



# Chapter 12

## PERSONALITY

### CHAPTER PREVIEW QUESTIONS

- What do psychologists mean by personality?
- What are types and traits?
- Can personality be inherited?
- How did Freud and his followers approach personality theory?
- Do behaviorists believe in personality?
- How do humanistic theories explain personality?
- Are there pseudoscientific theories of personality?
- How can we measure a person's personality?

## WHAT DO PSYCHOLOGISTS MEAN BY “PERSONALITY?”

In everyday language, we often say that a person has “a lot of personality.” As you can probably guess, this is not how psychologists use the word. When I was much younger, a person going on a blind date might be told that the person they were meeting had “a great personality.” Psychologists don’t use the term this way either but let’s use this example of a blind date to see what psychologists really *do* mean by *personality*.

Suppose that a friend has arranged for you to go out with someone you’ve never met. Let’s say that you’ve seen a picture of the person. Still, you’d like to know more about the person before you meet. How could your friend best tell you about the person so that you’d really have a feeling for what he or she is like? As scientists, we’ll approach this problem in a more technical way but our final goal is the same. We want to be able to create an accurate, yet practical description of what a person is like. Suppose that your friend offered to give you a computer printout about the person you are planning to date. The printout could contain a complete account of everything the person has ever done. It might also include what the person would do in the future in any possible situation. Obviously, this isn’t a practical solution because it would take a fleet of trucks just to deliver the information. It would also take you years just to look it over. What you’d like is a brief, elegant description of the person. “Elegant” is being used here in its scientific sense. In this context, it means precise and exact. A good description should allow you to predict what the person would do in a variety of situations. As scientists, we try to determine what that description should look like. We also want to develop tests that will create a description of each person’s personality. By **personality** then, we mean the relatively stable pattern of behavior that the person shows in a wide variety of situations. How can we best give a brief, elegant description of what a person is like? One approach to describing personality that has been around for a very long time is called *type theory*.

### personality

A distinctive and relatively stable pattern of behavior that a person displays in a wide variety of situations

## PERSONALITY TYPES

Your friend might try to convey the person’s personality to you by telling you what “type” of person they are: “She’s a typical Republican,” “He’s the outdoor type.” This is the approach of **type** theories of personality. Type theories assume that people can be divided into types. Type theories are based on the idea that there are a certain number of types of people and that everyone falls into one of the type groups. According to type theories, the personalities of all the members of each group are very similar. The ancient Greeks developed a type theory over 2000 years ago.

### type

A group of people sharing common behavior patterns

### Early Type Theories

*Q: What types did they think there were 2000 years ago?*

The famous physician Hippocrates (Singer & Underwood, 1962), in ancient Greece, wrote that people could be divided into four types based on the four elements that made up the universe. The four elements were earth, air, fire, and water. Hippocrates believed that there were four basic bodily fluids (blood, phlegm, black bile, and yellow bile) matching these elements. He thought that a person’s personality was determined by the dominance of one of these fluids. Hippocrates’ theory of the four types of people is an early example of a type the-

ory of personality. In his theory, for example, people with an excess of yellow bile were called “choleric.” Here is a description of a choleric person. The ancient Greek philosopher, Aristotle (Translation 1962), wrote it over two thousand years ago.

*Anger can be shown against the wrong persons, under the wrong circumstances, to an improper degree, too quickly, and for an unduly long time . . . Choleric people are excessively quick and short-tempered about everything and on every occasion, hence their name.*

In 1621, the British medical writer Robert Burton presented Hippocrates' idea again in his book *The Anatomy of Melancholy*. Burton called the four types, melancholic (earth), choleric (air), sanguine (fire), and phlegmatic (water). Burton's book was very popular and many characters in the literature of the time have personalities matching the four types. Shakespeare's Hamlet, for example, is a good example of what Burton called a “melancholic” person who is ruled by black bile.

1. Aristotle, Hippocrates, and Robert Burton thought that there were how many types of people?
2. They believed that a person's personality depended on the levels of various \_\_\_\_\_.
3. Aristotle's idea is an example of a \_\_\_\_\_ theory.
4. Critical Thinking: What are the drawbacks of a type theory?

Answers: 1) four, 2) bodily fluids, 3) type

## Locking It In

### Myers-Briggs Theory—The MBTI

*Q: My friend says I'm an INTP; what does that mean?*

Another type theory is the basis for a well-known test of personality developed in the 1960s by Peter Myers, Isabel Briggs Myers, and her mother, Kathleen Briggs (Myers, 1987). The theory behind the Meyers-Briggs Type Indicator (MBTI) comes from the work of Carl Jung. Jung's theory will be covered later in this chapter in the section on the neo-Freudians. The MBTI is based on the idea that people can be divided on the basis of four dimensions. The four dimensions are Extraversion-Introversion (E or I), Sensing-Intuition (S or N), Thinking-Feeling (T or F), and Judging-Perceptive (J or P). As an example, let's look at extraversion-introversion. Introverts, according to Jung, are inhibited and withdrawn and extraverts are lively, and exuberant. If you enjoy being the center of attention and really enjoy yourself at parties, Jung would consider you an **extravert**. If, on the other hand, you are painfully shy and avoid social situations, you would be considered an **introvert**.

Using all the combinations of letters above, we get 16 possible types, each with a four-letter label like INTP. According to the theory behind the MBTI, A person with the INTP label would be introverted, intuitive, prone to thinking, and perceptive. According to the theory, people with this label tend to be unaware of their feelings and somewhat unemotional.

The MBTI measures personality by asking people a series of questions much like the following one:

*Are you*

- a) usually comfortable at parties, or*
- b) usually uncomfortable at parties?*

#### **extravert**

Extraverts are sociable and outgoing. They enjoy meeting new people and being in social situations

#### **introvert**

Introverts are people who are shy and retiring. They are often uncomfortable in social situations

The test also asks people to tell which of a number of pairs of words like “stern” or “forgiving” appeals to them more. Although the MBTI has been shown to have some practical uses, it’s important not to consider it the final word on someone’s personality. For one thing, there is little experimental evidence to suggest that these particular four sets of word pairs will, by themselves, completely describe someone’s personality. Another problem with the MBTI is that it can lead people to think of the descriptions as dividing people into opposite types. Although the full results of the MBTI report where people fall on the scales, many people interpret the results as dividing people into opposite types. This approach leaves no room for people who are in the middle of the scale or for people who are introverted in some situations and extraverted in others.

The MBTI has also been criticized for presenting pairs of characteristics that are not always opposites. Introversion and extraversion are clearly opposite ends of one scale. Other pairs measured by the MBTI, however, may not be. It can be argued that a person could be both sensing and intuitive. A person could also be both judging and perceptive. The MBTI won’t allow a person to be classified as having these supposedly opposite characteristics although such people may exist. In addition, the MBTI measures personality by asking people fairly obvious questions about themselves so it may measure the person’s self-image rather than their true self. Do you think that people from different cultures might differ on their MBTI scores? What do you think the introversion-extraversion scores would be like for a culture that looks down on people who draw attention to themselves?

### Evaluation of Type Theories

The primary advantage of type theories is that they are simple. They usually divide people into a relatively small number of types. Classifying people into the necessary types and describing each type are not very complex tasks. The biggest problem with type theories as a scientific explanation of personality is that they don’t begin to capture the many differences between people. If we say that there are only four or even sixteen types of people, we will certainly end up lumping together people who are very different. We’ll also probably end up putting very similar people into different type classes if they land near the borderline of their types as we saw with the MBTI. One solution would be to have a type theory with hundreds or thousands of types. This would make the theory more accurate but it would no longer be practical. These problems with type theory have led many psychologists to consider another scientific way of describing personality. This alternate approach is called *trait* theory.

## Locking It In

1. The theory behind the MBTI comes from Carl Jung (T/F).
2. The MBTI is based on a type theory of personality (T/F).
3. Type theories are accepted as the best method of describing a person. (T/F).
5. Critical Thinking: Could a person be “sensing” and “intuitive” at the same time?

Answers: 1) T, 2) T, 3) F

## PERSONALITY TRAITS

*Q: How can we classify people if we don’t group them into separate personality types?*

What if instead of saying that there are a certain number of types of people, we said that there are a number of personality traits like honesty and shyness. We

could assume that everyone has these traits but in different amounts. This is the approach of trait theory. A **trait** is a relatively stable, enduring disposition to behave in a certain way (Pervin, 1994). Notice how this is different from type theory. Type theories divide people into a small number of different types. Type theories assume that all members of a certain type behave in similar ways. Trait theorists don't divide people into groups. Rather, they assume that we can make a list of traits that all people share. Trait theories assume that people vary in the strength of each trait.

### trait

A relatively stable, enduring disposition to behave in a certain way

## Gordon Allport's Trait Theory

Consider again your blind date. Suppose your friend described the person in terms of his or her personal characteristics and told you that the person was somewhat shy, usually honest, very quiet, and moderately intelligent? Your friend is describing the person's traits. Psychologist **Gordon Allport** (1937, 1961) took a similar approach to personality. Allport listed a number of different kinds of traits that a person could have.

*Q: How many traits are there?*

In order to give a scientific description of a person using the trait approach, we need a list of possible traits. Allport and Odbert (1936) listed 17,953 adjectives that could be used to describe a person. Later Norman (1967) developed a list of 40,000 terms and then reduced the list to 2,800 terms he considered to be a complete list of stable traits. It would be a tough job to come up with a useful personality description based on thousands of traits. Fortunately, trait theorists have found ways to make the list shorter.

## Raymond B. Cattell's Trait Profiles

Personality researcher **Raymond B. Cattell** (1905–1998) found that, by using a statistical technique called **factor analysis**, he could reduce the list of personality traits to a reasonable number (1950). Suppose that you rated each one of a group of people on four traits: honesty, integrity, shyness, and introversion. You would probably find that people who ranked high in honesty would also be high in integrity. You would also find that people who ranked high in shyness were also introverted. You might decide that you only needed two traits to describe these people. This is a simple kind of factor analysis. It boils down your list to two main factors. When the list of traits gets longer, it's not practical to use the method just described. Just looking at people's answers to see if they fall into obvious groups gets too complicated. Instead, we use more sophisticated statistical techniques to find the factors. When we do this, though, it's still just a fancy way of boiling down the number of factors. Cattell first developed a list of 35 **surface traits**. Surface traits are easily observed in the person's behavior. Later, he used factor analysis to reduce this to 16 personality factors. He called these traits **source traits**. Source traits are more basic than surface traits. A single source trait can express itself as a large number of surface traits. A source trait like "practical" for example, might be show up as many surface traits like "sensible," "systematic," "businesslike," "orderly," and "efficient." Cattell expressed these source traits as pairs of contrasting traits such as *relaxed* versus *tense*, *reserved* versus *outgoing*, and *trusting* versus *suspicious*.

Once he was happy with his list of traits, Cattell developed his Sixteen Personality Factor Questionnaire (16PF). The 16PF is a paper-and-pencil test that asks people a series of questions about themselves such as "Do you tend to keep in the background on social occasions?" After taking the 16PF test, a person's

### factor analysis

A statistical technique that extracts "clusters" of related items from a larger list. Clusters of items are assumed to represent some more general underlying factor

### surface traits

Overt expressions of a person's personality like "honesty vs. dishonesty," "wisdom vs. foolishness," etc

### source traits

Basic factors which underlie surface traits. For example: "dominant vs. submissive," and "introverted vs. extraverted"

**trait profile**

A graphic representation of a person's traits

personality is shown in a **trait profile**, —a graph showing the person's score on each trait. Remember that blind date we talked about earlier? If your friend could draw a trait profile of your intended date, you might get some idea what he or she is like.

## Locking It In

1. Cattell used the technique of \_\_\_\_\_ to create the 16PF.
2. The PF in 16PF stands for \_\_\_\_\_.
3. The results of the 16PF are shown in a \_\_\_\_\_.
4. The 16PF is based on (type/trait) theory.
5. Critical Thinking: How is a trait theory superior to a type theory?

Answers: 1) factor analysis, 2) Personality Factors, 3) trait profile, 4) trait

**extraversion**

The tendency to be bold, outgoing, and sociable

**neuroticism**

The tendency to be emotionally unstable

**psychoticism**

The tendency toward crime and serious mental problems

**big five**

The five basic personality traits developed by McCrae & Costa: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism

### Hans Eysenck—Extraverts, Neurotics, and Psychotics

*Q: Can the number of traits be “boiled down” any further?*

During World War II, **Hans Eysenck** (1947) used a variety of procedures to classify over 10,000 people, some with emotional problems. He became convinced that the only stable and reliable characteristics that could be identified fell along two dimensions: introversion-extraversion, and stability-instability. To describe a person, Eysenck (pronounced “EYE-zenk”) suggested that all you needed to do (or could do) was to point out where they fell on these two dimensions. Eysenck's theory is in some ways both a type and a trait theory. His two dimensions are traits that everyone has in different amounts. At the same time, though, his theory divides people into four types: stable introverts, unstable introverts, stable extraverts, and unstable extraverts. Later, Eysenck (1970) modified his theory to include three dimensions of personality. The three dimensions were *extraversion*, *neuroticism* (instability), and *psychoticism*. **Extraversion** is the extent to which a person is outgoing, and sociable. **Neuroticism** (pronounced “new-ROT-iss-izzem”) is the extent to which a person is anxious, obsessive, hostile, and depressed. **Psychoticism** (pronounced “sigh-KOT-iss-izzem”) is the extent to which a person is disposed to crime and mental illness and lacks empathy (Eysenck & Eysenck, 1985; Eysenck & Long, 1986).

### The “Big Five”

*Q: Did Eysenck reduce the list of possible traits too far?*

Many researchers think that Eysenck went a bit too far in boiling down the basic traits to just three. They do agree, though, that extraversion and neuroticism are useful personality terms. On the basis of a great deal of personality research, some modern theorists argue that there are five personality traits that are found reliably in all people. These personality factors have come to be known as the **Big Five** and the theory is known as the *Five-Factor Theory of Personality*. The five factors are *openness to experience*, *conscientiousness*, *extraversion*, *agreeableness*, and *neuroticism*. A good way to remember the Big Five is to remember that the first letters of the five factors spell the word “OCEAN.” See Table 12.1 for a description of Big Five. These five traits were identified primarily by analyzing the results of the many existing factor-analytic studies of personality (Goldberg, 1990; McCrae & Costa, 1986; Zuckerman, Kuhlman, & Camac, 1988). Further studies supported the validity of the Big Five across a variety of personality tests and observers (McCrae & Costa, 1987).

