

UNIT 8B: EMOTIONS AND STRESS

THEORIES OF EMOTION

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

1. Emotions have three components: PHYSIOLOGICAL, AROUSAL, EXPRESSIVE BEHAVIORS, and CONSCIOUS EXPERIENCE.
2. According to the James-Lange theory, emotional states FOLLOW (precede/follow) body arousal.

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

CANNON ARGUED THAT THE BODY'S RESPONSES WERE NOT SUFFICIENTLY DISTINCT TO TRIGGER THE DIFFERENT EMOTIONS AND, FURTHERMORE, THAT PHYSIOLOGICAL CHANGES OCCUR TOO SLOWLY TO TRIGGER SUDDEN EMOTION.

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

EMBODIED EMOTION

OBJECTIVE 2: DESCRIBE THE ROLE OF THE AUTONOMIC NERVOUS SYSTEM DURING EMOTIONAL AROUSAL.

1. Describe the major physiological changes that each of the following undergoes during emotional arousal:
 - a. heart: HEART RATE INCREASES
 - b. muscles: MUSCLES BECOME TENSE
 - c. liver: THE LIVER POURS EXTRA SUGAR INTO THE BLOODSTREAM
 - d. breathing: BREATHING RATE INCREASES
 - e. digestion: DIGESTION SLOWS
 - f. pupils: PUPILS DILATE
 - g. blood: BLOOD TENDS TO CLOT MORE RAPIDLY
 - h. skin: SKIN PERSPIRES
2. The responses of arousal are activated by the SYMPATHETIC nervous system. In response to its signal, the ADRENAL glands release the hormones EPINEPHRINE and NOREPINEPHRINE, which increase heart rate, blood pressure, and blood sugar.

3. When the need for arousal has passed, the body is calmed through activation of the PARASYMPATHETIC nervous system.

OBJECTIVE 3: Discuss the relationship between arousal and performance.

4. People usually perform best when they feel MODERATELY aroused.
5. The level of arousal for optimal performance VARIABLES (varies/is the same) for different tasks.
6. For tasks that are EASY, peak performance comes with relatively HIGH arousal. For tasks that are DIFFICULT, optimal arousal is LOWER (higher/lower).

OBJECTIVE 4: Name three emotions that involve similar physiological arousal.

7. The various emotions are associated with SIMILAR (similar/different) forms of physiological arousal. In particular, the emotions of FEAR, ANGER, and SEXUAL AROUSAL are difficult to distinguish physiologically.

OBJECTIVE 8: Describe some physiological and brain pattern indicators of specific emotions.

8. The emotions FEAR and RAGE are accompanied by differing FINGER temperatures and HORMONE secretions.
9. The emotions FEAR and JOY stimulate different facial muscles.
10. The brain circuits underlying different emotions ARE (are/are not) different. For example, seeing a fearful face elicits greater activity in the AMYGDALA than seeing a(n) ANGRY face. People who have generally negative personalities, and those who are prone to DEPRESSION, show more activity in the RIGHT PREFRONTAL CORTEX of the brain.
11. When people experience positive moods, brain scans reveal more activity in the LEFT FRONTAL LOBE.
12. Individuals with more active LEFT (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 DOPAMINE receptors in this area of the brain.
13. Electrical areas of the brain's NUCLEUS ACCUMBENS can trigger smiling and laughter.

14. (Thinking Critically) The technical name for the “lie detector” is the POLYGRAPH.

(Thinking Critically) Explain how lie detectors supposedly indicate whether a person is lying.

THE POLYGRAPH MEASURES SEVERAL OF THE PHYSIOLOGICAL RESPONSES THAT ACCOMPANY EMOTION, SUCH AS CHANGES IN BREATHING, PULSE RATE, BLOOD PRESSURE, AND PERSPIRATION. THE ASSUMPTION IS THAT LYING IS STRESSFUL, SO A PERSON WHO IS LYING WILL BECOME PHYSIOLOGICALLY AROUSED.

