Human-animal communication occurs in both verbal and nonverbal contexts to varying degrees, depending upon the breed of animal and the strength of the relationship between human and animal. This essay studies the way in which humans verbally communicate with animals in the United States, specifically examining the function that language serves in these various communicative contexts. Observational data detailing language use with horses and small domestic pets has been gathered from Red Oak Riding Center in Elkhart, Indiana, and interactions within the household, respectively. Three forms of language used to address or discuss animals in these contexts are interpreted: i) specialized animal language, ii) standard language, and iii) animal gossip. The use of these language forms is indicative of the type and strength of the relationship that is shared between human and animal. Language in a working capacity utilizes commands or sounds that do not carry a meaning in non-animal contexts, while domestic pet language ranges from 'baby talk' to full conversational frameworks. An analysis of language use is essential for understanding human-animal relationships, as language illustrates the human perception of animal identity. Verbally addressing an animal imbues it with apparent communicative abilities, illustrating the idea of 'language as action' as promoted by J. L. Austin and J. R. Seale.

Introduction

Human-animal language holds a multitude of meanings in popular opinion. Often it is accompanied by a certain stigma that one can be 'too close' with one's pet. In this respect, the idea of the 'crazy cat lady' who converses with her cats as if they are people is well known in the United States. The anthropomorphizing of pets is another issue entirely, wherein owners not only speak to their pets as if they are human, but dress and pamper them in human ways as well. At the other end of the spectrum is the socially acceptable form of human-animal speech. Training a dog to respond to the commands "sit" and "stay" is not seen as an abnormal amount of speech directed towards an animal. Similarly, it is accepted practice to persuade horses to move by stating, "walk on" or "back up". Why does this divide exist between the opinions toward human-animal speech? While all of these examples involve addressing animals with human language, some forms of interaction are deemed to be more socially acceptable than others. Through my research I have found that human-animal language holds a significance that extends beyond these general popular culture examples. This essay studies both the conscious and unconscious meanings that lie beneath human-animal communication, and the ways in which language performs actions of establishing intelligence or understanding between human and animal. While my research does not solve the dichotomy of the language of the 'crazy cat lady' versus that of training an animal, it does offer new insights into the force that is created in the use of language to address or discuss animals.
Motivations

As a self-professed animal lover, I have been talking to animals for nearly as long as I have been talking to people. Often I even prefer addressing the former to the latter. Recently I have realized that the way in which I talk to animals has been altered under the influence of my colleagues during my summer fieldwork at a riding center called Errislannan Manor in Clifden, co Galway, Ireland. My co-workers spend time with animals as their occupation, and have no qualms about talking to animals in a highly exaggerated manner. Until I returned to the United States I was unaware that I had adopted many of their linguistic mannerisms in addressing animals. I realized that the way in which I address animals had changed after working in a human-animal context for a summer. I was suddenly hyper-aware of how I spoke to animals, and consequently how those around me addressed animals as well. I wanted to find out why my speech had changed so drastically ... how did working with animals change the way I regarded them in a linguistic sense?

This project is a manifestation of those observations, for I am curious about the ways in which humans use language when dealing with animals. From personal experience prior to the advent of this project I knew that people frequently talk to their animals, some to the extent that it sounds as if they are having a conversation with their pet. I had also seen others speak to their pets in a manner akin to 'baby talk', using an exaggerated form of affectionate speech. I wanted to study the function that language serves in these various communicative contexts, and the way that language use changes when the addressee is an animal rather than a human. I wanted to answer the following questions: Is language used as a bonding mechanism between human and animal? How is language different in addressing work animals versus domestic pets? Can humans be around animals without speaking to them directly? If not, why? How do animals respond to language, and do certain linguistic strategies have more of an effect than others?

Existing Literature

The study of animal language is an extensive field, wherein scholars study the ways that animals communicate through noises, song, body language, sound vibrations, echolocation, and a variety of other nonlinguistic methods. The topic of human language towards animals is much less studied in comparison, but several interesting experiments have been performed regarding human animal communication. The academic disciplines of psychology and philosophy are particularly well represented in these communication studies. The motivations for and biological effects of animal interaction are subjects of psychological study, while philosophical works often investigate the morality of impressing value and intelligence upon animals.