A number of cross-cultural studies have tried to test the effectiveness of the Big Five outside of western culture. Costa and McCrae (1992) found that the

### THE “BIG FIVE” PERSONALITY FACTORS

- **Openness To Experience**—People who are open to experience are creative, curious, broad-minded, and imaginative.
- **Conscientiousness**—This factor is determined by how reliable a person is. Conscientious people are responsible, hard-working, and well-organized
- **Extraversion**—This dimension determines whether the person is outgoing, adventurous, sociable, and talkative.
- **Agreeableness**—Agreeable people are easy to get along with. Nothing much bothers them and they are good-natured, warm, sympathetic, and cooperative.
- **Neuroticism**—People rated highly on this dimension are likely to be emotionally unstable, moody, irritable, nervous, and they often experience negative emotions.

(Adapted from McCrae & Costa, 1987)

TABLE 12.1

THE “BIG FIVE” PERSONALITY FACTORS

Big Five were useful in a variety of languages and cultures. In Botswana, Maq-sud (1992) found that Botswanans scored much lower on both extraversion and neuroticism than the people of England or America but that those traits were still useful in Botswana. Other researchers report that the same five factors can be found in a wide variety of cultures including those of Canada, Germany, Finland, Poland, Japan, and the Philippines (Digman, 1990; Paunonen et al., 1992).

The progress from the type theory of the ancient Greeks to modern trait theories like the Five-Factor Theory show how a scientific approach to a psychological problem can lead us toward theories that are more accurate and more useful. It's unusual for scientists to come up with a solid theory right from the start. More often, a series of theories develop over time. If we are careful to test all the theories scientifically, each one will be better than the ones that came before it. It is possible, and perhaps likely, that the Five-Factor Theory of personality will be replaced by even better theories. Some researchers (Ormerod, McKenzie, & Woods, 1995) argue that personality can be expressed in five factors but suggest a slightly different set than the traditional Big Five. Eysenck (1992) answers his critics and argues that three factors are enough. Still, we can see that the Five-Factor theory of personality is the result of many years of scientific work on the problem of personality. Let's return for a moment to your blind date. Imagine that your friend gives you a quick rundown of your prospective date by rating them on a scale of 1 to 10 for each of the Big Five personality factors. The research suggests that this might actually tell you a lot about what he or she is like.

1. The opposite of extraversion is \_\_\_\_\_.
2. Eysenck's three factors were extraversion, neuroticism, and \_\_\_\_\_.
3. Pessimism is one of the Big Five personality traits (T/F).
4. People who are emotionally unstable, moody, irritable, nervous are said to be high in \_\_\_\_\_.
5. Critical Thinking: What everyday behaviors would you expect from a person who scores high in neuroticism?

Answers: 1) introversion, 2) psychoticism, 3) F, 4) neuroticism

Locking  
It In

## Evaluating the Trait Approach

One of the biggest hurdles for personality theories is to actually predict behavior in specific situations. This is the final scientific test we use to see if a personality theory really gives us a useful description of a person. We can easily predict that people who make a living by selling cars will score high on extraversion. Let's say, however, that someone finds a wallet on the street with some money in it. Will he or she return the money? Would you feel confident in predicting what a person would do based on a score on a personality test? For the most part, we have not had good luck in predicting everyday behavior on the basis of personality tests. Psychologists have argued for many years about the extent to which personality traits can change as a person grows and develops. They have also argued about whether a person might behave very differently in different situations. Walter Mischel's early work (Mischel, 1968) suggested that behavior was not consistent across situations. You might find a person who would cheat on their taxes but never lie to a friend. This same person might keep extra change accidentally given to them in the store but return money found in a wallet on the street. This raises the question: do traits exist at all? If everyone's behavior is determined by the situation he or she is in, what is the point of trying to measure traits?



Do you think that this person was ever shy and withdrawn?

*Q: So, do traits really exist?*

## Proving That Traits Exist

More recent research has confirmed the existence and stability of personality traits. Research evidence shows that people *do* have traits that strongly influence behavior across situations (Allen, 2003; Carson, 1989; McAdams, 1992). In addition, longitudinal studies that measure the same people over a number of years have also found evidence that aging, by itself, has little effect on personality traits (Costa & McCrae, 1988; McCrae & Costa, 1990). There is no question that the situation a person is in plays a big role in how he or she behaves. We also know, though, that there is now good scientific evidence that how the person acts will depend on the strength of various traits. One trait that seems to be particularly stable over the years is introversion vs. extraversion. It is very unusual for an outgoing, uninhibited person to become shy and withdrawn.

Going  
Beyond  
the Data

## The Evolution of Traits

Although there is little specific scientific research on why we have traits at all, we can make some educated guesses. This kind of speculation is also an important part of the scientific process. It can suggest new experiments that might tell us more about a topic. It is important, however, to remember that although our speculations may appeal to common sense, we must wait for scientific evidence that supports them before taking them too seriously.

Marvin Minsky, in his book *The Society of Mind* (1986), presents several reasons why stable personality

traits would have survival value for humans. First of all, humans are social animals. Humans very seldom exist in isolation. They live in groups whenever possible. In order to work together successfully as a group, people need to be able to predict how other individuals will act in everyday situations. Imagine having a culture in which you never knew how people would react when you said hello. One day they might say hello back, another day they might hit you with a stick, another day they might commit suicide. Life would be difficult and cooperation would be impossible. Stable traits make



people more predictable. As a result, it's likely that people with stable traits will live together more successfully.

Another good reason for having stable traits is that we often need to predict our *own* behavior. You can be a lot more successful in life if you know ahead of time how you're going to react in an upcoming situation. That way you can plan what you will do. You can also avoid situations where your reaction will put you in danger. Sometimes our reactions surprise us but often we behave just as we expect to. In order to know how we will act, we need to be consistent in our responses. That is, we need to have stable traits.

A final reason for being relatively consistent in expressing our traits is that it allows us to be more efficient. Having rules that govern our behavior in everyday situations allows us to focus our attention on

more important matters. When a coworker says hello, rather than waste brainpower deciding what to do, we tend to have a set of stock responses to give. We also have sets of rules that we tend to follow. For example, if someone says hello to me, I will say hello back. These standard responses and rules free up our minds for more important work. The collection of standard responses we have to a wide variety of situations and the rules we follow help make our behavior consistent and predictable. They help make up the collection of behaviors we call traits.

So, Minsky suggests, perhaps we have stable traits because in the past, humans who had traits that were stable and predictable were more successful. That is, they were more likely to survive long enough to reproduce and become our ancestors.

## CAN PERSONALITY CHARACTERISTICS BE INHERITED?

As we saw earlier, some personality traits remain relatively stable over the years. These traits don't change much regardless of the person's experiences. That raises the question of whether those traits might be inherited. As we saw earlier in the text, western psychologists of this century have tended to be somewhat biased against the idea that personal characteristics were inherited. As more and more scientific evidence is discovered, however, we are starting to turn away from our traditional view that personality is the result of learning alone. Although the words "personality" and "temperament" are often used to mean the same thing in everyday speech, psychologists use the terms differently. We use the word "personality" to refer to all the personal characteristics of the person. "Temperament," on the other hand, refers to a person's *inherited* personality characteristics. Biological and hereditary influences determine a person's temperament. When we say that a person was "born stubborn," we're talking about his or her **temperament**.

### temperament

A person's innate style of reacting to the environment

### Thomas, Chess, and Birch—The Temperament of Babies

*Q: How early in life does temperament appear?*

In a famous study done in 1970, Alexander Thomas and his associates, (Thomas, Chess, and Birch) looked at the temperaments of very young babies. They found that many babies' temperaments appear soon after they are born. The researchers attempted to classify babies according to their temperaments. Although they found many of the babies unclassifiable, they found some infants to be cranky and "difficult." Other babies were more relaxed and "easy." These easy babies seldom cried or fussed. The difficult and easy babies differed in the amount of smiling they did, their attention span, their activity level, the amount of time they spent crying, and a number of other variables. Thomas, Chess, and Birch found that these differences tend to be relatively permanent. Babies who were cranky early in life tended to turn into cranky adults (Torgerson, 1987). The idea that temperament is inherited is supported by the early appearance of temperament and the fact that temperament doesn't seem to be affected much by the child's environment.

## Cross-cultural Variations in Temperament

Some researchers believe that there might be ethnically based differences in temperament. Chinese-American babies, for example, seem to be more easily calmed than African- and European-American babies. If you place a cloth against the nose of a newborn baby, most black and Caucasian babies will respond with a “defense reaction.” They turn their heads and may try to hit the cloth with their hands. Chinese babies, on the other hand, are much more likely to accept the cloth without a fight (Freedman, 1979). It is hard to be sure that this behavior is inherited, however. This is because parents in different cultures begin treating their children differently almost immediately after birth (Rogoff & Morelli, 1989). That means that any differences found could be due to learning. These kinds of studies suggest some characteristics can be inherited. As scientists, though, we must be skeptical until we have more evidence.

## The Minnesota Twins

Another way of looking at the inheritance of personality characteristics is to compare the personalities of identical twins. Identical (**monozygotic**) twins are genetically identical since they result from the splitting of a single egg into two identical eggs. Fraternal (**dizygotic**) twins, on the other hand, result from the fertilization of two separate eggs and are genetically as similar as two **siblings**. Most twins share a very similar environment as well as their genetic background. How can we tell which similarities are inherited and which are due to their similar environments? The answer is to look for twins, especially identical twins, raised apart. If there are similarities between identical twins raised apart, it is likely that they are due to heredity and are not learned.

Thomas Bouchard and other researchers at the Minnesota Center for Twin and Adoption Research at the University of Minnesota (Bouchard et al., 1990; Bouchard, 1999) are studying the similarities and differences between identical twins raised apart. Identical twins raised apart are genetically identical but are raised in very different environments. If identical twins raised apart show similarities, it is likely that the similarities are due to heredity rather than environmental influences. Bouchard and his associates have turned up some amazing coincidences. One pair of identical twins, Oskar and Jack, were raised in different countries: Germany and Trinidad. Oskar was raised in the Catholic faith by his grandmother and became part of Hitler’s youth movement. He learned to hate Jews and serve the Führer. Jack was raised in the Jewish faith by his father. Oskar and Jack had never seen each other before they were united as part of the Minnesota Twin project. As adults, both Oskar and Jack have quick tempers, always flush the toilet before using it, and enjoy surprising people by faking sneezes in elevators. They both like spicy foods and sweet liqueurs and dip buttered toast in their coffee. They both store rubber bands around their wrists and read magazines from back to front. They are similar in many other ways as well. How many of these similarities are due to heredity, how many to coincidence, and how many to their very early environment together? It’s hard to know for sure but the subjects in the Minnesota twin studies certainly share a large number of common behaviors. Some psychologists have argued that these common behaviors may just be coincidences. If we examine any two strangers closely enough we will certainly find many things that they have in common (Wyatt et al., 1984). However, David Lykken and his colleagues (1992) point out that a large number of the coincidences found in the identical twins did *not* occur in the fraternal twins in the Minnesota twin study. Evidence like this is leading more and more psychologists to accept the idea that at least some of our personality characteristics may be inherited.

Further research on the Minnesota Twins by Auke Tellegen and his co-workers (1988) compared the influence of heredity and environment on the

### monozygotic twins

Identical twins resulting from a single fertilized egg

### dizygotic twins

Fraternal twins resulting from the fertilization of two separate eggs

### siblings

Children sharing one or both parents; brothers and sisters

personality characteristics of the twins. Identical and fraternal twins completed the same personality questionnaires. Some of the twins were raised together and others were raised apart. The questionnaires measured *positive emotionality* (happiness and pleasure), *negative emotionality* (anger and anxiety), and *constraint* (people high in constraint are restrained and conventional and tend to avoid excitement). The researchers then used a statistical technique to determine how great a role genetics, the shared family environment, and experiences outside the family played in determining the twins' scores on the three factors.

The research did show that environmental factors could influence personality. However, the genetic influences appeared to be much stronger. Tellegen concluded that, "the common environment generally plays a very modest role in the determination of many personality traits" (Tellegen et al., 1988, p. 1037). The statistical analysis showed the shared family environment to be a relatively weak factor in determining emotionality (especially negative emotionality) and constraint. These results suggest that your parents' behavior has relatively little to do with your emotional responses and whether you are restrained and cautious. If this is true, we would expect that adopted children would show little resemblance to their adoptive parents on these traits and perhaps others as well. Numerous studies seem to be confirming this evidence that heredity plays a significant role in personality (Loehlin, Horn, & Willerman, 1987; McCrae et al., 2000; Neubauer & Neubauer, 1990; Singer & Berg, 1991).

1. \_\_\_\_\_ twins are genetically identical.
2. \_\_\_\_\_ twins are NOT genetically identical.
3. Tellegen found that the shared family environment was the only important factor in determining the personality traits of emotionality and constraint (T/F).
4. Critical Thinking: Why do we use twins to study heredity?

Answers: 1) Monozygotic/Identical, 2) Dizygotic/Fraternal, 3) F

## Locking It In

*Q: What is it that people inherit that makes them behave differently?*

Jerome Kagan and his colleagues (Kagan, Reznick, & Snidman, 1988) have studied how children's temperaments can vary as a result of variations in the responses of their sympathetic nervous systems. We know that children differ in temperament. Could these differences be the result of physiological factors?

# Science of Psychology Journal

## The Physiology of Shyness

### Background

In 1986, Adamec and Stark-Adamec found that about 15% of kittens were "shy." When faced with a novel stimulus such as a rat, they tended to avoid it. These same animals were also timid as adults. The researchers also found that there were differences in the electrical activity in the cats' brains. When the shy cats faced the unfamiliar stimulus, their amygdalae became more active. The amygdala is a brain center for defensive responses.

