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May 6, 2018

Feeding Behaviors Between Dogs, Cats, and Birds

Abstract-

This study aimed to investigate the feeding behaviors between a dog, cat, and bird. The methods used examined their sex, breed, and age before assessing the behaviors they possessed concerning their feeding habits. The results concluded that although dogs and cats share many physical characteristics, compared to that of a bird, all three animal's outcomes were closely related when it came to their three most common feeding behaviors. However, due to the differences in ingestion habits, the bird spent more time swallowing than the dog and cat did chewing. According to the discussion, this could be because birds do not have teeth, so they spend a longer time maneuvering their food through their mouths. Ultimately, further research needs to be conducted concerning the feeding behavior of birds as studies are severely scarce.

Introduction-

Animal feeding behavior is a topic many are interested in, but few have the time, patience, or observational skill to examine the similarities and differences between species. The observer in this study compared the feeding habits of a dog, cat, and bird, to not only examine the results between these creatures but also to compare it to what other literature sources have said about animal feeding behavior. The animals chosen for the study were picked due to their accessibility and approachability. The hypothesis formed before the experiment was that if these feeding behaviors were observed between a dog, cat, and bird, the dog and cat would have similar results compared to that of the bird since dogs and cats are similar in structure and have similar digestive systems. The bird, however, has a contrasting body structure and digestive

system therefore projecting differing results. The objective of this study was to ultimately examine the similarities and differences between dog, cat, and bird feeding behavior.

Methods-

The observer first examined that the canine was a female, heeler mix, and was approximately two years old. The canine weighed 44 pounds, had a body condition score of a three, and was also spayed. The food fed came from the brand Authority, lamb and rice flavored. The female dog was fed in the evening and was given 1 ½ cups of food with a raw egg for added protein. According to the recommended daily feeding amount for Authority dog food, for a medium sized dog weighing between 21-50 pounds, canines are recommended to be fed 1 ½ to 3 cups daily, with this canine being fed 3 cups daily. The time it took for the dog to consume her food took 2 minutes and 8 seconds.

The method used for the feline was similar to the procedure used for the canine. The observer first examined that the feline was a female, calico breed, and approximately nine months old. She weighed 10 pounds and had a body condition score of a four and was also spayed. The food fed was Purina Kitten Chow in which the feline was given ½ cup to eat in the evening. According to Purina Kitten Chow, the daily recommended amount to feed a kitten ranging from 7 months to 1 year of age is ½ to ¾ cups twice daily, with this feline being fed ½ cup twice a day. The time it took for the cat to consume her food took 2 minutes and 28 seconds.

The last animal that was examined was a bird, in which the method used was comparable to that of the dog and cat. The observer examined that the bird was a male parakeet and was approximately 1 ½ years of age. The food given were spray millets while the amount fed was one spray. The bird ate around 3 ounces of food in 2 minutes.

