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___, ___EXPRESSION___ ___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 ___VARY___ (varies/is the same) for different tasks.

6. For tasks that are ___EASY___, peak performance comes with relatively ___HIGH___ (high/low) 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__.

15. (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.

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.

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 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.

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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 ___ 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 be ___ LARGE (large/small) be seen as an ___ 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 amygdale 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 emphasize __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 it to calm down__
   b. __Deal with anger in a way that involves neither chronic anger nor passive sulk ing__

15. Researchers have found that students who mentally rehearsed times they __forgave__ 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 PLENTY OF SLEEP. GIVE PRIORITY TO CLOSE RELATIONSHIPS. FOCUS BEYOND SELF. BE GRATEFUL.
- NURTURE YOUR SPIRITUAL SELF.