### The Experiment

Jerome Kagan and his associates wondered if the same thing would be true of humans. Their subjects were twenty-one-month-old and thirty-one-month-old children. They divided the children according to their reaction to unfamiliar people and objects. Some of the children showed signs of what the researchers called

*(continued)*

“inhibition.” They stayed close to their mothers, remained silent, and did not approach the unfamiliar stimulus. Children who were not inhibited were much bolder and more willing to leave their mother and explore their environments. As the children encountered the unfamiliar stimulus, the researchers measured their heart rates and pupil dilation. Both are signs of physiological arousal. A short time later, they also took samples of the children’s saliva and urine to check the levels of two stress hormones, cortisol, and norepinephrine. The production of both of these hormones is controlled by the amygdala.

### Results

The researchers compared the reactions of the inhibited (shy) children, and uninhibited (non-shy) children. The inhibited children showed significantly more physiological arousal when faced with the unfamiliar person or situation. Their heart rates went up. Their pupils became dilated. They showed increased levels of cortisol in their saliva. They also had higher levels of norepinephrine in their urine.

### Discussion

The researchers did not measure brain activity directly. This means that we can’t be completely sure about what their results mean. Still, it seems likely that there are some physiological differences between shy and non-shy children. This seems to be true in a number of species. Suomi (1987), for example, found that the same higher levels of physiological activity are found in shy, inhibited infant monkeys. This may explain why shyness in children is very hard to change. In the animal research, the shy kittens turned out to be shy cats when they grew up (Adamec & Stark-Adamec, 1986). This seems to be true of humans as well. Shy children tend to stay that way. Kagan and his associates looked at the children several times more. They found that children who were shy at the age of twenty-one or thirty-one months were still shy at the age of seven-and-a-half years (Kagan & Snidman, 1991). Perhaps nervous system differences are inherited and are the cause of some of the striking similarities seen between the Minnesota Twins. It’s hard to imagine, though, that there is a gene for surprising people by sneezing in elevators.

## Marvin Zuckerman—More Research on the Biology of Temperament

If you have paid much attention to the dogs and cats you have met in your life, you have probably noticed that some pets are very sensitive to punishment. A stern look is enough to make them cringe. With other pets, punishment seems to have almost no effect. Pets also vary in how much stimulation they are comfortable with. Some will avoid loud, stimulating situations. Others seem to prefer them. People also differ in their sensitivity to reinforcement, punishment, and arousal.

Marvin Zuckerman in his 1991 book *Psychobiology of Personality* suggests that specific responses in the brain play an important role in personality. According to Zuckerman, the personality factors extraversion, neuroticism, and psychoticism are determined by the brain’s response to reward, punishment, and arousal. As you remember, extraverts are outgoing and very social. Zuckerman suggests that this is because of their high sensitivity to reinforcement. Adult extraverts tend to show more reinforcement-seeking behaviors. They are also more optimistic; they tend to believe that their actions will be rewarded. People who score high in neuroticism, on the other hand, are very different. They tend to be fearful and anxious. Zuckerman believes that this is because of their high sensitivity to punishment. Like the pets who cringe at a stern look, these people are very sensitive to any punishing stimulus. They work very hard to avoid any situation in which they might be punished. Notice that this idea fits very well with the research by Kagan and his associates on shyness. People who score high in psychoticism are often impulsive and irresponsible. They also tend to be comfortable with (and sometimes crave) high levels of arousal. As stated in Chapter 10, some psychologists think that people vary in how much arousal they are comfortable with. According to this theory, all of us have a range called our “optimum level of arousal.” If our level of arousal falls below this range, we try to find something that will arouse us. If it gets above this range, we try to get

PERSONALITY DIMENSION	BIOLOGICAL CHARACTERISTIC
Extraversion	High sensitivity to reinforcement
Neuroticism	High sensitivity to punishment
Psychoticism	Low sensitivity to punishment; high optimal level of arousal

(Adapted from Zuckerman, 1991)

TABLE 12.2

ZUCKERMAN'S THEORY OF BIOLOGICAL CAUSES FOR PERSONALITY DIMENSIONS

away from whatever is arousing us. Zuckerman feels that psychoticism is caused by low sensitivity to punishment combined with a high optimal level of arousal. See Table 12.2 for a summary of Zuckerman's ideas.

1. Kagan found that some children were shy. He called these children \_\_\_\_\_.
2. The research of Thomas, Chess, and Birch; Kagan; and Zuckerman suggests that some personality traits may be \_\_\_\_\_.
3. Zuckerman believes that neuroticism may be caused by a (high/low) \_\_\_\_\_ sensitivity to punishment.
4. Zuckerman believes that extraversion may be caused by a (high/low) \_\_\_\_\_ sensitivity to reinforcement.
5. Critical Thinking: How could shyness have helped our ancestors survive and reproduce?

Answers: 1) inhibited, 2) inherited, 3) high, 4) high

## Locking It In

## Applications

### OVERCOMING SHYNESS

Phillip Zimbardo, in his 1977 book, *Shyness*, reports on giving the Stanford Shyness Survey to nearly 5000 people. More than 80 percent of the people who took the survey reported that they had been shy at some time in their lives. About 40 percent reported that they were shy at the time they took the survey. For some Asian cultures, as many as 60 percent reported that they were currently shy. Does psychological research offer any help to people who are shy? Psychologist can't offer a "cure" for shyness, but the research on shyness does provide some helpful ideas. Shyness, according to researchers, is really a combination of at least three separate problems: *social anxiety*, *self-defeating beliefs*, and *lack of social skills*.

#### SOCIAL ANXIETY

The fear that overcomes shy people in social settings is called social anxiety. This is especially true in settings

that are new to them. A shy person may be somewhat relaxed with his or her friends but will be frozen with fear among strangers. The worst situations for shy people usually involve formal settings, meeting someone of higher status, being noticeably different from others (being the only one wearing a costume), or being the focus of attention (falling down in public or giving a speech) (Buss, 1980; Pilkonis, 1977). Everyone is uncomfortable in some of these situations but the key difference is how shy people react to their fear. Shy people tend to blame themselves for their anxiety. They see their anxiety as a personality characteristic rather than as a normal response to an uncomfortable situation (Zimbardo, Pilkonis, & Norwood, 1978). Non-shy people tend to think that anyone would be anxious in a similar situation. It is common to think that shy

(continued)

people are wrapped up in their own thoughts and emotions. Surprisingly, just the opposite seems to be the case. According to researchers Jonathan Cheek and Arnold Buss (1979), shy people are concentrating on what *other* people think of them. Cheek and Buss call this focus on being observed and judged by others “public self-consciousness.”

What can you do about social anxiety? Research on cognitive behavior therapy (see Chapter 16) suggests that people *can* change their thinking patterns. It may help shy people to recognize their own social anxiety and try to change the way they perceive scary social situations. Try to remember that many people are uncomfortable when they are the center of attention although they don't always show it. Most of my fellow college professors have been teaching for many years. Almost all of them admit that, like me, they are always nervous at the first meeting of a class. None of our students are aware of our anxiety and the shy students are probably saying to themselves, “I could never do that; I'd be really nervous.” Being nervous doesn't mean that there is something wrong with you. Remember also that people aren't necessarily judging you or thinking that you are a fool just because you are uncomfortable, especially if you are in an uncomfortable situation.

### SELF-DEFEATING BELIEFS

According to Michel Girodo, the author of a book on overcoming shyness (1978), shy people often have unrealistic, self-defeating beliefs that cause them trouble in social settings. They may believe that being successful in social encounters is “just a matter of luck.” They may tell themselves that there's no sense in trying to meet new people because it never works. Sometimes they assume that if someone doesn't appear to like them right away that they never will. The truly shy sometime conclude that if someone doesn't like them right away, it is because they are unlikable and no one will ever like them. It's no surprise that this kind of thinking leads people to avoid social situations. If you are painfully shy, think critically about the thoughts you have in social situations. Are these thoughts realistic? Does it really make sense that no one will ever like you? Is it likely that just because a person doesn't seem to like you right away, they can never like you? If you can identify the unrealistic things you say to yourself, you may be able to replace them with more sensible and helpful ideas. You might practice saying, for example, “If I keep trying, I'm bound to meet someone who will find me interesting.” Of course, this will be more likely if you also learn some useful social skills.

### LACK OF SOCIAL SKILLS

Social skills are behaviors that help you relate successfully to others. Many people don't think of these behaviors as skills but rather as a permanent part of their personality. They *are* skills though and, like the skills involved in playing tennis or golf, they can be learned. One very useful social skill is the ability to start a conversation with someone you don't know. Chris Kleinke (1986) studied the various ways that people begin conversations with strangers. Kleinke classified opening lines as direct, innocuous, or cute-flippant. Direct opening lines are honest and straightforward such as, “Meeting people makes me nervous but I'd like to get to know you better.” Innocuous lines are innocent and harmless such as, “Hi,” or, “Isn't it a beautiful day?” Cute-flippant lines are clever openings like, “If I was in charge of the alphabet, I'd put U and I together.” Kleinke asked 1000 men and women to rate a variety of opening lines. They preferred direct or innocuous opening lines to cute-flippant ones by a wide margin. This was especially true of women. In order to meet someone new, you don't need to come up with a clever line. A truthful opening line such as, “I'm usually kind of uncomfortable at parties,” will increase your chances of having a successful conversation.

### CONVERSATION SKILLS

Another useful social skill that can help people overcome shyness is the ability to carry on a conversation. Conversations with strangers usually center on questions. Most people like to talk about themselves and appreciate someone who is interested in their life. Shy people often avoid conversations because they're afraid they won't know what to say. Learning to be an effective questioner can help solve this problem. A common mistake people often make in meeting new people is to ask questions that have a single answer such as, “Do you come here often.” These are called closed-ended questions. Many closed-ended questions can be answered with a simple yes or no. Open-ended questions are much more likely to keep the conversation going (Girodo, 1978). Open-ended questions can't be answered with a simple yes or no. They require a more detailed answer so they encourage the person to keep talking. Better yet, when people answer open-ended questions, they often give information about themselves that can lead you to other questions. Imagine yourself asking someone, “Do you come here often?” They reply “No” and the conversation is at a dead stop. If you are shy, you'll imagine that the person thinks you are an idiot. You may turn away with a red face and think about what a fool you were for trying to talk to a

stranger. Instead, imagine asking an open-ended question like “What kind of music do you like?” or “Where do you like to go on vacation?” Often, the person’s answer will give you plenty to talk about and more questions to ask.

#### PRACTICE MAKES PERFECT

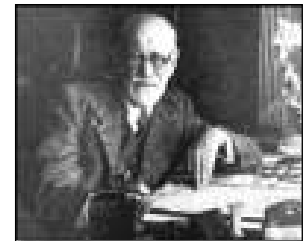
If you are shy, remember that reading these suggestions won’t make you outgoing. Remember too that

you won’t develop these skills overnight. Don’t be discouraged if your first tries are unsuccessful and embarrassing. Skills take time to develop and almost everyone is embarrassed in social situations from time to time. It doesn’t mean that there is something wrong with you, just that you need more practice. It may be uncomfortable at first, but developing these skills can mean less anxiety and a richer life for you in the future.

## PSYCHODYNAMIC THEORIES OF PERSONALITY

*Q: How did Freud approach personality theory?*

**Sigmund Freud’s** theory of personality is extremely complex. It also changed many times as Freud continued to modify and expand it. We can only scratch the surface of Freud’s theories in an introductory text so remember that the information given here is oversimplified and incomplete. Freud believed that the most important parts of our personality were formed in early childhood and were largely in the unconscious. Freud suggested that, “the child is father to the man.” What he meant was that the things that shape our personalities in early childhood make us who we are as adults. He believed that our adult personalities spring from our childhood experiences. We’ll look at two major parts of Freud’s personality theory. His theory of the mind describes the opposing forces acting on our personality from within to determine our behavior. His developmental theory sets out the stages we go through in the development of our final personality. Remember that these aren’t really two separate theories but rather two parts of how Freud viewed human beings. We’ve separated them here to make things easier to present and understand but they are both part of Freud’s overall view of human nature.



Sigmund Freud  
(1856–1939)

### Freud’s Theory of the Mind

The steam engine was the peak of technology in Freud’s early years. Freud’s ideas about the mind took some inspiration from steam engine design. Freud thought that our behavior was the result of a series of opposing forces. Pressures build up, shift from one part of the mind to another, and are released or “expressed.” These forces eventually cause us to act in the same way that the pressure in a steam engine causes the pistons to move. When we talk about an angry person “letting off steam,” “venting their anger,” or “blowing up,” we are paying tribute to Freud’s theory of the mind.

Freud believed that the mind was divided into three distinct parts called the *id*, *ego*, and *superego* and that our behavior (and our thinking) was the result of the interaction between these three forces (Freud, 1961). Freud believed that the forces in our unconscious mind were responsible much of our behavior. He thought that parts of our personalities operated below the level of consciousness so we could never be aware of them directly. Suppose that a good friend insults you in a joking way. You believe (consciously) that the joke hasn’t made you angry but your unconscious mind takes a different view. A little while later, you “accidentally” drop your psychology book on your friend’s foot. Freud would say that this was no accident. He would say that your unconscious mind caused you to injure your friend. According to Freud, the mind had three levels of consciousness, the *conscious*, the *preconscious*, and

**conscious**

The part of the mind that we are aware of

**unconscious**

The part of the mind that we can never be directly aware of

**preconscious**

The part of the mind that we are not aware of at the moment but can call up to conscious awareness

**id**

The part of the personality that represents our primitive biological drives

**libido**

The psychic and emotional energy in the unconscious mind

**Eros**

Freud's term for the life instinct, the instinct to survive and reproduce

**Thanatos**

Freud's term for the death instinct, the instinct that drives us toward death and self-destruction

**pleasure principle**

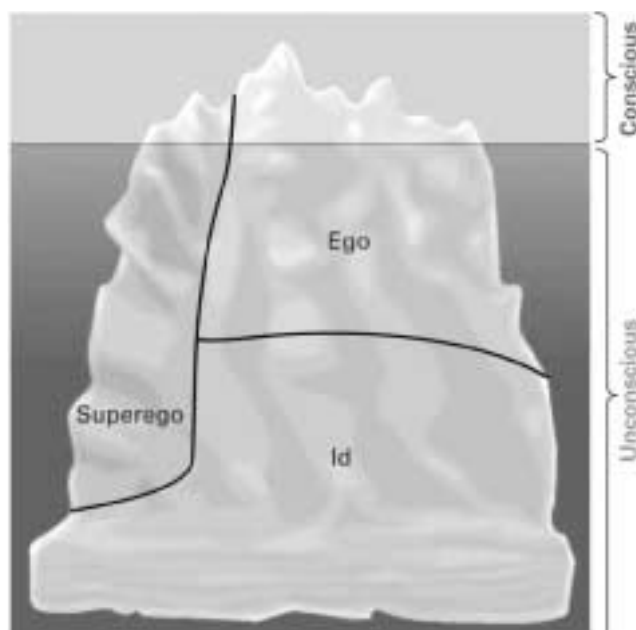
The principle governing the id, which wants immediate pleasure, often in the form of sex or aggression

the *unconscious*. The **conscious** part of the mind contains everything we are aware of at the moment. The conscious includes memories, thoughts, perceptions, and feelings but only those that you are aware of right now. When you are not aware of these things, they are in the **preconscious** part of the mind. Ideas, feelings, etc., that are in the preconscious can be called up at any time into the conscious mind. If you are not thinking of your phone number right now, it is in your preconscious mind. If I ask you to write it down, you can call it up to the conscious mind. The **unconscious**, according to Freud, contains repressed memories and emotions. It also contains the instinctual drives of the id. The contents of the unconscious can't be observed by the conscious mind. Freud believed that the contents of the unconscious were almost impossible for the individual to be aware of directly. Figure 12.1 shows how the id, ego, and superego are organized in the conscious, preconscious, and unconscious mind.