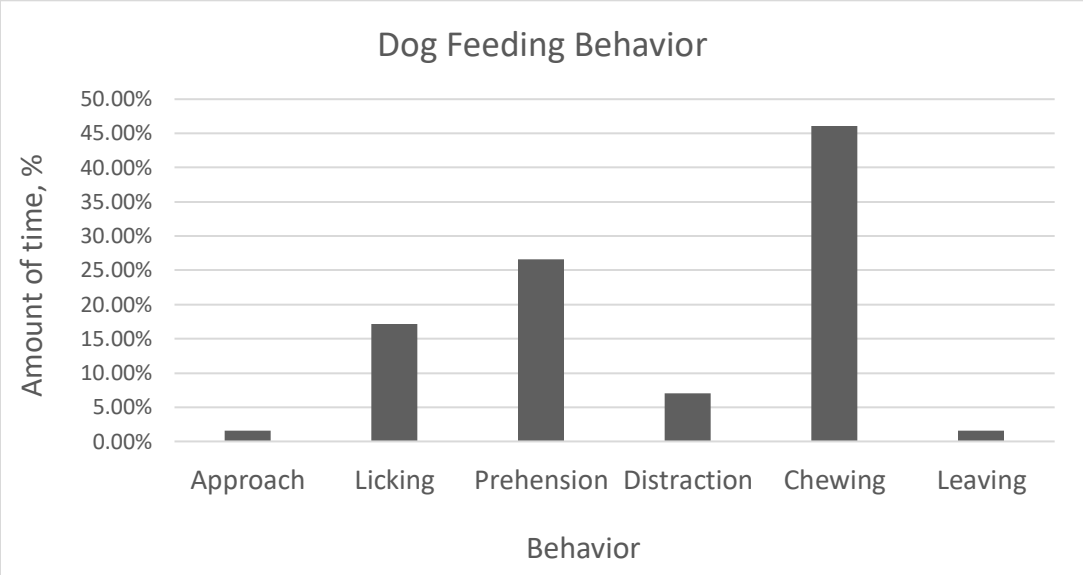
Results-

Below are the results for the canine which indicate the type of behavior the canine exhibited while eating and the amount of time she performed each behavior. As observed, the canine spent most of her time chewing, followed by prehension, and lastly, licking.

Ethogram-

Behavior	***Description***	***Percentage***
Approach	Comes toward food with intention to consume	1.56%
Licking	Passes tongue over (something) to taste, moisten, or clean it	17.19%
Prehension	Grasps or seizes food out of bowl	26.56%
Distraction	Raises muzzle out of bowl, eyes averted, focuses on other stimuli	7.03%
Chewing	Uses mouth and teeth to bite and work food in the mouth	46.09%
Leaving	Vacates area where food bowl is located	1.56%

Graph-



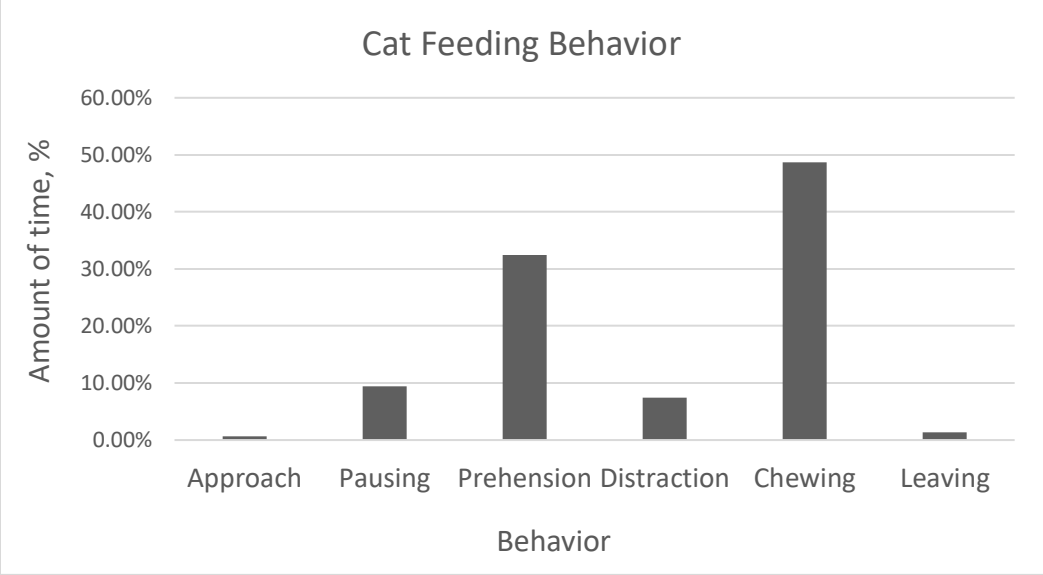
Results-

Below are the results for the feline indicating the type of behavior the cat exhibited while eating and the amount of time she performed each behavior. As observed, the feline spent most of her time chewing, followed by prehension, and lastly, pausing.

Ethogram-

Behavior	***Description***	***Percentage***
Approach	Comes toward food with intention to consume	.68%
Pausing	Temporary stop of action, gaze held not on a specific stimuli	9.46%
Prehension	Grasps or seizes food out of bowl	32.43%
Distraction	Raises head out of bowl, eyes averted, focuses on other stimuli	7.43%
Chewing	Uses mouth and teeth to bite and work food in the mouth	48.65%
Leaving	Vacates area where food bowl is located	1.35%