15. (Thinking Critically) How well the lie detector works depends on whether a person exhibits ANXIETY 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 (innocent/guilty), because different EMOTIONS all register as AROUSAL.
17. (Thinking Critically) By and large, experts DO NOT AGREE (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 GUILTY KNOWLEDGE TEST.
19. For victims with severed spinal cords who have lost all feeling below the neck, the intensity of emotions tends to DECREASE. This result supports the JAMES - LANE theory of emotion.
20. Most researchers AGREE (agree/disagree) with Cannon and Bard’s position that emotions involve COGNITION 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 AROUSAL response to one event carries over into our response to another event.
22. Schacter and Singer found that physically aroused college men told that an injection would cause arousal DID NOT (did/did not) become emotional in response to an accomplice’s aroused behavior. Physically aroused volunteers not expecting arousal DID (did/did not) become emotional in response to an accomplice’s behavior.
23. Arousal FUELS emotion; cognition CHANNELS 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 (can/cannot) precede our cognitive labeling of that emotion.

Cite two pieces of evidence that support Zajonc’s position.
FIRST, EXPERIMENTS ON SUBLIMINAL PERCEPTION INDICATE THAT ALTHOUGH STIMULI ARE NOT CONSCIOUSLY PERCEIVED, PEOPLE LATER PREFER THESE STIMULI TO OTHERS THEY HAVE NEVER BEEN EXPOSED TO. SECOND, THERE IS SOME SEPARATION OF THE NEURAL PATHWAYS INVOLVED IN EMOTION AND COGNITION.

25. A pathway from the EYE OR EAR via the THALAMUS to the AMYGDALA enables us to experience emotion before COGNITION. For more complex emotions, sensory input is routed through the CORTEX for interpretation.
26. The researcher who disagrees with Zajonc and argues that most emotions require cognitive processing is LAZARUS. According to this view, emotions arise when we APPRAISE an event as beneficial or harmful to our well-being.
27. Complex emotions arise from our INTERPRETATIONS and EXPECTATIONS. Highly emotional people tend to PERSONALIZE events as being directed at them. They also tend to GENERALIZE their experiences by blowing them out of proportion.

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

IT SEEMS THAT SOME EMOTIONAL RESPONSES - ESPECIALLY SIMPLE LIKES, DISLIKES, AND FEARS - INVOLVE NO CONSCIOUS THINKING. OTHER EMOTIONS ARE GREATLY AFFECTED BY OUR INTERPRETATIONS AND EXPECTATIONS.

EXPRESSED EMOTION

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

1. Researchers have found that people who SUPPRESS (suppress/express) their emotions while watching a distressing film showed impaired MEMORY for details in the film. Emotions may be communicated in words and/or through body expressions, referred to as NONVERBAL communication.
2. Most people are especially good at interpreting nonverbal THREATS. We read fear and ANGER mostly from the EYES, and happiness from the MOUTH.
3. Introverts are BETTER (better/worse) at reading others’ emotions, whereas extraverts are themselves EASIER (easier/harder) to read.
4. Experience can SENSITIZE people to particular emotions, as revealed by the fact that children who have been physically abused are quicker than others at perceiving ANGER.

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

5. Women are generally BETTER (better/worse) than men at detecting nonverbal signs of emotion and in spotting LIES. Women possess greater emotional LITERACY than men, as revealed by the tendency of men to describe their emotions in SIMPLER terms. This gender difference may be a by-product of traditional GENDER ROLES and may contribute to women's greater emotional RESPONSIVENESS.
6. Although women are MORE (more/less) likely than men to describe themselves as empathetic, physiological measures reveal a much SMALLER (smaller/larger) gender difference. Women are MORE (more/less) likely than men to express empathy.
7. Women are also better at conveying HAPPINESS (which emotion?), whereas men surpass women in conveying their ANGER.

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 FACIAL MUSCLES. Most people ARE NOT (are/are not) very accurate at detecting lying. Accuracy varies, however, with a person's EXPERIENCE and training. For example LAW ENFORCEMENT (people in which professions) seem to be especially good at detecting lying.
9. The absence of nonverbal cues to emotion is one reason that communications sent as EMAIL 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.