**The Id—I Want It NOW** For Freud, the **id** was the source of all our psychic energy and inherited instincts. It contains the **libido** (pronounced “lih-BEE-doh”). The libido represents all our sexual and survival instincts. It also contains the death, or aggressive instinct. Freud's early theories refer only to the life instinct. He added the death instinct later to explain war, suicide, and other destructive acts. Freud called the life instinct **Eros** (pronounced “ERR-oss”) and the death instinct **Thanatos** (pronounced “THANN-uh-tose”). In Freud's theory, the id was completely contained within the unconscious. That means that it is impossible for us to be aware directly of what is going on in our id. We can, however, often make guesses based on our dreams, actions, and slips of the tongue. Freud believed that the id was present before birth. The id, according to Freud, is irrational and is governed by the **pleasure principle**. The id wants pleasure, wants it right now, and doesn't care what the consequences are. If the id were a hungry person, you could dangle a candy bar over the edge of a high cliff and the id might step off and attempt to eat the candy bar on the way down.

**FIGURE 12.1****THE ID, EGO, AND SUPEREGO**

According to Freud, we can be aware of parts of the ego and superego but the id is completely contained in the unconscious part of the mind





**The Ego—Keeping Things Under Control** In Freud's view, the **ego's** main job was to mediate between the id and the superego. It is the second system to appear in childhood and is governed by the **reality principle**. Freud thought that the ego represented "reason and good sense" (Freud, 1964, p.73). He described the ego's job in controlling the id as being like that of "a man on horseback, who has to hold in check the superior strength of the horse" (Freud, 1961). As you can see in Figure 12.1, the ego is spread over the conscious, the unconscious, and the preconscious. Sometimes the control of the id by the ego is accomplished through trickery using the defense mechanisms described in Chapter 11. These defense mechanisms help keep away our fear that the id will get its way and overwhelm the ego. Suppose, for example, that a person is really angry with his or her boss and the id wants to attack the boss physically. It's easy to imagine the ego's fear that the id might break free and do something awful. To protect against this, the ego might employ the defense mechanism of displacement and cause the id's anger to be displaced onto someone or something else. The ego might have the person go to the driving range to hit golf balls, or to the gym to put some time in on the heavy bag. This might satisfy the id's need to be violent without causing any serious trouble. Notice the hydraulic nature of Freud's model here. The anger is like steam building up in a steam engine. There must be an outlet for this pressure, otherwise it will continue to build and eventually cause some kind of "explosion."

**ego**

The second part of the personality to develop. The ego's main function is to control the id and the superego

**reality principle**

The principle governing the ego, which tries to satisfy the id while considering the consequences in the real world

### The Superego—Do This, Don't Do That

For Freud, the **superego** was a little version of your parents that you had swallowed (Perls, Hefferline, & Goodman, 1951). It spends its time telling you what to do and what not to do. As Figure 12.1 shows, the superego, like the ego, is spread over the conscious, the preconscious, and the unconscious. Freud believed that the superego, the last of the three parts of the personality to develop, served as the voice of morality, and the rules of society. The superego contains the **ego ideal**, the list of things you should do, and the *conscience*, the list of things you shouldn't do. The *ego ideal* is the source of pride and satisfaction. The **conscience** is the source of guilt and shame.

Freud believed that in a healthy person the id, ego, and superego were in balance. If the id grows too strong, for example, the person will be overly impulsive and irresponsible and may end up as a criminal. If the superego grows too strong, on the other hand, the person will be rigid, moralistic, and often nervous and guilty as well. If the ego is weak or the id is particularly strong, the person will experience great anxiety and the ego will have to use the defense mechanisms to keep the id under control.

**superego**

The third part of the personality to develop. The Superego contains the conscience and the ego-ideal to set standards for behavior

**ego ideal**

The part of the superego that sets positive standards for behavior and makes us feel pride

**conscience**

The part of the superego that defines forbidden behaviors and makes us feel guilt

1. According to Freud, our conscience is found in the \_\_\_\_\_.
2. For Freud, our animal instincts and drives come from the \_\_\_\_\_.
3. Freud thought the rational part of our personality was the \_\_\_\_\_.
4. If we misbehave, according to Freud, the conscience makes us feel \_\_\_\_\_.
5. Critical Thinking: What would a person with an overdeveloped conscience be like?

Answers: 1) superego, 2) id, 3) ego, 4) guilt

**Locking  
It In**

**psychosexual development**

Freud's theory of development based on the focus of sexual gratification at different ages



Freud suggested that this child might become “fixated” in the anal stage

## Freud’s Psychosexual Stages

*Q: How did Freud think our personalities developed?*

Freud’s developmental theory lists five stages of **psychosexual development** that all children go through during the development of their personalities. He used the term “psychosexual” because he believed that the sexual energy of the libido was released in different ways as the child matured. Freud believed that the energy of the libido was focused on different parts of the body at different times during development. For each stage, Freud believed that there was a typical personality. He also thought that each stage had a crucial issue or crisis that your parents needed to handle properly. The crisis in each stage was caused by the conflict between your biological needs and the pressures of society. If your parents were either too strict or too lenient in dealing with you, you could become *fixated* in that stage. If that happened, you would have (and keep) some of the personality traits that went with that stage. Freud believed that adults who were fixated in a particular stage were still trying to receive the pleasures associated with that stage.

Let’s consider the oral stage as an example. During the oral stage, the crucial issue is weaning. Biologically, you have a need for food and want the bottle or breast to be there whenever you are hungry. Society, however, needs you to learn to drink from a glass and sometimes wait to be fed. If your parents start weaning you too early and are very forceful or punishing during your weaning, Freud believed that you would be fixated in the oral stage. If, on the other hand, your parents are too easy on you and allow you to continue to get food from the bottle or breast long after you could have been weaned, you will also be fixated in the oral stage.

Here is a list of Freud’s five psychosexual stages and a brief description of some of the characteristics of each one.

- **The Oral Stage** (birth to 12 to 18 months)—During the first year of life, babies get food and information mainly through their mouth. Because of this, Freud believed that the mouth was the focus of sensation at this stage. The conflict in this period is weaning: Being taken off the bottle or breast and put on solid food. Adults fixated in the oral stage will be very “oral” and may bite their fingernails, smoke, or chew gum. They may also eat or drink too much. If the parents are too lenient about weaning, the child will grow up to be dependent and gullible (they’ll “swallow” anything). If, on the other hand, the parents are too strict, the child will grow up to be pessimistic and suspicious.
- **The Anal Stage** (12 to 18 months to three years)—This stage corresponds to what parents sometimes call “the terrible twos.” Freud believed that during this stage, children get pleasure from expelling and withholding their feces. If the parents are too harsh with their toilet training practices, an *anal retentive* personality will be the result. Adults with this personality tend to be rigid, stubborn, obsessed with orderliness and excessively neat and clean. If on the other hand, the parents are too indulgent during toilet training, the result is an *anal expulsive* personality. Adults with this personality tend to be sloppy and irresponsible.
- **The Phallic or Oedipal Stage** (3 to 5 years)—During this phase, children discover their genitals and masturbation is common. They also become aware of differences between the bodies of males and females and may start playing “doctor.” The conflict in this stage is the result of the child’s sexual interest in the parent of the opposite sex, according to Freud. Freud called this the **Oedipus complex**. He named it af-

**Oedipus complex**

A period of conflict in childhood during which the child is sexually attracted to the parent of the opposite sex and feels hostility toward the same-sex parent

ter Oedipus, a character in the play *Oedipus Rex* by the ancient Greek playwright Sophocles. In the play, Oedipus is raised away from his natural parents. Later, without recognizing them, he kills his father and marries his mother. Freud used this term to refer to the desire of male children during this stage to “marry” their mothers and kill, or at least replace, their fathers. Carl Jung proposed a similar complex for females. Jung called it the *Electra complex*, but the Electra complex was never accepted by Freud (1931). Freud believed that these hostile urges were contained completely in the unconscious. No child is aware of these powerful forces. In addition, because these motives are unconscious, as adults we have no memory of them. For Freud, the normal result of these conflicts is that children become anxious and afraid. They are afraid that their parent of the same sex will punish them. This fear, Freud believed, caused children to repress their attraction for the parent of the opposite sex and to identify with the parent of the same sex. Through this **identification**, the child models his or her behavior after that of the parent of the same sex. Boys imitate their fathers, girls imitate their mothers. According to Freud, this is the birth of the superego.

- **The Latency Period** (5 or 6 years to puberty)—During the latency period, according to Freud, the sex drive is submerged and, for the most part, out of consciousness. Children go to school, make friends, and develop hobbies without much interest in sex. They often make a point of letting everyone know about their lack of interest in the opposite sex.
- **The Genital Stage** (from puberty on)—Freud believed that during the genital stage, the focus of a child’s sexuality finally shifted to the opposite sex. If the child was not fixated in one of the earlier stages, this stage led to the development of normal sexual relations, love, marriage, and the ability to work and lead a normal adult life.



According to Freud, children begin to become interested in the differences between males and females during the phallic period (ages 3–5)

#### identification

A process in which the child adopts the attitudes, beliefs, and moral standards of the parent and makes them his or her own

## Neo-Freudian Theories

*Q: What other theories grew out of Freud’s ideas about personality?*

Even in his own time, Freud’s ideas were the subject of a great deal of discussion and argument. Some personality theorists were completely devoted to Freud’s theories. Others thought his ideas were silly or even dangerous (Drucker, 1979; Sulloway, 1979). The term **neo-Freudian** is used to describe personality theorists who began as followers of Freud but who came to disagree with certain of his principles. Their ideas still owe much to Freud but each contributed his or her own ideas about personality. Neo-Freudians Carl Jung, Karen Horney, and Alfred Adler each made an important contribution to the modern interpretation of Freud’s ideas. The ideas of Erik Erikson, a modern neo-Freudian, are discussed in Chapter 4.

**Carl Jung** According to neo-Freudian **Carl Jung** (pronounced “YOONG”), Freud placed too much importance on the role of the sexual instinct in human motivation (Storr, 1991). Jung also disagreed with Freud’s idea that our personalities were almost completely formed in early childhood. In addition, Jung was disturbed by Freud’s focus on the negative side of human nature. Jung wanted psychology to deal with people’s spiritual needs and aspirations. Jung studied a wide range of fields of knowledge including art, mythology, astrology, history, anthropology, world literature, alchemy, chemistry, archaeology, and physics. He tried to bring all his knowledge to bear on the problem of explaining human personality and behavior. Today, many psychologists think that Jung’s theory is complex, confusing, and unscientific.

#### neo-Freudian

A theorist who accepts the basic principles of Freud’s theories but disagrees with him on specific points



Carl Jung (1875–1961)

**collective unconscious**

Jung's idea that a part of the unconscious is shared by all humans

**archetypes**

Universal ideas and images found in the collective unconscious, according to Jung

In his description of the psyche (the total personality), Jung presented an idea of the unconscious that was different from Freud's. Unlike Freud, Jung believed that there was a part of the unconscious that was shared by all people on earth. Jung called this area the **collective unconscious**. He believed that it contained **archetypes** (pronounced "AR-kih-types"). Archetypes are universal symbols that appear in the myths, art, and dreams of every culture. He argued that images like the Earth Mother and the Evil Beast were seen all over the world. He noted that many religious myths involved a flood, a virgin birth, an important tree, and other archetypes from the collective unconscious. Another possible explanation of the common features in various cultures is, of course, that people traveled and shared art, music, and stories. Today, we know that there was a great deal of trade and travel in the ancient world. This fact was relatively unknown in Jung's time. Jung also contributed to modern type theory by giving us the idea of introversion and extraversion. The Myers-Briggs Type Indicator (MBTI) is based largely on Jung's ideas of personality types.

**Karen Horney** Another neo-Freudian, **Karen Horney** (pronounced "HORN-eye") disagreed with Freud on a number of subjects such as his emphasis on sexual and aggressive motives. She is best known, however, for challenging Freud's ideas about the personalities of women. Freud believed that women's personalities were mainly shaped by their jealousy at not being equipped like men. For Freud, women were governed by "penis envy" and feelings of inferiority. Horney (1967) argued that if anyone is envious, it is men who may feel "womb envy" at not being able to bear and nurse children (Feist & Feist, 2002). Later psychoanalysts like Bruno Bettelheim (1962) argued that both sexes are jealous of the reproductive abilities of the other. Horney also gave us the idea of *basic anxiety*, which develops from being "isolated and helpless in a potentially hostile world" (Horney, 1937, 1945). According to Horney, people react to this fact in one of three ways. They can move *toward* others and seek love, comfort, and support. They can move *away* from others and try to be independent and self-sufficient. They can also move *against* others and become critical, competitive, and domineering. Horney believed that healthy people find a balance of all three approaches. People with emotional problems, she believed, lean too heavily on only one of these approaches and take it to an unhealthy extreme (Allen, 2003). Horney's ideas about how people make themselves unhappy by clinging to irrational beliefs also served as an important foundation for Albert Ellis' Rational-Emotive Therapy (see Chapter 16).

