

Based on studies of students' performances, the humanistic approach would say that just as successful students found ways to reach their academic potential, all students should search for ways to reach their own potentials. The humanistic approach emphasizes that students have the capacity to choose, that each is unique or special, and that students should have faith in their personal or subjective feelings (Hansen, 2000).

## Cross-Cultural Approach

### How is autism perceived in other cultures?



**United States.** A psychologist in the United States first described the symptoms of autism almost 70 years ago (L. Kanner, 1943). Then autism was thought to be caused by environmental factors, such as having “cold” parents. In the 1960s, the focus changed to searching for biological causes (Rimland, 1964). Today, researchers believe the probable causes of autism include environmental and genetic factors (C. Kalb, 2008; Kraft, 2006).

There are between 1 million and 1.5 million Americans with autism (ASA, 2008). Early diagnosis is a priority in the United States. While the diagnosis of autism usually occurs between ages 2 and 3, the American Academy of Pediatrics (2007) is now recommending screening as early as 18 months, recognizing the importance of early intervention. Treatment is provided by psychiatrists and other physicians, psychologists, teachers, speech therapists, play therapists, and other professionals who understand autism.

Autism is believed to exist in every culture (Grinker 2007). Let's look at how different cultures perceive autism.

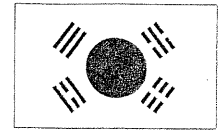
**South Korea.** The number of people with autism in South Korea is unknown, as the disorder has a terrible stigma and children with autism are often kept at home hidden from the public. Parents in South Korea may fear that their family will lose face if people know someone with autism lives there and that marriage prospects for their other children will be negatively affected as a result of having a child with an abnormality.

Physicians in South Korea usually diagnose what would be considered autism in the United States as reactive attachment disorder (see p. 377), which they interpret as “lack of love.” This is a less stigmatizing diagnosis, as parents believe they can help their child by providing more love. Also, it doesn't negatively harm the family as much as a genetic disease might. The unfortunate result, however, is that children with autism do not get the treatment they need. Within only the past few years, the perceptions of autism have begun to positively change in South Korea. Some children with autism are now going to school and even walking out in public with their families (Grinker, 2007).

The differences in how autism is perceived in the United States and South Korea show the influence of cultural factors and the use of the cross-cultural approach in psychology (Matsumoto & Juang, 2008; Shiraev & Levy, 2009).

The *cross-cultural approach* studies the influence of cultural and ethnic similarities and differences on psychological and social functioning.

There are also differences in how other cultures experience test anxiety.



## Cross-Cultural Approach to Test Anxiety

### How do other cultures deal with test anxiety?

the globe (Bodas & Ollendick, 2005).

The development and severity of test anxiety appear to be different between Asian and non-Asian students. For example, students in India experience heightened test anxiety due to several factors, including the cultural emphasis on academic achievement, parental and social pressures to perform, and the stressful, competitive nature of exams. In contrast, American students don't experience as much test anxiety, in part because

Culture plays an important role in determining the intensity and expression of test anxiety, and test anxiety has been examined in countries across



This symbol indicates a cultural diversity topic.

parents are less involved with their children's schoolwork and they promote independence and personal responsibility. A related cross-cultural difference is how children express test anxiety. Indian students express their anxiety through physical symptoms, whereas American students experience more cognitive symptoms, such as excessive worrying (Bodas & Ollendick, 2005; Verma et al., 2002).

This research shows how the cross-cultural approach provides different and interesting answers to the same question (Shiraev & Levy, 2009). In each module, we will highlight a cross-cultural study, which will be indicated by the cultural diversity symbol shown above.

## Evolutionary Approach

The most recent modern approach to psychology emerges out of evolutionary theory and is called the evolutionary approach.

The *evolutionary approach* studies how evolutionary ideas, such as adaptation and natural selection, explain human behaviors and mental processes.

Although the evolutionary approach is relatively new, research has already examined how evolution influences a variety of behaviors and mental processes, such as aggression, mate selection, fears, depression, and decision making (Wass, 2004, 2007, 2009). We'll discuss the evolutionary approach again

Module 4 (p. 69) and include some of the exciting research resulting from this approach throughout the text.



## Eclectic Approach

Rather than strictly focusing on one of the seven approaches, most of today's psychologists use an *eclectic approach*, which means they use different approaches to study the same behavior. By combining information from the biological, cognitive, behavioral, psychoanalytic, humanistic, cross-cultural, and evolutionary approaches, psychologists stand a better chance of reaching their four goals of describing, explaining, predicting, and controlling behavior.

We have discussed the approaches used by modern psychologists so you can compare them with the different approaches used by early psychologists. As you compare early and modern approaches, you can appreciate how much psychology has changed in the past 100 years.

