

Examination of Feeding Behavior Report. 05/02/2018

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ABSTRACT

In my observation I'll be observing the feeding behaviors of how cats, dogs and sow eat their food. I'll focus on the questions of what mouth structure they use, how much they eat in a single meal, how long it takes for them to eat and then compare my observations with each species as well as how they differ from each other.

INTROUCTION

Cats usually eat many small meals throughout the day. Many of them eat differently than others, for example; some cats will scarf down their food as if they haven't eaten in days, whereas other cats will pick at their food. Some cats will take huge mouthfuls of food and run away to eat their food away from their bowl or other cats that may be in the area. These behaviors can be influenced by certain factors such as the cat's history and the context of its behavior that occurs as well as what its expectation might be in result of the behavior that all influence what occurs (Buffington, 2015). For adult cats, their mouth structure consists of 30 teeth. Depending on their position, they serve different purposes. The front teeth of the cat which involves 12 incisors and 4 canine teeth are for tearing apart food. The premolar and molar teeth are designed to grind food into smaller pieces. Another part of the mouth of a cat is their tongue which is rough due to papillae which are tiny barbs that are backward facing on the top of the

tongue. This helps cat hold prey in their mouth, removing meat from bones and it also helps in grooming.

Cats and dogs are very similar when it comes to eating, especially since they are both carnivorous eaters. They use the same mouth structures such as the tongue and teeth, they're used basically for the same function. The tongue serves many functions, but it mainly serves for guiding food and water in the mouth and it also helps them chew and swallow their food. As for their teeth they serve the purpose of tearing apart food into smaller pieces. Their incisor teeth are used as their primary biting teeth whereas their canine teeth are more for biting and tearing apart food and their premolar shear are for grinding and mashing food up. Just like their tongue and teeth, their mouth serves many functions. Their mouth exudes saliva which helps lubricated the food they're eating. The purpose of the saliva is to keep their food together as a lump (Spielman, 2015). A dog's stomach is similar to a human's stomach, when the stomach is full it empties into the smaller intestine and 8-10hrs later the stomach sends signals to the brain of a response of hunger, which is why most dogs eat a meal two times per day.

Sow are also like cats and dogs as well; however, they are not carnivorous animals, they are omnivores which means they can eat grass, fruits, berries, worms, fungus, roots as well as other mammals or birds. Sows are not picky eaters, they will eat almost anything that is thrown at them, same goes for dogs, however, cats on the other hand can sometimes be picky eaters. The mouth of the sow serves many important roles but it's not just only for devouring food but also supplies for the "initial partial size reduction through grinding" according to the article The Pig Site. The teeth of the sow serve for chewing and grinding food into smaller pieces. When

eating, sows also salivate to help them swallow their food. Their saliva also contains enzymes which starts the digestion of starch (Rowan, 2015).

METHOD

In my observation the first subject was a six-year-old male Norwegian Forest cat. In this observation the subject was fed one and a half cup of Twin Peak cat food. The time it took for the cat to finish eating was about four and a half minutes. In my second observation the subject was a five-year-old male Dachshund. In this observation the subject was fed two cups of Pedigree roasted chicken, rice and vegetable flavor dog food. The time it took for the dog to finish eating was two minutes and twenty-five seconds. The third subject was a one-year old sow from a pig farm. In this observation the subject was fed a bucket of blend diet. The time it took for the sow to finish eating was four minutes and twenty-three seconds.

