Chapter Ten
MOTIVATION AND EMOTION

Review of Key Ideas

MOTIVATIONAL THEORIES AND CONCEPTS

1. Compare drive, incentive, and evolutionary approaches to understanding motivation.

1-1. Drive theories are based on the idea that organisms strive to maintain a state of _____ or physiological equilibrium. For example, organisms are motivated to maintain water balance: when deprived of water they experience thirst. Thirst is a _____ to return to a state of water equilibrium.

1-2. A drive is a state of tension. According to drive theories organisms are motivated to seek drive or tension _____.

1-3. Theories that emphasize the pull from the external environment are known as _____ theories. For example, we may be motivated to eat not as a function of hunger (an internal drive) but as a result of the smell or appearance of food (an external cue). Incentive theories (operate/do not operate) according to the principle of homeostasis (since they don't refer to internal changes).

1-4. From the point of view of evolutionary theory all motivations, such as the needs for affiliation, dominance, achievement, and aggression, occur because they have _____ value for the species. Organisms with adaptive sets of motivational characteristics are more likely to pass their _____ on to the next generation.

1-5. Place the name of the theoretical approach described below (drive, incentive, or evolutionary) in the blanks.

_____ Emphasizes homeostasis, the pressure to return to a state of equilibrium.

_____ Actions result from attempts to reduce internal states of tension.

_____ Emphasizes "pull" from the environment (as opposed to "push" from internal states).

_____ Motivations arise as a function of their capacity to enhance reproductive success, to pass genes to the next generation.

2. Distinguish between the two major categories of motives found in humans.

2-1. Most theories of motivation distinguish between _____ motives (e.g., for food, water, sex, warmth) and _____ motives. Biological needs are generally essential for the _____ of the group or individual.

2-2. Social motives (e.g., for achievement, autonomy, affiliation) are acquired as a result of people's experiences. While there are relatively few biological needs, people theoretically may acquire an unlimited number of _____ needs.

THE MOTIVATION OF HUNGER AND EATING

3. Summarize evidence on the physiological factors implicated in the regulation of hunger.

3-1. Within the brain, a major area identified in eating behavior is the subcortical sructure known as the _____.

3-2. Researchers used to think that eating was controlled by "on" and "off" centers in the hypothalamus. When the lateral hypothalamus (LH) was destroyed, animals stopped eating, as if hunger had been turned off like a switch. When the ventromedial hypothalamus (VMH) was destroyed, animals (started/stopped) eating.

3-3. Current thinking is that eating seems to be controlled more by (complex neural circuits/simple anatomical centers) rather than by on-off centers within the hypothalamus. (While the LH and VMH are still factors in hunger regulation, researchers now think that other parts of the hypothalamus, the arcuate nucleus and paraventricular nucleus, are more important.)

3-4. Much of the food we consume is converted into _____, a simple sugar that is an important source of energy.

3-5. Based on research findings about glucose, Mayer proposed the theory that there are specialized neurons in the brain, which he called _____, that function to monitor blood glucose. Lower levels of glucose, for example, are associated with a(n) (increase/decrease) in hunger.

3-6. For cells to extract glucose from the blood, the hormone _____ must be present. Insulin will produce a(n) (increase/decrease) in the level of sugar in the blood, with the result that the person experiences a(n) (increase/decrease) in the sensation of hunger.

3-7. Among the other _____ that appear to play a role in hunger are ghrelin and CCK, secreted by the stomach and small intestines.

3-8. The hormone_____ is produced by (fat cells/neurons) and circulated to the hypothalamus in the bloodstream. Higher levels of leptin reflect a higher level of fat in the body, which is associated with a (increase/decrease) in the sensation of hunger.

4. Explain how the availability of food, culture, learning, and stress influence hunger.

4-1. Hunger is based not only on a physiological need but on external factors. We eat more when the food is (1) tasty or _____, (2) served in (larger/smaller) quantities and (3) available in (more/fewer) varieties. Thus, some aspects of hunger motivation support the (drive/incentive) approach to motivation.

