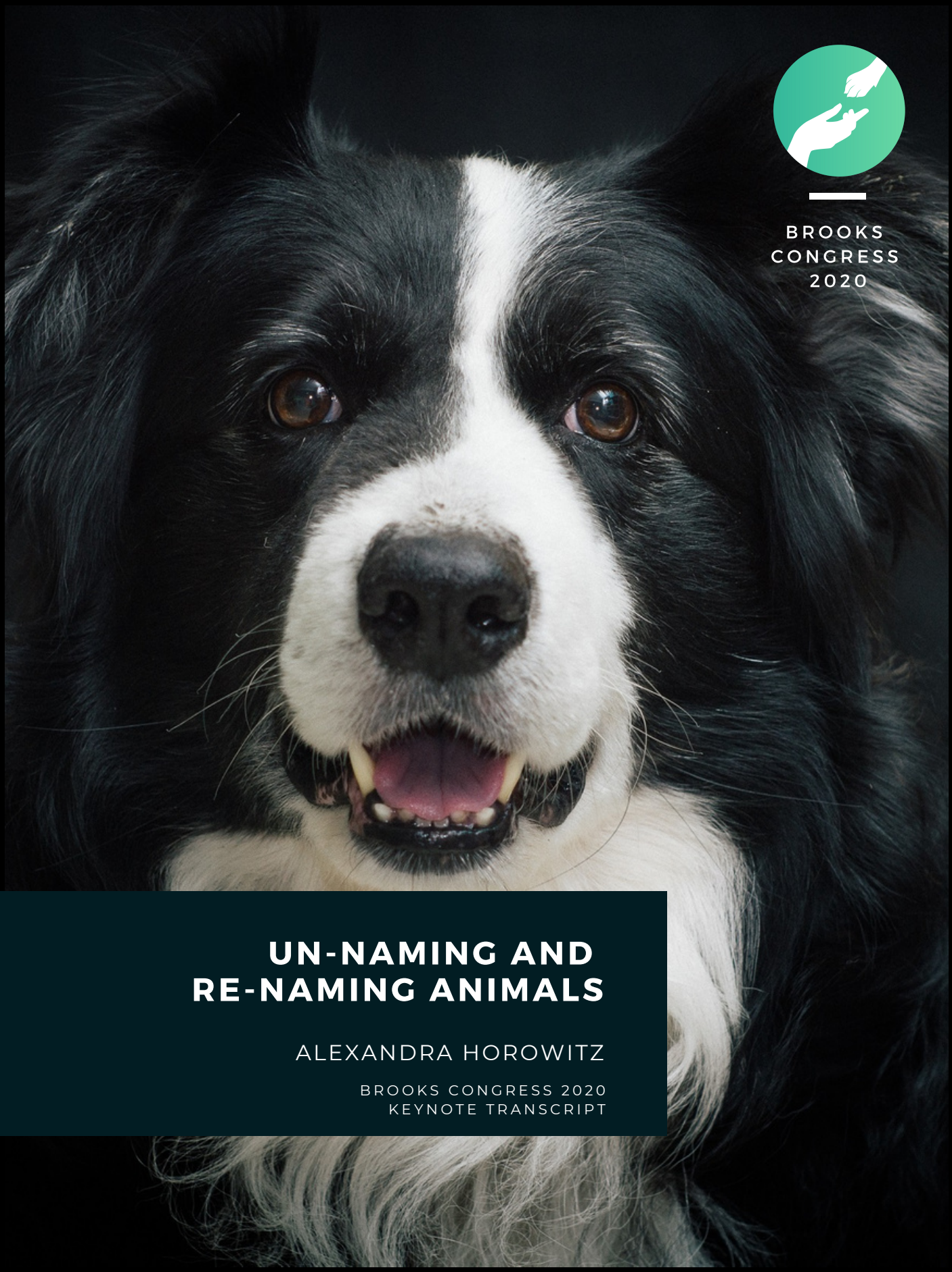

BROOKS CONGRESS 2020

UN-NAMING AND RE-NAMING ANIMALS

ALEXANDRA HOROWITZ

BROOKS CONGRESS 2020
KEYNOTE TRANSCRIPT

VOICEOVER:
In February 2020, the Brooks Institute hosted approximately 80 of the most influential actors in the animal protection community, to discuss the current state of the animal protection movement. Three keynote speakers stimulated thinking and conversations. The speakers were Alexandra Horowitz, Syl Ko, and Dale Jamieson. Following is the presentation by Alexandra Horowitz.

