

# 13: Emotion

## CHAPTER OVERVIEW

Emotions are responses of the whole individual, involving physiological arousal, expressive behaviors, and conscious experience. Chapter 13 first discusses several theoretical controversies concerning the relationship and sequence of the components of emotion, primarily regarding whether the body's response to a stimulus causes the emotion that is felt and whether thinking is necessary to and must precede the experience of emotion. After describing the physiology of emotion and emotional expressiveness, it examines the components of emotion in detail, particularly as they relate to the emotions of fear, anger, and happiness.

NOTE: Answer guidelines for all Chapter 13 questions begin on page 347.

## CHAPTER REVIEW

First, skim each section, noting headings and boldface items. After you have read the section, review each objective by answering the fill-in and essay-type questions that follow it. As you proceed, evaluate your performance by consulting the answers beginning on page 347. Do not continue with the next section until you understand each answer. If you need to, review or reread the section in the textbook before continuing.

## Theories of Emotion (pp. 513–515)

David Myers at times uses idioms that are unfamiliar to some readers. If you do not know the meaning of any of the following expressions from the introduction and this section in the context in which they appear in the text, refer to page 354 for an explanation: *add color to your life*; *arousal of dread* . . . *elation of ecstasy*; *lash out*.

**Objective 1:** Identify the three components of emotions, and contrast the James-Lange, Cannon-Bard, and two-factor theories of emotion.

- Emotions have three components: \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
- According to the James-Lange theory, emotional states \_\_\_\_\_ (precede/follow) body arousal.

Describe two problems that Walter Cannon identified with the James-Lange theory.

- Cannon proposed that emotional stimuli in the environment are routed simultaneously to the \_\_\_\_\_, which results in awareness of the emotion, and to the \_\_\_\_\_ nervous system, which causes the body's reaction. Because another scientist concurrently proposed similar ideas, this theory has come to be known as the \_\_\_\_\_ theory.
- The two-factor theory of emotion proposes that emotion has two components: \_\_\_\_\_ arousal and a \_\_\_\_\_ label. This theory was proposed by \_\_\_\_\_.

## Embodied Emotion (pp. 516–523)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 354–355 for an explanation: *your stomach develops butterflies*; *shooting free throws*; *clutching*; *sinking sensation*; *peppy left hemisphere* . . . *perky disposition*; *Pinocchio* . . . *telltale sign*; *weeping*; *lumps in the throat* . . . ; *Which is the chicken and which the egg?*; *white lie*; *testy*; *hijack*; *The heart is not always subject to the mind*.

**Objective 2:** Describe the role of the autonomic nervous system during emotional arousal.

- Describe the major physiological changes that each of the following undergoes during emotional arousal:
  - heart: \_\_\_\_\_
  - muscles: \_\_\_\_\_
  - liver: \_\_\_\_\_
  - breathing: \_\_\_\_\_
  - digestion: \_\_\_\_\_
  - pupils: \_\_\_\_\_
  - blood: \_\_\_\_\_
  - skin: \_\_\_\_\_
- The responses of arousal are activated by the \_\_\_\_\_ nervous system. In response to its signal, the \_\_\_\_\_ glands release the hormones \_\_\_\_\_ and \_\_\_\_\_, which increase heart rate, blood pressure, and blood sugar.
- When the need for arousal has passed, the body is calmed through activation of the \_\_\_\_\_ nervous system.

**Objective 3:** Discuss the relationship between arousal and performance.

- People usually perform best when they feel \_\_\_\_\_ aroused.
- The level of arousal for optimal performance \_\_\_\_\_ (varies/is the same) for different tasks.

- For tasks that are \_\_\_\_\_, peak performance comes with relatively \_\_\_\_\_ (high/low) arousal. For tasks that are \_\_\_\_\_, optimal arousal is \_\_\_\_\_ (higher/lower).

**Objective 4:** Name three emotions that involve similar physiological arousal.

- The various emotions are associated with \_\_\_\_\_ (similar/different) forms of physiological arousal. In particular, the emotions of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ are difficult to distinguish physiologically.