In my research of academic literature regarding human-animal communication, I have found that a popular starting point for works on this topic is the study of what is known as the Clever Hans Phenomenon (Bright 1991; Hearne 1987; Sebeok and Rosenthal 1981). This refers to the story of Hans, a cart horse who answered questions by tapping his hoof to represent numbers or letters. Trained by his owner Herr von Osten, it was thought that Hans was able to understand human language, interpret a question, and provide the correct answer. It was later discovered that Hans was an incredible reader of body language and responded to unintentional cues from his owner that indicated he had arrived at the correct answer, which signaled him to stop tapping (Hearne 1987: 4).
While in the end it was found that Hans could not understand the words being spoken, his case does illuminate certain key components of human-animal communication. According to Thomas Sebeok and Robert Rosenthal, the Clever Hans case shows the importance and danger of a personal investment in training, and the significance of a shared experience with the trained animal (Sebeok and Rosenthal 1981: 3). Hans's understanding of what was asked of him was considerably heightened due to his close relationship with his owner/trainer. The energy and will that was put into the commands imbued the language with a special power, one which often makes an appearance in training contexts (Sebeok and Rosenthal 1981: 7).

The idea that animals understand language has been proposed through examples like Clever Hans, but none have ever provided definitive evidence. Rather, current studies focus upon a suite of communicative tools to convey messages to animals, including pitch, tone, repetition, and body language. In their work Between Pets and People, Alan Beck and Aaron Katcher give a detailed description of the way that language alters when one is addressing a pet in the United States, as "the voice becomes softer, slower, and slightly higher in pitch than normal, with prolongation of vowels and ending consonants. Much of the speech consists of "questions framed for the animal" (Beck and Katcher 1983: 62). Valerie Sims and Matthew Chin provide a similar explanation, stating that speech addressing pets is "typically higher in pitch, has a greater range of pitch, is spoken more slowly, and is highly repetitive" (Sims and Chin 2002: 167).

Psychological experiments have taken a slightly different approach to the study of human-animal language in studying the frequency and amount of time one spends addressing an animal. In a study analyzing first encounters between humans and cats, it was found that on average the first vocalizations of a human addressing a cat occurred within the first 64 seconds of the encounter (Mertens and Turner 1988: 91). On average, a linguistic interaction occurred a full 10 seconds before bodily contact, and in 98% of experiments with adults the first social element with the cat was a vocalization (Mertens and Turner 1988: 91). In a similar study analyzing the predictors of speech addressed to cats, it was found that 45 out of 46 participants who played with a cat under observation made at least one utterance during the observed period (Sims and Chin 2002: 171). These utterances followed the aforementioned linguistic framework, with the speech being characterized by "encouragements, greetings, attribution of the cat's thoughts, and expression of the participant's own thoughts" (Sims and Chin 2002: 172).

In contrast, literature regarding communication with animals performing specific tasks describes a very different suite of linguistic characteristics. While Carrington Bolton's work "The Language Used in Talking to Domestic Animals" was written in 1897, in my personal experience language used to address work animals has not drastically changed from the time of publication to the present, at least in the United States. Bolton describes work animal speech as "monosyllabic and dissyllabic, and [is] generally repeated in groups of three; although entirely devoid of grammar, consisting exclusively of exclamations and words in the imperative mood" (Bolton 1897: 65). A different working context for domestic animals is that of horseback riding, in which the horse is asked to do certain tasks by its rider in primarily nonverbal ways. In her work "A Language of Their Own: An Interactionist Approach to Human-Horse Communication", Keri Brandt describes the body as "the basis from which a system of communication can grow" (Brandt 2004: 301). While verbal cues can be used, the close body-body contact that is involved in riding creates a context in which subtle and specific communication can be achieved through body-body interactions. Therefore language in
addressing animals is 'an amalgamation of both verbal and nonverbal methods, with each possessing its own specific implementation and context of meaning. The interplay of these two forms of communication will be further explored in the data analysis section of this paper.

Methodology

In addition to analyzing the current scholarly literature that is available regarding human-animal language, I engaged in ethnographic research to develop a firsthand understanding of the ways that humans address both domestic and working animals. While I conducted new research under the auspices of this project, I also used examples of previous animal experiences that I have had in domestic pet interactions and while conducting ethnographic field research for a separate project involving human interaction with Connemara ponies. My new research was focused on two specific locations: my home in Logansport, Indiana, and Red Oak Riding Center in Elkhart, Indiana, where I take a weekly riding lesson.

