2025

AP® Psychology

Free-Response Questions

Set 2

PSYCHOLOGY

SECTION II

TIME – 1 HOUR AND 10 MINUTES

Directions:

Section II has 2 questions and lasts 1 hour and 10 minutes.

You may pace yourself as you answer the questions in this section, or you may use these optional timing recommendations:

It is suggested that you spend about 25 minutes on the Article Analysis Question (AAQ), using the first 10 minutes to read the provided source and the remaining time to write your response.

It is suggested that you spend about 45 minutes on the Evidence-Based Question (EBQ), using the first 15 minutes to read the sources and the remaining time to write your response.

You may use scratch paper for notes and planning, but credit will only be given for responses entered in this application. Text you enter as an annotation will **not** be included as part of your answer. You can go back and forth between questions in this section until time expires. The clock will turn red when 5 minutes remain—**the proctor will not give you any time updates or warnings.**

Note: This exam was originally administered digitally. It is presented here in a format optimized for teacher and student use in the classroom.

Using the source provided, respond to all parts of the question.

1. Your response to the question should be provided in six parts: A, B, C, D, E, and F. Write the response to each part of the question in complete sentences. Use appropriate psychological terminology in your response.

A. Identify the research method used in the study.

B. State the operational definition of person-oriented dog behaviors.

C. Describe what the mean of the person-oriented behaviors indicates for the laughing trials as compared to the talking trials.

D. Identify at least one ethical guideline applied by the researchers.

E. Explain the extent to which the research findings may or may not be generalizable using specific and relevant evidence from the study.

F. Explain how at least one of the research findings supports or refutes the idea that dogs' expressions of the person-oriented behaviors demonstrate stimulus discrimination in operant conditioning.

Introduction

Dogs often comfort their owners by making visual and/or physical contact when the owners cry or by providing help to their owners when they are sick. The study examined whether a dog's reactions to a person's emotions differ based on the dog's prior experience with the person (owner versus stranger).

Participants

Researchers recruited community members with nonaggressive dogs via email. Of those recruited, 16 dog and owner pairs participated in this study. The owners ranged in age from 25 to 60 years (mean age = 47.06 years; standard deviation = 11.89 years), and the dogs ranged in age from 2 years to 13 years (mean age = 6.87 years; standard deviation = 3.35 years). The length of time the owners had their dogs before the study began ranged from 2 months to 13 years (mean = 5.70 years; standard deviation = 3.69 years). The study included the following dog breeds, with the number of each in parentheses: Lab mix (3), black Lab (1), terrier mix (2), corgi or corgi mix (3), French bulldog (1), Jack Russell terrier (1), miniature pinscher (1), miniature schnauzer (1), Shih Tzu (2), and wirehaired pointing griffon (1).

Method

Each dog owner received and signed a consent form. Researchers tested each dog at their owner's house, and the dogs received dog biscuits as compensation for participation in the study.

All dog and owner pairs participated in all four trials of the study. This is called a "withinsubjects" design, which means that researchers observe each participant in every condition of the study so that a participant can be directly compared to themselves across conditions. The "within-subjects" design serves the same purpose as random assignment.

A researcher who was unfamiliar with the dogs before the study played the role of the stranger. Upon entering each participant's home, this "stranger-researcher" ignored the dogs by not interacting with them in any way. The stranger-researcher asked the owner to follow the same set of instructions during each trial:

"When you are asked to cry, please pretend to cry to the best of your ability for 20 seconds. The researcher will tell you when to begin and when to stop. When you are asked to laugh, please pretend to laugh to the best of your ability for 20 seconds. When you are acting, please use approximately the same volume. Also, please do not refer to your dog by name, look directly at them, or initiate or reciprocate physical contact during the study."

The owners and the stranger-researcher stayed seated and moved their bodies naturally while they acted out the different emotional states, but they stayed seated. Each dog participated in four separate 20-second-long trials in which (1) the owner cried, (2) the stranger-researcher cried, (3) the owner laughed, and (4) the stranger-researcher laughed.

The order of these trials was counterbalanced across dogs, meaning that each dog completed the four trials in a randomized order. Before the trials began (baseline), in between each trial, and at the end of the fourth trial, the stranger-researcher and the owner had a light-hearted conversation for 2 minutes to reset the emotional experience for the dogs and the owners.

Results and Discussion

Researchers focused on two different kinds of dog behaviors. Person-oriented dog behaviors included looking at a person (either the owner or the stranger-researcher), making contact with a person (touching the person in some way), approaching a person, and vocalizing at a person (barking, whining, etc.). Non-person-oriented dog behaviors included passive behavior (e.g., lying down or sitting), walking, solitary play, and general vocalizing (not directed at a person). The total number of person-oriented behaviors from the dogs for each trial behavior the owners and researcher-strangers acted out is presented in the table.

