
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 "within-subjects" 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.

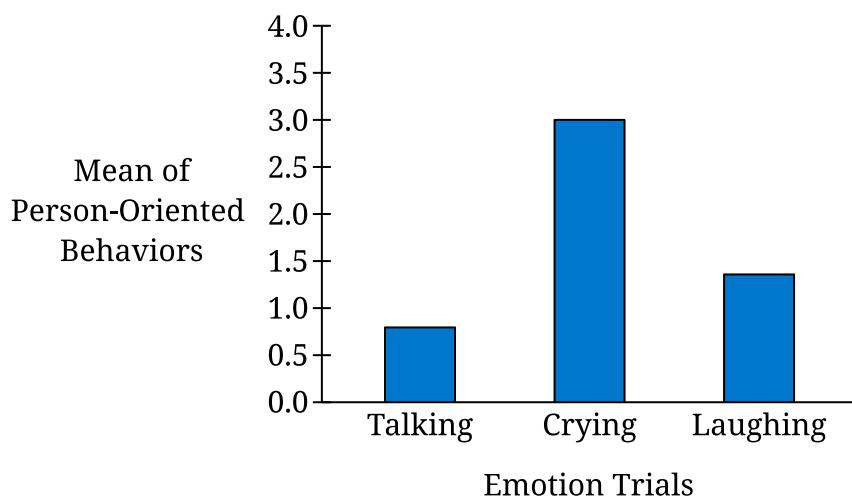
Total Number of Person-Oriented Dog Behaviors for Each Trial

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.

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.

FRQ 1: Article Analysis Question (AAQ)**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 Research Method	0 points Does not accurately identify the research method used in the study	1 point Accurately identifies the research method used in the study
Decision Rules and Scoring Notes		
(0–1 points)	Responses that do not earn this point: <ul style="list-style-type: none"> The response does not accurately identify the research method used in the study. The response includes no identification of the research method used in the study. 	Responses that earn this point: <ul style="list-style-type: none"> The response accurately identifies the research method used in the study as an experiment.
		Examples that do not earn this point: <ul style="list-style-type: none"> <i>“The research method used in the study is a case study since the researchers are examining a dog’s reactions to a person’s emotions.”</i> [Incorrect research method.] <i>“The researchers studied whether a dog’s reaction to a person’s emotions differ based on the dog’s experience with the person.”</i> <i>“The research method in this study is the experimental method, but they were specifically using a naturalistic observation.”</i> [Direct contradiction.] Examples that earn this point: <ul style="list-style-type: none"> <i>“The researchers used an experiment.”</i> <i>“The researchers used a within-subject experiment.”</i>