**Objective 5:** Describe some physiological and brain pattern indicators of specific emotions.

- The emotions \_\_\_\_\_ and \_\_\_\_\_ are accompanied by differing \_\_\_\_\_ temperatures and \_\_\_\_\_ secretions.
- The emotions \_\_\_\_\_ and \_\_\_\_\_ stimulate different facial muscles.
- The brain circuits underlying different emotions \_\_\_\_\_ (are/are not) different. For example, seeing a fearful face elicits greater activity in the \_\_\_\_\_ than seeing a(n) \_\_\_\_\_ face. People who have generally negative personalities, and those who are prone to \_\_\_\_\_, show more activity in the \_\_\_\_\_ of the brain.
- When people experience positive moods, brain scans reveal more activity in the \_\_\_\_\_.
- Individuals with more active \_\_\_\_\_ (right/left) lobes tend to be more cheerful than those in whom this pattern of brain activity is reversed. This may be due to the rich supply of \_\_\_\_\_ receptors in this area of the brain.

13. Electrical areas of the brain's \_\_\_\_\_ can trigger smiling and laughter.
14. (Thinking Critically) The technical name for the "lie detector" is the \_\_\_\_\_.
- (Thinking Critically) Explain how lie detectors supposedly indicate whether a person is lying.
15. (Thinking Critically) How well the lie detector works depends on whether a person exhibits \_\_\_\_\_ while lying.
16. (Thinking Critically) Those who criticize lie detectors feel that the tests are particularly likely to err in the case of the \_\_\_\_\_ (innocent/guilty), because different \_\_\_\_\_ all register as \_\_\_\_\_.
17. (Thinking Critically) By and large, experts \_\_\_\_\_ (agree/do not agree) that lie detector tests are highly accurate.
18. (Thinking Critically) A test that assesses a suspect's knowledge of details of a crime that only the guilty person should know is the \_\_\_\_\_.
19. For victims with severed spinal cords who have lost all feeling below the neck, the intensity of emotions tends to \_\_\_\_\_. This result supports the \_\_\_\_\_ theory of emotion.
20. Most researchers \_\_\_\_\_ (agree/disagree) with Cannon and Bard's position that emotions involve \_\_\_\_\_ as well as arousal.

**Objective 6:** Explain how the spillover effect influences our experience of emotions.

21. The *spillover effect* refers to occasions when our \_\_\_\_\_ response to one event carries over into our response to another event.
22. Schachter and Singer found that physically aroused college men told that an injection would cause arousal \_\_\_\_\_ (did/did not) become emotional in response to an accomplice's aroused behavior. Physically aroused volunteers not expecting arousal \_\_\_\_\_ (did/did not) become emotional in response to an accomplice's behavior.
23. Arousal \_\_\_\_\_ emotion; cognition \_\_\_\_\_ emotion.

**Objective 7:** Distinguish the two alternative pathways that sensory stimuli may travel when triggering an emotional response.

24. Robert Zajonc believes that the feeling of emotion \_\_\_\_\_ (can/cannot) precede our cognitive labeling of that emotion.

Cite two pieces of evidence that support Zajonc's position.

25. A pathway from the \_\_\_\_\_ via the \_\_\_\_\_ to the \_\_\_\_\_ enables us to experience emotion before \_\_\_\_\_. For more complex emotions, sensory input is routed through the \_\_\_\_\_ for interpretation.

26. The researcher who disagrees with Zajonc and argues that most emotions require cognitive processing is \_\_\_\_\_. According to this view, emotions arise when we \_\_\_\_\_ an event as beneficial or harmful to our well-being.
27. Complex emotions arise from our \_\_\_\_\_ and \_\_\_\_\_. Highly emotional people tend to \_\_\_\_\_ events as being directed at them. They also tend to \_\_\_\_\_ their experiences by blowing them out of proportion.

Express some general conclusions that can be drawn about cognition and emotion.

### Expressed Emotion (pp. 524–532)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to page 355 for an explanation: *good enough at reading; Fidgeting; Ditto; sneer; Fake a big grin.*

**Objective 8:** Describe some of the factors that affect our ability to decipher nonverbal cues.

1. Researchers have found that people who \_\_\_\_\_ (suppress/express) their emotions while watching a distressing film showed impaired \_\_\_\_\_ for details in the film. Emotions may be communicated in words and/or through body expressions, referred to as \_\_\_\_\_ communication.
2. Most people are especially good at interpreting nonverbal \_\_\_\_\_. We read fear and \_\_\_\_\_ mostly from the \_\_\_\_\_,

\_\_\_\_\_, and happiness from the \_\_\_\_\_.