Graph-



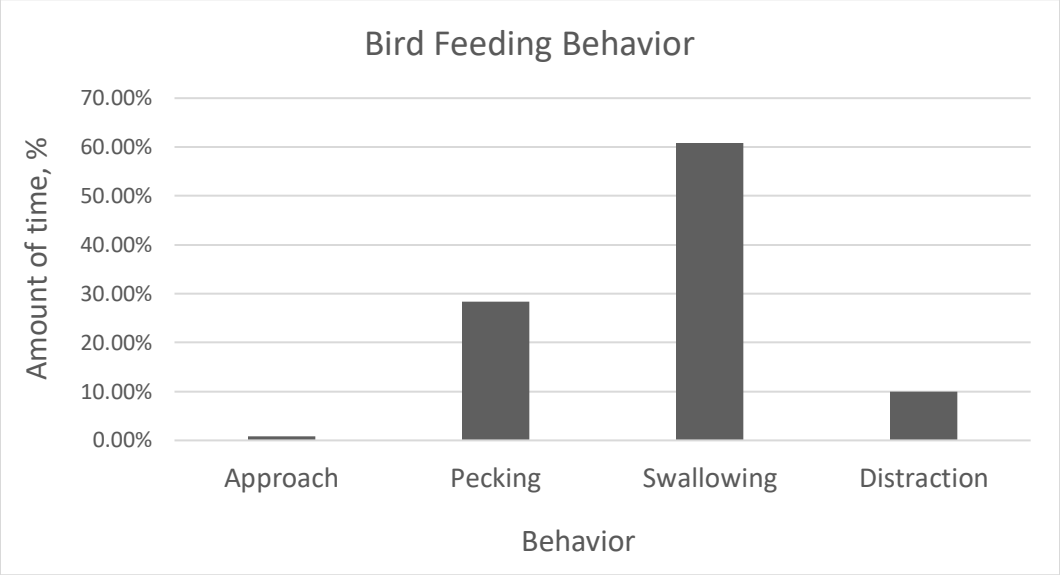
Results-

Below are the results for the bird indicating the type of behavior the bird exhibited while eating and the amount of time he performed each behavior. As observed, the bird spent most of his time swallowing, followed by pecking, and lastly, being distracted.

Ethogram-

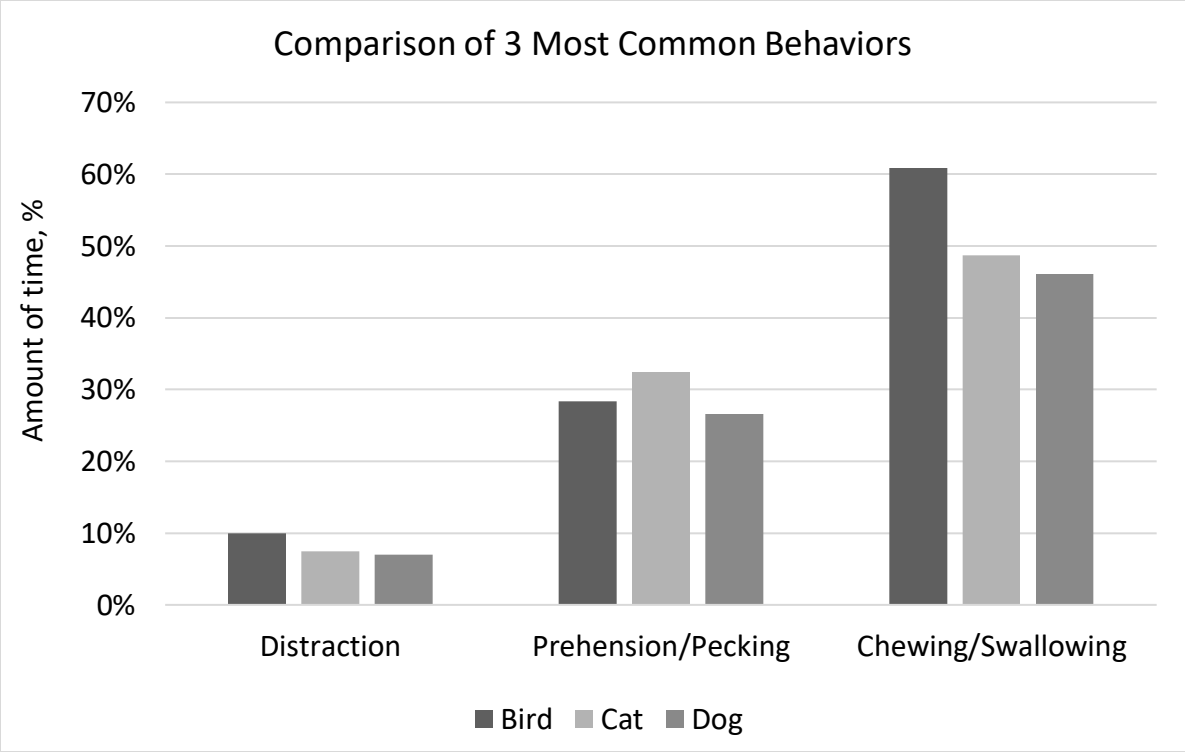
Behavior	***Description***	***Percentage***
Approach	Comes toward food with intention to consume	.83%
Pecking	Moves toward food with fast motion and strikes with beak	28.33%
Swallowing	Maneuvers food in mouth and allows it to pass down throat	60.83%
Distraction	Eyes averted, focuses on other stimuli (not food)	10%

