

This question has three parts: Part A, Part B, and Part C. Use the three sources provided to answer all parts of the question.

For Part B and Part C, you must cite the source that you used to answer the question. You can do this in two different ways:

- Parenthetical Citation:
For example: "...(Source 1)."
- Embedded Citation:
For example: "According to Source 1..."

Write the response to each part of the question in complete sentences. Use appropriate psychological terminology.

2. Using the sources provided, develop and justify an argument about whether the presence of others improves performance.
 - A. Propose a specific and defensible claim based in psychological science that responds to the question.
 - B.
 - i. Support your claim using at least one piece of specific and relevant evidence from one of the sources.
 - ii. Explain how the evidence from Part B (i) supports your claim using a psychological perspective, theory, concept, or research finding learned in AP Psychology.
 - C.
 - i. Support your claim using an additional piece of specific and relevant evidence from a different source than the one that was used in Part B (i).
 - ii. Explain how the evidence from Part C (i) supports your claim using a different psychological perspective, theory, concept, or research finding learned in AP Psychology than the one that was used in Part B (ii).

Source 1

Introduction

In this study, researchers attempted to establish whether the presence of others leads people to perform better on a task than when they are doing the task alone.

Participants

Forty-five undergraduate students, all men, received course credit in an introductory psychology course for their participation. Researchers did not report race/ethnicity data for the participants.

Method

As each participant arrived, he was told the following: “In this experiment, you will be part of a group that will perform a task together. It is important that the members of the group have a uniform appearance. To make you as alike as possible, I’d like you to take off your shoes, put these socks over your own socks, and then put on these shoes. They might be a little large, but we need to have a size that fits everyone. Also, put on this lab coat—it ties in the back—over your own clothes.”

Each participant was then given a pair of large athletic socks, a pair of size 12 athletic shoes, and a large, long lab coat. Each participant was led by the researcher to a large waiting room containing tables, chairs, reading material, and some broken equipment.

Each participant was randomly assigned to one of three conditions: alone, audience, or incidental audience.

1. Alone condition: The participant was left in the waiting room alone to put on the clothing.
2. Audience condition: A confederate of the researcher was already seated in the waiting room as the participant arrived. The confederate sat attentively in the corner and watched the participant put on the clothing.
3. Incidental audience condition: A confederate of the researcher sat in a corner of the waiting room facing away from the participant, repairing a broken piece of equipment while the participant put on the clothing.

For all three conditions, the participant was observed by a hidden research assistant who watched him through a narrow opening in the drapes that covered a one-way mirror. The hidden assistant timed the participant as he completed each of the following activities:

1. Taking off his own shoes
2. Putting on the socks given to him
3. Putting on the shoes given to him
4. Putting on the lab coat given to him and tying it in the back

After the participant completed the four tasks, any confederate present left the room, and the participant was left sitting alone. At the end of 10 minutes, the researcher came back into the room. The researcher explained that the other participants had not shown up and that the researcher had called off the experiment because the researchers needed three people to continue.

When the researcher left the room, the participant was again timed by the hidden research assistant while he completed the following actions:

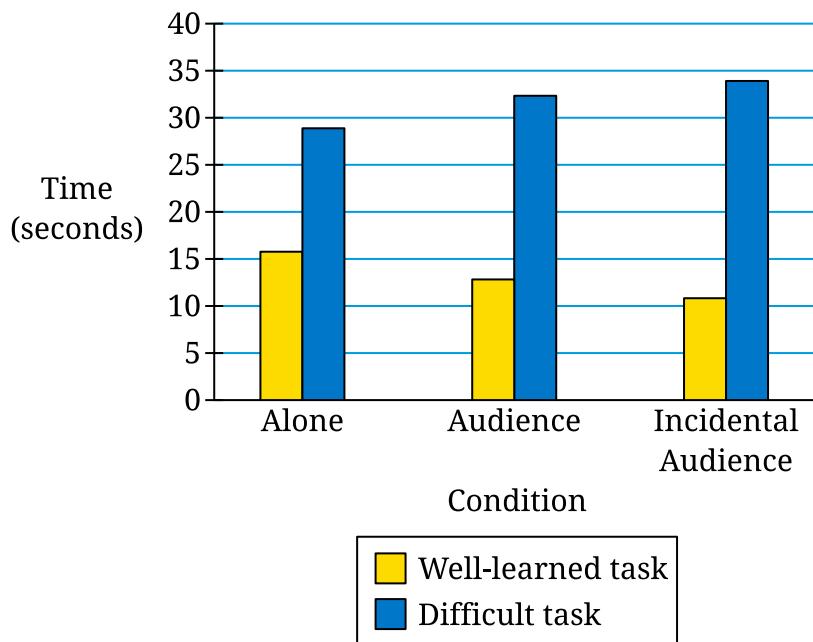
1. Taking off the lab coat
2. Taking off the shoes given to him
3. Taking off the socks given to him
4. Putting on his own shoes

Researchers categorized taking off and putting on their own shoes as simple and well-learned tasks. They categorized putting on and taking off the socks, shoes, and lab coat as difficult and new tasks.

