CHAPTER SUMMARY

1 Psychology is the scientific study of behavior and mental processes.

2 The roots of psychology can be traced to the 4th and 5th centuries B.C. The Greek philosophers Socrates, Plato, and Aristotle posed fundamental questions about the mind, and Hippocrates, the 'father of medicine', made many important observations about how the brain controlled other organs. One of the earliest debates about human psychology focused on the question of whether human capabilities are inborn (the nature view) or acquired through experience (the nurture view).

3 Scientific psychology was born in the late nineteenth century with the idea that mind and behavior could be the subject of scientific analysis. The first experimental laboratory in psychology was established by Wilhelm Wundt at the University of Leipzig in 1879.

4 Among the early 'schools' of psychology in the twentieth century were structuralism (the analysis of mental structures), functionalism (studying how the mind works so that an organism can adapt to and function in its environment), behaviorism (the study of behavior without reference to consciousness), Gestalt psychology (which focuses on the patterns formed by stimuli and on the organization of experience), and psychoanalysis (which emphasizes the role of unconscious processes in personality development and motivation).

5 Later developments in twentieth-century psychology included information-processing theory, psycholinguistics, and neuropsychology.

6 The study of psychology can be approached from several perspectives. The biological perspective relates actions to events taking place inside the body, particularly the brain and nervous system. The behavioral perspective considers only external activities that can be observed and measured. The cognitive perspective is concerned with mental processes, such as perceiving, remembering, reasoning, deciding, and problem solving, and with relating these processes to behavior. The psychoanalytic perspective emphasizes unconscious motives stemming from sexual and aggressive impulses. The subjectivist perspective focuses on how people actively construct and interpret their social worlds, which is expected to vary by culture, personal history, and current motivational state. A particular topic often can be analyzed from more than one of these perspectives.

7 The biological perspective differs from the other viewpoints in that its principles are partly drawn from biology. Often, biological researchers attempt to explain psychological principles in terms of biological ones; this is known as reductionism. Behavioral phenomena are increasingly being understood at both the biological and psychological levels.

8 Among the major subfields of psychology are biological psychology, experimental psychology, developmental psychology, social and personality psychology, clinical and counseling psychology, school and educational psychology, and industrial and engineering psychology. Many new areas of inquiry gaining momentum in twenty-first-century psychology span traditional subfields and disciplines. These new areas include cognitive neuroscience (as well as affective and social cognitive neuroscience), evolutionary psychology, cultural psychology, and positive psychology.

9 Doing psychological research involves generating a hypothesis and then testing it by using a scientific method. When applicable, the experimental method is preferred because it seeks to control all variables except the ones being studied and can thus test hypotheses about cause and effect. The independent variable is the one that is manipulated by the experimenter; the dependent variable (usually some measure of the participant's behavior) is the one being studied to determine whether it is affected by changes in the independent variable. In a simple experimental design, the experimenter manipulates one independent variable and observes its effect on one dependent variable. An essential element of experimental design is the random assignment of participants to experimental and control groups.

10 In many experiments the independent variable is something that is either present or absent. The simplest experimental design includes an experimental group (with the hypothesized cause present for one group of participants) and a control group (with the hypothesized cause absent for another group of participants). If the manipulation of the independent variable results in a statistically significant difference in the dependent variable between the experimental and control groups, we know that the experimental condition had a reliable effect, and the difference is not due to chance factors or a few extreme cases.

11 In situations in which experiments are not feasible, the correlational method may be used. This method determines whether a naturally occurring difference is associated with another difference of interest. The degree of correlation between two variables is measured by the correlation coefficient, *r*, a number between +1.00 and −1.00. The absence of any relationship is indicated by 0; a perfect relationship is indicated by 1. As *r* goes from 0 to 1, the strength of the relationship increases. The correlation coefficient can be positive or negative, depending on whether one variable increases with another (+) or one variable decreases as the other increases (−).

12 Another way of conducting research is to use the observational method, in which one observes the phenomenon of interest. Researchers must be trained to observe and record behavior accurately. Phenomena that are difficult to observe directly may be observed indirectly by means of surveys (questionnaires and interviews) or by reconstructing a case history.