In the home context, I observed the ways that I, my family, and a friend visiting for Thanksgiving Break addressed my cat, Buster. Buster is a highly entertaining cat who is very active, and often engages people in play or in pleas for affection. He is also highly vocal, and frequently meows and howls in various pitches and volumes in different communicative situations. I studied the words, pitch, and sentences that were used to address Buster, and later took notes on what I saw. In my riding stable study, I observed the ways that the various owners and the trainer addressed the many horses in and around the barn. I studied the way that language used to address the horses changed in accordance with the physical presence of the owner. If the owner was riding, working language was used. If the owner was on the ground grooming or feeding her horse, she used language very similar to that used with cats or dogs. I also examined the difference in language used by the trainer, for she was typically in an instructing role on the ground, watching different riders. As I was always either riding or taking care of a horse, I observed these various interactions and later took notes after my experiences.

Findings - Specialized Animal Language

My ethnographic research revealed linguistic practices which closely paralleled those seen in previous studies examining human-animal language in the context of specialized animal language. By specialized animal language, I mean repetitive words or short phrases that use standard human words, but do not create a conversational context. In the home setting, the language used to address Buster was typically high-pitched, used elongated syllables, and was highly repetitive. Greetings directed at Buster were often in the form of questions, such as “Hi Buster, what's up?” Because of Buster's penchant for frequent vocalizations, often the response to his meowing greeting would proceed along the lines of "(meow) ... what? (meow) ... what? (meow) ... what's wrong? What do you want?" Concurrent with other studies of human-cat interactions, much of the speech addressing Buster was in the form of imperatives or repetitions (Sims and Chin 2002: 167). If Buster was sitting in a room while people were sitting, they would call him to sit on their laps, saying "come here" or "come over here ... come on ... come on!"

Previous to the development of this project, I have observed similar instances of the use of what I now identify as specialized animal language to address domestic animals. A particularly interesting example is that of a friend using Skype to talk to her family pets while she was studying abroad. Because animals do not fully comprehend the use of a video camera
and the screen image as a representation of a real person, it is difficult to properly attract their attention. Therefore my friend had to use keywords that she knew would catch the dogs’ attention and make them respond to her voice. One dog, Aidan, has a fondness for pizza. Therefore, she would often say, "Aidan! Pizza! Pizza Aidan!" in order to get his attention. She used the same tactic to get the attention of a different dog, Athos, saying "Athos! Wanna go for a walk? Walk? Athos!" The difficulty in a video communication context was thereby partially overcome by the use of very powerful keywords to get the dogs’ attention.

The language used to address horses by their owners in a ‘care’ context was very similar to that used with cats and dogs. The idea of a ‘care’ context as used in this analysis is one which does not involve riding a horse. Horse care involves feeding, grooming, petting, and generally just spending time with a horse in a non-working environment. In this context, short phrases were primarily used, with owners uttering phrases such as "hi handsome", "hi buddy", or "hi [insert name here]". Small commands were also uttered, mainly in moving the horse into position to be groomed or fed. Such commands included phrases like "come here", or "hang on a second".

The language used once an individual is mounted on a horse is quite different than that used on the ground. Riding a horse places the animal in a working context, for the rider is training his or her horse towards a specific goal. The barn in which I conducted my ethnographic fieldwork is a training barn, where owners bring their horses to improve the horse’s skills under saddle and the rider's skills in cueing the horse to perform specific movements. Such movements could be those necessary for a higher test level in dressage, achieving a higher jump during a jumping course, teaching the horse a sliding stop for a reining pattern, or a multitude of other specific riding skills that cannot be sufficiently treated in the confines of this essay.

An example of this working language is the word ‘woah’, which is typically associated with stopping in popular depictions of horseback riding. In actual practice, this is shortened to something more akin to 'ho', uttered in a short, low manner. This word has no meaning in normal conversation, but in the horse words it unequivocally means 'stop'. Similar linguistic variations are used in working horse contexts where 'work' describes manual labor rather than riding. I have seen pulling teams respond to the words 'gee' and 'haw', meaning turn right and left, respectively (Bolton 1897: 86). The amount of repetition used with these commands is relative to the level of training and willingness for cooperation of the pulling team.