4-2. Although we have some innate taste preferences (e.g., for sweet, fat), it is also clear that _____ affects what we eat. For example, taste preferences and aversions may be learned by pairing a taste with pleasant or unpleasant experiences, the process of _____ conditioning.

4-3. In addition, we are more likely to eat what we see others eating, so food preferences are acquired not only through conditioning but through the process of _____ learning.

4-4. Our environments also provide frustrating circumstances that create _____, a factor that may also triggers eating in many people. Although stress and increased eating are linked, it's not clear why the relationship occurs.

5. Evaluate evidence on the prevalence and health significance of obesity.

5-1. Obesity is frequently assessed in terms of a weight to height ratio known as the body mass index (BMI). A BMI of 25 to 29.9 is considered moderately overweight, and a BMI of more than 30 is classified as _____.

5-2. Using this measure, approximately one-third (32%) of Americans would be classified as obese (BMI > 30). If the lower cutoff is used (BMI > 25) then approximately _____ of Americans are overweight (moderately overweight or obese).

a. one-third

b. two-thirds

c. 80%

5-3. As shown in Figure 10.4 in your text, the higher the bodyweight per unit height (BMI), the greater the health risk for a variety of illnesses. It is somewhat surprising, then, that among those who are only *moderately* overweight (25 to 29.9) *mortality* (does/does not) appear to increase.

5-4. Why is this the case? Some have suggested that among other factors, improved _____ care (treatment of cardiovascular diseases) may account for the low association between moderate obesity and mortality.

5-5. In addition, some individuals in the moderate category are in fact physically fit, so the low correlation with mortality may be more a problem of _____ than fatness. Nonetheless, the fact remains that obesity at all levels is associated with increased (health risk/mortality).

6. Identify the factors that contribute to the development of obesity.

6-1. Evolutionary theorists propose that in our ancestral past, when faced with the likelihood of famine, people evolved a capacity to overeat. Overeating, as a hedge against food shortages, had _____ value. In the modern world food is no longer scarce, but our tendency to overeat remains.

6-2. It is clear that many factors affect body weight and that some of the most important are genetic. For example, Stunkard et al. (1986) found that adopted children were much more similar in BMI to their (biological/adoptive) parents than to their (biological/adoptive) parents, even though they were brought up by the latter.

6-3. The most striking finding of the Stunkard et al. (1990) study with twins was that (identical/fraternal) twins reared *apart* were more similar in BMI than (identical/fraternal) twins reared *together* in the same family environment. This research supports the idea that (genetics/environment) plays a major role in body weight.

6-4. Concerning environmental factors, modern societies have created an environment in which caloric intake from food exceeds that energy expended in exercise. Food is readily available, tasty, and highly caloric, while modern conveniences make _____ less likely to occur.

6-5. The concept of set point may help explain why body weight remains so stable. The theory proposes that each individual has a "natural" body weight that is set, in large part, by the person's (genetics/environment). The body defends one particular weight.

6-6. According to _____ theory, individual differences in body weight are due in large part to differences in genetic makeup. This theory asserts that the body actively defends a (wide range/ particular) body weight by increasing hunger or decreasing metabolism.

6-7. Settling-point theory is a bit more optimistic: individuals who make long-term changes in eating or exercise will drift downward to a lower _____ point without such active resistance. The settling-point view also asserts that this balance is achieved as a result of (a wide variety of/genetic) factors.

SEXUAL MOTIVATION AND BEHAVIOR

7. Outline the four phases of the human sexual response.

7-1. Write the names of the four phases of the human sexual response in the order in which they occur. (Mnemonic: The first letter of each phase name produces EPOR, which happens to be ROPE spelled backward.)

(a) _____

(b) _____

(c) _____

(d) _____

7-2. In the blanks below write the first letter of each phase name that correctly labels the descriptions below.

_____ Rapid increase in arousal (respiration, heart rate, blood pressure, etc.)

_____ Vasocongestion of blood vessels in sexual organs; lubrication in females

_____ Continued arousal, but at a slower place

_____ Tightening of the vaginal entrance

_____ Pulsating muscular contractions and ejaculation

_____ Physiological changes produced by arousal subside

_____ Includes a refractory period for men

8. Discuss parental investment theory and findings on human gender differences in sexual activity.

8-1. Parental investment theory proposes that species' mating patterns are determined by the *investment* each sex must make to produce and nurture offspring. For example, human females are the ones who are pregnant for nine months and breast-feed their offspring, so according to this analysis females have a greater _____ in the child than do males.