KRISTEN STILT (PROFESSOR OF LAW and FACULTY DIRECTOR ANIMAL LAW and POLICY PROGRAMS at HARVARD LAW SCHOOL):
We're starting with Alexandra Horowitz speaking on the topic of Un-naming and Re-naming Animals. Alexandra is a researcher and professor at Barnard College, Columbia University, where she teaches seminars in canine cognition, creative non-fiction writing, and audio storytelling.

As senior research fellow, she heads the dog cognition lab at Barnard, studying the behavior and mind of owned dogs. She has long been interested in understanding the umwelt of another animal, and her research and writing is aimed to answer the question: What is it like to be a dog?

She has written four books, including “Inside of a Dog, What Dog's See, Smell and Know”, which was a New York Times best seller, “Being a Dog, Following the Dog into a World of Smell”, and then most recently, “Our Dogs Ourselves: The Story of a Singular Bond.”

She earned her master's and doctoral degrees in cognitive science from the University of California, San Diego, and Bachelor's in Philosophy from the University of Pennsylvania. So with that, we are very excited to hear about Un-naming and Re-naming Animals. Thank you.

ALEXANDRA HOROWITZ (BARNARD COLLEGE):
Hi. Thank you, Kristen.

What a cool audience to be in front of. An impressive one. Thank you to Tim Midura and the Brooks Institute for inviting me and Amanda and Sarah for all the logistics.

As I expressed to Tim when I first talked to him on the phone, my work as an animal cognition researcher isn't really about what he described the mandate of the conference to be: affecting change for the benefit of non-human animals. I study the behavior of animals, in particular dogs, and I try to make inferences about their minds. So, I view what I do as fact-finding, as the mission of observing the world, asking questions about it, and testing hypothesis about explanations for behavior.

So, that's my explicit mission. Implicit in it, of course, is an interest in the welfare of the animals I study. For, as Kristen said, I want to know what it's like to be a dog or any animal. With the interest in using that knowledge to inform our treatment of animals. So, I'm a scientist. I'm also a writer and my work consists primarily of translating the findings of my science to what is often described as a wider audience. I try to essentially just tell people what we know in a way that they care about.

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Naturally, in my thinking about this conference over the last weeks, about whether my science is aiding the efforts of improving the welfare of animals. I've also been considering the story - telling aspect, the part of how I think about talking about animals. That's going to inform what I'm going to talk about today. To begin in thinking about this talk, I started thinking about what it is that makes us interested in animal welfare to begin with. Not why we *should* be interested, but *why* do we, in this room, care?

WHY DO WE CARE ABOUT ANIMALS? THE HISTORY OF ANIMAL COGNITION

Risking being facile, I'm going to posit that for myself, and at some level, qualifiers upon qualifiers, it's that we don't see an important distinction between us and non-humans. That we think that non-humans resemble humans in significant ways. That they're worthy of the things that human beings, it's been decided at some point are worthy of life, dignity, bodily integrity, a life free of pain or full of opportunity, and so forth.

If that's generalizable from not just me, but the way others think, demonstrating to others who don't already care about animals that non-humans resemble us is necessary. The results of research into my science, animal cognition, are as I see it, one of the major opportunities to demonstrate so.

I want to open up a discussion that I think is worth having this weekend. Do the understandings yielded from animal cognition, in fact, mean anything with respect to making change? Moreover, while I see the role of animal cognition as potentially necessary, I don't see it as typically sufficient to move the dial on peoples' attitudes toward animals. And I think that's because of a problem within the science or constituent in the science itself.

I want to use some lessons from my practice of animal cognition to guide the thinking about what moves us and what could move things for animals. Many of you are familiar with animal cognition. A few of you, in fact, are major contributors to animal cognition work. But some of you might not be so familiar. I want to spend a bit of time talking about what it is, where it comes from, which I think is always informative, its mandate, what it's produced, and ways in which it has or hasn't led to change in public attitude towards animals.

I'll start with my potted history of animal cognition, informed, I should say, by my own schooling in cognitive science, as well as, the benefit of distance from its origins, which kind of has smoothed out what's actually a very complicated history. In my telling, animal cognition has two parents, both of which have developed and changed over the years, and that's psychology and ethology. And at least one dotty grandparent, which is Plato. The questions asked by animal cognition, and by cognitive psychology in general, are questions that have been posed for thousands of years at minimum and go back to questions of our place among all living beings.

