Mark Minnick

Lesson Plan - Learning about the Theories of Emotion

This set of lessons is intended to help students understand the different theories of human emotions (both old and new) and be able to differentiate them. While the current AP Psychology Course and Exam Description does not require students to know the names of the different theories, my students feel it is easier to keep them straight when we learn the names in addition to the theoretical concepts. So this lesson does incorporate the names of the theories into the learning objectives.

Several of the activities were created by modifying lessons and research from other teachers, researchers, or published sources. Additionally, AI tools were utilized to add some additional student practice questions for the activities.

Students should have already been assigned supplemental materials (possibly textbook reading, instructional videos, or other sources) to supplement and extend the knowledge and skills acquired from class. This allows for more time to be devoted to demonstrations of concepts, instead of having to focus exclusively on the volume of information that students need to learn.

Providing students with a list of concepts that they will need to understand by the completion of the unit is often helpful. It tends to make them pay more attention to those concepts when they are presented in class and highlights the importance of the student completing the supplemental readings if some of those concepts are not well-learned in class.

Learning Objectives:

Students will be able to:

- Identify and differentiate the major theories of human emotions
- Explain the differing views of the biological and cognitive aspects of human emotion, as included in different theories.
- Describe some ways that research can be conducted on human emotions.

These learning objectives correspond to Content Standard 3: Perspectives on Emotion for the Motivation and Emotion Standard Area in the Social and Personality Pillar from APA's National Standards for High School Psychology. They also correspond to the 4.7A Learning Objective and Essential Knowledge for AP Psychology, Science Practices 2-4 for AP Psychology, and Arkansas Social Studies Academic Standard SS.1.PSY.13.

Lesson 1 - The Early Theories of Emotion

This lesson begins with an activity to demonstrate the Facial Feedback Hypothesis. The original activity was designed by Charles Schallhorn and Jeff Lunde and has been published in several different resources. It has been modified slightly with a slide presentation, but it is still following the same basic guidelines set out in the original activity.

Demonstration - Activity #1 - 20 minutes

- The class is divided into two groups, typically just down the middle of the room.
- One group is instructed to hold a pencil on their upper lip, squeezing it between their lip and their nose to keep it in place. The other group is instructed to hold a pencil in their teeth, without their lips touching it. Both groups have a piece of paper at hand to record a rating immediately following the activity.
- With the pencils in place, I show a slideshow of humorous content. I have used a variety of different slideshows, including various memes, comic strips, "demotivational" posters, etc. It does not seem to matter which slides I use. I offer no commentary or explanation during the slides.
- Immediately following the slideshow, students are instructed to write down a rating of how funny they thought it was, using a scale of 1-10, where 1 is not funny at all, and 10 is the funniest. Find an average score for each group and compare. Usually, (but not always), the group holding the pencil in their teeth will rate the slideshow as funnier.
- Discuss the results with the class, explaining the Facial Feedback Hypothesis and why the results did (or did not) represent that concept. The students will bring up ideas like, it was easier to hold the pencil in their teeth, or they might have been uncomfortable about germs with their pencil in their teeth. (I try to keep a box of new pencils for students who feel this way.)

Interactive Lecture - 15 minutes

- Lecture on the three historical theories of emotion - James-Lange, Cannon-Bard, and Schacter-Singer. Include numerous examples and personal reflections for students, eliciting information from them as you explain the theories. Use a variety of question types and difficulties, sometimes allowing anyone to respond and other times calling on specific individuals.

Independent Practice - Activity #2 - 15 minutes

- Give students the Practice Activity that differentiates the three theories. This can be done on paper or in a Learning Management System (LMS), like Schoology or Blackboard. After they complete the activity, discuss the answers and clear up any questions.
- Distribute the article "The Untapped Power of Smiling" by Ron Gutman. Have students read the article and be prepared to discuss it in the next class period.