RESULTS

The results for the first observation, the subject (cat) used its tongue to pick up food by having its tongue curl backwards instead of forwards while food was being casted up into its mouth. While eating the subject took huge mouthful of food and ran away from its bowl and away from other humans or cats that were in the area. In that process of taking its food away from its bowl, the subject had a hard time swallowing due to rapid eating and showed many signs of aggression. Every so often the subject would look up from its bowl and survey its surroundings and then continue eating again. After he finished eating, the subject would search

high and low for more food. In my second observation, the subject (dog) used its tongue to pick up food by having its tongue extend out and curl backwards while the food was being picked up. He would eat very rapidly and have a hard time swallowing and then begin to salivate. He showed no signs of aggression but was a bit timid when there was any sudden movement. Every so often the subject would look up from its bowl and survey its surrounding for a few seconds and then proceed in eating again. After he finished eating, the subject would search for more food for a few minutes and then relax. In my third observation, the subject (sow) spent most of its time with her head in the food. There were hardly any breaks in between eating. The Subject used its tongue to pick up the food and then she'd begin to salivate throughout the entire eating process. While eating the subject vocalized by grunting and squealing. After she finished eating, the subject would search for more food in the bowl by sniffing every corner of it.

DISCUSSION

My first observation with the subject which was the six-year-old male Norwegian Forest cat lasted about four and a half minutes. Before feeding the subject, he paced back and forth and would stand on his hind legs attempting to grab the food. When he was given access to the food he immediately slammed his face into the food bowl and ate very fast. In the process he then began to start choking for a few seconds and then continued to eat again and salivated. While eating the subject showed many signs of aggression such as guarding his food, growling, hissing and clawing. At times he would take in huge mouthfuls of food and run away with it and eat it away from people and other cats that were in the area. While observing the feeding behavior I

have found that the subject eats by using his tongue to pick up food and its teeth to chew it into smaller pieces. The subject uses its tongue by extending it out and curling its tongue backwards, then casting the food into its mouth. After eating all his food, he began to search low and high places for more food for a good few minutes but then began to start grooming himself by licking his paws and face. My observation finding and what is published in the scientific literature are similar in many different areas. In the literature it states how some cats will scarf down their food or sometimes take huge mouthfuls of food and run away to eat it away from their bowl or other cats that may be in the area, which in my observation was what my subject did do exactly. It also says how they use their tongue to help guide food into its mouth and help chew and swallow food. Not only does the tongue help in chewing food but in the literature, it states that the premolars help grinds and mash food up which is what was used when the subject was eating due to the type of food he was given. Their mouth also exudes saliva which lubricates the food they're eating which my subject did do when eating to keep its food in a lump.

My second observation with the subject which was the five-year-old male Dachshund lasted about two minutes and twenty-five seconds. Before feeding the subject, he was jumping and standing on his hind legs while vocalizing a deep low pitch bark. When the subject was given access to the food he began to salivate excessively and eat very fast. Due to his rapid intake of food he had a hard time swallowing and would choke for a few seconds before beginning to eat again. While observing him eating I found that he used his tongue to help pick up food and his teeth to chew its food into smaller pieces. The subjects tongue would extend out and curl backwards when picking up food and casting it into his mouth. Every so often he would

look up from his bowl and survey his surroundings and continue eating again. He showed no sign of aggression but was very timid when there was any kind of sudden movement. After eating all his food, he began to sniff the ground for more food for a few minutes. My observation findings and what is published in the scientific literature are similar in many different areas. In the literature it talks about the many different mouth structures that a dog uses when it eats. One of the mouth structure for example is its tongue that serves to help chew and swallow their food which is what was observed during the observation. It also talks about the teeth such as its premolars which is used for grinding and mashing food up and in this observation that's what was used by the subject due to the type of food that was given to him. In the process of eating, the subject did in fact salivate excessively which in the literature states that salivation happens to lubricate the food to keep their food together as a lump.

In my third observation with the subject which was the one-year old sow lasted about four minutes and twenty-three seconds. Before feeding the subject, she was already searching for food in the bowl by sniffing every corner of the it. When the subject was given access to the food she began lapping food into her mouth by using its tongue and salivated in the process. During the entire eating process, she spent most of her time in the food bowl. She used her teeth and tongue to help her pick up food and eat. After she finished eating the food, she began searching for more food like she did before we feed her. In the scientific literature and in my observation, there are many similar findings. In the scientific literature it talks about how their teeth are used to help chew and grind food in to smaller pieces. they also salivate to help lubricate the food they're eating which in my observation with the subject she did do.