13 The basic ethical principles governing the ethical treatment of human participants are minimal risk, informed consent, and the right to privacy. Any painful or harmful procedures imposed upon animals must be thoroughly justified in terms of the knowledge to be gained from the study.

CORE CONCEPTS

law of effect
overjustification effect
psychology
prosopagnosia
fundamental attribution error
childhood amnesia
obese
cathartic effect
physiology
nature–nurture debate
nature view
nurture view
tabula rasa
associationist psychology
introspection
structuralism
functionalism
behaviorism
gestalt
psychoanalysis
unconscious
free association
information-processing models
psychological perspective
eclectic approach
biological perspective
behavioral perspective
cognitive perspective
psychoanalytic perspective
subjectivist perspective
naïve realism
reductionism
biological psychologists
cognitive psychologists
developmental psychologists
social psychologists
personality psychologists
clinical psychologists
counseling psychologists
school psychologists
educational psychologists
organizational psychologists
engineering psychologists
cognitive neuroscience
affective neuroscience
social neuroscience
evolutionary psychology
cultural psychology
positive psychology
hypothesis
theory
scientific
experiments
variable
independent variable
dependent variable
experimental groups
control group
random assignment
multivariate experiment
measurement
statistics
mean
statistical significance
correlation coefficient
positively correlated
negatively correlated
test
direct observation
survey method
social desirability effects
case history
literature review
narrative review
meta-analysis
minimal risk
informed consent
debriefing
right to privacy

CHAPTER SUMMARY

1 Two central questions in developmental psychology are: (a) How do biological factors ('nature') interact with environmental experiences ('nurture') to determine the course of development? and (b) Is development best understood as a continuous process of change or as a series of qualitatively distinct stages?

2 Some developmental psychologists believe that development occurs in a sequence of periods in which (a) behaviors at a given stage are organized around a dominant theme or a coherent set of characteristics, (b) behaviors at one stage are qualitatively different from behaviors at earlier or later stages, and (c) all children go through the same stages in the same order. Critical or sensitive periods are times during development when specific experiences must occur for psychological development to proceed normally.

3 Early theorists believed that all sensory preferences and abilities had to be learned, but research over the last several decades has established that infants are born with their sensory systems intact and prepared to learn about the world.

4 Newborns have poor vision and cannot see as well as an adult until about age 2. Some theorists thought infants were born with a preference for faces, but research suggests infants are not attracted to faces per se but to stimulus characteristics such as curved lines, high contrast, edges, movement, and complexity – all of which faces possess. Even newborns pay attention to sounds. They seem to be born with perceptual mechanisms that are already tuned to the properties of human speech that will help them learn language. Infants can discriminate between different tastes and odors shortly after birth. They seem to prefer the taste and odor of breast milk. Infants can learn from the moment they are born and show good memories by three months of age.

5 Piaget's theory describes stages in cognitive development. These proceed from the sensorimotor stage (in which an important discovery is object permanence), through the preoperational stage (when symbols begin to be used) and the concrete operational stage (when conservation concepts develop), to the formal operational stage (when hypotheses are tested systematically in problem solving). New methods of testing reveal that Piaget's theory underestimates children's abilities, and several alternative approaches have been proposed.

6 Information-processing approaches view cognitive development as reflecting the gradual development of processes such as attention and memory. Other theorists emphasize increases in domain-specific knowledge. Still others, including Vygotsky, focus on the influence of the social and cultural context. More recent research in children's cognitive development focuses on children's theory of mind, or understanding that other people have beliefs and expectations that can be different from their own and different from reality.

7 Piaget believed that children's understanding of moral rules and judgments develops along with their cognitive abilities. Kohlberg extended Piaget's work to include adolescence and adulthood. He proposed three levels of moral judgment: preconventional, conventional, and postconventional.

8 An infant's tendency to seek closeness to particular people and to feel more secure in their presence is called attachment. Attachment can be assessed in a procedure called the strange situation, a series of episodes in which a child is observed as the primary caregiver leaves and returns to the room. Securely attached infants seek to interact with a caretaker who returns from an absence. Insecurely attached: avoidant infants avoid a caretaker who returns from an absence. Insecurely attached: ambivalent infants show resistance to a caretaker who returns from an absence. Disorganized infants show contradictory behaviors (sometimes avoidant, sometimes approaching) to a caretaker who returns from an absence.