8-2. Parental investment theory contends that for the sex with the smaller parental investment, reproductive potential is maximized by mating with as many partners as possible. Thus, males of many mammalian species will seek to mate with (as many/as few) females as possible, while females will optimize their reproductive potential by being (selective/unrestricted) in mating.

8-3. In line with predictions from parental investment theory, research comparing the sexes has found that (true/false):

_____ Men show more interest in sexual activity in general.

_____ Men desire a greater variety in sexual partners.

_____ Men are less willing to engage in casual or uncommitted sex.

_____ Women are more selective, want sexual fewer partners.

_____ Women select based on a partner's potential for contributing to the care of offspring.

9. Describe gender differences in mating preferences, including the Featured Study on women's snap judgments of men's mate potential.

9-1. In their search for a partner, according to evolutionary theories, human females place *greater emphasis* than do males on which of the following characteristics? (Mark yes or no.)

____ Material resources that can be used to support offspring.

____ Ambition, status, wealth.

____ Physical attractiveness.

9-2. In their search for a partner, according to evolutionary theories, human males place greater emphasis than do females on which of the following characteristics? (Mark yes or no.)

____ Youth, which signals ability to have children.

____ Beauty, assumed to be associated with health and fertility.

____ Social status and financial prospects.

9-3. The featured study asked these questions: Simply by looking at a snapshot of a man's face, can women make meaningful judgments about his (1) _____ and (2) liking for _____?

9-4. Participants were 29 women undergraduates, and the snapshots they rated were of the faces of 39 male students (from a different university). The study found that the female subjects' ratings of the masculinity of the males' faces were modestly correlated with the males' _____ levels, as measured by saliva samples.

9-5. The study also found that the females' ratings of the degree of the males' liking for children were modestly correlated with another measure, scores on a paper and pencil _____ of interest in infants.

9-6. One other interesting finding from this study: Higher ratings of masculinity were associated with higher ratings of (short-term/long-term) mate potential and higher ratings of liking for children with higher ratings of (short-term/long-term) mate potential.

9-7. This study suggests that some aspects of reproductive fitness may be revealed in the face. In summary, by simply looking at a snapshot of a male's face, females were able to judge to some degree:

a. hormone levels

b. liking for children

c. suitability for a long- or short-term relationship

d. all of the above.

10. Summarize evidence on the impact of erotic materials, including aggressive pornography, on human sexual behavior.

10-1. What is the relationship between exposure to erotic materials and sexual activity? One fairly dependable finding has been that erotic materials tend to (increase/decrease) the likelihood of sexual activity for a few (hours/weeks) after exposure.

10-2. Another effect involves attitudes. In the Zillman and Bryant studies described, male and female undergraduate subjects exposed to heavy doses of pornography over a period of weeks developed *attitudes* about sexual practices that were more (liberal/conventional). Subjects also became (more/less) satisfied with their partners appearance and sexual performance.

10-3. In general researchers (have/have not) found a link between exposure to erotic materials and sex crimes. In addition, pornography appears to play a (major/minor) role in the commission of sexual offenses.

10-4. Some laboratory studies, however, have found that pornography depicting violence against women (decreases/increases) men's tendency to be aggressive toward women. In these studies aggression is defined as willingness to deliver (fake) electric shock to other subjects.

10-5. In addition, some laboratory studies have found that exposure to aggressive pornography makes sexual coercion or rape seem (less/more) offensive to the participants, a troublesome finding in view of current information about the prevalence of rape.

11. Clarify the nature of sexual orientation and discuss the prevalence of homosexuality.

11-1. Sexual orientation refers to a person's preference for emotional and sexual relationships with individuals of the other sex, the same sex, or either sex. Those who prefer relationships with the other sex are termed _____, with the same sex _____, and with either sex _____.