Lesson #2 - Modern Theories of Emotion

This lesson includes an activity that I created based on Dr. Barbara Frederickson's research on Broaden-and-Build Theory. An experiment that she conducted under controlled conditions has been modified into a short classroom demonstration. The goal is for students to see how positive emotions can have positive effects in school and potentially beyond. Dr. Frederickson utilized 5 different videos, and I have narrowed them to 3. She also assessed Broadened Attention and Thought-Action Repertoires using more sophisticated tools. But her results showed that positive emotions resulted in higher creativity, so I included the self-assessment for creativity. And for students, anything that might link to improved academic performance is critical, so that task was included as well.

Demonstration - Activity #3 - 15-20 minutes

- This activity works best if students can be divided into 3 groups without their knowledge. A good LMS will allow different tasks to be assigned to different groups, without the students' awareness of the difference.
- Each group is assigned to watch a specific video. One group is given a video of penguins playing in the water and waddling on the shore. This video is intended to elicit positive emotions. One group is given a video of leaves falling. This video is intended to elicit no particular emotional response (neutral or control). The third group is given a video of abandoned or abused pets (like an ASPCA commercial). This video is intended to elicit negative emotions. Each group watches their video on their own personal device, with headphones, so no one else is aware that other students are watching different videos.
- After the students have completed their videos, each student completes the same two tasks - a creative task and a more typical academic task.
    - I have the students respond to this prompt. "Compose the first 2 paragraphs of a creative short story about an individual experiencing an extreme emotional response." Then they rate their own level of creative thought on a basic 1-10 scale, where 1 represents "No Creativity," and 10 represents "Extreme Creativity."
    - Then the students complete a short quiz on the article from the previous day. I would typically use about 5 questions that are fairly straightforward (see the attached Quiz #1). You could alternatively have students complete a short quiz on information that was learned in class on the previous day (see attached Quiz #2). No rating is necessary for this task. It is simply the number of correct answers.
- Then compare the data. Without sharing student names, I put the individual Creativity Ratings and Quiz Scores on the board, arranged by group, but not identifying the differences between the groups yet. We calculate the means for easy comparison and then discuss the difference between the groups - which video they watched and why that might matter in their results.

- While I have only done this activity for two years, the results have been meaningful, with the group watching the positive emotion video trending to higher scores on both creative and academic tasks. The group watching the negative emotion video has typically been equal with the group who watched the neutral emotion video on the academic task, and somewhat lower on the creative task. While certainly not a controlled experiment, it serves as a good demonstration of the concepts of the Broaden-and-Build theory.

Interactive Lecture - 15 minutes

- Lecture on the three more modern theories of Emotion - Broaden-and-Build Theory, Lazarus' Cognitive Appraisal Theory, and the Zajonc-Ledoux Theory of "high road" and "low road." Keep students engaged by utilizing their personal experiences, eliciting information and examples from them in response to targeted questions.

Discussion - 10 minutes

- In a structured discussion, have students offer opinions (claims) and personal anecdotes for evidence of each of the 6 theories presented. Have students critique each theory and evaluate for themselves which one (or ones) has/have the most validity in terms of adequately explaining human emotions. Pay particular attention to the biological and cognitive differences between the different theories.

Independent Practice - 5 minutes

- Have students read the description of Paul Ekman's research on the universality of emotional expressions. The book "Forty Studies that Changed Psychology" by Roger Hock is a good source for this research summary. Have students practice answering questions about a research study by having them complete the independent practice assignment. (See attached assignment - Ekman's research). For AP Psychology students, this is a good way to practice the components of an AAQ.

Assessment of Lesson Learning Objectives

The Learning Objectives will be assessed on a larger unit test, in addition to the formative assessments completed during class, through discussion and independent practice. Students whose performance on the formative assessments indicates that they need additional assistance will be pulled in during RTI time, study hall, or scheduled outside normal school hours, if possible, for reteaching and extra help with the concepts and skills.