I have also observed individually specialized animal-specific language that is shared between a particular owner and his horses outside of a work or care context, but in the realm of a basic 'come' command. While doing ethnographic work in Ireland in the summer of 2010, I witnessed a man calling his horses from across the field with only a "huh" sound. He repeatedly made this noise, and the horses came running at his call. It was apparent that the owner had trained his horses to respond to this sound, most likely through simultaneously offering a food reward and making the call. This trained the horses to come for the reward, and eventually succeeded in getting them to come to the sound alone.

Findings -- Standard Language

During my ethnographic work I found that language about animals is just as important as the language used to directly address animals. This standard language indicates how the speaker feels about the animal in normal human terms, thereby revealing the motivations behind the
particular ways in which the speakers addressed the animals. In my household, Buster was talked about just as frequently as he was talked to by various members of the household in what I call 'animal gossip', which differs from the previously studied specialized animal language. While one person was engaging Buster in the aforementioned "meow ... what?" interaction, my mother stated "he's so obnoxious". Other utterances about Buster included "he's such a pain", "he always yells at us when we come home", and "he's just so cute" (the sentiments uttered by a visiting friend were much more laudatory than those of my family).

I observed the same frequency of discussing animals amongst my friends at Notre Dame. A friend's parents recently purchased a new puppy, and her mother enjoyed discussing the puppy when she arrived for football games in the fall. Strongly using anthropomorphic language, she informed me that "We've decided that Jasper has an English accent". She would also joke about the puppy being her "new child". Talk about the puppy dominated the conversation, as she regaled us with numerous amusing stories about the new puppy's antics.

This 'animal gossip' is extremely prevalent in the riding world as well. While idle banter is often filled with discussions about one's horses, riding techniques, and horse health, this type of language is also used in a training context. When the horse I was riding did not execute the move which I was attempting to cue, my trainer informed me that "she really makes you work for it. She makes you do it right". My trainer would tell me stories about the horse while I was riding; giving me the horse's history so that I could better understand the way that she behaved when I rode her. She would also explain how problems in my riding would be manifested while riding other horses. When I made a mistake in moving my hips to cue for a canter, she said, "If you had been riding Joey, he would have left you. Polly would have bucked. Misty just says, 'Heeeeeeey!' but will do it anyway". In this phrase she was both engaging in 'animal gossip' as well as characterizing Misty as speaking. This indirect address of the horse was the primary way in which the trainer verbally interacted with the schooling horses.

Unlike the speech used in owning a horse, the trainer rarely addressed horses directly in her teaching context. Rather, she would either give the rider instructions or talk about the horse to the rider. In giving the rider instructions, the trainer used a specialized language that can only be understood by those involved with horses. While this could be deemed as 'nonsense language', it is easily understandable by those in the riding world, and will therefore be treated as such in this essay. In my particular riding lesson, this specialized language included instructions in riding a pattern. There are letters placed at intervals around the ring, symbolizing locations for pattern use. In using these letters, I would be directed to "cross the diagonal M X H", "ride a 20 meter circle at C", or "ride up the centerline at A and leg-yield right". While I had expected to find that the trainer addressed the horse as much as the rider, this was not the case. Her vocalizations were primarily confined to commands in this specialized riding language. Any utterances directed at the horse were usually one word expressions of the horse's name, and were prompted by the horse behaving badly.

**Significance/Analysis**

Verbally addressing animals in human-animal interactions does more than just create a bond between human and animal: it attributes intelligence to the animal. While the aforementioned specialized animal language can be described as possessing no real meaning in an the adult language context, this type of language in addressing animals is often closely aligned
with the language used to address infants. In babies, the effectiveness of the linguistic variation which characterizes 'baby talk' has a biological origin. An experiment studying infants' response to speech revealed that infants showed particular sensitivity to happy emotion (Grossmann et al. 2010: 852). When infants are exposed to happy prosody, an increased response to the emotion is seen in the right inferior frontal cortex, "suggesting that infants show a strong preference for infant-directed speech (so-called Motherese)" (Grossman et al. 2010: 855-856). When compared to adult-directed speech, 'motherese' is "generally slower and contains exaggerated pitch contours, hyperarticulation of vowels, and positive prosody" (Grossman et al. 2010: 856).