For instance, Socrates wrote that Plato, aiming to define man, came up with a definition: a featherless biped [Figure 1]. To this, Diogenes, another Greek philosopher, and famously cynical, reportedly plucked a poor chicken and presenting it said, “Here is Plato's man”. So what did Plato do? Well, he quickly added, Okay, it's a featherless biped, having broad nails, instead of claws.

Adding another element of the list. This is instructive because we've been adding qualifying statements to those three defining features of man, to what finally shows humans to be distinct from animals ever since. The 18th century essayist, Thomas Carlyle, described man as a biped, featherless, broad-nailed, tool-using animal. It's the only species who has the foresight and cleverness to extend the range of things that they can do by using objects. Well, we see that was broken down. The list of things that distinguish humans is now quite long.

Figure 1: Socrates wrote that Plato, aiming to define man, came up with a definition: a featherless biped.

Ever sure we're unique, we keep adding, what for a moment, looks like the final distinction. Oh, it's the ability to learn from others and imitate. Then we see animals who imitate. To teach each other. Oops, some animals teach. To use language, to be self-aware, to have a culture, and a dozen another criteria. None of them is an unqualified master stroke.

The key here is that in Western scientific thought, the predominant model of humans and animals is still a hierarchy that places humans at its apex. You know, this was somewhat undercut by Darwin. These finches instructed him in his theory of natural selection. It was at this time that animal cognition's direct parents were born. Darwin, of course, observed that the difference between animals and humans is a matter of degree, not of kind. This prompted a lot of enthusiastic scientific inquiries into non-human animals. The kind of statements he was likely to make were of this nature: Happiness has never better exhibited, he wrote, than by young animals such as puppies, kittens, lambs, et cetera, when playing together like our own children.

Even insects play together, as has been described by that excellent observer P. Huber, who saw ants chasing and pretending to bite each other like so many puppies. It's difficult to find photographic evidence of this, but I did find a population of ants who were deposited on a mini soccer field with a ball saturated by a pheromone of another ant, so that they seem to play soccer in their efforts to remove it [Figure 2], pleasing to me as a researcher of play and of puppies.

So here for Darwin, his attribution, happiness extends from humans to puppies, to lambs, and even to ants. This was very much in line with a lot of types of statements about the cognition of animals at the time. They were anecdotal reports of animals and they were often anthro - pomorphisms.

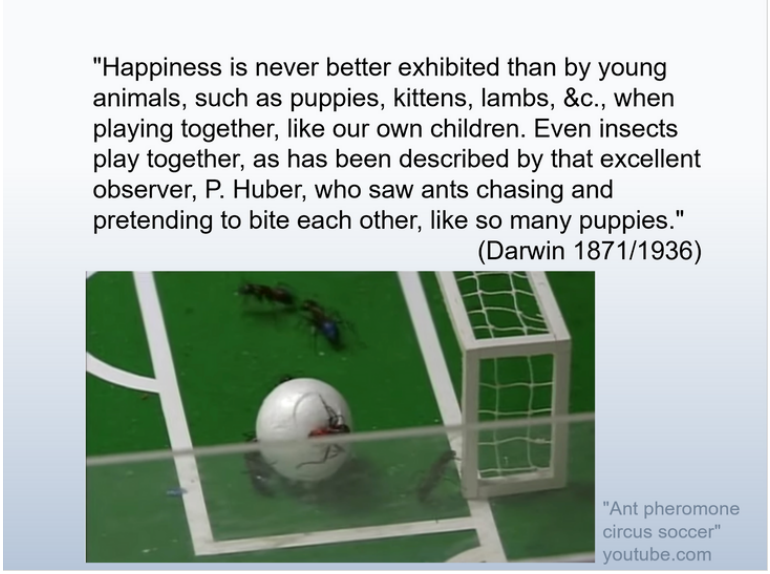


Figure 2: A population of ants who were deposited on a mini soccer field with a ball saturated by a pheromone of another ant, so that they seem to play soccer in their efforts to remove it, similar to the play of puppies.

In reaction, we had people like this [Figure 3], British psychologist C. Lloyd Morgan, who proposed this principle, which then became known as Morgan's Canon. Which it must be emphasized, has played an outsize role in subsequent animal cognition work. In no case may we interpret an action as the outcome of the exercise of a higher cyclical faculty, if it can be interpreted as the outcome of the exercise of one which stands lower in the psychological stale. Putting aside the discussion of what he actually meant by that, or what higher or lower mean, or whether it's a good principle on its merits, the results can be seen in the subsequent developments in psych - ology. What then grew was parent one in the early 20th century, psychology using animals.