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Early Theories of Emotion

Scenario Questions

1. **The Dark Alley:** You are walking down a dark alley and hear footsteps behind you. Your heart begins to race. You think, "That's a person following me," and then you feel intense fear. Which theory best describes this?
2. **The High Bridge:** A person crosses a shaky bridge, which causes their heart to pound. At the end of the bridge, an attractive stranger asks them for directions. The person interprets their racing heart as romantic attraction rather than fear. This "misattribution of arousal" supports which theory?
3. **The Sudden Jump:** You are startled by a loud "BOO!" Your heart jumps, and you feel a surge of fear at the same moment. Which theory argues that these two reactions are triggered simultaneously by the thalamus?
4. **The Grizzly Bear:** You are hiking when a grizzly bear suddenly steps onto the trail. You immediately turn and run as fast as you can. As you are running, you notice your heart is pounding, and your legs are shaking, and **because** of these physical responses, you become afraid. Which theory argues that the emotion of fear follows the physical response?
5. **The Roller Coaster:** Two friends ride a roller coaster. Friend A feels their stomach drop and immediately feels terrified. Friend B feels their stomach drop, looks at the loop-de-loop, labels the feeling as "excitement," and feels thrilled. What theory explains the difference in their emotional experiences?
6. **The Spinal Cord Injury:** A patient with a spinal cord injury can no longer feel physical sensations from the neck down, yet they still report feeling the same intensity of emotions as before their injury. This evidence poses a significant challenge to which theory?
7. **The Presentation:** Right before a big speech, your palms sweat and your breathing becomes shallow. Which theory would propose that those reactions mean you are nervous?

Concept Questions

8. **The Role of Cognition:** Which of the three theories is the only one to require a conscious "cognitive label" or interpretation of the environment before an emotion is fully felt?
9. **Independence of Systems:** Which theory suggests that the physiological response (like crying) and the emotional experience (like sadness) are entirely separate processes that do not rely on one another?
10. **The Sequence Challenge:** Contrast the James-Lange and Schachter-Singer theories. In which theory does the physiological arousal occur *before* the emotion, and in which theory is the arousal *insufficient* on its own to produce a specific emotion?

Answer Key for Teachers

Scenario Questions

1. **The Dark Alley:** You are walking down a dark alley and hear footsteps behind you. Your heart begins to race. You think, "That's a person following me," and then you feel intense fear. Which theory best describes this?
   -Schacter-Singer - Includes a cognitive label ("That's a person following me").

2. **The High Bridge:** A person crosses a shaky bridge, which causes their heart to pound. At the end of the bridge, an attractive stranger asks them for directions. The person interprets their racing heart as romantic attraction rather than fear. This "misattribution of arousal" supports which theory?
   -Schacter-Singer - Demonstrates that the same arousal can be interpreted differently.

3. **The Sudden Jump:** You are startled by a loud "BOO!" Your heart jumps, and you feel a surge of fear at the same moment. Which theory argues that these two reactions are triggered simultaneously by the thalamus?
   -Cannon-Bard - Emphasizes the simultaneous nature of the response.

4. **The Grizzly Bear:** You are hiking when a grizzly bear suddenly steps onto the trail. You immediately turn and run as fast as you can. As you are running, you notice your heart is pounding, and your legs are shaking, and **because** of these physical responses, you become afraid. Which theory argues that the emotion of fear follows the physical response?
   -James-Lange - Suggests that the physical act (running, etc.) causes the emotion.

5. **The Roller Coaster:** Two friends ride a roller coaster. Friend A feels their stomach drop and immediately feels terrified. Friend B feels their stomach drop, looks at the loop-de-loop, labels the feeling as "excitement," and feels thrilled. What theory explains the difference in their emotional experiences?
   -Schacter-Singer - Shows how cognitive appraisal of the environment changes the experienced emotion.