9 A caregiver's sensitive responsiveness to a baby's needs has important influences on attachment. The baby's temperament also plays a role. Cultural differences in the percentage of children classified in different attachment categories may indicate that the strange situation paradigm is an inappropriate test of attachment in some cultures.

10 Gender identity is the degree to which one regards oneself as male or female. It is distinct from sex typing, the acquisition of characteristics and behaviors that society considers appropriate for one's sex. Social learning theory emphasizes the rewards and punishments that children receive for sex-appropriate and sex-inappropriate behaviors,

as well as a process of identification with same-sex adults that is based on observational learning. A cognitive-developmental theory of gender identity and sex typing holds that once children can identify themselves as male or female, they are motivated to acquire sex-typed behaviors. Their understanding of sex and gender corresponds to Piaget's stages of cognitive development, especially their understanding of gender constancy – the realization that a person's sex remains constant despite changes of age and appearance. Gender schema theory seeks to explain why children base their self-concepts on the male–female distinction in the first place. It emphasizes the role of culture in teaching children to view the world through the lens of gender.

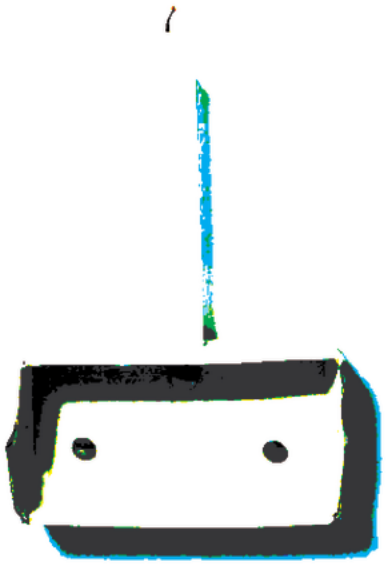
11 Puberty has significant effects on an adolescent's body image, self-esteem, moods, and relationships, but most adolescents make it through this period without major turmoil.

12 According to Erikson's theory, forming a personal sense of identity is the major task of the adolescent period. Identity crisis is Erikson's phrase to describe the active period of self-definition characteristic of adolescence. Identity confusion is the unsuccessful outcome of identity crisis in which the adolescent has no consistent sense of self or set of internal standards for evaluating his or her self-worth in major areas of life.

CORE CONCEPTS

maturation
stages of development
critical periods
sensitive periods
visual field
facial preference
schema
assimilation
accommodation
sensorimotor stage
object permanence
preoperational stage
operation
conservation
egocentrism
concrete operational stage
formal operational stage
information-processing skills
knowledge
sociocultural approach
metacognition
theory of mind
autism
moral judgment
preconventional level of moral development
conventional level of moral development
postconventional level of moral development
temperament
easy temperament
difficult temperament
slow to warm up temperament
separation anxiety
attachment
strange situation
securely attached
insecurely attached: avoidant
insecurely attached: ambivalent
disorganized
sensitive responsiveness
self-concepts
self-esteem
gender identity
sex typing
gender schema
adolescence
puberty
menarche
identity crisis
identity confusion

the rule-based processes (Kahneman, 2003). Social psychologists are especially interested in understanding how we arrive at some of our intuitive knowledge about other human beings. In Chapter 17 you will see that variations on the Stroop task are still used today by social psychologists to study automaticity in social perception.



The solution to the candle problem.

INTERIM SUMMARY

- Problem solving requires breaking down a goal into subgoals that can be obtained more easily.
- Strategies for breaking a goal into subgoals include reducing differences between the current state and the goal state; means–ends analysis (eliminating the most important differences between the current and goal states), and working backward.
- Some problems are easier to solve by using a visual representation, and others can be more readily solved by using a propositional representation. Numerous problems can be solved equally well by visual or propositional representations.
- Expert problem solvers differ from novices in four ways: They have more representations to bring to bear on the problem, they represent novel problems in terms of solution principles rather than surface features, they form a plan before acting, and they tend to reason forward rather than backward.
- Thought processes that do not require effortful attention occur automatically and without conscious control.