Results and Discussion

Researchers found that performance on the well-learned tasks was faster in the presence of an audience. Performance on well-learned tasks improved both when participants were directly observed (audience condition) and when the confederate was present in the room but distracted (incidental audience condition). When an audience was present, it took the participants longer to complete the new, more difficult tasks. The findings are summarized in the graph.

Audience Condition and Completion Time of Task



For the simple and well-learned tasks, researchers found a statistically significant difference in the amount of time participants took to complete the tasks alone compared with the amount of time it took with an attentive audience.

For the new and difficult tasks, researchers found a statistically significant difference when comparing the amount of time participants took when alone with the amount of time they took when they were in the audience condition or incidental audience condition.

They found no significant difference between the alone condition and the incidental audience condition for either type of task.

Markus, H. (1978). The effect of mere presence on social facilitation: An unobtrusive test. *Journal of Experimental Social Psychology*, 14(4), 389–397.

Source 2**Introduction**

In this study, researchers explored how the presence of others influenced the ability of baboons to complete an operant conditioning task.

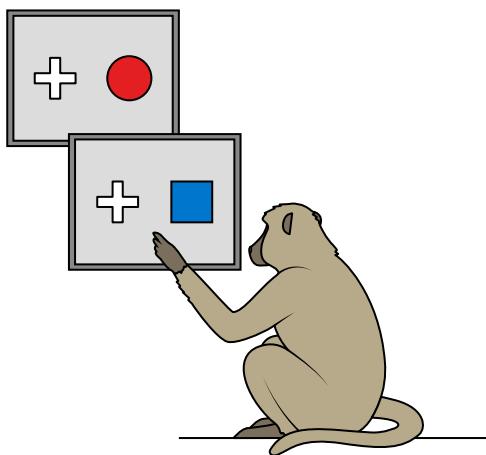
Participants

The study was conducted on 11 baboons (7 male and 4 female; mean age = 5.72 years; standard deviation of age = 1.71; age range = 3–9 years).

Method

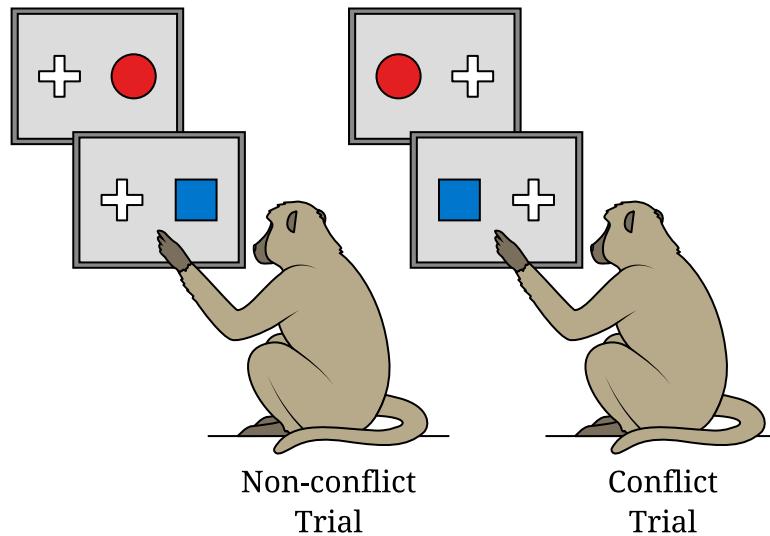
The baboons had access in their enclosure to computers with touch screens, preprogrammed with operant conditioning tasks. When the baboons touched a screen, it triggered the immediate display of a white cross and either a red circle or a blue square. To obtain a food reward, the baboon had to touch the white cross only when the red circle was present. During the non-conflict trials, the white cross was always presented on the left side of the response screen and the red circle or blue square on the right. Incorrect responses produced a three-second time-out.

Figure 1: The Non-Conflict Trial



Baboons performed the task until they correctly demonstrated the rewarded behavior three times in a row.

Once the baboons were trained, researchers increased the difficulty of the task. In 80% of these trials, the baboons were given the setup they were already familiar with, in which the cross was on the left and the circle or square was on the right. But in 20% of the trials, the baboons were presented with an opposite, or a conflicting, setup in which the cross was on the right and the circle or square was on the left. Researchers measured the baboons' response times when presented with the conflicting task versus the nonconflicting task.