6. **The Spinal Cord Injury:** A patient with a spinal cord injury can no longer feel physical sensations from the neck down, yet they still report feeling the same intensity of emotions as before their injury. This evidence poses a significant challenge to which theory?
   -James-Lange - No physical sensation would mean no emotion.

7. **The Presentation:** Right before a big speech, your palms sweat and your breathing becomes shallow. Which theory would propose that those reactions mean you are nervous?
   -James-Lange - The feeling is simply the brain's perception of the sweating/breathing.

Concept Questions

8. **The Role of Cognition:** Which of the three theories is the only one to require a conscious "cognitive label" or interpretation of the environment before an emotion is fully felt?
   -Schacter-Singer - The "Two Factor" refers to Physiological Arousal and Cognitive Labeling.

9. **Independence of Systems:** Which theory suggests that the physiological response (like crying) and the emotional experience (like sadness) are entirely separate processes that do not rely on one another?
   -Cannon-Bard - They are parallel and simultaneous but independent processes.

10. **The Sequence Challenge:** Contrast the James-Lange and Schachter-Singer theories. In which theory does the physiological arousal occur *before* the emotion, and in which theory is the arousal *insufficient* on its own to produce a specific emotion?
    -Both - Both theories have arousal prior to the emotion.
    -Schacter-Singer - Requires a cognitive label to specify which emotion.

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Article Quiz

1. What conclusion was reached about the baseball players, based on whether or not they were smiling in their baseball card photograph?

2. What group in the population was identified as smiling the most (as many as 400 times per day)?

3. What impaired the ability of test subjects to identify whether a smile was a real one or a fake one?

4. Who proposed the Facial Feedback Response Theory, which suggests that the act of smiling makes us feel better, instead of just smiling when we already feel good?

5. What food was smiling compared to, in terms of the way it stimulates the brain's reward mechanisms?

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Article Quiz - ANSWERS

1. What conclusion was reached about the baseball players, based on whether or not they were smiling in their baseball card photograph?
   -Players who smiled in their baseball card photographs had longer overall lifespans - 79.9 years compared to 72.9 years if they didn't smile.

2. What group in the population was identified as smiling the most (as many as 400 times per day)?
   -Children

3. What impaired the ability of test subjects to identify whether a smile was a real one or a fake one?
   -Holding a pencil in their mouth (could discuss how this is different than the initial activity in the lesson.)

4. Who proposed the Facial Feedback Response Theory, which suggests that the act of smiling makes us feel better, instead of just smiling when we already feel good?
   -Charles Darwin

5. What food was smiling compared to, in terms of the way it stimulates the brain's reward mechanisms?
   -Chocolate

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Concept Retrieval Practice

1. **The Surprise Party:** You walk into a dark room, and your friends jump out, yelling, "Surprise!" Your heart rate spikes, and you feel a rush of joy at the exact same time. You don't have to think about why you're happy, and your body doesn't react before your mind does. Which theory does this simultaneous reaction support?

2. **The Caffeine Experiment:** A student drinks a high-caffeine energy drink, causing their heart to race and hands to shake. If they are in a library, they label the feeling as "test anxiety." If they are at a concert, they label the same physical shaking as "pure excitement." This reliance on the environment to identify the emotion points to which theory?

3. **The Near-Miss Collision:** You are driving and almost hit a car that pulled out in front of you. You swerve and brake successfully. Only *after* the car is safe and you have stopped moving do you notice your hands shaking and then suddenly feel a wave of intense panic. Which theory argues that the emotion of panic is the result of sensing physical shaking?

4. **The Movie Theater:** You are watching a horror movie. Your breathing becomes shallow, and your muscles tense up. Which theory would propose that your tense muscles and the feeling of fear are independent; the muscle tension does not cause the fear, and the fear does not cause the tension?

5. **The "Thinking" Requirement:** If you believe that emotions are impossible without first consciously evaluating the cause of your physical arousal (an "appraisal" step), which theory are you defending?