Karen Horney  
(1885–1952)

**Alfred Adler** Neo-Freudian, **Alfred Adler** (Orgler, 1963) stressed the concepts of *compensation* and the *drive for superiority* and their role in shaping personality. Adler, like some of the other neo-Freudians, thought that Freud had made too much of the role of sex and aggression in forming the personality. Adler believed that a more important factor was the helplessness and powerlessness felt by infants because of their physical inferiority to their parents and other adults. This led, he believed, to a drive for superiority. This drive for superiority was an attempt to compensate for the powerlessness we felt as children. Feelings of physical inferiority, according to Adler, could also lead to an inferiority complex. Adler believed that the person's striving for superiority led them to develop a particular *style of life* or lifestyle. A healthy person, Adler thought, tries to achieve superiority by reaching their full potential as a person and developing a constructive lifestyle. An unhealthy person, according to Adler, tries to achieve *personal superiority* by gaining power over others and develops a destructive lifestyle. A healthy person develops a creative self that leads them to make rational and responsible choices. An unhealthy person, on



Alfred Adler (1870–1937)

the other hand, usually is not conscious of his or her motives and is unaware of his or her choices in any given situation.

1. Karen Horney, Alfred Adler, and Carl Jung, are considered \_\_\_\_ Freudians.
2. \_\_\_\_\_ stressed the concept of basic anxiety.
3. \_\_\_\_\_ claimed that there is a collective unconscious.
4. \_\_\_\_\_ gave us the concept of having a “style of life.”
5. Critical Thinking: How are the theories of the neo-Freudians different from those of Freud himself?

Answers: 1) neo-, 2) Karen Horney, 3) Carl Jung, 4) Alfred Adler

## Locking It In

### Evaluation of Psychodynamic Theories

*Q: What are some of the scientific criticisms of Freud's ideas?*

If you were thinking as a scientist as you read the previous section on Freud and the Neo-Freudians, you may have noticed some problems with their ideas. Here are some of the main scientific objections that psychologists have to Freudian theory:

- Many of Freud's theories fail the test of falsifiability. As we saw in Chapter 2, most scientists agree that to be of any use, a scientific theory must be falsifiable. That is, you need to be able to say what would make you give up the theory. Usually, this takes the form of describing an experiment, or group of experiments that would contradict the theory (see Chapter 2 to review the idea of falsifiability.) Unfortunately, Freud's theories tend to be so vague, complex, and contradictory that they make often make no testable predictions. This makes it impossible to prove them wrong (Feist & Feist, 2002).
- Freud's theories have led to comparatively little research. Most popular scientific theories result in a great deal of research. Thousands of studies have been done to test and expand the theories of Pavlov and B.F. Skinner, for example. Over the years, very few scientific studies have focused on Freud's ideas. One measure of the value of a theory is the amount of research it generates (Allen, 2003).
- Sometimes Freud was just plain wrong. Some of Freud's theories that actually could be tested scientifically have been found incorrect (Fisher & Greenberg, 1985). Freud believed, for example, that anger was a pressure that was stored. If it was not released, an “explosion” might result. Some researchers (Averill, 1982; Tavris, 1989) have found that expressing anger often prolongs it rather than getting rid of it as Freud suggested.
- Freud overgeneralized from a small number of unusual patients. Freud assumed that his patients were representative of the entire human race. Many psychologists feel that his willingness to generalize from a handful of disturbed patients to all of humankind was extremely unscientific (Feist & Feist, 2002).
- Freud relied on the memories of his patients and sometimes pressured them into confirming his theories (Esterson, 2001). Freud at first assumed that his patients were all telling the absolute truth about their early lives. Later he believed that they might be misremembering things but that he, Freud, could tell which of their memories were truthful and

which were not. Psychological research over the years has shown that childhood memories are very unreliable. We have also found that it is extremely difficult to tell which memories are real and which are not.

- Freud put too much emphasis on unconscious processes. Many psychologists today think that Freud made too much of the unconscious in explaining behavior (Mischel, 2002). They believe that the unconscious plays a role but that it is not, as Freud thought, the whole story. If you decide to avoid a person who always makes you nervous, for example, there's no need to bring the unconscious into an explanation of your behavior.

*Q: If Freud's theories are so unscientific, why do we study them?*

People will be arguing for many years to come about the value of Freud's theories. Whatever the final result of this discussion, there is no denying the tremendous influence Freud has had not only on psychology but also on society as a whole. Freud almost single-handedly created the occupation of private-practice psychotherapist. His ideas about personality and mental illness have shaped our culture in powerful ways. He gave us the idea that people are often mistaken about why they do things and his ideas about the powerful influence of unconscious sexual and aggressive drives are still being argued about today. It could also be said that much of the way we handle social problems, such as the problem of criminal behavior, owes a lot to Freud's ideas about human nature. We may criticize Freud for not being a very good scientist but there is no denying his powerful influence on psychology and on Western culture.

## BEHAVIORIST/LEARNING THEORIES OF PERSONALITY

*Q: How would a behaviorist approach personality theory?*

The unconscious is not part of behaviorist personality theory. Behaviorists, as you would expect, tend to focus on observable behavior. Some behaviorists are also skeptical about the existence of traits. The early behaviorists—John Watson and B.F. Skinner, and their modern descendants, the social learning theorists—Julian Rotter, Walter Mischel, and Albert Bandura share some views on personality theory. They all would agree that there is no such thing as a simple trait of “honesty.” For them, the only possible answer to the question, “Are you basically honest?” is, “In what situations?” They believed that rather than developing “a personality,” you merely learn how to behave in a variety of situations. They don't agree, however, on the role of thinking and knowing in shaping a person's behavior. Skinner and Watson believed that thinking and knowing are not proper subjects for the science of psychology. Rotter, Mischel, and Bandura on the other hand, argue that thinking and knowing are necessary to explain much of our social behavior. Let's look at the work of these theorists in more detail.

### Early Behaviorist Theories of Personality—Watson and Skinner

Behaviorists **J. B. Watson** and **B.F. Skinner** were very skeptical of personality theory. They believed that how you behaved in a given situation was largely due to your learning experiences in similar situations in the past. This meant that you didn't really have a personality, but rather a set of responses that you were likely to make in specific types of situations. For the behaviorists, terms like “aggressive” and “troublesome” are just ways of describing particular responses to particular situations. These terms don't refer to some quality of the

“inner” person (Skinner, 1950). The behaviorists believe that the ways we act in different situations are learned. This happens through the processes of operant and classical conditioning. Reinforcement, shaping, extinction, generalization, and discrimination all play a role (see Chapter 07 to review the principles of learning theory). Watson believed that almost everything about us was learned. He believed that he could shape a child’s personality completely. All that was required was for him to have control of the child’s environment. Skinner was not quite so rigid on this topic. He believed that people inherited characteristics that determine which reinforcers affect them and how.

*Q: Could there be a behaviorist version of Freud’s personality theory?*

In the 1940’s and 1950’s, the popularity of Freud’s personality theories was still very high. At the same time, the popularity of behaviorist ideas about personality was growing. In 1950, John Dollard and Neal Miller gave an ambitious explanation of how many of Freud’s examples and descriptive terms could be explained in behavioral terms. They explained repression (Freud’s idea that some unpleasant thoughts are kept out of consciousness), for example, by saying that behavior that keeps you from thinking about a problem is reinforcing. Because of this, people often engage in behaviors that keep them from thinking about something unpleasant. Dollard and Miller, argue that this is just operant conditioning in action, not some mysterious force in the unconscious. One of Dollard and Miller’s most important contributions had to do with the symptoms of emotional disturbance. They argued that these “symptom” behaviors are learned in the same way that all other behaviors are learned. If hallucinations or bizarre behaviors are rewarded with attention from the staff at a mental hospital, for example, these behaviors will occur more often. For this reason, Dollard and Miller are often given much credit for the birth of behavior therapy. In behavior therapy, learning principles are used to try to change the behavior of people with emotional problems. Behavior therapy will be covered in more detail in Chapter 16.

The example of changing the behavior of a person with emotional problems points out the real differences between the behaviorist and psychodynamic (Freudian) theories. Let’s say, for example, that you teach a person to stop engaging in some self-destructive behavior like attempting suicide. For the Freudian, you haven’t changed the person’s underlying personality. All you’ve done is suppress one way they were expressing their death instinct. They will just find another way to express it. For the behaviorist, the behavior *is* the person. By changing the behavior, you’ve changed the person. This difference is also seen in the behaviorist and psychoanalytic approaches to therapy discussed in Chapter 16.

## Social Learning Theory—Rotter, Mischel, and Bandura

*Q: How is social learning theory different from the strict behaviorist ideas of B.F. Skinner?*

Social learning theorists often disagree with B.F. Skinner in much the same way that neo-Freudians disagree with Freud. Although social learning theory grew out of Skinner’s behaviorist theory, Skinner had little time for some of the ideas of the social learning theorists. He did not approve of using the word “mind” in personality theory. Skinner argued that using the mind as a way of explaining behavior was unscientific since we couldn’t measure the mind or see it doing anything. Skinner believed that people’s experiences affected their nervous systems in a lasting way. His view was that the behavior was determined by the nervous system interacting with the current environment. He did not believe that the “mind” was necessary to explain behavior nor that the mind

could initiate behavior. While the social learning theorists disagreed with Skinner on the role of the mind in personality, they agreed that much of personality is learned. Julian Rotter, Walter Mischel, and Albert Bandura all tried to bring social and cognitive factors into their theories of personality. At the same time, all three recognized the importance of the behaviorist's ideas about how personality can be influenced by learning. For this reason, they are called *social learning* theorists.

**Julian Rotter—Locus of Control** **Julian Rotter** was a student of Alfred Adler but was also influenced by the early learning theorists (Mosher, 1968). Rotter's most important contribution to social learning theory is his idea of **locus of control**. The word "locus" means place or location. According to Rotter, people can be understood on the basis of how they perceive reinforcing events (Mischel, Shoda, & Smith, 2004). Some people see reinforcing events as being due mainly to their own actions. Rotter called these people "internals." Internals see the controlling forces of their lives as being inside them. Other people see rewards and punishments as beyond their control. These "externals" tend to think that life is something that just happens to them. They see their rewards and punishments as the result of luck, fate, or powerful others. They see these external forces as beyond their control. Rotter was making a distinction between people who think they control their lives and people who think that life controls them. Although this might seem like a type theory, it really isn't. Rotter thought of people as more or less internal or external rather than falling into one category or the other (Rotter, 1975). In other words, we can think of a scale with internal at one end and external at the other. Rotter thought that each person belonged at some point along the scale.

#### locus of control

Rotter's idea of a person's belief about whether they control their actions (internal locus) or are controlled by outside forces (external locus)

*Q: Are there advantages to being an "internal" or "external?"*

There seem to be a number of advantages to having an internal locus of control. "Internals" tend to get higher grades in school (Bar-Tal & Bar-Zohal, 1977; Dollinger, 2000). They often perform better on standardized tests (Findley & Cooper, 1983). They also tend to have superior personal, social, and academic adjustment in college (Mooney, Sherman, & Lo Presto, 1991). Internals have also been found to be healthier, both physically and mentally (Lefcourt, 1982; Stricklund, 1989). There is some evidence, though, that they may be overly concerned with order and control (Smith, Magaro, & Pederson, 1983). They may also experience more guilt and shame when they fail (Phares, 1976). Externals, on the other hand, tend to see problems as unsolvable (Gianakos, 2002). This is a good example of how a common sense idea can be investigated scientifically. Rotter suggested that people could be divided based on where they put the blame for their problems and the credit for their successes. Rotter and other researchers then designed and carried out experiments intended to find out if this common sense idea could be supported scientifically.

*Q: How do people get to be internals or externals?*

Some studies show that the development of this characteristic is the result of the disciplinary practices of the parents. Parents who reward appropriate behavior and punish inappropriate behavior consistently and fairly tend to have children who see rewards as earned. These parents also tend to be warm and supportive. Their children usually develop an internal locus of control. External locus of control tends to result from parents who constantly change the rules and who use excessive punishment for relatively minor offenses (Allen, 2003; Carton & Nowicki, 1994).



*Q: What really does determine a person's behavior; forces inside or outside the person?*

**Walter Mischel—Interactionist** **Walter Mischel** also tried to bridge the gap between a number of different personality theories. Mischel's (1968) classic study showed that people's personalities varied depending on what situation they were in. At first, Mischel thought that a person's behavior was completely determined by the situation. After several years of research, however, Mischel changed his mind. He came to believe that in explaining behavior, we needed both *person variables* and *situation variables* (Mischel, 1983). Person variables are the characteristics of the person such as traits. Situation variables refer to the person's immediate environment. Mischel believed that many theories, such as those of Freud, Adler, Allport, and Cattell, made too much of person variables and ignored the powerful force of the situation. Mischel thought that much of behavior theory, on the other hand, tended to neglect the person variables and explain everything in terms of the situation.

Mischel's view has been called an interactionist one because it stressed the interaction of both person and situation variables. Sometimes this is described as the interaction of *traits* and *states*. As we mentioned earlier in this chapter, in his early work Mischel largely discounted the idea of traits (Mischel, 1968). Good scientists try to remain open-minded, though, and are willing to change their ideas if empirical evidence contradicts their beliefs. After seeing the later research on this topic (Epstein, 1983; Moskowitz, 1982; Small, Zeldin & Savin-Williams, 1983), Mischel modified his view and agreed that traits do exist and can be measured reliably (Mischel, 1983). Although traits exist, Mischel argued, using them to predict behavior is often unreliable because of the power of the situation. Mischel, like Rotter, felt that cognitive factors had to be included in any explanation of human behavior. He thought that a person's behavior in any situation depended in part on their inherited temperament and on the skills and talents they had acquired in the past. He also believed, though, that the person's perceptions, expectations, and plans played a role in determining their behavior.

