

# Human Interpretation of Dog Barks: A Randomized Psychophysical Study

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**Abstract** Can we as humans understand what our pets want? We made audio recordings of selected dogs reacting (barking) to controlled stimuli then played these samples to both dog owners and non-owners and noted the difference. Dog owners scored an average of 25% correct versus non owners who scored 28%, therefore, dog owners were actually slightly worse at recognizing the meanings of the barks but, with an average of 46% compared to 31%, dog owners were marginally better at identifying the breed.

**Keywords:** behavior, animal psychology, dog barks, animal communication

## INTRODUCTION

As a society, we believe that owners have a connection to and an understanding of their pets. There are many websites and books that offer tips and explanations on how to control and train your dog [3, 4], demonstrating that humans have a singular connection to their pets. Can we as humans understand what our pets want? A team of Hungarian scientists found that we can decipher the basic needs of our dogs [2], and as Sophia Yin described, there are gadgets such as Bowlingual that, regardless of efficiency, were designed to translate barks [1]. By following through with these findings, the relationships between dogs and people have the possibility of flourishing and may lead to new tactics and uses for dogs and their psychological effect on their owners.

## METHODS

A group of dog owners were willing to participate in our experiment and let us utilize their pets. We recorded each dog barking to specific stimuli. The four situations we set up were: someone knocking at the door, a stranger walking by, the dog wanting food, and the owner coming downstairs. We recorded each of the four dogs' barks in reaction to the situation using the Nikon Coolpix S210's sound recording mechanism. The next step was to gather a willing group of both dog owners and non-owners who would partake in the written section of the experiment. We established a scantron-based system in which both the owners and non owners were asked four questions asking what breed the dog was and then a second set of four questions asking why this dog was barking.

## RESULTS

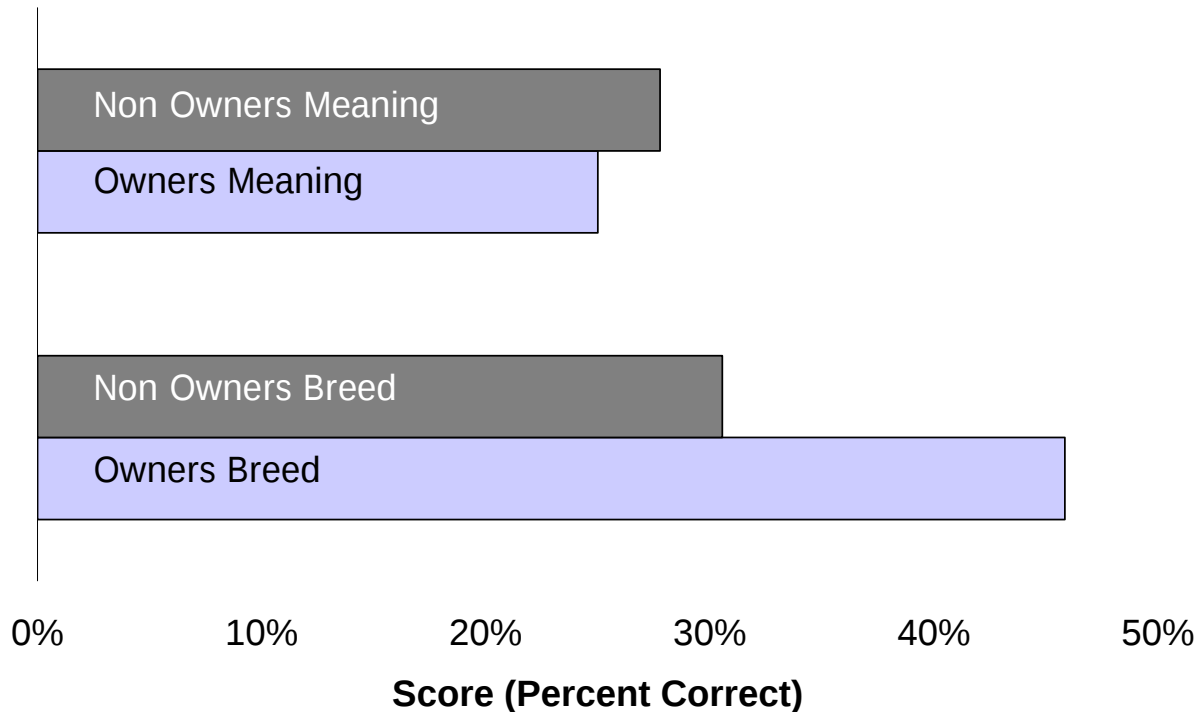
28% of non owners identified the meaning of dog barks correctly. 25% of dog owners identified the meaning of dog barks correctly. 31% of non owners were able to distinguish the breed of dog correctly. 46% of owners were able to distinguish the breed of dog correctly.

## DISCUSSION

When we set out on this scientific endeavor, we anticipated different results than the ones we got. As dog owners, we believed that individuals have a strong bond to their pets and this bond would transcend all forms of communication. What we found however was that both owners and non owners were equally incompetent at

deriving meanings from dog barks. Perhaps understanding your pet is both an auditory and visual skill. For example, if a dog is barking at the door, you can conclude that the dog wants to go outside.

### Identification of Dog Barks



**FIGURE 1.** Shows the difference in score (percent correct) between owners and non-owners in different sections of the exam.

### CONCLUSIONS

We found that both owners and non owners were equally unable to identify why a dog is barking and what kind of dog is barking purely by auditory means. However, dog owners were able to identify their dogs without hesitation.

### ACKNOWLEDGMENTS

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