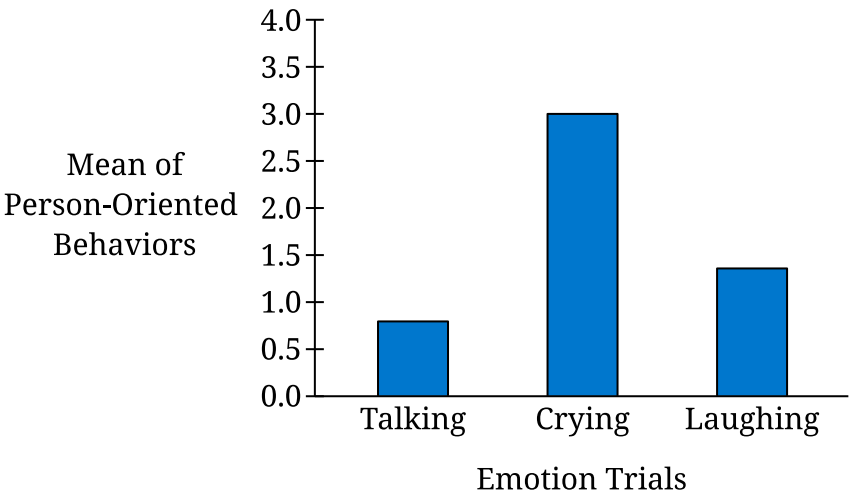
Total Number of Person-Oriented Dog Behaviors for Each Trial

Behavior	Dogs Looking	Dogs Making Contact	Dogs Approaching	Dogs Vocalizing	Total Person-Oriented Behaviors
Baseline	5	3	2	2	12
Owner crying	20	15	6	1	42
Owner laughing	11	2	2	0	15
Stranger crying	24	11	8	3	46

Behavior	Dogs Looking	Dogs Making Contact	Dogs Approaching	Dogs Vocalizing	Total Person-Oriented Behaviors
Stranger laughing	11	7	2	0	20
Totals	71	38	20	6	135

The graph displays the means for the number of person-oriented behaviors for the three types of emotions. The results are statistically significant ($p < 0.0011$[1]):

Mean of Person-Oriented Behaviors for Emotion Trials



The results show that the crying trial elicited significantly more person-oriented behaviors than the laughing and talking trials. The mean of person-oriented behaviors when the owner and stranger-researcher were crying significantly differed from the means for laughing and talking, but the means for laughing and talking did not significantly differ from each other. Importantly, dogs primarily engaged with the individual who was crying, regardless of whether they were the owner or the stranger-researcher. In the owner-crying trial, dogs demonstrated person-oriented behaviors 75% of the time, and in the stranger-researcher-crying trial, dogs demonstrated the person-oriented behaviors 73% of the time.

Meyers-Manor, J. E., & Botten, M. L. (2020). A shoulder to cry on: Heart rate variability and empathetic behavioral responses to crying and laughing in dogs. *Canadian Journal of Experimental Psychology / Revue canadienne de psychologie expérimentale*, *74*(3), 235–243.

1: p values indicate statistical significance. A p value of less than 0.05 is generally considered significant and increases the likelihood that the difference in means is due to the procedures of the study.

The question has three parts: Part A, Part B, and Part C. Use the three sources provided to answer each part 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.

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2. Using the sources provided, develop and justify an argument about a specific social condition that leads people to be more likely to help another person in an emergency.

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 investigated environmental factors that may influence whether a person will help in an emergency.

Participants

Students in introductory psychology courses at a university in New York took part in the experiment as part of a class requirement. Fifty-nine of the participants were women and 13 of the participants were men. Researchers did not report race/ethnicity data for participants in the study.[1]

Method

When each participant arrived at the laboratory, they were taken to a separate room with a microphone that would allow them to communicate with others. Each participant was alone in their room. Researchers explained to the participants that they would take part in a discussion about problems associated with college life and that the discussion would be held over an intercom system and not face-to-face to preserve the anonymity of the students.

Only one participant's microphone would be on at any given time, and a mechanical switching device would regulate the discussion sequence. During the discussion, one of the other students (who was a confederate of the researchers) pretended to experience a medical emergency in which they at first made a few relatively calm comments and then grew increasingly louder and more incoherent as they spoke. During the medical emergency, participants' microphones were off, so they could hear the confederate but could not speak to other group members to find out what, if anything, they were doing about the emergency.

The independent variable in the study was the number of people the participant thought was included in the discussion group. Researchers told each participant how many other people would be in the discussion, creating three different conditions: a two-person group (participant and victim), a three-person group (participant, victim, and one other), and a six-person group (participant, victim, and four others).

The dependent variable in the study was the speed with which the participants left their room and reported the emergency to the experimenter. If six minutes elapsed without the participant leaving their room, the experiment was terminated. As soon as the participant reported the emergency, or after six minutes had elapsed, the researcher disclosed the true nature of the experiment and debriefed the participant, making sure to address any emotional trauma the experience might have triggered.