11-2. Because people may have experienced homosexuality in varying degrees, it seems reasonable to consider sexual orientation as a(n) (continuum/all-or-none distinction). In part because of this definitional problem, and in part due to prejudice against homosexuals, it is difficult to determine precisely the proportion of homosexuals in the population. A frequently cited statistic is 10%, but recent survey place the proportion somewhere between _____.

12. Compare environmental and biological theories of sexual orientation.

12-1. What factors determine sexual orientation? Psychoanalysts thought the answer involved some aspect of the parent-child relationship. Behaviorists assumed that it was due to the association of same-sex stimuli with sexual arousal. Thus, both psychoanalytic and behavioral theorists proposed (environmental/biological) explanations of homosexuality.

12-2. Extensive research on homosexuals' upbringing and early childhood experiences has supported the:

a. psychoanalytic point of view

b. behavioral point of view

c. neither of the above

12-3. Most gay men and women recall feeling homosexual inclinations in early childhood, long before they knew what sex was really about. They also report struggling against their orientation. These findings suggest that sexual orientation is

a. more biological than environmental.

b. more environmental than biological.

12-4. Subjects in one of the studies described were gay men who had an identical twin brother, a fraternal twin brother, or an adopted brother. For each of the categories, what percent of the brothers of the subjects were also gay? Place the appropriate percentages in the blanks: 11%, 22%, 52%.

____ Identical twins

____ Fraternal twins

____ Adopted brothers

12-5. While most studies (have/have not) found a difference between gay and straight men in circulating hormones, many theorists do suspect that hormones in the prenatal environment are a factor. For example, researchers have found that offspring of women exposed, during pregnancy, to treatment with a synthetic _____ are more likely to be homosexual.

12-6. While much of the evidence points toward biological factors, the fact that identical twins turn out to share sexual orientation only half of the time suggests that _____ factors are involved in some way. What those factors might be remains unknown, however.

12-7. Homosexuality in men and women seems to follow somewhat different courses. For example, women are more likely than men to _____ their sexual orientation over the course of their adult years. In addition, women are more likely than men to report that their attraction to the same sex emerged in (childhood/adulthood).

ACHIEVEMENT: IN SEARCH OF EXCELLENCE

13. Describe how the need for achievement is measured.

13-1. Do seek out difficult challenges? Strive to outperform others? Set high standards of excellence? The extent that you answered "yes" or "no" to these questions reflects your need for _____.

13-2. To measure need for achievement, researchers use a projective test that ask subjects to tell stories about a series of pictures (e.g., a man holding a violin). This test is the Thematic Apperception Test or _____.

14. Articulate how variations in the need for achievement influence behavior.

14-1. People who score high on need for achievement tend to differ from those who score low in the following ways (true/false):

____ They work harder and persist longer.

____ They are better able to handle negative feedback about performance.

____ They seek immediate gratification and sacrifice future goals.

____ They seek competitive, entrepreneurial occupations.

____ They select tasks of intermediate (not too hard, not to easy) difficulty.

15. Explain how situational factors influence achievement strivings.

15-1. According to Atkinson's elaboration of McClelland's views, achievement-oriented behavior is determined not only by (1) the stable characteristic known as _____ motivation but by (2) the _____ that success will occur and (3) the _____ value of success.

15-2. As the difficulty of a task increases, the _____ of success at the task decreases. At the same time, success at harder tasks may be more satisfying, so the _____ value of the task is likely to increase. When both the incentive value and probability of success are weighed together, people with a high need for achievement would tend to select tasks of (extreme/moderate) difficulty.

THE ELEMENTS OF EMOTIONAL EXPERIENCE

16. Describe the cognitive component of emotion.

16-1. The word *cognition* refers to thoughts, beliefs, or conscious experience. When you encounter a spider (or, for some people, the edge of a cliff or making a speech in public), you might say to yourself, "This is terrifying (or maybe disgusting)." This thought or cognition has an evaluative aspect: we assess our emotions as pleasant or unpleasant. Thus, one component of emotion is the thinking or _____ component, which includes _____ in terms of pleasantness-unpleasantness.