CRITICAL THINKING QUESTIONS

1 Think of some activity (an academic subject, game, sport, or hobby) in which you have gained some expertise. How would you characterize the changes that you went through in improving your performance? How do these changes line up with those described in the chapter?

2 How can the findings about expertise in problem solving be used in teaching people professional skills, like teaching medical students about a new specialty?

CHAPTER SUMMARY

1 Language, our primary means for communicating thoughts, is structured at three levels. At the highest level are sentence units, including phrases that can be related to thoughts or propositions. The next level is words and parts of words that carry meaning. The lowest level contains speech sounds. The phrases of a sentence are built from words (and parts of words), whereas the words themselves are constructed from speech sounds.

2 A phoneme is a category of speech sounds. Every language has its own set of phonemes and rules for combining them into words. A morpheme is the smallest unit that carries meaning. Most morphemes are words; others are prefixes and suffixes that are added to words. A language also has syntactic rules for combining words into phrases and phrases into sentences. Understanding a sentence requires not only analyzing phonemes, morphemes, and phrases

but also using context and understanding the speaker's intention. The areas of the brain that are responsible for language lie in the left hemisphere and include Broca's area (frontal cortex) and Wernicke's area (temporal cortex).

3 Language development occurs at three different levels. Infants come into the world preprogrammed to learn phonemes, but they need several years to learn the rules for combining them. When children begin to speak, they learn words that name familiar concepts. In learning to produce sentences, they begin with one-word utterances, progress to two-word telegraphic speech, and then elaborate their noun and verb phrases.

4 Children learn language at least partly by testing hypotheses. Children's hypotheses appear to be guided by a small set of operating principles, which call their attention to critical characteristics of utterances, such as word endings. Innate factors also play a role in language acquisition.

5 Our innate knowledge of language seems to be very rich and detailed, as suggested by the fact that all children seem to go through the same stages in acquiring a language. Like other innate behaviors, some language abilities are learned only during a critical period. It is a matter of controversy whether our innate capacity to learn language is unique to our species. Many studies suggest that chimpanzees and gorillas can learn signs that are equivalent to our words, but they have difficulty learning to combine these signs in the systematic (or syntactic) way in which humans combine words.

6 Thought occurs in different modes, including propositional and imaginal. The basic component of a proposition is a concept, the set of properties we associate with a class. Concepts provide cognitive economy by allowing us to code many different objects as instances of the same concept and also permit us to predict information that is not readily perceptible.

7 A concept includes both a prototype (properties that describe the best examples) and a core (properties that are most essential for being a member of the concept). Core properties play a major role in well-defined concepts like 'grandmother'; prototype properties dominate in fuzzy concepts like 'bird'. Most natural concepts are fuzzy. Concepts are sometimes organized into hierarchies; in such cases, one level of the hierarchy is the basic or preferred level for categorization.

8 Children often learn a concept by following an exemplar strategy. With this technique, a novel item is classified as an instance of a concept if it is sufficiently similar to a known exemplar of the concept. As children grow older, they use hypothesis testing as another strategy for learning concepts. Different categorization processes have been shown to involve different brain mechanisms.

9 In reasoning, we organize our propositions into an argument. Some arguments are deductively valid: It is impossible for the conclusion of the argument to be false if its premises are true. When evaluating a deductive argument, we sometimes try to prove that the conclusion follows from the premises by using logical rules. Other times, however, we use heuristics – rules of thumb – that operate on the content of propositions rather than on their logical form.

10 Some arguments are inductively strong: It is improbable for the conclusion to be false if the premises are true. In generating and evaluating such arguments, we often ignore some of the principles of probability theory and rely instead on heuristics that focus on similarity or causality.

11 Not all thoughts are expressed in propositions; some are manifested as visual images. Such images contain the kind of visual detail found in perceptions. The mental operations performed on images (such as scanning and rotation) are like the operations carried out on perceptions. Imagery seems to be like perception because it is mediated by the same parts of the brain. Brain damage that causes the perceptual problem of visual neglect also causes comparable problems in imagery. Experiments using brain-scanning techniques indicate that the specific brain regions involved in an imagery task are the same as those involved in a perceptual task.

