

Midterm assignment Non-Human Cognition 2024

Project proposal

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Separation Anxiety in domestic cats: What happens when we leave our cats home alone?

Introduction

A psychological condition called *separation anxiety* is described as a condition that is related to attachment occurring in many social species in which separation from an attachment figure starts a set of emotional, behavioral, and physiological responses (Schwartz 2002). The degree of distress exhibited by the animal is directly related to how attached the animal is to the attachment figure (Vitale Shreve and Udell 2015). For example, dogs are a well-known example of animals that have a close attachment to humans because they were domesticized, socialized, and conditioned this way (Udell et al. 2009). Therefore, when a dog is being called, it will approach you or give some response, like lifting their ears or tilting their heads towards you. Since this behavior is not observed in cats, some researchers suggest that cats simply do not care (Stromberg 2014), and are stated to be “lazy” and “unfriendly” (Serpell 1996). Such statements may lead to negative connotations towards cats' social behaviors and may contribute to the scarcity of social cognition research in our feline friends. Sequentially, societal biases may arise like the assumption that cats do not require much attention, can take care of themselves, and can therefore be left behind for long periods. However, a study by Vitale et al. contradicts these assumptions indicating that cats do form important attachment bonds with their owners (Vitale et al. 2019). For this reason, cats may likely experience separation anxiety as well. Nevertheless, SRP in domestic cats is difficult to identify due to the limited amount of knowledge regarding the issue (Souza Machado et al. 2020). Researchers Souza Machado et al. developed a questionnaire for cat owners to identify behaviors that may indicate SRP (Souza Machado et al. 2020). In further investigations of these studies, this study proposes to investigate SRP among cats by investigating how cats behave when left alone in their home environment. Understanding how cats respond to periods of owner absence can provide valuable insight into their welfare, stress levels, and coping mechanisms.

Problem definition, goal, and expected results

Problem: Evidence suggesting that domestic cats do form meaningful attachment bonds with their owners is growing. However, there is limited understanding of the behavior of cats when they are left alone, particularly regarding potential SRP that may arise during the owner's absence. Further research is necessary to be able to identify SRP for ensuring feline welfare and the improvement of human-cat relationships.

Goal: The goal of this research is to contribute to the scientific understanding of feline welfare by elucidating how cats respond to periods of owner absence and assessing the prevalence of SRP in domestic cat populations.

Proposed Research: The proposed research aims to investigate SRP in domestic cats by examining their behavior when left alone in their home environment. With this, the study seeks to address the following research question: "Is it possible to detect a significant change in the behavior of cats when they are home with their owners compared to being home alone?" The motivation for the research question originated from the growing recognition of cats' social and emotional complexity against the limited research of their behavior when left alone. Previous studies have suggested that cats do form significant attachment bonds with their owner (Vitale et al. 2019), highlighting the importance of further investigating the prevalence of SRP in domestic cats.

Research question: "Is it possible to detect a significant change in the behavior of cats when they are home with their owners compared to being home alone?"

Expected Results: It is expected that the behavior of domestic cats will change significantly when they are left alone compared to when they are with their owners, which could potentially indicate the presence of SRP. Significant behavioral changes will be indicated by observing altered eating habits, changes in activity levels, disrupted sleep patterns, escape attempts, vocalizations, spraying, and other disruptive behaviors. In addition, it is expected that owner-reported data will show the notion of a change in their cats' behavior as well when they are exposed to data on their cats' behavior during their absence. Overall, it is anticipated that leaving a cat alone will demonstrate the prevalence of SRP in cats and therefore encourage further research into the social and emotional well-being of domestic cats.

Research Methodology

In this study, results will be gathered by employing two methods. Firstly, behavioral observation of the cats with and without the presence of owners will be performed. Secondly, data will be gathered by having the owners fill out questionnaires.

Behavioral Observation

The behavioral observation will be performed by strategically placing cameras around the house capturing video footage of the cats' behavior during the owner's absence as well as during their presence. This way, both behavior with and without owners can be compared. Behavioral parameters that will be monitored are altered eating habits, changes in activity levels, disrupted sleep patterns, escape attempts, vocalizations, spraying, and other disruptive behaviors. These parameters will be noted and analyzed for both owner-present absent states as well.

Owner-Reported Data

Owner-reported data will be collected by having the cat owners complete questionnaires entailing questions about their cats' behavior during their presence and questions about the video footage during their absence. The questions will assess the differences in the behavioral parameters as stated above as well.

After gathering the results from both the behavioral observations from experts and owners, qualitative analysis will identify recognized patterns and themes to provide context to the observability of differences in the behavior of the cats.

References

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