Figure 2: The Non-Conflict and the Conflict Trial

During these trials, the baboons were randomly assigned to be either alone or in the presence of other baboons performing the same task. For baboons performing the task in the presence of others, they could see other baboons using a computer, but the design of the test chamber prevented any of the baboons from seeing the touch screens of the other baboons. As a result, the baboons could not see the other baboons' responses to the tests.

Results and Discussion

For the baboons who were in the presence of others during the conflicting trials task, their response time was delayed when compared to baboons who were alone. The researchers found that the delayed reaction time was greatest for male baboons in the presence of older males with a higher social rank.

Huguet, P., Barbet, I., Belletier, C., Monteil, J-M., Fagot, J. (2014). Cognitive control under social influence in baboons. Journal of Experimental Psychology, 143(6). 2067-2073.

Source 3

Introduction

Vigilance is the ability to maintain attention for prolonged periods while still being on the lookout for relevant signals in the environment. Vigilance performance involves participants responding to infrequent signals over time. In this study, researchers examined the effect of observers on people's vigilance performance.

Participants

Data were collected from 132 participants (98 women; 34 men).¹ All participants were undergraduate students recruited through the research participation system at a large university in the southeastern United States. All participation was voluntary, and participants received course credit for completing the study. The average age of participants was 18.83 years (standard deviation = 2.23 years; range = 18–39 years). Researchers did not report race/ethnicity data for the participants.

Method

For 24 minutes, participants monitored a computer screen displaying repeated presentations of two numbers. They were instructed to press the space bar when they saw two numbers that differed from one another by zero or +/- 1 when subtracted. For example, participants were to hit the space bar when presented with the numbers 43 ($4 - 3 = 1$) or 77 ($7 - 7 = 0$), but not when presented with 73 ($7 - 3 = 4$) or 39 ($3 - 9 = -6$).

Participants were randomly assigned to one of four conditions:

1. Evaluative observer condition (29 women; 4 men): The participant completed the task with a research assistant present and seated behind them. The research assistant was instructed to sporadically take notes on a clipboard to create the appearance of actively evaluating the participant.
2. Merely present observer condition (20 women; 13 men): The participant completed the task in the presence of a research assistant who was seated at an adjacent desk, facing the opposite direction. The observer could not directly watch the participant and was engaged in a secondary task, like reading a book.
3. Electronic observer condition (25 women; 8 men): The participant completed the task in the presence of a webcam that was placed on top of the computer screen. A video recorder was also placed on a tripod in front of the participant. The participant was told that the research assistant used these devices to monitor their performance. These cameras were not actually recording while the participant completed the task, but the participant believed they were.
4. No observer present (control) condition (24 women; 9 men): The participant completed the entire task alone in the room. No social presence, electronic or otherwise, was used during this task.

FRQ 2: Evidence-Based Question (EBQ)**7 Points****General Considerations**

- 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.
- A student can earn points only if the student is clearly addressing the topic of the source material in their response.
- 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.
- Examples provided in the Scoring Guidelines for each of the points are not to be considered exhaustive.
- Within a question part, a response will not be penalized for incorrect information unless it directly contradicts correct information that otherwise would have earned the point(s). For example, if a student applies a concept by defining it in two contradictory ways (such as applying proactive interference as both interference from older and newer information), the point is not earned.

Reporting Category	Scoring Criteria	
Part A Claim (0–1 points)	0 points Does not propose a claim that is relevant to the question	1 point Proposes a claim that is relevant to the question
Decision Rules and Scoring Notes		
	Responses that do not earn this point: <ul style="list-style-type: none"> The response describes the question without making a claim. The response proposes a claim unrelated to the question. The response proposes an oversimplified conclusion or evidence from a provided source. 	Responses that earn this point: <ul style="list-style-type: none"> The response proposes specific effects on the question. The response proposes a claim that suggests a positive or negative effect on the question. The response proposes recommendations for the application of the question.
	Examples that do not earn this point: <ul style="list-style-type: none"> <i>“Does the presence of others influence performance?”</i> <i>“Using animals in research can tell us a lot about ourselves.”</i> <i>“Studying the factors that influence performance is important to social psychologists.”</i> 	Examples that earn this point: <ul style="list-style-type: none"> <i>“The presence of others makes a difference in whether someone performs well on a specific task or set of tasks.”</i> <i>“When someone else is present during a performance, it is more likely that the participant will perform well.”</i> <i>“The presence of others will make them do worse at what they are doing.”</i> <i>“People should have an audience for tasks they are good at.”</i>