17. Understand the physiological and neural bases of emotion.

17-1. The second component of emotion is the _____ component, primarily actions of the _____ nervous system (responsible for flight or flight). Your encounter with the insect might be accompanied by changes in heart rate, breathing, or blood pressure--or by increased electrical conductivity of the skin, known as the _____ skin response (GSR).

17-2. Lie detectors don't actually detect lies, they detect _____ reflected by changes in heart rate, respiration, and GSR. Emotion does not necessarily reflect lying: some people can lie without showing emotional arousal and others show arousal when asked incriminating questions. Advocates claim that polygraphs are about 85% to 90% accurate; recent research (supports/does not support) this claim. In most courtrooms polygraph results (are/are not) considered reliable enough to be used as evidence.

17-3. Recent evidence suggests that the brain structure known as the _____ plays a central role in emotion. For example, research has found that animals that have their amygdalas destroyed cannot learn classically conditioned _____ responses.

17-4. The amygdala doesn't process emotion by itself but is at the core of a complex set of neural circuits. According to LeDoux, sensory information relating to fear arrives at the thalamus and from there is relayed along two pathways, to the nearby _____ and also to areas in the _____.

17-5. LeDoux's theory includes that idea that the amygdala processes information extremely rapidly, which has clear _____ value for the organism in threatening situations. The cortex responds more slowly but in greater detail and relays potentially moderating information to the amydala. While the hub of this vigilance system seems to be the _____, both pathways are useful in assessing threat.

17-6. We step into an elevator and are immediately terrified, reflecting the pathway centered in the _____. After thinking about the situation for a while we calm down, a reaction likely to involve the _____.

17-7. While we have emphasized the role of the amygdala in LeDoux's theory, it is important to stress that emotions depends on:

a. a particular brain center

b. a constellation of interacting brain centers

18. Explain how emotions are reflected in facial expressions and the facial feedback hypothesis.

18-1. The third component of emotion is the *behavioral* component. We communicate emotions not only verbally but _____, through our postures, gestures, and, especially, in our facial _____.

18-2. Ekman and Friesen found that there are _____ fundamental facial expressions of emotion: happiness, sadness, anger, fear, surprise, and disgust.

18-3. According to some researchers facial expressions not only reflect emotions but help create them. This viewpoint, known as the _____ hypothesis, asserts that facial muscles send signals to the brain that help produce the subjective experience of emotion. For example, turning up the corners of your mouth and crinkling your eyes will tend to make you feel _____.

19. Review cross-cultural similarities and variations in emotional experience.

19-1. Ekman and Friesen asked people in different cultures to label the emotion shown on photographs of faces. What did they find?

19-2. While there are considerable similarities in emotional expression across cultures, there are some differences. The word labels for sadness, anxiety, and remorse (occur/do not occur) in all cultures. The Japanese tend to use more socially (engaging/disengaging) emotions than do North Americans.

19-3. There are also cultural differences governing when people express particular emotions. For example, what emotions are you "supposed" to show at a funeral, or when watching a sporting event? The unwritten rules that regulate our display of emotion, known as _____ rules, vary considerably across cultures.

THEORIES OF EMOTION

20. Compare the James-Lange and Cannon-Bard theories of emotion.

20-1. Suppose you saw a rat in your room (and assume that you are afraid of rats). Why would you be afraid? One would think that the process would be as follows: First, you would be consciously aware of your fear, then you would experience the autonomic or visceral arousal that accompanies fear. The James-Lange theory reverses this process: We first experience the (visceral arousal/conscious fear) and then we experience (visceral arousal/conscious fear).

20-2. According to the James-Lange theory, then, fear and other emotions occur not as a result of different conscious experiences but as a result of different patterns of _____ activation.

