
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:

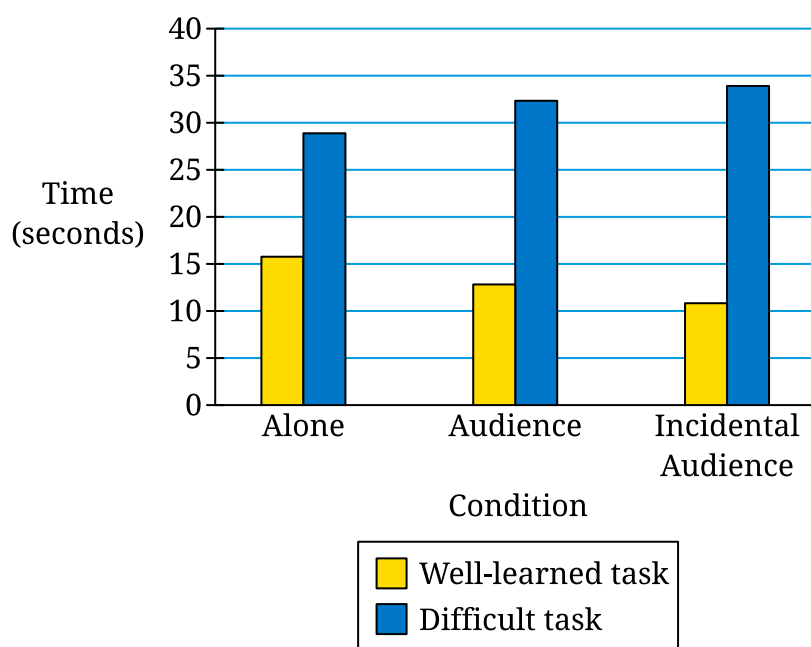
1. Taking off the lab coat
2. Taking off the shoes given to him
3. Taking off the socks given to him
4. Putting on his own shoes

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.

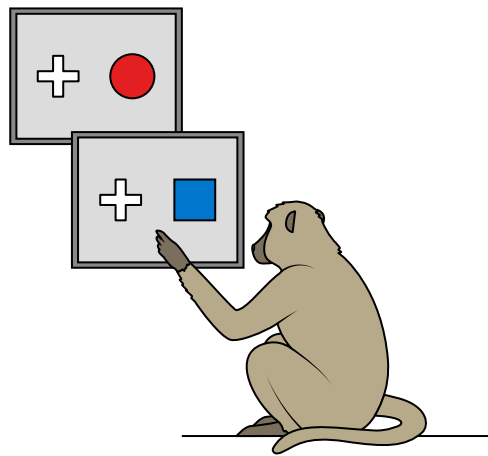
Participants

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

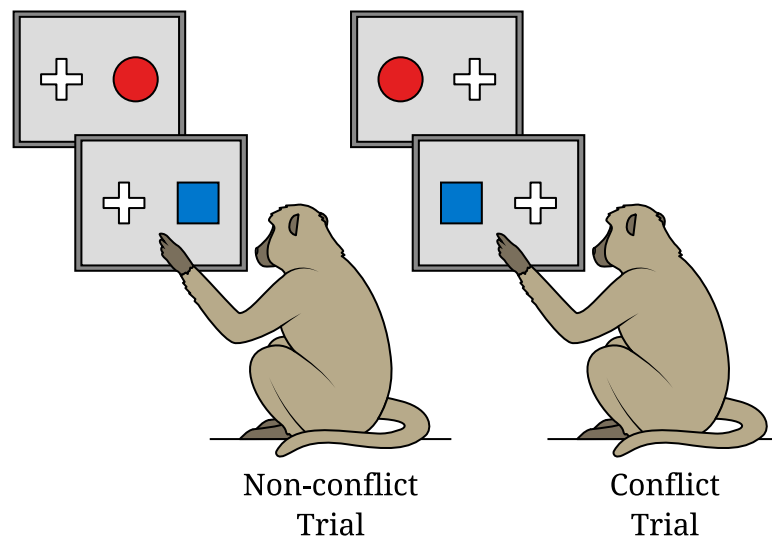
The baboons had access in their enclosure to computers with touch screens, preprogrammed with operant conditioning tasks. When the baboons touched a screen, it triggered the immediate display of a white cross and either a red circle or a blue square. To obtain a food reward, the baboon had to touch the 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.

Results and Discussion

Participants who completed the vigilance task alone detected significantly fewer correct number pairs than those who completed the task in the electronic observer condition or the evaluative observer condition. Interestingly, there was no significant difference in correct detections between those in the no observer present condition and those in the merely present observer condition.

The results suggest that when people feel they are being directly evaluated by either an inperson or electronic observer, they perform better on tasks that require vigilance.

Claypoole, V.L., Neigel, A.R., Waldfogle, G.E., & Szalma, J.L. (2019). Evaluative social presence can improve vigilance performance, but vigilance is still hard work and is stressful. *Journal of Experimental Psychology: Human Perception and Performance*, 45(5), 616-627.

1: Language referencing racial, ethnic, or gender identities may be outdated or fail to reflect the complexities of identity that participants represent.

STOP
END OF EXAM