3. Introverts are \_\_\_\_\_ (better/worse) at reading others' emotions, whereas extraverts are themselves \_\_\_\_\_ (easier/harder) to read.
4. Experience can \_\_\_\_\_ people to particular emotions, as revealed by the fact that children who have been physically abused are quicker than others at perceiving \_\_\_\_\_.

**Objective 9:** Describe some gender differences in perceiving and communicating emotions.

5. Women are generally \_\_\_\_\_ (better/worse) than men at detecting nonverbal signs of emotion and in spotting \_\_\_\_\_. Women possess greater emotional \_\_\_\_\_ than men, as revealed by the tendency of men to describe their emotions in \_\_\_\_\_ terms. This gender difference may be a by-product of traditional \_\_\_\_\_ and may contribute to women's greater emotional \_\_\_\_\_.
6. Although women are \_\_\_\_\_ (more/less) likely than men to describe themselves as empathic, physiological measures reveal a much \_\_\_\_\_ (smaller/larger) gender difference. Women are \_\_\_\_\_ (more/less) likely than men to express empathy.
7. Women are also better at conveying \_\_\_\_\_ (which emotion?), whereas men surpass women in conveying their \_\_\_\_\_.
- Objective 10:** Discuss the research on reading and misreading facial and behavioral indicators of emotion.
8. Various emotions may be linked with hard-to-control \_\_\_\_\_. Most people \_\_\_\_\_ (are/are not) very accurate at detecting lying. Accuracy varies, however, with a person's \_\_\_\_\_ and training. For example, \_\_\_\_\_

(people in which professions?) seem to be especially good at detecting lying.

- The absence of nonverbal cues to emotion is one reason that communications sent as \_\_\_\_\_ are easy to misread.

**Objective 11:** Discuss the culture-specific and culturally universal aspects of emotional expression, and explain how emotional expressions could enhance survival.

- Gestures have \_\_\_\_\_ (the same/different) meanings in different cultures.
- Studies of adults indicate that in different cultures facial expressions have \_\_\_\_\_ (the same/different) meanings. Studies of children indicate that the meaning of their facial expressions \_\_\_\_\_ (varies/does not vary) across cultures. The emotional facial expressions of blind children \_\_\_\_\_ (are/are not) the same as those of sighted children.
- According to \_\_\_\_\_, human emotional expressions evolved because they helped our ancestors communicate before language developed. It has also been adaptive for us to \_\_\_\_\_ faces in particular \_\_\_\_\_.
- In cultures that encourage \_\_\_\_\_, emotional expressions are often intense and prolonged. Cultures such as that of Japan \_\_\_\_\_ (also show intense emotion/hide their emotions). This points to the importance of realizing that emotions are not only biological and psychological but also \_\_\_\_\_.

**Objective 12:** Discuss the facial feedback and behavior feedback phenomena, and give an example of each.

- Darwin believed that when an emotion is accompanied by an outward facial expression, the emotion is \_\_\_\_\_ (intensified/diminished).

- In one study, students who were induced to smile \_\_\_\_\_ (found/did not find) cartoons more humorous.
- The \_\_\_\_\_ effect occurs when expressions amplify our emotions by activating muscles associated with specific states.
- Studies have found that imitating another person's facial expressions \_\_\_\_\_ (leads/does not lead) to greater empathy with that person's feelings.
- Similarly, moving our body as we would when experiencing a particular emotion causes us to feel that emotion. This is the \_\_\_\_\_ effect.

**Experienced Emotion** (pp. 532-544)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 355-356 for an explanation: *poisonous; Stone Age fears; hostile outbursts; drain off some of their tension; contradictory maxims; rush of euphoria; lob a bombshell; run amuck; Off your duffs; couch potatoes.*

**Objective 13:** Name several basic emotions, and describe two dimensions psychologists use to differentiate emotions.

- Izard believes that there are \_\_\_\_\_ basic emotions, most of which \_\_\_\_\_ (are/are not) present in infancy. Although others claim that emotions such as pride and love should be added to the list, Izard contends that they are \_\_\_\_\_ of the basic emotions.
- Throughout the world, people place emotions along two dimensions: \_\_\_\_\_, which refers to whether a feeling is \_\_\_\_\_ or \_\_\_\_\_, and high versus low \_\_\_\_\_.

**Objective 14:** State two ways we learn our fears.

- Fear can by and large be seen as a(n) \_\_\_\_\_ (adaptive/maladaptive) response.

- Most human fears are acquired through \_\_\_\_\_.
- In addition, some fears are acquired by \_\_\_\_\_ parents and friends.