12 Problem solving requires breaking down a goal into subgoals that are easier to obtain. Strategies for doing this include reducing differences between the current state and the goal state, means–ends analysis (eliminating the most important differences between the current and goal states), and working backward. Some problems are easier to solve by using a propositional representation; for other problems, a visual representation works best.

13 Expert problem solvers differ from novices in four basic ways: They have more representations to bring to bear on the problem, they represent novel problems in terms of solution principles rather than surface features, they form a plan before acting, and they tend to reason forward rather than working backward.

CORE CONCEPTS

production of language
comprehension of language
language
phoneme
morpheme
grammatical morpheme
meaning
sentence unit
proposition
noun phrase
verb phrase
syntax
Broca's aphasia
Wernicke's aphasia
overextend
anomic aphasics
propositional thought
imaginal thought
concept
categorization
prototype
core
basic level
deductive validity
syllogism
belief bias
pragmatic rules
mental model
inductively strong
base-rate rule
conjunction rule
heuristic
similarity heuristic
causality heuristic
availability heuristic
representativeness heuristic
confirmation bias
imaginal mode
mental rotation
grain size
visual neglect
difference-reduction method
means–ends analysis
working backward
mental set
functional fixedness
restructuring
automaticity
Stroop effect

WEB RESO

http://www.atkinsonhilgard.com/
Take a quiz, try the activities and exercises, and explore web links.

http://www.cwu.edu/~cwuchci/
Learn more about primates and their language abilities, at the website for the Chimpanzee and Human Communication Institute.

http://www.ilovelanguages.com/
Everything you ever wanted to know about languages.

CHAPTER SUMMARY

1 Although different investigators arrive at different numbers of factors, most now believe that five factors provide the best compromise. These have been labeled the 'Big Five': Openness to experience, Conscientiousness, Extroversion, Agreeableness, and Neuroticism.

2 Although items on most inventories are composed or selected on the basis of a theory, they can also be selected on the basis of their correlation with an external criterion – the criterion-keyed method of test construction. The best-known example is the Minnesota Multiphasic Personality Inventory (MMPI), which is designed to identify individuals with psychological disorders.

3 The Q-sort is a method of assessing personality in which raters sort cards with personality adjectives into nine piles, placing the cards that are least descriptive of the individual in pile 1 on the left and those that are most descriptive in pile 9 on the right.

4 Freud's psychoanalytic theory holds that many behaviors are caused by unconscious motivations. Personality is determined primarily by the biological drives of sex and aggression and by experiences that occur during the first five years of life. Freud's theory of personality structure views personality as composed of the id, the ego, and the superego. The id operates on the pleasure principle, seeking immediate gratification of biological impulses. The ego obeys the reality principle, postponing gratification until it can be achieved in socially acceptable ways. The superego (conscience) imposes moral standards on the individual. In a well-integrated personality, the ego remains in firm but flexible control over the id and superego, and the reality principle governs.

5 Freud's theory of personality development proposes that individuals pass through psychosexual stages and must resolve the Oedipal conflict, in which the young child sees the same-sex parent as a rival for the affection of the opposite-sex parent. Over the years, Freud's theory of anxiety and defense mechanisms has fared better than his structural and developmental theories have.

6 Psychoanalytic theory has been modified by later psychologists, notably Carl Jung and Harry Stack Sullivan. Jung proposed that in addition to the personal unconscious described by Freud, there is a collective unconscious, a part of the mind that is common to all humans. Sullivan suggested that people's responses to interpersonal experiences cause them to develop personifications – mental images of themselves and others.

7 Psychologists who take the psychoanalytic approach sometimes use projective tests, such as the Rorschach Test and the Thematic Apperception Test (TAT). Because the test stimuli are ambiguous, it is assumed that the individual projects his or her personality onto the stimulus, thereby revealing unconscious wishes and motives.

8 Behavioral approaches assume that personality differences result from variations in learning experiences. Through operant conditioning, people learn to associate specific behaviors with punishment or reward. They can also learn these associations through observational learning. Through classical conditioning, people learn to associate specific situations with certain outcomes, such as anxiety.