In all three of my observations they shared many similarities as well as differences in the feeding observation. A few similarities that were shared between the species was that they all searched for food at some point during the feeding process, whether it was in the beginning or the end. All three animals also salivated while eating. They also used their tongue and teeth to help pick up, chew and swallow their food. As for the dog and cat they both used their tongue to pick up the food by extending their tongue out and curling their tongue backwards to pick it up and cast the food up into its mouth. The cat and dog also took a break while eating to survey their surroundings. As for differences, the cat was the only one that showed any aggression and took a mouthful of food and ran away with it. For the dog, he showed no signs of aggression but was very timid when there was any kind of sudden movement. As for the sow, she took no breaks to survey her surroundings for she spent most of her time with her head in the food bowl eating and grunting at the same time.

CAT ETHOGRAM

Behavior	Description	% time on behavior
Pacing	Walking back & forth repetitively.	4.04%
Standing on hind legs	Sitting on hind legs while the front 2 legs are of the ground.	1.10%
Attempting to grab food	Cat would jump & try to snatch the food out of hand.	3.31%
Slams face in food	Cat is actively eating.	34.19%
Vocalization	Showing significant interest. Low pitch rumbling from throat, (growling).	7.72%
Heavy breathing	Cat was breathing very slowly & loudly while eating.	5.15%
Salivating	Watery substance formed from the mouth when eating.	2.21%
Mouth full bites	Take in large amounts of food & move elsewhere.	4.41%
Spits food out	While eating, cat will spit food back out.	2.57%
Trouble swallowing	Cat will repeatedly try & swallow same mouthful food.	5.15%
Surveying	Cat will inspect surroundings when eating its food.	5.88%
Aggressive	Predatorial behavior such as, guarding, hissing & clawing.	8.46%
Searching for food	Cat moving attentively, sniffing low & high.	4.78%
Tail wagging	Non accelerated, regular sideward movement of tail.	3.68%
Grooming	Cat licked its front paws & cleaned its face after eating	7.35%

DOG ETHOGRAM

Behavior	Description	% time on behavior
Tail wagging	Non accelerated, regular sideward movement of tail.	4.29%
Jumping	Used legs to move up off the ground.	2.14%
Vocalization	Deep low pitch barking coming from the throat.	2.86%
Standing on hind legs	Sitting on hind legs while the front 2 legs are off ground.	2.14%
Head in food	Dog is actively eating & showing significant interest.	35.71%
Trouble swallowing	Dog repeatedly tried to swallow same mouthful food.	7.14%
Surveying	Dog will inspect surroundings when eating its food.	5.00%
Salivating	Watery substance formed from the mouth when eating.	6.43%
Searching for food	Dog moving attentively, sniffing the ground.	10.71%
Pacing	Walking back & forth repetitively.	7.14%
Drinking	Dog is actively drinking water after eating.	16.44%

PIG ETHOGRAM

Behavior	Description	% time on behavior
Searching for food	Sow is moving attentively, sniffing the ground.	4.12%
Head in food	Actively eating using tongue to lap food into mouth.	65.98%
Moisture from nostrils	Watery substance coming from the sows nostril.	10.31%
Salivating	Watery substance formed from the mouth of the sow.	7.22%
Vocalization	Sow started making a low, shirt guttural sound.	6.70%
Sniffing	Sow was smelling the air to detect more food.	5.67%

<https://www.petplace.com/article/cats/pet-health/structure-and-function-of-the-tongue-teeth-and-mouth-in-cats/2/>

<http://www.vetstreet.com/our-pet-experts/strange-eating-habits-in-cats-why-do-they-do-that>

<http://edis.ifas.ufl.edu/an012>