20-3. The Cannon-Bard theory argued that a subcortical structure in the brain (they thought it was the thalamus) simultaneously sends signals to both the cortex and the autonomic nervous system. According to this theory:

a. conscious fear would precede autonomic arousal

b. autonomic arousal would precede conscious fear

c. autonomic arousal and conscious fear would occur at the same time

20-4. According to Cannon-Bard, emotion originates in:

a. subcortical structures

b. the autonomic nervous sytem

c. conscious awareness

20-5. The Cannon-Bard theory contends that different emotions (e.g., fear, joy, love, anger) are accompanied by:

a. different patterns of autonomic arousal

b. nearly identical patterns of autonomic arousal

c. neither of the above

21. Explain the two-factor theory of emotion and evolutionary theories of emotion.

21-1. Schachter's two-factor view is similar to the James-Lange theory in that (visceral arousal/conscious experience) is thought to precede the mental awareness of an emotion. The theory is similar to the Cannon-Bard theory in that (general autonomic arousal/different autonomic responses) is assumed to account for a wide variety of emotions.

21-2. Because arousal is in large part the same regardless of the emotion, according to Schachter, we feel different emotions as a result of *inferences* we make from events in the environment. Hence, the two factors in Schachter's theory are _____ (roughly the same for all emotions) and _____ _____ (people's interpretation of the arousal based on the situation).

21-3. For review of the first three of these theories (James-Lange, Cannon-Bard, Schachter two-factor theories) write the appropriate name in the blanks:

(a) The subjective experience of emotion is caused by different patterns of autonomic arousal. _____

(b) Emotions cannot be distinguished on the basis of an autonomic arousal; general autonomic arousal causes one to look for an explanation or label. _____

(c) Love is accompanied by a different autonomic pattern from hate. _____

(d) The subjective experience of emotion is caused by two factors, by arousal and by cognition. _____

(e) Emotions originate in subcortical brain structures; different emotions produce almost identical patterns of autonomic arousal. _____

(f) Ralph observes that his heart pounds and that he becomes a little out of breath at times. He also notices that these signs of arousal occur whenever Mary is around, so he figures that he must be in love. _____

21-4. By preparing an organism for aggression and defense, the emotion of anger helps an organism survive. From an evolutionary perspective, anger as well as the other emotions have _____ value for a species.

21-5. Evolutionary theorists view emotions primarily as a group of (innate/learned) reactions that have been passed on because of their survival value. They also believe that emotions originate in subcortical areas, parts of the brain that evolved before the cortical structures associated with higher mental processes. In the view of the evolutionary theorists, emotion evolved before thought and is largely (dependent on/independent of) thought.

21-6. How many basic, inherited emotions are there? The evolutionary writers assume that the wide range of emotions we experience are blends or different levels of approximately _____ innate or prewired primary emotions.

REFLECTING ON THE CHAPTER'S THEMES

22. Identify the five unifying themes highlighted in this chapter.

22-1. Five of the text's organizing themes were prominent in this chapter. Indicate which themes fit the following examples by writing the appropriate abbreviations in the blanks below: C for cultural contexts, SH for sociohistorical context, T for theoretical diversity, HE for heredity and environment, and MC for multiple causation.

(a) Achievement behavior is affected by achievement motivation, the likelihood of success, the likelihood of failure, and so on. ____

(b) Display rules in a culture tell us when and where to express an emotion. ____

(c) Changing attitudes about homosexuality have produced more research on sexual orientation; in turn, data from the research has affected societal attitudes. ____

(d) Body weight seems to be influenced by set point, blood glucose, and inherited metabolism. It is also affected by eating habits and acquired tastes, which vary across cultures. ____, ____, and ____

(e) The James-Lange theory proposed that different emotions reflected different patterns of physiological arousal; Cannon-Bard theory assumed that emotions originate in subcortical structures; Schachter viewed emotion as a combination of physiological arousal and cognition ____.

PERSONAL APPLICATION • EXPLORING THE INGREDIENTS OF HAPPINESS

23. Identify factors that do not predict happiness.

23-1. Indicate whether each of the following statements is true or false.

(a) ____ There is very little correlation between income and happiness.

(b) ____ Younger people tend to be happier than older people.

(c) _____ People who have children tend to be happier than those without children.

(d) _____ People with high IQ scores tend to be happier than those with low IQ scores.

(e) _____ There is a negligible correlation between physical attractiveness and happiness.