Results and Discussion

The number of onlookers that the participant perceived to be present had a major effect on the likelihood that they would report the emergency. Eighty-five percent of the participants who thought they were alone reported the emergency by the time the confederate stopped their scripted performance. Sixty-two percent of the participants who thought one other was present responded by the end of the emergency. Thirty-one percent of those who thought four others were present responded by the end of the emergency. The results are reported in the table.

Effects of Group Size on the Likelihood and Speed of Response

Condition	% Responding by the end of the Emergency	Time in Seconds
2 (Participant and Victim)	85	52
3 (Participant, Victim, and 1 Other)	62	93
6 (Participant, Victim, and 4 Others)	31	166

Darley, J.M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, *8*(4), 377-383.

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

Source 2

Introduction

In this study, researchers determined how often at least one person intervened in real-life conflicts captured by public surveillance cameras.

Participants

Researchers reviewed 1,225 clips of incidents captured on public surveillance cameras in urban settings in three nations: the Netherlands, the United Kingdom, and South Africa. All public surveillance cameras were located within the entertainment and central business districts of the cities and filmed storefronts, parks, plazas, pedestrian walkways, and public transportation stations. Clips were chosen for the study if they met the following criteria:

- Taken in an urban setting
- Contained a conflict between at least two individuals and did not show another type of incident (e.g., traffic accident, crime being committed)
- Did not include the presence of police or paramedics
- Had a high enough technical quality to allow for effective coding of different behaviors and had no breaks in the interactions recorded.

Researchers examined 219 aggressive public incidents captured by surveillance cameras.

Video access was provided to researchers under the condition that data would be stored securely, shared only for legitimate research purposes (and not with the wider public), and that the identity of the individuals visible in the footage would be protected.

Method

Four trained research assistants rated the 219 video clips. The behaviors observed in the videos were categorized by the type of intervention. “Intervention” was defined as an action by another person toward the perpetrator or victim that would potentially reduce the conflict. This included behaviors such as calming body language, blocking contact between conflict parties, consoling the victim of the aggression, holding an aggressor away from the conflict, or providing help to a victim. For each of the 219 videos, research assistants recorded the total number of interventions.

Results and Discussion

Researchers found that at least one person intervened in 90.9% of the situations, with an average of 3.76 interveners per video (standard deviation = 3.01). Researchers did not find a significant difference in the likelihood that someone would intervene when comparing the different national contexts. Researchers found that a higher number of people present at an incident was positively associated with the likelihood of intervention, and that each additional person present increased the odds that an intervention occurred.

Philpot, R., Liebst, L. S., Levine, M., Bernasco, W., & Lindegaard, M. R. (2019). Would I be helped? Cross-national CCTV footage shows that intervention is the norm in public conflicts. *American Psychologist*, *75*(1), 66-75.

Source 3

Introduction

In this meta-analysis, researchers evaluated the conditions under which people are more likely to help others.

Participants

The researchers analyzed a total of 53 articles that examined more than 7,700 participants.

Method

The researchers conducted a meta-analysis of studies on the same topic. The research focused on several variables for situations in which someone needs help:

- Emergency versus non-emergency situations: Emergency situations are viewed as more dangerous than non-emergencies.
- The presence of a perpetrator: The presence of a perpetrator is also viewed as being more dangerous.
- Familiarity among people witnessing a situation: Researchers examined if knowing the others witnessing a situation would affect helping behavior.
- Number of other people present during a situation: Researchers examined whether the addition of one, two, three, four, or five or more other people present would affect the likelihood of helping.

Results and Discussion

The results of this meta-analysis suggest that helping is more likely in the following types of situations:

- Emergencies: People who perceived a situation in which a person needed help as an emergency (more dangerous) were more likely to help than when the situation was perceived as a non-emergency.
- When a perpetrator is present: People witnessing a situation in which the perpetrator was present were more likely to help than when no perpetrator was present. This finding is consistent with finding that people are more willing to help if a situation is perceived as dangerous.
- When people witnessing a situation know each other and are not complete strangers: If the people witnessing the event knew one another, whether as friends or acquaintances, they were more likely to help.
- When fewer people witnessing a situation are present: At least one additional person present in a situation leads to a higher likelihood of helping. Groups with three, four, or five or more members were least likely to help in a situation.

Fischer, P., Krueger, J.I., Greitemeyer, T., Vogrincic, C., Kastenmüller, A., Frey, D., Heen, M., Wicher, M., and Kainbacher, M. (2011). The bystander-effect: A meta-analytic review on bystander intervention in dangerous and non-dangerous emergencies. *Psychological Bulletin*, *137*(4), 517-537.

STOP

END OF EXAM