A line can be traced from Edward Thorndike, a researcher who famously placed cats in locked boxes, puzzle boxes he called them, until they escaped; to B. F. Skinner, who kept tractable animals like rats in boxes to control their environment, and who prefigured a half century of behaviorist psychology. Behaviorists believe that psychology should only study observable behavior. That one can't talk about the mind behind any behavior, because it can't be seen. Furthermore, they believed that the seen behavior was enough to predict future behaviors. So why posit a mind in-between? It's a fairy tale. Also, perhaps ironically, as you can see from this quote [Figure 4], he kind of equated all animals, but he granted none of them mind.

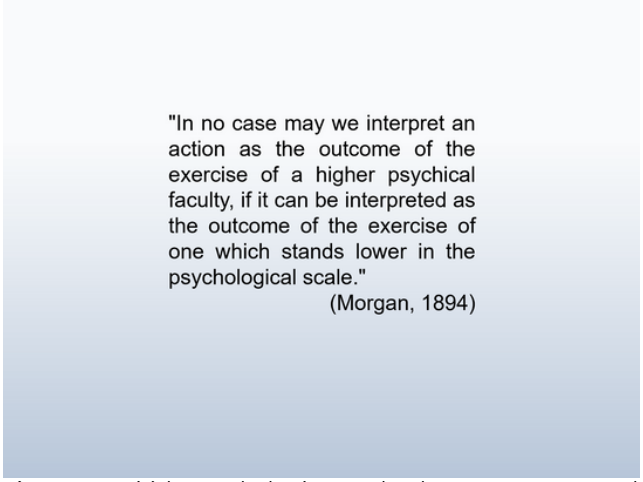


Figure 3: British psychologist C. Lloyd Morgan, proposed this principle, which then became known as Morgan's Canon, and has played an outsize role in subsequent animal cognition work.

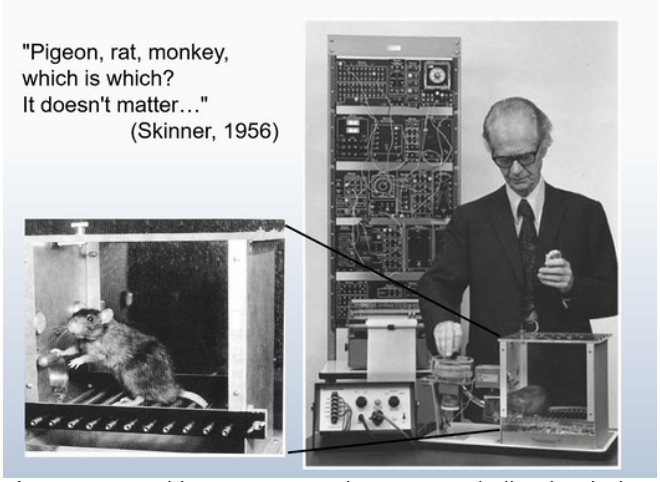


Figure 4: B.F. Skinner, a researcher, equated all animals, but he granted none of them mind.

Animal cognition's second parent then, is ethology, the study of animals in their natural environment, which was growing up at the same time. The aim of ethologists is to describe behaviors in evolutionary context. How is a behavior adaptive? How did it arise? What does it do for the animal? Its early exemplars are, for instance, Niko Tinbergen. Here you see on a chick demonstrating how to elicit a fixed pattern [Figure 5] – an action pattern of a goal pecking at a dot. Konrad Lorenz, who studied the early perceptual learning instinct called imprinting, was himself imprinted upon. And Karl von Frisch, for elaborating the dance language that honey bees use to communicate to the rest of the hive the location of a good source of food. They all won the shared Noble Prize for physiology and medicine in 1973.

Figure 5: Niko Tinbergen, demonstrating how a chick elicits a fixed pattern - an action pattern of a goal pecking at a dot.

What they were doing, Tinbergen claimed, was interviewing an animal in its own language. Now, what happened to both of these fields as they grew through the cognitive revolution in the middle of the 20th century? The eventual realization that it made sense to talk about the mind and describing the rats' behavior in Skinner's box or the bees' behavior in communicating to other bees. Donald Griffin, who was one of the researchers to realize that bats navigate by echolocation, was instrumental, in both ethology and psychology. That discovery changed their tune to not only posit a mind, but a mind which might be self-aware or conscious. Words that had really been verboten for the first half of the 20th century.