23-2. List five factors discussed in your text that have little or no relationship to happiness.

24. Review information on factors that are moderately or strongly correlated with happiness.

24-1. Indicate whether each of the following statements is true or false.

(a) _____ One of the strongest predictors of happiness is good health.

(b) _____ Social support and friendship groups are moderately related to happiness.

(c) _____ Religious people tend to be somewhat happier than nonreligious people.

(d) _____ Love and marriage are strongly related to happiness; married people tend to be happier than single people.

(e) _____ Job satisfaction tends to be strongly related to general happiness; people who like their jobs tend to be happy.

(f) _____ Differences in personality have a negligible relationship to happiness.

(g) _____ Introverts, on the average, are just as happy as extraverts.

(h) _____ Genetic predisposition accounts for a substantial part of happiness.

24-2. List three factors that are moderately correlated with happiness and three that are strongly correlated.

25. Explain four conclusions that can be drawn about the dynamics of happiness.

25-1. One conclusion about happiness is that the objective realities of a situation are less important than our _____ reactions to it.

25-2. Second, happiness is _____ to the people to whom we compare ourselves. Do we have a lot to be happy about? It depends on whom we compare ourselves to. We generally compare ourselves to those around us who are _____ to us in some dimensions.

25-3. What future events will make you happy? Unhappy? We think we know, but we tend to (overestimate/underestimate) the impact an event will have on our happiness or sadness. A third conclusion is that people are remarkably _____ at predicting emotional reactions to future events, as found in research on _____ forecasting.

25-4. A fourth conclusion is that we often adapt to changing circumstances by shifting our baseline for judging what is pleasant or unpleasant, a process termed _____ adaptation. The shift is not perfect, and negative events have more impact on future happiness than positive events, but we do _____ more than we or others would have predicted.

CRITICAL THINKING APPLICATION • ANALYZING ARGUMENTS: MAKING SENSE OUT OF CONTROVERSY

26. Identify the key elements in arguments.

26-1. In logic, an *argument* is a series of statements that claims to prove something (whether it does or not). Arguments are comprised of two major parts, a *conclusion* and one or more *premises*. The _____ are statements intended to present reasons for the argument. The _____ supposedly derives from or is proved by the premises. An _____ is a premise for which no evidence or proof is provided.

26-2. Consider this logical argument: "Any field of study that uses the scientific method is a science. Psychology uses the scientific method. Thus, psychology is a science." Label the parts of the argument below (C for conclusion and P for premise).

____ Any field of study that uses the scientific method is a science.

____ Psychology uses the scientific method.

____ Thus, psychology is a science.

27. Explain some common fallacies that often show up in arguments.

27-1. Read over the section on common logical fallacies described in your text. Then match the examples with the appropriate terms. (Suggestion: Use the abbreviations in parentheses for matching. Note that there are five fallacies and nine examples; some fallacies are used more than once.)

irrelevant reasons (IR)

circular reasoning (CR)

slippery slope (SS)

weak analogies (WA)

false dichotomy (FD)

(a) ____ Trouble sleeping causes great difficulty in our lives because insomnia is a major problem for people. (Hint: Is the conclusion different from the premise?)

(b) ____ People with insomnia should use the herb melatonin because insomnia is an enormous problem in our country. (Hint: Is the premise really related to the conclusion?)

(c) ____ Vitamin C is extremely effective in slowing the aging process. I know it is effective because I have taken it for many years.

(d) ____ Vitamin C is extremely effective in slowing the aging process. Obviously, the reason I take Vitamin C is that it works to reduce aging.

(e) ____ An argument from the 1960s: If we don't stop communism in Vietnam now, it will spread next to Laos, then to Cambodia, and then to the entire Southeast Asian Peninsula.

(f) ____ An argument from the 1990s: We can fight in the Balkans now, or we can prepare for World War III. (Hint: Are these our only choices?)

(g) ____ From 2003: You are either with us, or you are with the terrorists.

(h) ____ From 2005: We can either fight them in Iraq, or we will have to fight them here.

(i) ____ Ralph bought a mixmaster on a Tuesday in Peoria and it lasted a long time. If I buy a mixmaster on a Tuesday in Peoria, it should also last a long time.