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Concept Retrieval Practice - ANSWERS

1. **The Surprise Party:** You walk into a dark room, and your friends jump out, yelling, "Surprise!" Your heart rate spikes, and you feel a rush of joy at the exact same time. You don't have to think about why you're happy, and your body doesn't react before your mind does. Which theory does this simultaneous reaction support?
   - Cannon-Bard - Highlights the "at the same time" (simultaneous) nature of the response.

2. **The Caffeine Experiment:** A student drinks a high-caffeine energy drink, causing their heart to race and hands to shake. If they are in a library, they label the feeling as "test anxiety." If they are at a concert, they label the same physical shaking as "pure excitement." This reliance on the environment to identify the emotion points to which theory?
   - Schacter-Singer - Shows how the same physical state is labeled differently based on the situation.

3. **The Near-Miss Collision:** You are driving and almost hit a car that pulled out in front of you. You swerve and brake successfully. Only *after* the car is safe and you have stopped moving do you notice your hands shaking and then suddenly feel a wave of intense panic. Which theory argues that the emotion of panic is the result of sensing physical shaking?
   - James-Lange - The emotion (panic) is a reaction to the physical state (shaking) that happened first.

4. **The Movie Theater:** You are watching a horror movie. Your breathing becomes shallow, and your muscles tense up. Which theory would propose that your tense muscles and the feeling of fear are independent; the muscle tension does not cause the fear, and the fear does not cause the tension?
   - Cannon-Bard - because they are occurring independently.

5. **The "Thinking" Requirement:** If you believe that emotions are impossible without first consciously evaluating the cause of your physical arousal (an "appraisal" step), which theory are you defending?
   - Schacter-Singer - This theory requires both a physical stimulus and a cognitive "label" or appraisal.

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Research on Emotions

For the assigned summary of a research study, complete the following questions.

1. Who conducted the study?

2. When was it conducted?

3. What issue was the study intended to address?

4. Identify the research method used in the study. How do you know that it was that research method? If relevant, what were the variables, what groups were utilized, and what control measures were in place?

5. State the operational definition of identifying emotional expressions.

6. Describe what the difference in the percentages choosing the correct photograph indicates for adults.

7. Identify one ethical guideline described in the study. Describe one way the researchers in the study applied this ethical guideline.

8. Explain the extent to which the research findings may or may not be generalizable, using specific and relevant evidence from the study. Why is the study significant? How did it change the way we understand ourselves?

9. What were the results? How did they compare to the hypothesis? Explain how at least one of the research findings supports or refutes the initial hypothesis.

10. Explain how at least one of the research findings supports or refutes the psychological concept of the mere exposure effect.

11. Do you think that it can really be this easy to draw such a significant conclusion? Are there other viable explanations for the results that were noted?

12. If emotional responses and facial expressions are innate, what does that mean about many other human behaviors that we assume are the product of our free will? Does it call them into question? Why or why not?

Citations

Facial Feedback Activity Source

Schallhorn, C., & Lunde, J. (1999). The facial feedback hypothesis: Are emotions really related to the faces we make? (Activity 52). In L. T. Benjamin, Jr., B. F. Nodine, R. M. Ernst, & C. Blair-Broeker (Eds.), *Activities handbook for the teaching of psychology* (Vol. 4, pp. 228–232). American Psychological Association.

Supplemental Reading for Day 1

Gutman, R. (2011, March 22). The untapped power of smiling. *Forbes*. https://www.forbes.com/sites/ericsavitz/2011/03/22/the-untapped-power-of-smiling/

Broaden-and-Build Activity Source

Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, *19*(3), 313–332. https://doi.org/10.1080/02699930441000238

Supplemental Reading for Day 2

Hock, R. R. (2013). I can see it all over your face! (Reading 22). In *Forty studies that changed psychology: Explorations into the history of psychological research* (7th ed., pp. 168–174). Pearson.