Still importantly in the resulting field of animal cognition, also sometimes just called comparative psychology, that ancient hierarchy model with humans at its peak still exists. Only now it's about cognitive superiority. The investigation of animal minds is thus mostly in the context of human cognition. What we think is important about how we think. So, animal cognition studies topics such as how animals learn. Do they learn from others or teach others? Do they form concepts? Have memories? And what sort of memories? Do they use language, reason, navigate, understand others, have a theory of mind?

A spin-off of animal cognition researchers in the last two decades has included researchers, me among them, who study animals that initially weren't considered interesting enough to study, like dogs. Mostly because we thought we knew dogs or they were not closely enough related to us to be of interest. The field of dog cognition covers all sorts of things along communication, which was very much within the mandate of animal cognition. Do dogs understand our gestures as communicative? For instance, if we point at one of two plates baited with food, will they follow our point to find the baited food?

And yes, they do. Interested in attention in some of these experiments. The question being: Do they think about the state of others minds that is their attention? To do this, these researchers put a treat in the middle of the room, told the dog not to eat it, and then sat down at a chair watching them. That dog fiddled around but never disobeyed. But when they closed their eyes, the dog goes right to the treat. And when they turned their back, they don't even hesitate.

Dog cognition asks questions of learning. Can they learn to mimic us even needing to map unlike body parts, paw to hand? And in some respects, they do. Their questions of social understanding. Do they use others' behavior to guide their own? In this case, will dog work for no reward when they see another dog getting rewarded for no work? And the answer is no, in this dog's case [Figure 6].

And questions of language, of course. The thing we value so much in our cognition. Do dogs understand human words? Well, Chaser did. Chaser, the border collie you might know, knew 1,022 words and various actions to act on those words. They were all toys that she lived with. So many words that her person and trainer, John Pilley, had to write the name of the word on the toy because he couldn't remember them [Figure 7]. But most people don't communicate with their dogs like he did with Chaser, of course.

My own work has asked similar kind of cognitive questions. Sometimes more in the cognitive ethology vein. For instance, whether dyadic dog play indicates sensitivities to each other's minds, where I've showed that they use each other's attention before communicating, just as we do. How inner specific play works, the play between humans and dogs, how play is involved in the

cognitive development of puppies, and whether we can predict who will be a good working dog by their play style.

Experimentally, I've done things like whether dogs have a sense of fairness. Whether they realize that another dog is being treated more or less fairly than they are. Whether they can discriminate quantity by smell. They can. In fact, as a kind of adjunct of that, whether the owner will influence their choice. If they choose a quantity of food which is smaller, will the dog then overthrow their own sense of which is more, and go to the smaller quantity? They do. And even whether they can recognize themselves in their smell when it's placed in a container.

Figure 6: Will dog work for no reward when they see another dog getting rewarded for no work? And the answer is no, in this dog's case.

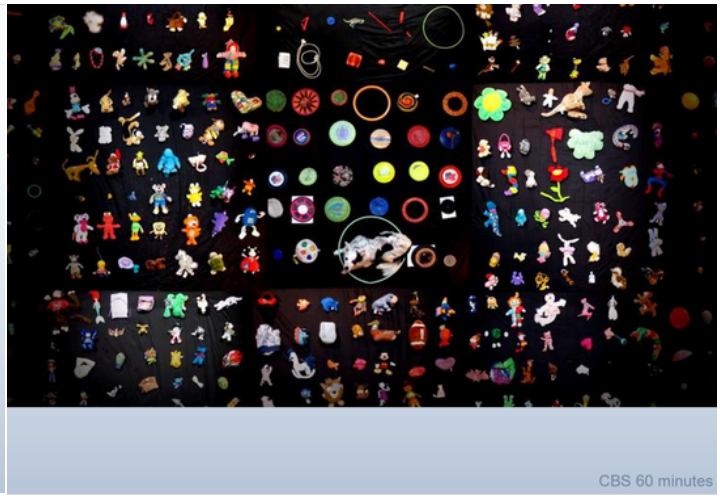


Figure 7: The thing we value so much in our cognition. Do dogs understand human words? Well, Chaser did. Chaser, the border collie you might know, knew 1,022 words and various actions to act on those words. They were all toys that she lived with. So many words that her person and trainer, John Pilley, had to write the name of the word on the toy because he couldn't remember them.