Review of Key Terms

Achievement motive
Affective forecasting
Argument
Assumptions
Bisexuals
Body Mass Index (BMI)
Display rules
Drive
Emotion
Galvanic skin response (GSR)
Glucose
Glucostats
Hedonic Adaptation
Heterosexuals
Homeostasis
Homosexuals
Incentive
Lie detector
Motivation
Obesity
Polygraph
Premises
Refractory period
Set point theory
Settling-point theory
Sexual orientation
Subjective well-being
Vasocongestion

_____ **1.** Goal-directed behavior that may be affected by needs, wants, interests, desires, and incentives.

_____ **2.** Cultural norms that regulate the expression of emotions.

_____ **3.** One or more premises that are used to provide support for a conclusion.

4. The reasons presented in an argument to persuade someone that a conclusion is true.
5. Premises in an argument which are assumed but for which no proof or evidence is offered.
6. A measure of weight that controls for variations in height; weight in kilograms divided by height in meters, squared.
7. A reaction that includes cognitive, physiological, and behavioral components.
8. Blood sugar.
9. Neurons that are sensitive to glucose.
10. A hormone secreted by the pancreas needed for extracting glucose from the blood.
11. Refers to our ability to predict emotional reactions to future events.
12. The theoretical natural point of stability in body weight.
13. The condition of being overweight.
14. The technical name for the "lie detector."
15. The informal name for polygraph, an apparatus that monitors physiological aspects of arousal (e.g., heart rate, GSR).
16. A state of balance or equilibrium in the body.
17. An internal state of tension that motivates an organism to reduce tension.
18. Engorgement of the blood vessels during the human sexual response.
19. An external goal that motivates behavior.
20. A time following orgasm during which males are unresponsive to sexual stimulation.
21. Whether a person prefers emotional-sexual relationships with members of the same sex, the other sex, or either sex.
22. People who seek emotional-sexual relationships with members of the same sex.
23. People who seek emotional-sexual relationships with members of the other sex.
24. People who seek emotional-sexual relationships with members of either sex.
25. The view that body weight is determined by a wide variety of factors and that the body does not defend a particular point.
26. Individuals' personal perceptions of their overall happiness and life satisfaction.
27. The need to master difficult challenges and to excel in competition with others.
28. An increase in the electrical conductivity of the skin related to an increase in sweat gland activity.

Review of Key People

David Buss
Walter Cannon
Ekman & Wallace Friesen
William James
Joseph LeDoux
William Masters & Virginia Johnson
David McClelland
Stanley Schachter

_____ 1. Proposed that emotions arise in subcortical areas of the brain.

_____ 2. Prominent evolutionary theorist who explored, among many other topics, gender differences in human mate preferences.

_____ 3. Proposed the two-factor theory of emotion.

_____ 4. Proposed that the amygdala serves as a "hub" of rapid emotional response, especially to sensory input involving threat.

_____ 5. Did the ground-breaking work on the physiology of the human sexual response.

_____ 6. Is responsible for most of the early research on achievement motivation.

_____ 7. In a series of cross-cultural studies found that people can identify six or so basic emotions from facial expressions.

_____ 8. Thought that emotion arose from one's perception of variations in autonomic arousal.

Self-Quiz

1. What generally happens when a rat's ventromedial hypothalamus (VMH) is lesioned?
   a. It starts eating.
   b. It looks for a sexual partner.
   c. It becomes aggressive.
   d. It loses bladder and bowel control.

2. The hunger and eating are influenced by:
   a. glucose and leptin
   b. complex brain circuits
   c. the variety and quantity of food available
   d. all of the above

3. What is the effect of insulin on blood glucose?
   a. Glucose level increases.
   b. Glucose level decreases.
   c. Glucose changes to free fatty acids.
   d. CCK increases.

4. According to this theory, the sex that makes the larger investment in offspring (bearing, nursing, etc.) will be more selective of partners than the sex that makes the smaller investment.
   a. adaptation level theory
   b. parental investment theory
   c. investment differentiation theory
   d. social learning theory