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AP<sup>®</sup>

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# AP<sup>®</sup> Psychology

## Sample Student Responses and Scoring Commentary Set 2

### **Inside:**

#### **Free-Response Question 1**

- Scoring Guidelines**
- Student Samples**
- Scoring Commentary**

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**Question 1: Concept Application****7 points****General Considerations**

1. Answers must be cogent enough for the meaning to come through. Spelling and grammatical mistakes do not reduce a score, but spelling must be close enough so that the reader is convinced of the word.
2. A response can earn points only if the student clearly conveys what part of the question is being answered. It is possible to infer the part of the question being answered if it is consistent with the order of the question.
3. The response must apply the concept to the prompt. A definition alone will not earn the point, but a clear definition can support the application.
4. Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.
5. Within a point, a response will not be penalized for incorrect information unless it *directly contradicts* correct information that would have otherwise earned the point. For example, if a response applies a concept in two contradictory ways (such as identifying both the measured variables as the independent variable or describing proactive interference as interference from both older and newer information), the point is not earned. Additionally, a response will not score if it includes a correct answer among multiple incorrect answers related to the same general concept/theory (e.g., a response that describes the Big Five trait of conscientiousness as being diligent, trusting, highly emotional, outgoing, and intellectually curious).
6. Within a bulleted question part, if the response addresses details from a scenario other than the one in the prompt, the point is not earned.

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**Part A** Ruth is bored at home alone, so she decides to watch a scary movie. At the most tense part of the movie, when a large, scary-looking creature is being chased through the village by an angry mob, Ruth’s roommate Lynn comes home unexpectedly and flips on the lights. Ruth is startled and spills her hot chocolate on herself.

Explain how each of the following relates to the scenario above.

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**Optimal arousal theory****1 point**

The response must indicate that Ruth is motivated to watch the scary movie in order to increase her level of arousal.

**OR**

The response must indicate that after her roommate startles her, Ruth does something to lower her level of arousal to a desired level.

**Acceptable explanations include:**

- *Ruth is at a lower arousal than she would like (hence the boredom). So, she decides to watch the scary movie to bring up her arousal level to a more desirable level for her.*

**Unacceptable explanations include:**

Responses that refer to the Yerkes-Dodson law without describing a change in arousal.

- *The optimal arousal theory says that people perform best when their arousal level is neither too high nor too low.*
  - *Ruth's arousal increases when she is startled by her roommate.*
- 

**Motor neurons****1 point**

The response must indicate that motor neurons are enabling a specific physical movement in the scenario.

**Acceptable explanations include:**

- *Motor neurons allow Ruth to reach for a towel to clean up the spilled hot chocolate.*
- *The creature's motor neurons allow him to run through the village.*
- *Ruth reflexively jumps when Lynn startles her.*

**Unacceptable explanations include:**

Responses that include multiple functions.

- *Ruth's motor neurons allow Lynn to flip on the lights and allow Ruth to watch the movie, taste the hot chocolate, and feel burned when she spills the hot chocolate on herself.*
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**Somatosensory cortex****1 point**

The response must indicate the contribution of the somatosensory cortex to Ruth’s sense of touch (e.g., temperature, body position, pressure, texture, pain) in the context of the scenario.

**Acceptable explanations include:**

- *Ruth’s somatosensory cortex allows her to feel pain after she spilled the hot chocolate all over herself.*

**Unacceptable explanations include:**

Responses that refer to other senses (e.g., taste, smell, etc.) as being governed by the somatosensory cortex.

Responses that refer to “feel” as an emotion rather than a touch sensation.

- *Ruth’s somatosensory cortex allows her to taste her delicious hot chocolate.*
- 

**Part B** As they are cleaning up, Ruth tells Lynn the plot of the movie she was watching. While the creature was large and scary-looking, he was actually quite gentle and friendly. The villagers discussed the situation and concluded that the creature was going to hurt them, so they grabbed their torches and pitchforks and chased him out of town. As the creature tried to escape, he tripped over a rock and knocked down a villager.

Explain how each of the following concepts relates to the villagers’ perceptions during this scene in the movie.

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**Out-group homogeneity bias****1 point**

The response must indicate that the villagers have the perception that creatures all share the same characteristics OR that creatures are all the same.

**Acceptable explanations include:**

*The villagers in the movies think that all creatures are mean and evil.*

**Unacceptable explanations include:**

Responses that refer to the villagers and the creature as being within the same group.

- *The creatures and the villagers live in an area that has a lot of bias towards others.*
-

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**Fundamental attribution error****1 point**

The response must indicate that the villagers perceive the creature's behavior as due to some dispositional quality rather than the situation.

**Acceptable explanations include:**

Responses must contrast dispositional and situational attributions to score.