The speech variations seen in 'baby talk', 'motherese', or 'Child Directed Language' are also seen in animal-directed speech. These variations were ubiquitous throughout my ethnographic research, as I observed this type of speech in the contexts of both the home and the riding center. Strikingly similar to the acoustics of 'baby talk', animal-directed language is typically high in pitch, spoken slowly, and highly repetitive (Sims and Chin 2002: 167). In a human context, addressing an individual through CI)L is indicative of a lower perceived intelligence, but by the same token the use of CDL in animal speech indicates a perceived level of intelligence which is on par with that of humans, similar to the intelligence of a small child (Sims 2002: 175).

If the specialized animal language which I observed in my ethnographic data collection is regarded as CDL, then Buster, Aidan, Athos, and the horses were being imbued with intelligence through the use of such linguistic variations. It was assumed that speaking in this way would get the attention of the animal, thereby indicating that the individuals believed the animal could distinguish between different types of speech. Perceived intelligence is indicated by the specific linguistic tactics used to address the animal. In each of these cases the speaker succeeded in attracting the attention of the animal. Unfortunately there is not a way to ascertain if the same effect would have been produced if the speaker had used standard language in unaltered tones, for the speakers I studied never addressed animals in such a manner.

In the larger context of our class themes, language used in this way is performing an action. The first class topic which we encountered was that of Foundations: Language as (Joint) Action. This section was largely based upon the studies of J .L. Austin, who claimed that all speech is performative, and is designed to achieve a specific outcome (Austin 1961: 222). Upon analyzing animal-directed language in this manner, it is evident that the linguistic variations that are used in addressing animals are in fact acting to not only engage the animal, but also to attribute a form of intelligence and interpretation to that animal. The works of J.R. Searle are also germane to this discussion of language as action, as animal speech fits into his discussion of the illocutionary act. For example, in order for the animal to understand the speaker's intention, it is necessary for the speaker to alter his speech so that the animal recognizes that it is being addressed. Under the auspices of speech as action, this is essentially an illocutionary act, for "the speaker intends to produce a certain effect by means of getting the hearer to recognize his intention to produce that effect" (Searle 1971: 46). The desired effect in my studies is one of garnering the animal's attention or making the animal perform a specific task or action. The higher pitch and use of repetition in this type of language have a meaning in and of themselves, for they represent animal speech and subsequently animal intelligence (Searle 1971: 44).

This line of analysis places the specialized animal language in what J .L. Austin would describe as a category of "speech act", for it is performing an action of placing the animal in a
communicative and intelligent context (Austin 1961). Through imbuing an animal with intelligence through the perceived interpretation of tone and repetition, addressing animals is thereby a "performative utterance" (Austin 1961: 222). Certain uses of human-animal language comfortably fit underneath the performative utterance label, such as the imperatives "come here" or "stop that". The truly nonsense words of "ho", "gee", and "haw" are entirely felicitous performative utterances, for they command an action in a very clear and specific manner. However, it is when we consider the questions asked of animals that problems arise.

According to Austin, infelicity occurs with performative utterances if certain rules are broken (Austin 1961: 224). For example, let us consider the aforementioned interaction with Buster: "(meow) ... what? (meow) ... what? (meow) ... what's wrong? What do you want?" In asking a question of Buster, it is implied that he will answer. This would be the convention: a question is asked, and an answer is expected. However, the speaker knows that Buster will not be able to answer the question in a way which they will understand. Therefore a real verbal answer from Buster would be inappropriate, for the speaker understands that Buster cannot talk. Asking Buster a question without expecting a response breaks Austin's two rules of felicity: the convention of a response which is invoked in asking a question of Buster does not exist in reality, and the circumstances of asking Buster a question are inappropriate (Austin 1961: 224).

The labeling of questions addressed to animals as 'infelicitous' does not invalidate the use of language towards these animals. In fact, it could be argued that this even strengthens an analysis of human-animal language, for it fits within scholarly categories of language use as outlined by J. L. Austin. Regardless of whether statements addressed to animals are 'felicitous' or 'infelicitous' there is a further quality of the performative utterance that must be addressed: the "force" of the utterance (Austin 1961: 238). The force of utterances in a riding context is particularly strong, for I found that often a verbal command can trump a nonverbal cue.