**Objective 15:** Discuss some of the biological components of fear.

Explain why researchers think that some fears are biologically predisposed.

- A key to fear learning lies in the \_\_\_\_\_, a neural center in the \_\_\_\_\_ system. Following damage to this area, humans who have been conditioned to fear a loud noise will \_\_\_\_\_ the conditioning but show no \_\_\_\_\_ effect of it.
- The amygdala receives input from the \_\_\_\_\_, a higher-level center for processing emotion.
- People who have suffered damage to the \_\_\_\_\_ will show the \_\_\_\_\_ but \_\_\_\_\_ (will/will not) be able to remember why.
- Patients who have lost use of the \_\_\_\_\_ are unusually trusting of scary-looking people.
- Fears that fall outside the average range are called \_\_\_\_\_. Fearfulness is shaped by both our \_\_\_\_\_ and our \_\_\_\_\_.

**Objective 16:** Identify some common triggers and consequences of anger, and assess the catharsis hypothesis.

- In studying why we become angry, Averill has found that most people become angry several times per week and especially when another person's act seemed \_\_\_\_\_, and \_\_\_\_\_.
- The belief that expressing pent-up emotion is adaptive is most commonly found in cultures that emphasize \_\_\_\_\_. This is the \_\_\_\_\_ hypothesis. In cultures that emphasize \_\_\_\_\_, such as those of \_\_\_\_\_ or \_\_\_\_\_, expressions of anger are less common.
- Psychologists have found that when anger has been provoked, retaliation may have a calming effect under certain circumstances. List the circumstances.
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

Identify some potential problems with expressing anger.

- List two suggestions offered by experts for handling anger.
  - \_\_\_\_\_
  - \_\_\_\_\_
- Researchers have found that students who mentally rehearsed times they \_\_\_\_\_ someone who had hurt them had lower bodily arousal than when they thought of times when they did not.

**Objective 17:** Describe how the feel-good, do-good phenomenon works, and discuss the importance of research on subjective well-being.

- Happy people tend to perceive the world as \_\_\_\_\_.

17. Happy people are also \_\_\_\_\_ (more/less) willing to help others. This is called the \_\_\_\_\_ phenomenon.

18. An individual's self-perceived happiness or satisfaction with life is called his or her \_\_\_\_\_. Research on this subject helps us sift reality from all the contradictory beliefs.

Objective 18: Discuss some of the daily and longer-term variations in the duration of emotions.

19. Positive emotions \_\_\_\_\_ (rise/fall) early in the day and \_\_\_\_\_ (rise/fall) during the later hours.

20. Most people tend to \_\_\_\_\_ (underestimate/overestimate) the long-term emotional consequences of very bad news.

21. After experiencing tragedy or dramatically positive events, people generally \_\_\_\_\_ (regain/do not regain) their previous degree of happiness.

Objective 19: Summarize the findings on the relationship between affluence and happiness.

22. Researchers have found that levels of happiness \_\_\_\_\_ (do/do not) mirror differences in standards of living.

23. Generally speaking, losses have a \_\_\_\_\_ (stronger/weaker) emotional impact than gains.

24. During the last four decades, spendable income in the United States has more than doubled; personal happiness has \_\_\_\_\_ (increased/decreased/remained almost unchanged).

25. Research has demonstrated that people generally experience a higher quality of life and greater well-being when they strive for \_\_\_\_\_

\_\_\_\_\_ than when they strive for \_\_\_\_\_.

Objective 20: Describe how adaptation and relative deprivation affect our appraisals of our achievements.

26. The idea that happiness is relative to one's recent experience is stated by the \_\_\_\_\_ phenomenon.

Explain how this principle accounts for the fact that, for some people, material desires can never be satisfied.

27. The principle that one feels worse off than others is known as \_\_\_\_\_. This helps to explain why the middle- and upper-income people who compare themselves with the relatively poor are \_\_\_\_\_ (slightly more/slightly less/equally) satisfied with life.

Objective 21: Summarize the ways that we can influence our own levels of happiness.

28. List six factors that have been shown to be positively correlated with feelings of happiness.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

29. List five factors that are evidently unrelated to happiness.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

30. Research studies of identical and fraternal twins have led to the estimate that \_\_\_\_\_ percent of the variation in people's happiness ratings is heritable.

31. (Close-Up) State several research-based suggestions for increasing your satisfaction with life.