- *The villagers assume that the creature knocked the villager over because he is evil rather than because he was being chased.*

**Unacceptable explanations include:**

- *The villagers think the creature is mean.*
- 

**Group polarization****1 point**

The response must indicate that the villagers, individually, are already threatened or scared of the creature.

**AND**

The response must indicate that these feelings become more extreme when they meet to discuss what to do about the creature.

**Acceptable explanations include:**

- *Before the meeting, the villagers thought that the creature was terrible, and after the meeting they thought that the creature was even more terrible.*

**Unacceptable explanations include:**

- *Some villagers actually thought the creature was probably okay, and they should leave him alone, but they didn't say anything because they wanted to maintain group harmony.*
-

**Part C** The next morning, Lynn tells Ruth that she saw her sleepwalking and she must have been acting out a dream of being chased by the creature.

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**Explain why Lynn’s assumption is likely incorrect.**

**1 point**

The response must indicate that the assumption is likely incorrect because during REM sleep the body is paralyzed, immobile, etc.

**OR**

The response must indicate that sleepwalking and dreaming typically occur in different stages of sleep.

**Acceptable explanations include:**

- *It is highly unlikely that Ruth was in REM sleep because during REM sleep the muscles of the body are paralyzed, so she wouldn’t be able to walk around.*

**Unacceptable explanations include:**

- *Lynn’s assumption is incorrect because if Ruth was acting out a dream of being chased, she would be running around, not walking slowly.*
- 

**Total for question 1 7 points**

# Question 1 Sample A 1 of 2

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1    Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

A. Optimal arousal theory is a motivation theory stating that one may be motivated to engage in arousal maximizing behavior. Ruth is bored at home, with low arousal. She ~~chose~~ <sup>is motivated</sup> to ~~watch~~ watch the scary movie in order to increase her arousal.

Motor neurons are neurons associated with movement of the body. Ruth's ~~activities~~ ~~motor neurons~~ roommate Lynn's motor neurons are fired & utilized as she moves her arm/finger to flip on the lights.

The somatosensory cortex is the cortex of the brain that receives sensory input. When ~~Ruth~~ Ruth spills hot chocolate on herself, her ~~somasensory~~ somatosensory cortex ~~will~~ will detect the heat & the liquid, allowing Ruth to comprehend feel what has spilled on her.

B. An out-group homogeneity bias is the belief that those, not in a group ~~are~~ similar to you, are different than your group & all too ~~similar~~ similar to each other. The villagers in the movie assumed that the creature was going to hurt them just because they ~~thought~~ thought the creature was too different than them & too similar to things that may have hurt them in the past.

Fundamental attribution error is the assumption that others' actions are not in response to the situation, like your actions are, rather are accredited to their personality ~~or displacement~~ ~~or displacement~~. The villagers would accredit the creature knocking down a villager to the creature being evil, scary, & dangerous, & overlooking the actual situation, the creature tripping.

Group polarization is the concept that within a group, ~~with~~ with similar thoughts ~~as a result~~ ~~as a result~~, one's beliefs may be strengthened & more extreme, including the whole group. ~~as a result~~ ~~as a result~~

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# Question 1 Sample A 2 of 2

● **Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1      Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

B (continued). If there were a couple villagers who believed ~~that~~ only slightly that the creature was going to hurt them, after the full village discussion, they likely strongly believed & agreed with the group that the creature would hurt them, because of group polarization.

C. Lynn's assumption of Ruth sleepwalking as a result of acting out a dream is likely incorrect. This is ~~not~~ because Ruth's dreams would occur in REM sleep, when brain activity is high, but the body is paralyzed & doesn't move. While dreaming Ruth would not move, let alone be walking.

Page 3

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# Question 1 Sample B 1 of 2

**Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1      Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

Part A

*Ruth*

After Ruth is startled, she will want to calm down to reach her optimal arousal level. According to the optimal arousal theory, we are motivated to reach a certain level of arousal so we can perform normally and feel comfortable. Ruth decides to take a relaxing hot bath after she starts so she can calm down and lower her heart rate so she can feel and behave at ease.

~~Motor~~

Motor neurons carry signals to our muscles to make them move. When Lynn turned on the lights, fear flooded Ruth's body and she reacted to it by her motor neurons firing automatically because she was inadvertently preparing for fight-or-flight. The movement she made spilled her coffee.

The somatosensory cortex is part of the brain in charge of coordinating sensations with bodily responses. It reacted to the lights coming on by sensing the visual feedback, which surprised Ruth, and sent a message to Ruth's motor neurons to react by moving her body.

Part B

Out-group homogeneity bias is when one assumes all members of a group they're not part of are the same. The villagers in the movie grouped the creature in with their stereotype of scary-looking monsters and assumed the creature was dangerous just like other scary-looking creatures.

Fundamental attribution error is when one attributes someone's actions to personal factors, not situational ones. When the creature knocked over a villager, the other villagers probably saw this as further proof of the creature's dangerous inclinations, rather than the situation he was in of tripping over a rock. This belief only makes the villagers hate the creature even more.