*Q: Can't a person change his or her own environment?*

**Albert Bandura—Reciprocal Determinism** **Albert Bandura**, like the other social learning theorists, has strong ties to behaviorist theory. Like Rotter and Mischel, Bandura believes that behavior is caused by an interaction between traits and states. Bandura thought that cognitive factors played an important role in causing behavior. He suggested that three factors, *cognitions*, *behaviors*, and *environmental factors* interact in complex ways to produce behavior. Each of these factors influences the others. He called this idea **reciprocal determinism**. Although this concept sounds difficult, it really isn't.

Let's look at a simple example of Bandura's reciprocal determinism. Bandura used the example of watching television to explain this concept. A person's cognitions (thoughts) will determine which shows they will watch on television. Watching certain shows affects which shows they will want to watch in the future (and also may affect their behavior away from the television). Their watching behaviors influence which shows are offered by the networks. This changes their environment. The shows offered in the future will continue to influence people's cognitions. When we look at viewer preferences, viewing behavior, and televised offerings, it makes no sense to ask which causes the others. All three mutually affect one another (Bandura, 1986).

It is not a coincidence that Bandura chose television watching to explain his theory. How people respond to viewing the behavior of others is one of the

**reciprocal determinism**  
Bandura's idea that personality and behavior can be explained by the interaction of behavioral, cognitive, and environmental factors

main areas of his research. Bandura believed that much of our social behavior is learned by watching and imitating others. He called this process *modeling*. See Chapter 7 for more information about modeling.

## Locking It In

1. B. F. \_\_\_\_\_ believed that how you behaved in a given situation was largely due to your history of reward and punishment in similar situations in the past.
2. Julian \_\_\_\_\_ argued that “locus of control” was an important personality variable.
3. Dollard and Miller tried to explain \_\_\_\_\_’s theories using learning theory
4. Albert \_\_\_\_\_ is known for his work on modeling.
5. Critical Thinking: Why would a person with an “internal” locus of control be more successful than someone with an “external” locus of control?

Answers: 1) Skinner, 2) Rotter, 3) Freud, 4) Bandura

## Evaluation of Behaviorist/Learning Theories

Behaviorist theories have moved personality theory forward as a science in several ways. By insisting that personality theories be testable, they have helped eliminate vague and untestable ideas from psychology. In addition, they have led us away from the unscientific practice of using labels for behavior to explain that same behavior. We can’t explain aggressiveness just by saying that the person has the trait of aggressiveness. Especially when the “trait of aggressiveness” just means that the person is often aggressive. This is like explaining why a person is tall by saying that they have the trait of “tallness.” This doesn’t really explain anything. Behaviorist theories of personality have also shown us the importance of learning in shaping the personality of the individual. While the behaviorist theories made personality theory more scientific, some personality theorists found the behaviorist explanations to be rather cold and impersonal. These *humanistic* theorists proposed a theory of personality based on the self and on free will.

## HUMANISTIC PERSONALITY THEORIES

As we discussed in Chapter 1, the *humanistic* personality theorists disagree in at least some ways with both the Freudians and the behaviorists. They think that Freud’s view of human nature is far too negative. They argue that he only looked at unhealthy people while making up his theories. The humanists believed that any theory of human nature should be based on looking at healthy, well-adjusted people. The humanists also disagree strongly with the behaviorist idea that all behavior is determined. The behaviorists believe that a person’s behavior is completely determined by his or her past history and the current situation. The humanists, on the other hand, believe that we have free will. That means that we can choose how we will behave in many situations. The humanists choose not to look at behavior from the outside as the behaviorists do. Instead, they look at the person’s own feelings and sense of self. This approach is often called *phenomenology*. The humanists think personality is the collection of values, decisions, and spiritual concerns each person has inside. Let’s look at two well-known humanistic theories of personality, those of Abraham Maslow and Carl Rogers.

## Self-Actualization—Reaching Your Full Potential

For Abraham Maslow and Carl Rogers, the most important things in psychology are the subjective experiences of each individual. They felt that the subjective experiences of each person serve as the basis for everything he or she does. Both Maslow and Rogers believed that within each of us there is a motive we are born with. They called this motive the drive for **self-actualization**. Self-actualization is a drive that makes us try to reach our full potential as persons Raskin & Rogers, 2001).

*Q: Is self-actualization a psychological or a physiological drive?*

Humanists believe that the self-actualization drive has both a physiological and a psychological part. The physiological part makes us crave the things that are necessary for survival such as food, water, and air. The psychological part helps make us more worthwhile human beings. The humanists believe that this psychological drive for self-actualization is what makes us naturally good, kind, cooperative, giving, and loving.

**Abraham Maslow's Hierarchy of Needs** **Abraham Maslow** (Hoffman, 1988) believed that people progressed through a series of steps toward self-actualization. At the bottom of Maslow's hierarchy of needs are the physiological needs. These include the need for food, water, and air. According to Maslow, people will not try to achieve the higher needs in the hierarchy until the lower ones are satisfied. If you don't have enough food or water, for example, you won't look for esteem. At the top of Maslow's hierarchy of needs is the need for self-actualization. This is the desire to go beyond just meeting our basic needs. It includes curiosity about our world and ourselves. It also includes the movement toward showing "our best side, . . . our talents, . . . our finest impulses, . . . our creativeness" (Maslow, 1962). Maslow also studied and described the characteristics of self-actualized people. He looked at various public and historical figures, including Eleanor Roosevelt, Jane Addams, Abraham Lincoln, and Thomas Jefferson. Maslow concluded that *actualizers* have a more accurate perception of reality than do *nonactualizers*. They (actualizers) are more capable of perceiving the truth and seeing dishonesty and fakery in others. They are also less affected by prejudice and stereotypes (Maslow, 1970). Actualizers have a greater appreciation of themselves and of nature. They also sleep and eat well.

*Q: Why did Maslow base this research on historical figures? Wouldn't it be more scientific to study living people?*

Maslow used historical figures because he said that it was almost impossible to get the kind of information he needed from living figures. Maslow said that when he approached living people, they, "became self-conscious, froze up, laughed off the whole effort, or broke off the relationship" (Maslow, 1970 p. 151). Maslow believed that actualizers also had what he called *peak experiences*. A peak experience is a state in which people perceive almost limitless beauty, or goodness. Peak experiences are effortless. People experiencing a peak experience lose their sense of time and space. Usually, peak experiences are accompanied by intense emotions such as wonder, awe, and reverence.

*Q: Did Maslow himself have any peak experiences?*

Yes he did. He had a peak experience that he describes as the greatest single moment in his life. It happened when he kissed Bertha Goodman, his future wife, for the first time (Hoffman, 1988).

### self-actualization

The humanists' idea of reaching your full potential and becoming the best person you can be



Abraham Maslow  
(1908–1970)



Carl Rogers (1902–1987)

**Carl Rogers—The Self and Self-Concept** Carl Rogers felt that people were often led astray from their basic goodness. He believed, though, that in everyone there is goodness waiting to be released and expressed (Rogers, 1961). For Rogers, the key to suppressing or releasing a person's basic goodness was related to what Rogers called *positive regard*. Positive regard means treating someone with kindness, love, and respect. For Rogers, humans need positive regard to be normal and healthy. This need is just like a plant's need for light and water.

Rogers' idea of positive regard is related to the concept of the **social self**. Rogers believed that the **true self** consists of the characteristics that the individual sees as belonging to him or her alone. In other words, these are the things that make us each unique. The true self is the answer to the question: "Who am I?" Rogers thought that when we relate to our parents, siblings, friends, teachers, etc., we begin to develop a self that is based on what others think of us. We try to act and think in ways that will bring the approval of others. When this happens, our behavior no longer represents our true self. The reason for this, according to Rogers, is our strong need for positive regard. Rogers was not sure whether this need to have others like and respect us was innate (inborn) or learned. He was sure, however, that it was one of our most important drives. Rogers argued that to be healthy, people need to receive **unconditional positive regard**. This refers to love and support that is given freely regardless of what the person does or says. Most parents and teachers, Rogers felt, give too much **conditional positive regard**. They withhold their love, affection, and support until children do something to earn it. According to Rogers, when parents set *conditions of worth* for their children, the children feel that they must meet parental conditions in order to feel good about themselves. Rogers did not think that we should accept every behavior, no matter how horrible. He suggested that rejecting the behavior does not require us to reject the person.

**social self**

The self based on the opinions and approval of others

**true self**

Who a person truly is. The honest answer to the question: "Who am I?"

**unconditional positive regard**

Love and support given to another person with no conditions attached

**conditional positive regard**

Love and support that must be earned by meeting conditions of worth

**congruence**

A match between a person's behavior and his or her self-concept

*Q: What did Rogers think happened when a person didn't get enough unconditional positive regard?*

Rogers thought that this led to a split between the true self and the social self. For example, suppose that your true self feels that aggression is wrong. Some of the people around you, however, might give you more positive regard when you are aggressive. This might lead you to ignore the feelings of your true self and act in aggressive ways to get their approval. For Rogers, mental health meant having a match between your true self and your behavior. Rogers called this **congruence** (Rogers, 1959). He felt that unconditional positive regard would let people be themselves. In other words, unconditional positive regard leads to congruence and to a healthy personality. A lack of unconditional positive regard led to *incongruence*. We'll see how Rogers applied this theory to helping people with their personal problems in Chapter 16 when we discuss psychotherapy.

## Locking It In

1. \_\_\_\_\_ stressed congruence and unconditional positive regard.
2. \_\_\_\_\_ developed a hierarchy of needs and talked about "peak experiences."
3. According to Rogers, the self that is based on what others think of us is the \_\_\_\_\_ self.
4. Critical Thinking: Why would "congruence" be healthier than "incongruence?"

Answers: 1) Carl Rogers, 2) Abraham Maslow, 3) Social

## Evaluation of Humanistic Theories

The most common criticism of the humanistic approach is that it is unscientific (Friedman & Schustack, 2003). Many humanistic ideas can't really be tested with experiments. Humanists have a more positive view of human nature than Freud, but their view is just as hard to prove as Freud's was. Maslow has been criticized for never developing a scientific definition of the self-actualized person. The people he chose to list as self-actualized are often described as just a list of people that he personally admired—not a very scientific standard. Rogers has been blamed for changes in our schools that some think have made them less effective. Rogers argued that students should be allowed to select what they study. He also believed that they should always be given unconditional positive regard. Some educators have taken this to mean that students should be rewarded regardless of the quality of their work. Some critics argue that this has led to schools where the students don't learn as much as they could. The students have fun in school and feel very good about how much they have learned in spite of their poor skills. Humanistic theory has also been criticized for emphasizing culture-specific concepts that may not apply outside of Western culture (Heine, 2003).

*Q: What are the positive contributions of humanistic theory?*

On the positive side, the humanists have raised important questions about our basic nature. Do people who receive unconditional positive regard naturally become good and kind? We still don't know the answer to this question but it is certainly worth asking. The humanists' emphasis on our good side has also led to studies and therapies based on the healing effects of humor, creativity, helping behaviors, love, and cooperation (Cain & Seeman, 2002), which might not exist without the work of the humanistic theorists.

## PSEUDOSCIENTIFIC PERSONALITY THEORIES

No discussion of personality theory would be complete without at least a mention of some of the pseudoscientific personality theories.

*Q: What is a pseudoscientific theory?*

As we saw in Chapter 2, pseudoscientific theories have no scientific value at all. These theories are often popular even though there is no scientific evidence to support them. They are popular because they seem scientific to the average person. These theories use jargon that sounds scientific and are often described in scientific terms. What sets them apart from true scientific theories, however, is that they have been tested experimentally and been found to have no scientific value. Astrological theory, for example, involves complicated charts and formulas and takes a long time to learn. If you observe someone working on an astrological chart, it can appear very scientific.

### Astrology—What's Your Sign?

In astrological theory, there are twelve personality types. Every person has a sun sign that is one of the twelve signs of the zodiac. Astrologers explain people's behavior by pointing to their astrological sign and the current position of the planets. According to astrological theory, your personality is determined by the position of the planets at your birth.

Many well-designed scientific studies have attempted to find a relationship between a person's sign and his or her personal traits. So far, all have failed



Astrologers believe that personality is determined by the position of the planets at the time of a person's birth

(Carlson, 1985; Crowe, 1990; Jerome, 1975; Kelly, Culver, & Loptson, 1989; Kelly & Saklofske, 1994). Astrological theory has been around for thousands of years and almost every newspaper in America has an astrology column that runs every day. Some people read these columns for entertainment but it is disturbing to know that many people take this pseudoscientific information seriously.

### Other Pseudoscientific Theories of Personality

Astrology is not the only pseudoscientific personality theory. *Graphology* experts say that a person's handwriting reveals his or her personality traits. *Phrenologists* measure personality by analyzing the bumps on a person's head. *Numerologists* do a mathematical analysis of the letters in a person's name. The *Lüscher Color Test* measures personality by asking people to select their favorite colors. As with astrology, scientific studies have not shown these techniques to be of any value in measuring personality (Beyerstein & Beyerstein, 1992; Braun & Bonta, 1979; Dean et al., 1992; Picco & Dzindolet, 1994).

*Q: How can these unscientific theories be so popular?*

### The Barnum Effect

The answer lies in something called the **Barnum Effect**. This effect is named after the great circus showman and trickster, P.T. Barnum. Barnum is famous for saying "there's a sucker born every minute." How well does the following personality description fit you?

*You are a generous person and sometimes give away things you wish you had kept. You don't like to hurt anyone's feelings but sometimes you do so without meaning to. You are an independent thinker and you try to get all the facts first before making up your mind on a topic. You are intelligent and creative and often have interesting ideas. You prefer variety and don't like to do the same thing over and over. You also prefer to make your own choices about what you do and don't like. You dislike having someone else order you around. You are careful in your decision-making but sometimes you wonder if you have made the right choice.*

Several studies have shown that people often think that general, flattering descriptions like the one above are amazingly accurate in describing them (French et al., 1991). One French psychologist claimed to be an astrologer and sent out the same personality description to hundreds of people. Over 200 of the people wrote him thank-you notes telling him how accurate his description of them had been (Snyder & Shenkel, 1975).