10. Gestures have DIFFERENT (the same/different) meanings in different cultures.
11. Studies of adults indicate that in different cultures facial expressions have THE SAME (the same/different) meanings. Studies of children indicate that the meaning of their facial expressions DOES NOT VARY (varies/does not vary) across cultures. The emotional facial expressions of blind children ARE (are/are not) the same as those of sighted children.
12. According to DARWIN, human emotional expressions evolved because they helped our ancestors communicate before language developed. It has also been adaptive for us to INTERPRET faces in particular CONTEXTS.
13. In cultures that encourage INDIVIDUALLY, emotional expressions are often intense and prolonged. Cultures such as that of Japan HIDE THEIR EMOTIONS (also show intense emotion/hide their emotions). This points

to the importance of realizing that emotions are not only biological and psychological but also SOCIAL - CULTURAL.

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

14. Darwin believed that when an emotion is accompanied by an outward facial expression, the emotion is INTENSIFIED (intensified/diminished).
15. In one study, students who were induced to smile FOUND (found/did not find) cartoons more humorous.
16. The FACIAL FEEDBACK effect occurs when expressions amplify our emotions by activating muscles associated with specific states.
17. Studies have found that imitating another person's facial expressions LEADS (leads/ does not lead) to greater empathy with that person's feelings.
18. Similarly, moving our body as we would when experiencing a particular emotion causes us to feel that emotion. This is the BEHAVIOR FEEDBACK effect.

EXPERIENCED EMOTION

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

1. Izard believes that there are 10 basic emotions, most of which ARE (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 COMBINATIONS of the basic emotions.
2. Throughout the world, people place emotions along two dimensions: VALENCE, which refers to whether a feeling is PLEASANT or UNPLEASANT, and high versus low AROUSAL.

OBJECTIVE 14: State two ways we learn from our fears.

3. Fear can by and large be seen as a(n) ADAPTIVE (adaptive/maladaptive) response.
4. Most human fears are acquired through LEARNING (CONDITIONING).
5. In addition, some fears are acquired by OBSERVING parents and friends.

OBJECTIVE 15: Discuss some of the biological components of fear.

Explain why researchers think that some fears are biologically predisposed.

THE FACT THAT HUMANS QUICKLY LEARN AND SLOWLY UNLEARN TO FEAR SNAKES, SPIDERS AND CLIFFS - FEARS THAT WERE PRESUMABLY VERY USEFUL TO OUR ANCESTORS - SUGGESTS THAT THESE ARE BIOLOGICALLY PREDISPOSED FEARS THAT DEVELOP WITH LITTLE OR NO LEARNING.

6. A key to fear learning lies in the **__AMYGDALA__**, a neural center in the **__LIMBIC__** system. Following damage to this area, humans who have been conditioned to fear a loud noise will **__REMEMBER__** the conditioning but show no **__EMOTIONAL__** effect of it.
7. The amygdala receives input from the **__ANTERIOR__** **__CINGULATE__** **__CORTEX__**, a higher-level center for processing emotion.
8. People who have suffered damage to the **__HIPPOCAMPUS__** will show **__EMOTIONAL__** **__REACTION__** but **__WILL NOT__** (will/will not) be able to remember why.
9. Patients who have lost use of the **__AMYGDALA__** are unusually trusting of scary-looking people.
10. Fears that fall outside the average range are called **__PHOBIAS__**. Fearfulness is shaped by both our **__EXPERIENCE__** and our **__GENES__**.

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

11. 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 **__WILLFUL__**, **__UNJUSTIFIED__**, and **__AVOIDABLE__**.
12. The belief that expressing pent-up emotion is adaptive is most commonly found in cultures that emphasize **__INDIVIDUALITY__**. This is the **__CATHARSIS__** hypothesis. In cultures that empathize **__INTERDEPENDENCE__**, such as those of **__TAHITI__** or **__JAPAN__**, expressions of anger are less common.
13. Psychologists have found that when anger has been provoked, retaliation may have a calming effect under certain circumstances. List the circumstances.
 - a. **__RETALIATION MUST BE DIRECTED AGAINST THE PERSON WHO PROVOKED THE ANGER__**
 - b. **__RETALIATION MUST BE JUSTIFIABLE__**
 - c. **__THE TARGET OF THE RETALIATION MUST NOT BE SOMEONE WHO IS INTIMIDATING__**

Identify some potential problems with expressing anger.