What's the upshot of animal cognition work? Well, I think there's evidence that it has some kind of effect. This is the evidence. This is David Greybeard in Gombe in 1960. Jane Goodall's observations of chimpanzees using grass stems to fish for termites up-ended the notion that man is a tool-using animal entirely [Figure 8].

Figure 8: This is David Greybeard in Gombe in 1960. Jane Goodall's observations of chimpanzees using grass stems to fish for termites up-ended the notion that man is a tool-using animal entirely.

Since then, of course, ants, wasps, finches, crows, otters, and many other animals have been seen to use tools. And of course, the ante was upped, but maybe we're the ones who make tools too. Then she showed them making tools. I'll argue that Goodall's report of tool use and tool making was a prime mover in the eventual change in public ideas about chimps, and then the regulations that radically restrict use of chimps in research.

While our similarity to chimps physically, generically, and anatomically have been known for hundreds of years, it was only dating to the time of Goodall's and other's work demonstrating the cognitive capacities, the human-like behaviors of chimps, that the dial began to move. Of course, the current status of chimpanzees is still far from perfect. Is Lori Gruen here? See her Last 1000 for the current status. But the comparison between the US attitude towards researching with chimps in the '50s and today, when their sanctuary is federally mandated, is profound.

THE TEST OF SELF-AWARENESS

On the other hand, one of the more interesting tests of cognition is a test of self-awareness, the mirror mark test. I think this is a good example of how a test which hasn't, as far as I can tell, changed the dial on peoples' attitudes toward animals. This test was developed by a primatologist named Gordon Gallop. Not surprisingly, looking in the mirror one day, looking at ourselves and while shaving, wondering if chimpanzees would also, when they looked in the mirror, recognize themselves just as he was recognizing himself and grooming himself.

So, he showed them a mirror. He had captive chimps that he was doing behavioral experiments with. At first, of course, they attack the mirror because to them, there in the mirror, there was a chimp attacking back. So that makes a lot of sense. But they quickly learn that that's not another chimp and they start doing this behavior right away. They start examining the parts of their body; their mouth, their rump that they can't usually see. They start making faces in the mirror [Figure 9]. Gordon Gallop developed a mirror mark test to determine if they were really seeing themselves as he saw himself.

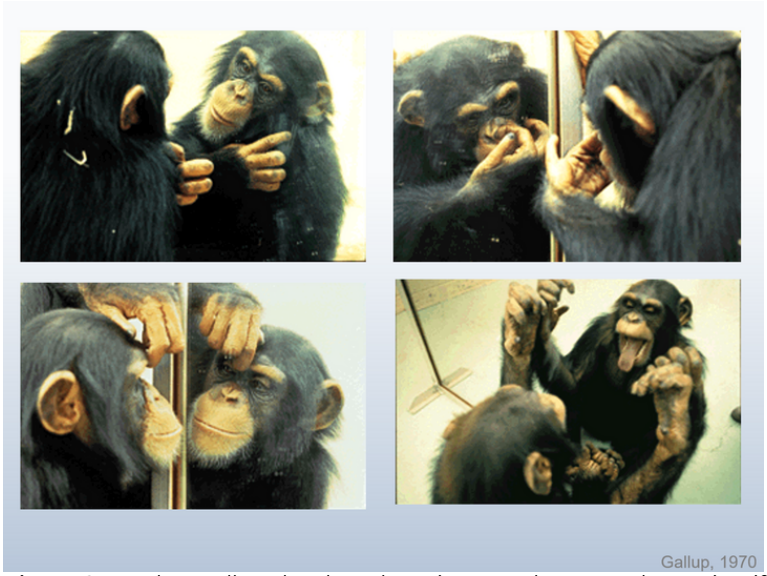


Figure 9: Gordon Gallop developed a mirror mark test to determine if chimpanzees were really seing themselves as he saw himself.

In this test, he would surreptitiously mark those chimps who had already become acclimated to mirrors with a red dye, an odorless red dye, and then expose them to a mirror and see what they did. If they touched the mirror, they failed the test. If they don't do anything, they failed the test. But if they touch the mark and look at it, they pass. And of course, they passed! They passed this test of self-awareness.

Since then, lots of other animals have been put through modified versions of this test, including dolphins. Thank you - Lori Marino. One elephant has passed the test. Dolphins passed the test by moving unusually toward the mark in the mirror. Other great apes have passed. A magpie has passed. Dogs don't pass this test, but I'll talk about that in a minute.