9 The cognitive approach to personality is based on the idea that differences in personality stem from differences in the way individuals mentally represent information. Albert Bandura developed social cognitive theory, which holds that internal cognitive processes combine with environmental pressures to influence behavior and that cognitive processes and environment have reciprocal effects on each other. Walter Mischel has identified a

number of cognitive person variables that affect people's reactions to the environment and behaviors in the environment. George Kelly's personal construct theory focuses on the concepts that individuals use to interpret themselves and their social world. Much research has focused on the self-schema, the aspects of a person's behavior that are most important to that person. Experiments have shown that people perceive information more readily and recall it better when it is relevant to their self-schemas.

10 The humanistic approach is concerned with the individual's subjective experience. Humanistic psychology was founded as an alternative to psychoanalytic and behaviorist approaches. Carl Rogers argued that the basic force motivating the human organism is the actualizing tendency – a tendency toward fulfillment or actualization of all the capacities of the self. When the needs of the self are denied, severe anxiety can result. Children come to develop an actualized self through the experience of unconditional positive regard from their caregivers. Abraham Maslow proposed that there is a hierarchy of needs, ascending from the basic biological needs to the more complex psychological motivations that become important only after the basic needs have been satisfied. The needs at one level must be at least partially satisfied before those at the next level become important motivators of action.

11 Evolutionary psychology attempts to explain human behavior and personality in terms of the adaptiveness of certain characteristics for survival and reproductive success over human history. Evolutionary theory is consistent with some observed sex differences in mate preferences. It is a controversial theory, however, both for its social implications and for the difficulty of refuting arguments derived from this theory.

12 Evidence from twin studies suggests that genetic factors substantially influence personality traits. In shaping personality, genetic and environmental influences do not act independently but are intertwined from the moment of birth. Because a child's personality and his or her home environment are both a function of the parents' genes, there is a built-in correlation between the child's genotype (inherited personality characteristics) and that environment.

13 Three dynamic processes of personality–environment interaction are (1) reactive interaction – different individuals exposed to the same environment experience it, interpret it, and react to it differently; (2) evocative interaction – an individual's personality evokes distinctive responses from others; and (3) proactive interaction – individuals select or create environments of their own. As a child grows older, the influence of proactive interaction becomes increasingly important.

14 Studies of twins have produced a number of puzzling patterns: Heritabilities estimated from identical twins reared apart are higher than estimates based on comparisons between identical and fraternal twins. Identical twins reared apart are as similar to each other as identical twins reared together, but fraternal twins and non-twin siblings become less similar over time, even when they are reared together. These patterns are probably due in part to interactions among genes, so that having all one's genes in common is more than twice as effective as having only half of one's genes in common. Such patterns might also be due in part to the three processes of personality–environment interaction (reactive, evocative, and proactive).

15 After their genetic similarities are subtracted out, children from the same family seem to be no more alike than children chosen randomly from the population. This implies that the kinds of variables that psychologists typically study (such as child-rearing practices and the family's socioeconomic status) contribute virtually nothing to individual differences in personality.

CORE CONCEPTS

personality
introversion–extroversion
neuroticism
'Big Five'
personality inventory
Minnesota Multiphasic Personality Inventory
Q-sort
psychoanalytic theory
free association
conscious
preconscious
unconscious
psychological determinism
id
ego
superego
libido
defense mechanisms
repression
suppression
rationalization
reaction formation
projection
intellectualization
denial
displacement
psychosexual stages
oral stage
anal stage
phallic stage
Oedipal conflict
latency period
genital stage
collective unconscious
object relations theory
projective test
Rorschach Test
Thematic Apperception Test
behaviorist approach
operant conditioning
observational learning
classical conditioning
cognitive approach
social-learning theory
social-cognitive theory
personal constructs
schema
self-schema
agency
actualizing tendency
self
ideal self
unconditional positive regard
hierarchy of needs
peak experiences
evolutionary psychology
reactive interaction
evocative interaction
proactive interaction

http://www.atkinsonhilgard.com/
Take a quiz, try the activities and exercises, and explore web links.

http://www.freud.org.uk/

http://www.freud-museum.at/e/index.html
Check out the chronology of Freud's life on the Vienna site or photos from the London museum, including Freud's famous couch.

http://pmc.psych.northwestern.edu/personality.html
Why do people differ? This detailed site provides further insight into personality research, as well as a variety of further links to academic and nonacademic web pages.