Page 2

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# Question 1 Sample B 2 of 2

● **Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1      Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

Group polarization is when a group's dominant opinion becomes more extreme as they discuss it. The villagers experienced this when they decided to aggressively chase the creature out of town, which is an extreme reaction. Their general dislike of the creature turned into hatred because they discussed the situation as a group.

Part C

Lynn's assumption is likely incorrect because dreaming occurs during deep sleep when the body is paralyzed, so Ruth wouldn't have been able to walk while dreaming. Ruth suffers instead from somnambulism, sleepwalking, which is a sleep disorder.

Page 3

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# Question 1 Sample C 1 of 2

**Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1      Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

Optimal arousal theory is when someone is more alert than normal because of an external force. This theory can be seen when Ruth became susceptible to being scared because of the scary movie she was watching.

Motor neurons are the cells in our body that control and allow for movement throughout our bodies. Ruth used her motor neurons when she quickly moved her mug and spilled her drink on herself.

The Somatosensory cortex is the part of our brain that detects and processes changes in our senses. Ruth used her somatosensory cortex when she noticed that the lights turned on, which led to her frightened reaction.

Out-group homogeneity bias is when people negatively judge someone because they do not fit into their group. The villagers concluded that the creature was going to hurt them because he looked different from everyone else in the group.

Fundamental Attribution is when someone assumes that a person's behavior is due to their personality when it could have been due to a temporary attitude. The villagers were subject to the fundamental attribution error when they attributed the creature's

Page 4

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0311981





# Question 1 Sample C 2 of 2

● **Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1    Question 2



Begin your response to each question at the top of a new page. Do not skip lines.

scary appearance to him being a monster.

Group polarization is when groups try to separate themselves from a group or person because of their judgments. The villagers formed a group and separated themselves from the creature, practicing group polarization.

Lynn's assumption is most likely incorrect because when sleepwalking the person acts out the movements they were dreaming of realistically. If Ruth had been dreaming of being chased she would have appeared in distress and running while sleeping.

Page 5

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## Question 1

**Note:** Student samples are quoted verbatim and may contain spelling and grammatical errors.

### Overview

The responses to this question were expected to show an understanding of how specific psychological terminology applied to the scenario. The responses needed to address an understanding of the brain and nervous system, motivation concepts, social psychology terms, and sleep cycles. The responses needed to clearly demonstrate the ability to differentiate the selected term from other similar concepts.

### Sample: 1A

**Score: 7**

The response earned point 1 because it indicates that Ruth watched the movie to increase her arousal. The response earned point 2 because it indicates that Lynn moved her arm and fingers when she flipped on the light. The response earned point 3 because it indicates a sensation related to touch (temperature, body position, pressure, texture, pain). The response earned point 4 because it identifies that the villagers considered the creature to be like other creatures with common negative traits. The response earned point 5 because it identifies a disposition (evil) as causing the behavior (knocking down the villager) rather than the situation (the creature tripped over a rock). The response earned point 6 because it refers to previously held individual beliefs about the danger of the creature and that the villagers' beliefs became more extreme after discussing the creature. The response earned point 7 because it indicates that the body is paralyzed during REM sleep (dreaming), and Ruth would not be able to walk during that stage.

### Sample: 1B

**Score: 5**

The response earned point 1 because it indicates an intentional change to decrease Ruth's arousal. The response earned point 2 because it indicates that Ruth moved her body when she spilled her drink. The response did not earn point 3 because it contradicts itself by discussing a processing of light by the somatosensory cortex. The response earned point 4 because it describes this creature as being like other creatures, and thus dangerous. The response earned point 5 because it identifies a disposition (dangerous) as causing the behavior (knocking down the villager) rather than the situation (the creature tripped over a rock). The response did not earn point 6 because it does not mention that the villagers each held individual negative beliefs about the creature. The response earned point 7 because it indicates that the body is paralyzed during REM sleep (dreaming), and Ruth would not be able to walk during that stage.

### Sample: 1C

**Score: 1**

The response did not earn point 1 because it does not indicate an intentional change to increase or decrease Ruth's arousal. The response earned point 2 because it indicates that Ruth moved her body when she spilled her drink. The response did not earn point 3 because it does not indicate a sensation related to touch (temperature, body position, pressure, texture, pain). The response did not earn point 4 because it does not identify the creature as a member of a group of creatures who share the same traits. The response did not earn point 5 because it does not indicate a perception of the

### **Question 1 (continued)**

creature's behavior as being dispositional rather than situational. The response did not earn point 6 because it does not refer to a previously held individual belief about the danger of the creature and that the villagers' beliefs became more extreme after discussing the creature. The response did not earn point 7 because it does not explain that dreaming and sleepwalking do not occur in the same sleep stage.