Some time ago, a friend insisted that I take the Lüscher Color Test. She claimed that it was an amazingly accurate measure of personality. The test consisted of eight colored cards. The eight cards were black, blue, brown, gray, green, purple, red, and yellow. To take the test, all you had to do was line up the cards. Your favorite color went on the left and your least favorite color on the right. The cards each had a number from 1 to 8 on the back. Once you had them lined up, you turned the cards over in place. You then read the eight-digit number from the backs of the cards. This was your Lüscher number. The final step of the test was to look up the number in a book that gave a personality description for every possible number. Trying to take a skeptical scientific approach, I didn't actually take the test. Instead, I began to read the personality descriptions in the book. After reading about a third of the way through the book, I hadn't read a single description that didn't fit me perfectly. Here was the

#### Barnum effect

The fact that people usually find general, flattering descriptions of them to be "surprisingly accurate"

Barnum effect at its finest. Every description in the book fit everyone who took the test. No wonder people found the test “amazingly accurate.”

In a study of the Barnum Effect on the Lüscher Color Test, Cooper Holmes and his associates (Holmes et al., 1986) asked college students to rate a random selection of the personality descriptions that come with the test. The subjects rated each description on a scale from 1 to 9 where 9 meant that the description fit you perfectly and 1 meant that the description didn't fit you at all. *All* of the descriptions were rated at five or higher.

If a theory is easy to understand and occasionally makes a correct prediction (just by chance), many people will believe in it even though good scientific evidence shows it to be worthless. As scientists, we must be willing to reject theories with no empirical support in spite of their popularity or appeal to common sense. The Barnum effect has been around for a long time and has made a living for fortunetellers, psychics, astrologers, handwriting analysts, palm readers, and fakers of all kinds.

*Q: Isn't this stuff harmless?*

Many psychologists and other scientists feel that pseudoscientific theories like astrology can sometimes be very harmful. They certainly waste people's time, money, and energy. Gullible people sometimes base important life decisions on pseudoscientific advice. Others with serious personal problems may consult an astrologer, handwriting analyst, or other pseudoscientist when they need help from a trained professional. Consulting an unqualified person may keep them from getting the help they need. Large corporations sometimes employ handwriting analysts or astrologers to advise them on personnel decisions or business strategy. Many psychologists expressed concern when they discovered that during his presidency, former President Ronald Reagan's wife Nancy consulted an astrologer. She gave the President advice based on the astrologer's analysis.

Some of the people who make a living giving pseudoscientific advice are just plain dishonest and are taking advantage of those gullible enough to pay them. Others, though, are quite sincere and have no idea that their pseudoscience has no practical value. Tremendous amounts of time, energy, and money are wasted on pseudoscientific theories every day. This is one good reason why everyone needs some training in scientific thinking.

## PERSONALITY ASSESSMENT—MEASURING PERSONALITY CHARACTERISTICS

As we discussed earlier in this chapter, personality theorists want to do two things. One is to describe what a useful personality description would look like. The other is to create a test that will give us that description for each person. We call this second task *personality assessment*. In our discussion of psychological tests (see Chapter 2), we talked about reliability and validity. A test is reliable if it measures something consistently. A test is valid if it measures what it is supposed to measure. Like any other test, personality tests must be both reliable and valid to be of any use. We have been looking at a number of different theories about human personality. Now let's look at four different ways that we might measure someone's personality. Personality can be measured using *direct observation*, *interviews*, *rating scales*, and by the administration of *personality questionnaires*. Psychological tests may be *objective* or *projective*.

## Direct Observation

Do you consider yourself a “people watcher?” Observing people in public is a common hobby. The trouble with simply watching people is that it’s easy to make mistakes about what they are doing and why they are doing it. If you see a person get angry with someone, it’s hard to know why. They could be angry about something that happened earlier rather than what just occurred. They could be more or less angry than they actually appear to be. They could even be pretending to be angry.

*Q: How can we make our observations more scientific?*

**Behavioral Assessment—Counting Behaviors** One way of improving the reliability of observations is to do a behavioral assessment. In behavioral assessment, an observer makes a count of specific behaviors that people perform while being observed. In watching children, for example, we might count aggressive acts, laughter, crying, or helping behaviors. With a group of mental patients, we might record disturbed speech, hallucinations, bizarre behavior, or aggression (Alevizos & Callahan, 1977). Cognitive psychologists sometimes ask people to count and record negative and positive thoughts about themselves. In one study (Blackwell et al., 1985), students who suffered from math anxiety were asked to think out loud while solving math problems. The researchers then classified and counted their responses to find out more about what caused their anxiety.

*Q: What if we want to find out how a person behaves in a specific situation?*

**Situational Testing** In situational testing, a person is observed while doing a specific task. The situation is usually fairly narrow. The purpose of this kind of testing is to find out how someone behaves in a specific situation. The military has used situational testing to see how people respond to difficult command situations. In one test, officer candidates were asked to supervise a construction crew (Murray, 1946). They didn’t know it but the crew had been instructed to be as difficult and insubordinate as possible. Such a test could tell a lot about how people handle difficult situations. On the other hand, no two people will face exactly the same test so the test will always be somewhat unfair. Another example of situational testing is the “Shoot-Don’t Shoot Test” given to police officers around the country. The officers are put in simulated situations that require them to decide whether deadly force is appropriate. This test not only measures the personality of the officers, it helps them train for similar situations in the real world.

**Interviews** In an interview, we have better control of the situation than we do in a behavioral assessment. To gain this, we create a more artificial situation. The interviewer asks a series of questions and the person being tested answers them. If it is a structured interview, the list of questions is set in advance and always asked in a specific order. In an unstructured interview, the interviewer is free to make up questions on the spot and to follow up on interesting comments made by the person being tested. This means that an unstructured interview is more flexible but it may also be less scientific and somewhat unfair. This is because each person interviewed is treated differently.

**Rating Scales** Rather than interviewing a person, we might use a rating scale. We could ask the person, for example, to do a self-rating on a number of traits. The rating is usually on a numeric scale (from 1 to 10, for example). If we are worried that the person might not be honest, we might ask others to rate him or her for us. Sometimes interviews and rating scales are combined. At the end of some interviews, the interviewer fills out a rating scale.



*Q: What are some of the problems with rating scales?*

Rating scales have certain built-in problems that are very hard to avoid. People who have a lot of positive traits tend to be over-rated on their negative traits. Say for example that a person is rated on a scale of 1 to 10 on a number of traits. Let's say that a 10 means that the person has a very high rating on the trait. Imagine that you are rating Jane Doe. Jane receives a rating of 9 or 10 for her intelligence, sense of humor, language skills, and a number of other traits. Now it's time for you to rate Jane on whether she is good at being on time. She really deserves a three on this but you give her a five or six because of her other high ratings. This is called the **halo effect**. Jane's good points have given her a "halo" that blinds you to her bad points. As you have probably guessed, the opposite can happen as well. A person with a lot of negative ratings will get lower scores than they deserve on their better points. This is called the **horns effect**.

The halo and horns effects aren't the only distortions that occur in rating scales. If the person being rated is a member of some group and the rater has attitudes about that group, the ratings may not be accurate. If, for example, you believe that brown-eyed people can't be trusted, you might rate me as more dishonest than I really am since I have brown eyes. This is called **stereotyping**. Everyone has some stereotypes and you probably have some that you are not aware of. Most people have attitudes about racial and ethnic groups, political parties, short, tall, fat, thin, old, young people, and a number of other groups. These stereotypes are rarely based on facts but they still affect our ratings. We don't like to think of ourselves as letting our biases and stereotypes affect our ratings, but we do.

**halo effect**

The tendency of raters to underestimate the negative qualities of people with many positive qualities

**horns effect**

The tendency of raters to underestimate the positive qualities of people with many negative qualities

**stereotyping**

The tendency of people to assume that all members of a group share certain traits

1. In \_\_\_\_\_ testing, a person is observed while doing a specific task
2. An interview may be structured or \_\_\_\_\_
3. Behavioral \_\_\_\_\_ usually involves counting and recording the behaviors of people who don't know they are being watched.
4. When good characteristics bring a person's rating up it's called the \_\_\_\_\_ effect.
5. When bad characteristics bring a person's rating down, it's called the \_\_\_\_\_ effect.
6. When a person is a member of a group and their rating is affected by the rater's attitudes about the group the rater's behavior is called \_\_\_\_\_.
7. Critical Thinking: What are the advantages and disadvantages of structured and unstructured interviews?

Answers: 1) situational, 2) unstructured, 3) assessment, 4) halo, 5) horns, 6) stereotyping

## Locking It In

### Personality Questionnaires—Objective Tests of Personality

Much of the scientific research on personality assessment has been done with objective paper-and-pencil tests called *personality questionnaires*. These tests are very structured. This means that everyone who takes a personality questionnaire is seeing exactly the same test. You can see the scientific advantages of this. On an objective personality test, all the people taking the test are treated exactly alike. They see the same questions and the questions are scored the same way every

**objective test**

A test that gives the same score no matter who does the scoring

time the test is given. On these **objective tests**, if two people get different scores, we can be somewhat confident that the differences are due to their personalities because both took the same test under very similar conditions. To get this kind of control, however, we have to give up a lot of naturalness in the situation. Taking a personality questionnaire isn't much like what we do in our everyday lives.

*Q: Can how someone behaves when sitting at a desk with a pencil really tell us what kind of person he or she is?*

**Cattell's 16PF Test** Raymond B. Cattell's 16PF Test was mentioned earlier in this chapter in the discussion of Cattell's personality theory. When taking the 16PF, people are given a series of choices like the following:

- I trust strangers.
- A. Sometimes
  - B. Practically always

On the 16PF, there is a set of ten questions for each of Cattell's sixteen personality factors. The question above is designed to measure how outgoing the person is. Choice B is the choice for an outgoing person. On each trait, you get a score based on how you answered the questions for that trait. Your score for each trait is a number between one and ten. The results of your test are shown in a trait profile—a graphic representation of your score on each trait. Cattell's 16PF test is designed to measure the 16 source traits in Cattell's theory and Cattell was confident that it did so. Cattell made up questions like the one above for each of his 16 traits. The test fits Cattell's theory but, as scientists, we need better evidence of the validity of the test. We need to see proof that the person's trait profile will help us predict their behavior outside the testing situation. Some research has supported the predictive ability of the 16PF (Cattell & Nesselroade, 1967; Schuerger, 1992). Cattell's test was written a long time ago, however. Most of the research on predicting behavior for personality tests has focused on more recent tests of personality.

**The MMPI and MMPI-2** Probably the best known of all personality questionnaires is the MMPI-2, the revised version of the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1989). The MMPI-2 is one of the most misunderstood of the objective personality tests. It asks an exhausting series of 567 questions. For each question, the possible answers are "true," "false," and "cannot say." The questions and the test have little face validity. This means that often there is no obvious relationship between the subject of the questions and what they are measuring. Here are some examples:

- I am fascinated by fire
- I sometimes feel as if I have a tight band around my forehead
- I sweat a lot
- I enjoy animals
- I love my mother

*Q: How could these questions tell you about what a person is really like?*

People who take the MMPI-2 often wonder how questions like these could tell much about them. In order to understand the value of the MMPI-2, we have to look at how it was made. On Cattell's 16PF, the questions were made up by Cattell to test for each one of his 16 personality factors. We call the method Cattell used *theoretical construction*. This is because the test questions are based on Cattell's theory. The MMPI-2 was created using a very different method called empirical

MMPI-2 SCALE	TYPICAL BEHAVIOR
Hypochondriasis (Hs)	Abnormal concern with having a serious illness
Depression (D)	Feelings of hopelessness and pessimism
Conversion hysteria (Hy)	Use of dramatic physical symptoms to avoid conflict or responsibility
Psychopathic deviance (Pd)	Disregard for the law and other people's feelings
Masculinity-Femininity (Mf)	Masculine or feminine gender role behavior
Paranoia (Pa)	Suspiciousness and delusions of grandeur and persecution
Psychasthenia (Pt)	Obsessive-compulsive behavior, fear, and guilt
Schizophrenia (Sc)	Bizarre and unusual thoughts or behavior; hallucinations, delusions
Hypomania (Ma)	Emotional over-excitement and flight of ideas
Social introversion (Si)	Extreme shyness, insecurity, and withdrawal

TABLE 12.3

CLINICAL SCALES OF THE MMPI-2

construction. In *empirical construction*, questions are selected because they are answered differently by certain groups of people. Let's use the MMPI-2 as an example. First, we need to talk about what the test was created to do. The MMPI-2 was designed for use with people who have serious emotional problems. Its purpose is to help diagnose abnormal behavior. Starke Hathaway, a psychologist, and Charles McKinley, a psychiatrist, created the original MMPI in the 1930's. They carefully selected groups of mental patients. All the members of each group fit perfectly into one of the 10 diagnostic categories of the MMPI-2 (see Table 12.3).

One group consisted of all depressives. Members of another group were all considered schizophrenics. A third group all suffered from hypochondria. (Hypochondriacs are overly concerned about their health and incorrectly believe that they have some serious health problem.) There was one group for each of the 10 **clinical scales** on the MMPI. There was also a control group. The members of the control group did not have any serious mental problems. The subjects answered a thousand different questions on a wide range of topics. Hathaway and McKinley then looked for patterns in their answers. All the questions that were answered in one way by members of one of the groups of mental patients and answered differently by the control group were kept for the final version of the test. The purpose of some of the questions is obvious. For example, "I feel down much of the time," is on the depression scale. Other questions like, "I am fascinated by fire," have little face validity. It's almost impossible (even for psychologists) to guess what scale they are on. In empirical construction, though, we don't really care as long as the questions do a good job of telling us who belongs with which group.

**clinical scales**

Groups of items on the MMPI-2 designed to measure serious emotional problems

*Q: What does it mean if a person "sweats a lot?"*

It's important to remember that on the MMPI and similar tests, the answers to individual questions don't really mean anything. It's the scale scores that count. Say, for example, that the question "I sweat a lot" is on the hypochondria scale. If you report that you sweat a lot, does this mean that you should be considered a hypochondriac? Of course it doesn't. If, however, you answer all the questions on the hypochondria scale the same way that the original clinical group of hypochondriacs did, then it's very likely that you do suffer from this problem. Once the scales of the MMPI were finished, the original patients were found to score high on the appropriate scale. As scientists, however, we realize that this isn't good enough. The next step was to see if new patients who had never seen the test could also be classified correctly. The MMPI and MMPI-2 have been given to

hundreds of thousands of people in the last sixty years. Most research has found these tests to be reliable tools for classifying people with emotional disturbances (Anastasi, 1988; Graham, 1990; Hathaway & McKinley, 1989; McReynolds, 1989).