CHAPTER SUMMARY

1 Stress refers to experiencing events that are perceived as endangering one's physical or psychological well-being. These events are usually referred to as stressors, and people's reactions to them are termed stress responses. Traumatic events are usually perceived as stressful, as are uncontrollable and unpredictable events. Some researchers believe that any major change, as well as internal conflicts, can be stressful.

2 Some people become angry in response to stress and may become aggressive. Withdrawal, apathy, and depression may result from stress. Some people develop learned helplessness, which is characterized by passivity and inaction and the inability to see opportunities to control one's environment. Some people develop cognitive impairment when stressed and cannot think clearly.

3 The body reacts to stress with the fight-or-flight response. The sympathetic nervous system causes increased heart rate, elevated blood pressure, dilated pupils, and release of extra sugar from the liver. The adrenal-cortical system causes the release of adrenocorticotropic hormone (ACTH), which stimulates the release of cortisol in the blood.

4 These reactions are part of a general adaptation syndrome, a set of responses displayed by all organisms in response to stress. The syndrome consists of three phases: alarm, resistance, and exhaustion.

5 Stress may affect health directly by creating chronic overarousal of the sympathetic division of the autonomic nervous system or the adrenal-cortical system or by impairing the immune system. People under stress also may not engage in positive health-related behaviors, and this may lead to illness. Psychophysiological disorders are physical disorders in which emotions are believed to play a central role. For example, stress can contribute to coronary heart disease. Psychoneuroimmunology is the study of how psychological factors can affect the immune system. Stress may impair the functioning of the immune system, increasing the risk of immune-related disorders.

6 Psychoanalytic theory suggests that events are stressful when they arouse our unconscious conflicts. Behaviorists argue that people react to specific situations with fear and anxiety because those situations caused them harm or were stressful in the past. Cognitive theorists argue that people's levels of optimism affect their health. Optimistic people have better immune systems and engage in healthier behaviors.

7 Hardy people tend to see stressful events as challenges and have a strong sense of personal control, characteristics that may protect against the development of illness in the face of stress. People who are able to find meaning in a traumatic event are less likely to develop emotional problems.

8 People with the type A behavior pattern tend to be hostile, aggressive, impatient individuals who are overinvolved in their work. Studies of men and women show that people who exhibit this pattern are at increased risk for coronary heart disease.

9 Coping strategies are divided into problem-focused strategies and emotion-focused strategies. People who take active steps to solve problems are less likely to experience depression and illness following negative life events. People who use rumination or avoidance strategies to cope with negative emotions show longer and more severe distress after negative events than people who seek social support or reappraise an event to cope with their emotions.

10 Biofeedback and relaxation training attempt to teach people how to control their physiological responses by learning to recognize tension and reduce it through deep muscle relaxation and concentration.

11 Exercise can help people cope with stress over the long term.

12 Cognitive behavior therapy attempts to help people recognize and modify their cognitive and behavioral responses to stress.

13 Type A behavior can be changed through behavioral and cognitive techniques, resulting in reduced risk of coronary heart disease.

CORE CONCEPTS

stress
stressors
stress responses
behavioral medicine
traumatic events
controllability
predictability
internal conflicts
anxiety
post-traumatic stress disorder
learned helplessness
fight-or-flight response
general adaptation syndrome
psychophysiological disorders
coronary heart disease
psychoneuroimmunology
objective anxiety
neurotic anxiety
hardiness
type A pattern
coping
problem-focused coping
emotion-focused coping
biofeedback
relaxation training
cognitive behavior therapy

http://www.atkinsonhilgard.com/
Take a quiz, try the activities and exercises, and explore web links.

http://wellness.uwsp.edu/Other/stress/
How stressed are you? Answer the questions on this site and find out.

http://www.coolware.com/health/medical_reporter/stress.html
Learn more about stress, health, and how to cope with the stress in your life.

http://web2.uwindsor.ca/courses/psychology/fsirois/HP_stress_links.html
This site provides an extensive range of stress-related links.

Psyk.Trek 3.0
Check out CD Unit 11, Abnormal Behavior and Therapy
11f Types of stress
11g Responding to stress