ONE PROBLEM WITH EXPRESSING ANGER IS THAT IT BREEDS MORE ANGER, IN PART BECAUSE IT MAY TRIGGER RETALIATION. EXPRESSING ANGER CAN ALSO MAGNIFY ANGER AND REINFORCE ITS OCCURRENCE.

14. List two suggestions offered by experts for handling anger.
 - a. **__WAIT FOR TO CALM DOWN__**
 - b. **__DEAL WITH ANGER IN A WAY THAT INVOLVES NEITHER CHRONIC ANGER NOR PASSIVE SULKING__**
15. Researchers have found that students who mentally rehearsed times they **__FIRGAVE__** 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.

16. Happy people tend to perceive the world as **__SAFER__**.
17. Happy people are also **__MORE__** (more/less) willing to help others. This is called the **__FEEL__** - **__GOOD__**, **__DO__** - **__GOOD__** phenomenon.
18. An individual's self-perceived happiness or satisfaction with life is called his or her **__SUBJECTIVE WELL BEING__**. 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__** (rise/fall) early in the day and **__FALL__** (rise/fall) during the later hours.
20. Most people tend to **__OVERESTIMATE__** (underestimate/overestimate) the long-term emotional consequences of very bad news.
21. After experiencing tragedy or dramatically positive events, people generally **__REGAIN__** (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 NOT__** (do/do not) mirror differences in standards of living.
23. Generally speaking, losses have a **__STRONGER__** (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 **__REMAINED ALMOST UNCHANGED__** (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 **__INTIMACY, PERSONAL GROWTH AND CONTRIBUTION TO THE COMMUNITY__** than when they strive for **__WEALTH__**.

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 **__ADAPTATION__** - **__LEVEL__** phenomenon.

Explain how this principle accounts for the fact that, for some people, material desires can never be satisfied. **IF WE ACQUIRE NEW POSSESSIONS, WE FEEL AN INITIAL SURGE OF PLEASURE. BUT WE THEN ADAPT TO HAVING THESE NEW POSSESSIONS, COME TO SEE THEM AS NORMAL, AND REQUIRE OTHER THINGS TO GIVE US ANOTHER SURGE OF HAPPINESS.**

27. The principle that one feels worse off than others is known as **___RELATIVE___** **___DEPRIVATION___**. This helps to explain why the middle- and upper-income people who compare themselves with the relatively poor are **___SLIGHTLY MORE___** (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.

HIGH SELF-ESTEEM

SATISFYING MARRIAGE OR CLOSE FRIENDSHIPS

MEANINGFUL RELIGIOUS FAITH

OPTIMISTIC OUTGOING PERSONALITY

GOOD SLEEPING HABITS AND REGULAR EXERCISE

HAVING WORK AND LEISURE THAT ENGAGE OUR SKILLS

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

AGE

GENDER

EDUCATION

PARENTHOOD

PHYSICAL ATTRACTIVENESS

30. Research studies of identical and fraternal twins have led to the estimate that **___50___** percent of the variation in people's happiness ratings is heritable.

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

REALIZE THAT HAPPINESS DOESN'T COME FROM

FINANCIAL SUCCESS. TAKE CONTROL OF YOUR TIME. ACT

HAPPY. SEEK WORK AND LEISURE THAT ENGAGES YOUR

SKILLS. ENGAGE IN REGULAR AEROBIC EXERCISE. GET

PLENTRY OF SLEEP. GIVE PRIORITY TO CLOSE

RELATIONSHIPS. FOCUS BEYOND SELF. BE GRATEFUL.

NURTURE YOUR SPIRITUAL SELF.