Graph-



Results Compared-

The graph below compared the three most common feeding behaviors observed between the dog, cat, and bird. According to the results, the three creatures spent almost the same amount of time being distracted. Concerning the prehension/pecking behavior, the cat spent a larger amount of time grasping or seizing the food out of her bowl than the dog did, and the bird did pecking. Moving forward, the last behavior compared was the chewing/swallowing behavior. The bird spent more time swallowing, by 12%-15%, than the dog and cat did chewing,



Discussion-

The findings in this study were closely related to the findings in the literature. For example, one of the most common behaviors the canine expressed was her licking behavior. This behavior was portrayed in the beginning of the video when the canine was licking the raw egg before prehension of the food. This preference for the raw egg is comparable to other studies conducted and recorded in literature since dog's ancestors, wolves, thrived on raw diets and "for thousands of years the domesticated dog survived on whatever food was available" (Freeland, 2012). Another noticeable trait the female canine expressed was how relatively fast she ate her food. According to the literature, "several breeds of dog have a reputation for being able to consume large meals very rapidly, and it is possible that this is the legacy of competitive feeding in the wolf" (Freeland, 2012). Also, "rapid feeding may also be an adaptation to scavenging during the early stages of domestication" (Freeland, 2012). Knowing these results from the study

will help owners understand the reasons behind rapid food consumption of dogs and that canines have an ancestral preference for raw food. Moving forward, the feline behavior expressed throughout this study was also comparable to that of the literature. For example, the feline in this study ate a smaller amount of food (½ cup compared to the canines 1 ½ cup) and seemed more satisfied. Satisfied in the sense that she did not desire or require more food after consumption of her normal amount. The literature stated that "unlike wolves, felines are exclusively solitary hunters, and therefore usually take prey with much lower body-mass than their own" (Freeland, 2012). Therefore, cats kill small-game animals such as birds and mice throughout the day because they tend to be grazers rather than gorgers. This is important for owners to notice as it might be more beneficial to feed a cat smaller meals multiple times a day compared to feeding ad libitum in which the feline could gain more weight. Lastly, the feeding behavior of the parakeet was difficult to find in other academic sources. Birds, in general, had little information concerning their feeding habits but as for the parakeet there was no information available. However, the swallowing behavior in the parakeet was its most time-consuming action. This could be because "modern birds have curved beaks and a hearty digestive tract that help them grind and process food" ("Why Birds Don't Have Teeth," 2014). Therefore, they spend most of their time maneuvering the food through their mouths to swallow. In the literature, it was also said that birds are "opportunistic feeders and will sample many foods" ("Chew, Gobble, or Gulp," 2017). This, too, was observed as a behavior the parakeet displayed since it never looked around for more food but took whatever chance he had to eat the diet that was in front of him. This could prove useful to owners as it suggests feeding a bird different types of food to maintain its innate behavior of a vast palette. In conclusion, the feeding behavior between a dog, cat, and bird were strikingly similar while also different in some respects. What the observer examined

was present in other scholarly literature sources whereas it was also difficult to find an abundance of information on certain topics.

References

Freeland, J. (2012). The Controversy Between a Raw Food Diet and a Kibble Diet: Is a Raw Food Diet Healthier for our Pets? 1-24.

Geggel, L. (2014). Why Birds Don't Have Teeth. Retrieved from https://www.livescience.com /49109-bird-teeth-common-ancestor.html

Mayntz, M. (2017). Chew, Gobble or Gulp - How Do Birds Eat? Retrieved from https://www.the spruce.com/digestion-facts-for-birds-386437