*Q: What does the MMPI-2 tell us about average people?*

The MMPI-2 (like the MMPI) was designed to identify serious emotional problems. Most psychologists think that it doesn't tell us much about average people except that they fall into the normal range on every scale (Parker, Hanson, & Hunsley, 1988). It is also dangerous to use MMPI-2 results alone (McIntire & Miller, 2000). If we look only at MMPI-2 scores, many normal people will be diagnosed as being emotionally disturbed (Cronbach, 1990). In order to make an accurate diagnosis, the MMPI-2 must be given with other tests. Computer scoring has made it very convenient to get the results of tests like the MMPI-2. This means that many psychological tests are now much less expensive to use. One danger of this change, however, is that tests are sometimes misused and are often interpreted by unqualified people (Helmes & Reddon, 1993).

*Q: What about people who aren't being honest when they take the test?*

In addition to the clinical scales discussed above, the MMPI-2 also has four **validity scales**. These scales are designed to tell us whether a person's score is accurate or not (Woychyshyn, McElheran, & Romney, 1992). Some people try to fake the MMPI-2 to make themselves look either good or bad. Other people may have trouble understanding the items. Some people take the test without even reading the items. They may pick answers at random or answer all the questions the same way. Others leave many questions unanswered by selecting "cannot say." If you have ever taken the MMPI or MMPI-2, you may have noticed that some of the questions are repeated or are asked again in a slightly different form. These questions help make up the validity scales of the test. Other questions, such as "I have never stolen anything in my life," also contribute to the validity scales. If a person tries to fake the MMPI-2, it will almost always show up on one or more of the validity scales. He or she may be asked to take the test again.

*Q: What's a good strategy for taking the MMPI-2?*

You may be asked to take the MMPI-2 as part of a job interview, a research study, or as part of a course of therapy. What is the best strategy for you in taking the test? Most psychologists suggest that the best approach is to be as honest as possible. If you attempt to "fool" the test, it will almost certainly show up on the validity scales.

**The NEO-PI-R—Measuring the Big Five** The MMPI-2 is designed to test abnormal personality traits. The *Neuroticism Extraversion Openness Personality Inventory, Revised*, or NEO-PI-R, is probably the most widely used test for measuring personality in ordinary people (Costa & McCrae, 1992). The test measures the "Big Five" personality factors described earlier in this chapter: Neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. The test has proved to be quite reliable (Viswesvaran & Ones, 2000). In addition, people's scores on the various scales of the test have been used to predict numerous real-world effects such as career success, social status, and the likelihood of criminal behavior (Anderson et al., 2001; Clower & Bothwell, 2001; Siebert & Kraimer, 2001).

## Measuring the Unconscious—Projective Tests of Personality

What would Freud say about your score on the 16PF or on the MMPI-2? Remember that Freud and his followers in the psychodynamic school thought that the truly important part of your personality was in your unconscious

### validity scales

Groups of items on the MMPI-2 designed to measure whether the test score is a true reflection of the person's characteristics

mind. When you are trying to decide how to answer the question “I enjoy animals,” your conscious mind is in charge. You may like animals but worry about what the test will say about you if you put “true.” Because of this, Freud and his followers wouldn’t put much stock in your scores on such a test. Instead, they prefer to use *projective tests* that are designed to tap your unconscious mind. Tests like the 16PF and the MMPI-2 are objective tests. Objective tests force you to select from a small set of answers to each question. Every question on the MMPI-2, for example, must be answered, “true,” “false,” or “cannot say.”

*Q: How could a test possibly measure what’s in a person’s unconscious mind?*

**Hermann Rorschach’s Inkblots** On a **projective test**, there are no right answers. In fact, there are no answers at all. The “questions” are ambiguous and for every question, there are an infinite number of possible answers. The idea is that your unconscious will supply the answers and “project” them onto the test. The test shows what is buried in your unconscious. Leonardo da Vinci, the Renaissance artist and inventor, thought that you could tell a lot about people by asking them to try to see figures in the clouds. Around the turn of the century, Swiss psychiatrist **Hermann Rorschach** (Pichot, 1984) developed his famous inkblot test to do much the same thing. Rorschach played with inkblots while he was a schoolchild. He noticed that different people saw different things in the same inkblot. Later, as a psychiatrist, he developed a set of inkblots that he thought helped him find out about people’s personalities. Rorschach started out with hundreds of inkblots. After testing them on his patients, he selected the fifteen most useful. Today’s Rorschach Inkblot Technique (English Translation 1942) has only 10 inkblots because Rorschach’s publisher didn’t have enough money to reproduce all 15 (Routh, 1998). Of the remaining 10, 5 are black-and-white, and 5 are in color. Since the inkblots don’t really represent anything, Rorschach thought that a person’s answers would reveal what was in his or her unconscious (see Figure 12.2).

**projective test**

A test that presents ambiguous stimuli in an attempt to measure the unconscious mind



**FIGURE 12.2**

**RORSCHACH INKBLOT TEST**

The Rorschach exam asks people what they see in inkblots like the one in this picture

1930's at Harvard University. Christiana Morgan and Murray published the first report of the technique in 1935 and the test itself was published in 1943. The TAT is made up of a series of sketches. Each sketch shows an ambiguous situation, usually involving one or more people (see Figure 12.3). When you take the test, you are asked to say what is happening in each scene, what led up to it, what the characters are thinking and feeling, and what will happen next. As with the Rorschach, the theory is that your unconscious mind will project its psychological needs and conflicts onto the picture (Murray, 1965).

**Problems with Projective Tests** Would you guess that projective tests are more or less reliable than the objective tests discussed earlier? Low reliability has always been a problem with projective tests (Lilienfeld, Wood, & Garb, 2000; Wood et al., 2003). For example, there are several different scoring methods for the Rorschach. Clinicians have been unable even to settle on a single method for scoring the test. Worse yet, even when using a single scoring method for the Rorschach, different scorers will often disagree on what the responses mean. Some recent attempts have been made to standardize the scoring (Exner, 1993; Shontz & Green, 1992) but the standard scoring technique is extremely difficult to use and many problems remain (Wood, Nezworski, & Stejskal, 1996). Even if the scoring could be standardized, however, there still might not be agreement on what a particular response means. Many researchers feel that projective tests add little to what might be gained from interviews or other sources (Lilienfeld, Wood, & Garb, 2000).

The TAT, like the Rorschach, has often been criticized for its lack of reliability. Both the scoring and the interpretation of the test are largely up to the scorer. As with the Rorschach it is hard to show scientifically that the test scores will predict anything about the person's behavior or characteristics. Therapists who use projective tests with their clients say that the test responses tell them a lot about the person being tested. They also claim that the process of taking the test helps a person learn what is "on their mind." A therapist might say "I use this test every day and it tells me a great deal about my clients." A skeptical scientist might reply that this is exactly what astrologers say about

FIGURE 12.3

FIGURE FROM THE THEMATIC APPERCEPTION TEST (TAT)

Henry Murray created the TAT to measure the unconscious motives of people taking the test



doing a person's chart. We can't say, though, that projective tests are of no use. We can only say that we are still waiting for scientific proof of their usefulness.

1. The \_\_\_\_\_ has clinical scales designed to identify people with serious emotional problems.
  2. The Rorschach and the TAT are called \_\_\_\_\_ tests. They attempt to measure the unconscious mind.
  3. When given the \_\_\_\_\_ people are shown a series of inkblots.
  4. The \_\_\_\_\_ is made up of a series of sketches.
  5. Critical Thinking: Why are projective tests less reliable than objective tests?
- Answers: 1) MMPI-2, 2) projective, 3) Rorschach, 4) TAT

## Locking It In

## Chapter Summary

### ***What do psychologists mean by personality?***

- Psychologists want to develop a brief, simple description of a person that will tell us a lot about that person. Psychologists don't yet agree on what form that description should take. A good personality description should let you predict accurately what the person would do in many different situations.

### ***What are types and traits?***

- Type theories divide people into a small number of distinct personality types. They have the problem of lumping very different people into one type. Sometimes they also classify similar people as being of different types.
- Traits are patterns of behavior that a person shows in a variety of situations. Gordon Allport made a list of over 17,000 adjectives that could be used to describe a person. Raymond B. Cattell used factor analysis to distinguish surface and source traits. He thought 16 source traits were the basic units of personality. Modern researchers suggest that there are five personality factors (the "Big Five"): openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism.

### ***Can personality be inherited?***

- Many researchers think that at least some personality characteristics can be inherited. Thomas, Chess, and Birch studied temperament in babies and found that some babies were easy and others were difficult. They believed that these differences might be inherited. Kagan and his associates suggest that inhibition, which is related to shyness, is a relatively stable trait and may be inherited. Zuckerman suggests that three personality factors are related to biological differences: extraversion, neuroticism, and psychoticism. The term "temperament" is used to describe the inherited personality characteristics.

### ***How did Freud and his followers approach personality theory?***

- Freud's theory of the mind explains how the id, ego, and superego interact to cause our behavior. According to Freud, the id, ego, and superego are spread over the unconscious, the preconscious, and the conscious mind.
- Freud's developmental theory explains how the personality develops. Freud argued that there are five stages of psychosexual development: oral, anal,

phallic, latent, and genital. Being fixated in a stage means that as an adult, you will still have the personality characteristics of that stage.

- The Neo-Freudians, Carl Jung, Karen Horney, and Alfred Adler, are theorists who share some of Freud's views but disagree on others. Jung believed in the collective unconscious. He thought it contained many of the archetypes found in art and religious mythology around the world. Karen Horney thought that basic anxiety was an important human motivation. She also disagreed with Freud's suggestion that women felt inferior to men and suffered from penis envy. Horney suggested instead that men experience womb envy. Alfred Adler thought that Freud had overemphasized the role of sex in human motivation. Adler thought the striving for superiority was a major motivating force. He believed that people expressed this through their "style of life."
- Freudian and neo-Freudian theories have been criticized for being vague and unscientific, for making generalizations from a small group of unusual people, and for paying too much attention to the unconscious and not enough to actual experiences. In spite of these criticisms, Freudian theory has been a major influence on Western culture.

***Do behaviorists believe in personality?***

- The earlier behaviorists such as Skinner and Watson believed that personality could be explained by using only the terms of learning theory. They thought that talking about stimuli, responses, reinforcement and punishment would explain all behavior. They felt there was no need to discuss internal mental processes. They were very skeptical of most personality theories.
- Social learning theorists also believe that behavior patterns are learned but they have added cognitive and social factors to their theories. They argue that some behaviors are learned by observation. Julian Rotter's research suggests that people differ in whether their locus of control is internal or external. Having an internal locus of control seems to have some advantages for the person. Walter Mischel suggested that how people behave depends on an interaction of their traits and the situation they are in. Albert Bandura is best known for his work in modeling.

***How do humanistic theories explain personality?***

- Humanistic theorists stress free will and the self. Abraham Maslow suggested a hierarchy of needs with self-actualization at the top. He believed that self-actualization was a very important human motive. Carl Rogers thought that in a healthy person there was congruence (a match) between the person's behavior and their self-concept. He thought that giving people unconditional positive regard could help them move toward congruence.

***Are there pseudoscientific theories of personality?***

- Pseudoscientific approaches like astrology and graphology are convincing to some people even though they have no scientific basis. These theories attract believers by presenting theories and techniques that appear scientific and by giving people flattering, general personality descriptions.

***How can we measure a person's personality?***

- Personality tests can take many forms: just observing a person as they perform some task; rating them on a series of traits; giving them a paper-and-pencil tests; or showing the person inkblots and sketches and asking them what they see.
- Observation, interviews, and rating scales are sometimes used although their use is hampered by stereotyping and the halo and horns effects.



- Personality questionnaires like Cattell's 16PF and the MMPI-2 measure personality by asking the person to take an objective test. Cattell's 16PF test asks people about their preferences and interests. The results are in the form of a trait profile. The Minnesota Multiphasic Personality Inventory (MMPI-2) is designed to identify people with serious emotional problems. The clinical scales of the MMPI-2 measure characteristics like schizophrenia, paranoia, and hypochondria. The MMPI-2 also has validity scales designed to indicate whether the person being tested has answered honestly. The MMPI-2 helps identify people with certain kinds of personal problems<sup>3</sup>. Although it has little face validity, the MMPI-2 is able to make accurate predictions about behavior.
- Members of the psychodynamic school developed projective tests such as the Rorschach and the TAT. They believe that the important parts of the personality are in the unconscious. Projective tests present ambiguous stimuli. Users of projective tests assume that the unconscious mind will contribute to the answer. The Rorschach test presents 10 inkblots. Henry Murray's Thematic Apperception Test (TAT) presents a series of sketches. Projective tests have been criticized for their lack of reliability and validity

personality  
type  
extravert  
introvert  
trait  
factor analysis  
surface traits  
source traits  
trait profile  
extraversion  
neuroticism  
psychoticism  
Big Five  
temperament  
monozygotic twins  
dizygotic twins  
siblings  
conscious

unconscious  
preconscious  
libido  
Eros  
Thanatos  
pleasure principle  
reality principle  
id  
ego  
superego  
ego ideal  
conscience  
psychosexual  
development  
Oedipus complex  
identification  
neo-Freudian  
collective unconscious

archetypes  
locus of control  
reciprocal determinism  
self-actualization  
unconditional positive  
regard  
conditional positive  
regard  
social self  
true self  
congruence  
Barnum effect  
halo effect  
horns effect  
stereotyping  
objective tests  
clinical scales  
validity scales  
projective test

Important  
Terms and  
Concepts

## Important Names

Gordon Allport  
Raymond B. Cattell  
Hans Eysenck  
Sigmund Freud  
Karen Horney  
Alfred Adler  
John Watson  
B.F. Skinner  
Julian Rotter  
Walter Mischel  
Albert Bandura  
Abraham Maslow  
Carl Rogers  
Hermann Rorschach  
Henry Murray