As I said, I don't think that all these findings have particularly changed the public's attitude about how we should treat these animals. Here's a good example of how little it has. There was a recent study just this last year of the mirror mark test with fish, with cleaner wrasse. And the finding that Alex Jordan, who is an evolutionary biologist at Max Planck in Germany, found was basically met with outright rejection. Cleaner wrasse are a highly social fish that live among coral reefs, and they take their name from their cleaning of parasites off of other fish. He presented them with mirrors. At first in front of a mirror, they attacked their reflections like chimps had done. Then they performed unusual behaviors with their body in front of the mirrors, kind of like the dolphins later would do.

Then he marked them by injecting a little, what he described as a harmless dye, brown material in the skin of their throats and then exposed themselves to the mirror [Figure 10]. And what he saw was after they saw themselves in the mirror, they then went and scraped their throats on the grit on the bottom of the tank as though to remove the mark. In other words, they pass the test.

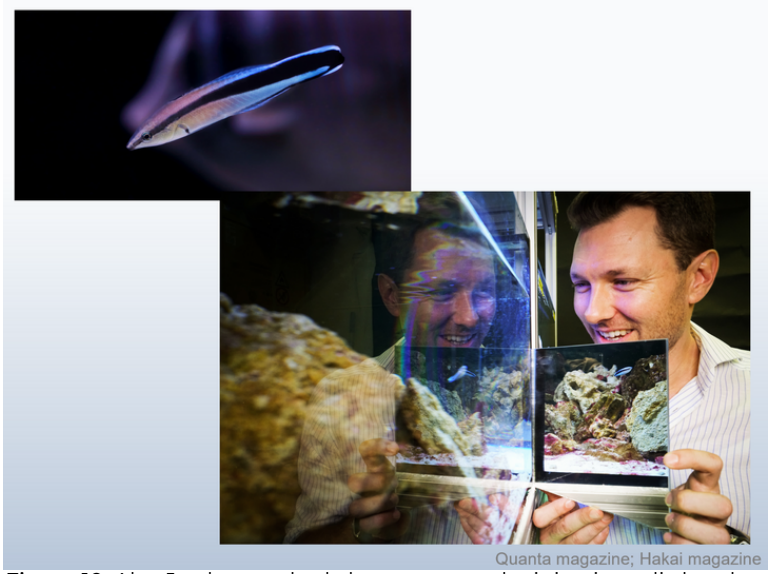


Figure 10: Alex Jordan marked cleaner wrasse by injecting a little, what he described as a harmless dye, brown material in the skin of their throats and then exposed themselves to the mirror

Within the field, there was just huge skepticism about this result, that it showed self-awareness of fish. I suggest that that's based entirely on that cognitive hierarchy that places humans at its

apex. It's determined our priority and we're not letting the evidence change our minds. Even Jordan said that he knew that wrasse aren't as smart as chimps. In fact, this result didn't change how people thought about cleaner wrasse, but instead lead to doubts about the power of the mirror mark test. It must be showing something else, they said. And I think doubts about that test are actually pretty warranted for other reasons, but not because a fish passed the test.

There's a tension in animal cognition that I see, and I think maybe we need to accept that, at times, knowing more leads to change and other times it doesn't. As a researcher in animal cognition, I still want to do this type of work. On the other hand, though, I think it's a fool's errand to chase after the cognitive element, the bar that animals will finally hurdle once we have the research to show it. It will never be sufficient.

We've fallen into the trap of working with a construct that we already know to be misguided, pretending that simply showing that animals are smart, that will get people to care. Or more recently, it's been more popular to say, Oh, they have emotions, so we should care about them.

What's the story in there? The writer in me asks. I think that looking at a limitation of animal cognition will start to show us what I think the story is. I want to show you a little video to demonstrate. It's a video of some of my study subjects, which was a kind of olfactory mirror mark test. It's not really a mirror that smells, but since dogs are olfactory creatures, I thought maybe they would be more interested and more responsive to a test which uses a reflection of them - selves in smell versus a visual reflection.

I presented them with canisters that had either their smell or another dog's - or their own smell with a mark in it with just an otherwise uninteresting change in smell in it. I'm going to show you some subjects in this experiment just doing what they do [Figure 11].