It cannot be argued that the majority of communication used when riding horses is nonverbal. The body-body contact used when working with horses expands language beyond the verbal sphere through the use of weight, leg pressure, hands, shoulders, and hips to cue the horse for certain tasks (Brandt 2004: 302). While this is the preferred and trained way to ride a horse, often well-trained horses have learned to associate words with certain actions. In general, there are three specific gaits which are asked of a horse in a showing or training context: walk, trot (or jog) and canter (or lope). Horses that have gained significant levels of experience in showing or training can learn to recognize these words and react to them, rather than to the nonverbal cues which are being given by the rider. As previously mentioned, in my riding lesson the trainer would callout specific maneuvers for me to execute. While my horse did not react to the command "cross the diagonal M X H", she did understand when the trainer said, "aaaaaaand walk". My trainer always elongates the word 'and' when asking for a downward gait transition, and my horse had become accustomed to this. Therefore, when she heard the verbal cue given to me, in a perfect act of classical conditioning she transitioned down into a walk before I was able to execute the nonverbal cue.

The trumping of verbal over nonverbal in this context is surprising, for in riding it is always taught that the nonverbal cues are the most important and effective way to communicate with one's horse. This example speaks to the force of the illocutionary act in the production of the sentence token ("aaaaaaand walk"), for words from a distanced observer held more power than full body contact from the active rider (Searle 1971: 40). In the instance of working speech,
this illocutionary force is manifested in the results of the movement commands of "gee", "haw", "huh", and "ho". For riding speech, actual words hold a force over the movement of the animal, thereby making horses an active participant in what is considered standard language.

An investigation of existing literature on nonverbal communication revealed a lack of studies produced on this interplay of verbal and nonverbal commands. While nonverbal commands have been studied, their effectiveness has not been measured against the same command in a verbal context. Rather, in a riding context the focus is placed upon the strength of the nonverbal cues. Hearne considers the lack of the spoken word to be more conducive to communication while riding, for "when the skin's grammar is in unimpeded motion nothing so slow as the kind of language one can write down is needed" (Hearne 1987: 113). This instance of verbal cues taking precedence over the 'skin's grammar' is significant in not only showing the intelligence of the horse, but more importantly in establishing the force that words hold in human-animal speech in a way which has not been treated academically. I have found that verbal commands and cues are highly significant in working, training, and riding contexts, but that this stands in opposition to the popular idea of a tactile or implicit harmony that one can share with an animal.

Conclusion

The significance of human-animal communication lies beneath the mere words or grammatical structures which are used by humans in addressing animals. It is the perception of the speaker that makes a study of this language so fascinating, for the speech act of addressing or discussing animals has both conscious and unconscious effects. In addressing or discussing animals through using specific linguistic strategies such as specialized animal language, 'baby talk', or 'animal gossip', the speaker is unconsciously imbuing the animal with a certain level of intelligence and perception. Regardless of whether or not an owner thinks their pet processes what is being said, he or she automatically attributes a certain amount of intelligence to the animal through addressing the pet in specialized speech patterns.

Speech directed towards animals is an act within itself, for it places animals in a higher interactional context that is on par with certain sectors of humanity. In the context of speaking for a conscious effect, words hold a significant illocutionary force over animals that can supersede strong nonverbal cues, such as in the horseback riding world. While a trainer may be consciously speaking to give a cue towards a rider, she is in fact unconsciously speaking to the animal, as the horse performs the cue without direction from the mounted rider. This analysis shows that the force of speech in addressing animals is greater than the speaker realizes, in that the mere utterance of words is an act itself ..Human-animal speech not only establishes a bond between man (or woman) and beast; it imbues that bond with intelligence and understanding through the use of a specialized animal language. The force that words possess in the act of engaging an animal in communication is stronger than many have ever considered ... it is possible that for animals, words speak louder than actions.
Bibliography

Austin, J. L.

Beck, Alan M. and Aaron Katcher.

Bolton, H. Carrington.

Brandt, K.

Bright, Michael.

Grossman, Tobias; R. Oberecker; S. Koch; A. Friederici.

Hearne, Vicki.

Mertens, C. and D.C. Turner.

Searle, J. R.


Sims, Y.K. and M.G. Chin.