Reporting Category	Scoring Criteria	
Part B (i) Evidence (0–1 points)	0 points Does not identify nor correctly cite one piece of specific evidence from one of the provided sources to support the claim. Any evidence provided is not relevant to the question.	1 point Uses one piece of correctly cited, specific, accurate, and relevant evidence from one of the provided sources to support the claim.
	Decision Rules and Scoring Notes	
	Responses that do not earn this point: <ul style="list-style-type: none"> The response identifies no evidence. The evidence is not correctly cited. The evidence is nonspecific or inaccurate. The response provides evidence not relevant to the claim. 	Responses that earn this point: <ul style="list-style-type: none"> The evidence is correctly cited and provides specific and accurate evidence relevant to the claim.
	Examples that do not earn this point: <ul style="list-style-type: none"> <i>"The presence of others impacts what we do."</i> [No evidence.] <i>"The baboon study shows that the presence of other baboons made the baboons do worse on the task that required more cognitive control."</i> [No citation.] <i>"The baboons were influenced by other baboons."</i> [Nonspecific evidence.] <i>"In Source 2, researchers used rewards to change the baboon's behavior."</i> [Evidence not relevant to the claim.] 	Examples that earn this point: <ul style="list-style-type: none"> <i>"The results of the bar graph (Source 1) show a longer amount of time for participants to complete a new and difficult task in front of an audience than when they were alone."</i> <i>"According to Source 3, performance was improved when participants were observed by an evaluator and when they were monitored electronically."</i> <i>"According to Source 2, researchers found that the delayed reaction time was greatest for male baboons in the presence of older males with a higher social rank."</i> <i>"According to Source 1, participants were able to perform a well-learned task quicker than those who were alone."</i>
	Additional Notes: <ul style="list-style-type: none"> Responses that use a correct citation style other than the methods prescribed by the question can earn this point for citing the source. "Accurate evidence" refers to the accuracy of the general pattern of the evidence cited. Since citing specific numbers is not required to score the point, slight errors in reporting specific data can still score when the direction of the difference or relationship of the data cited is correct. 	

Reporting Category	Scoring Criteria		
Part B (ii) Explanation and Application (Reasoning)	0 points Does not explain the relationship between the evidence and the claim	1 point Explains the relationship between the evidence and the claim	2 points Applies a psychological perspective, theory, concept, or research finding to explain how the evidence supports the claim
Decision Rules and Scoring Notes			
(0–2 points)	Responses that earn 0 points: <ul style="list-style-type: none"> The response does not accurately interpret the evidence. The response identifies evidence without explanation of how it relates to the claim. The response provides opinions with no reference to the sources provided. 	Responses that earn 1 point: <ul style="list-style-type: none"> The response correctly interprets the evidence in supporting the claim, but does not apply a psychological perspective, theory, concept, or research finding. 	Responses that earn 2 points: <ul style="list-style-type: none"> The response correctly interprets the evidence and correctly applies a psychological perspective, theory, concept, or research finding.
	Examples that earn 0 points: <ul style="list-style-type: none"> <i>“Performance on tasks is not impacted by the presence of others.”</i> <i>“When people feel they are being directly evaluated by either an in-person or electronic observer, they perform better.”</i> <i>“It’s good to have others around when you are completing a task.”</i> 	Examples that earn 1 point: <ul style="list-style-type: none"> <i>“The evidence demonstrates that the presence of others is generally helpful for improving performance, but if a task is difficult, performance can suffer.”</i> <i>“Since the time needed to complete the new and difficult task increased in the presence of others, this shows that the presence of others has a negative effect on performance.”</i> <i>“The studies show that if you are an expert at something, having an audience helps.”</i> 	Examples that earn 2 points: <ul style="list-style-type: none"> <i>“The study showed that participants who completed the task when being observed detected more correct pairs than those who did it alone. This is called social facilitation.”</i> <i>“The reason for the delayed reaction times of younger male baboons was probably due to social norms. Because the younger males must be submissive to dominant older males, their awareness of that made their performance worse.”</i> <i>“The study showed that participants were able to perform a well-learned task such as putting on their socks quicker than those who were alone. This is an example of the Yerkes-Dodson Theory, which states that well-learned tasks can be performed well even if under high states of arousal such as being watched.”</i>
	Additional Notes: <ul style="list-style-type: none"> The explanation and application points can be earned even if the response did not earn the point in B (i) due to incorrectly cited and/or non-specific evidence. The psychological perspective, theory, concept, or research finding must be explicitly identified in the <i>AP Psychology Course and Exam Description</i> (2024). The presence of a citation indicates the sentence or phrase is intended to be evidence. All text before the citation will be considered evidence. Text after a citation will be considered reasoning, unless accompanied by another citation. Concepts used in the sources that are not eligible to be used for the application point are “confederate,” “statistically significant,” and “operant conditioning.” 		