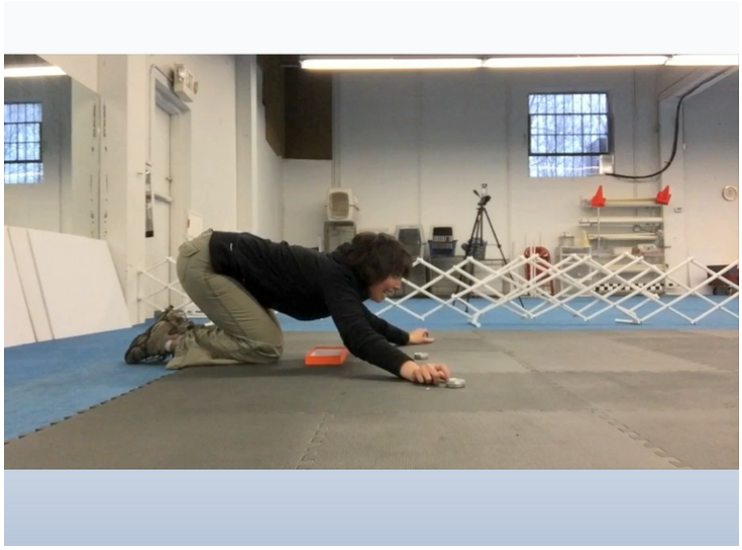


Figure 11: Alexandra Horowitz presents dogs with canisters that had either their smell, another dog's, or their own smell with a mark in it. Click on image and fast forward to the 26:00 mark to watch this test.

I sped this guy up a little bit because he spent some time. That's kind of a downfall of my science. Sometimes they pee. What do you see when you watch this? Those of you who have a scientific bent might question what measure I'm looking at to determine the dog's identification of the

of the smell or interest in the smell? Or ask whether subjects have any inclination to go to one side of the array over the other? Or wonder what it is in fact that the dogs think they're supposed to do? And some might reflect on whether this task measures the thing that it's meant to measure?

These questions interest me. But from the responses I get when I show this, what I think interests people, is something else. Each dog, the variations between subject behavior, the disgusted look on the red dog that leads him to beg out of the task, or what the Pomeranian is thinking when he's going back -- back-and-forth and back-and-forth. The dog that really takes their time and the dog that really hurries through. The interest in the camera and the experiment, or by the black, fluffy, older dog. In other words, the individuals here, not the generalized science.

Therefore, with every viral video of a dog or cat, it is the individual's story that causes us to click and share. One of the hamartia of animal cognition is that we're always dealing with a species level. In a way, I think this is a failure of animal cognition, looking only at species when all sorts of interesting stuff is happening at the individual level. Indeed, the conceit that a research program with 40 dogs can conclude what dogs do is wrong-headed, I think. But then on the other hand, we call an N of 1 story an anecdote and we spurn it.

Individual differences are smoothed over in the science, and so are individual stories. I think that animal cognition's limitation in this regard actually shows us our opportunity. In western culture, at least, it's the individual's story that we care about. This is a phenomenon that I experience in my professional life all the time communicating about research, whether my audience is academic or lay. I'll talk about all the science. I'll talk about what we found. I'll talk about my methods. But inevitably, I get a certain kind of question at the end. Why does my dog run in circles before lying down to go to sleep, roll in poop, hate men, whatever it is.

From my work, I can attest to the fact that people are moved by knowing about their dogs. But not because she is a member of the species dog, but because she's an individual with experiences, a life, a personality, and her own peccadilloes. Now dogs are already familiar. We already see them as individuals. So, what about all the other non-dogs?

I see the power of an individual story. You might remember the story of Inky at the National Aquarium in New Zealand, who is not the only octopus to have escaped entirely his enclosure, and left the aquarium for the Pacific via a drain pipe. This is a story we can recognize. We at once give Inky a dozen attributes of humanness. He has intent. He has a plan. He's cunning. He has a yearning for freedom [Figure 12]. The news reports say he scampered around in the aquarium.

There were a series of photographs showing his route out like a burglar's route out of a bank. And I'd say it's from that position, that we can later enjoy learning about the things that don't resemble us so much, such as essentially having brains in each arm, for instance. We can look at the limitations of animal cognition in terms of giving satisfying answers as a possible guiding principle for any movement to change attitudes to animals. So let's keep that individual in our mind for a moment.

I want to point something else out. Notably, this octopus was named Inky. Maybe not a great name.

Jane Goodall named the chimpanzees that she lived among. She never knew she wasn't supposed to, is what she says. Indeed, in science, you don't name subjects for the concern that by naming we kind of ruin our objectivity.

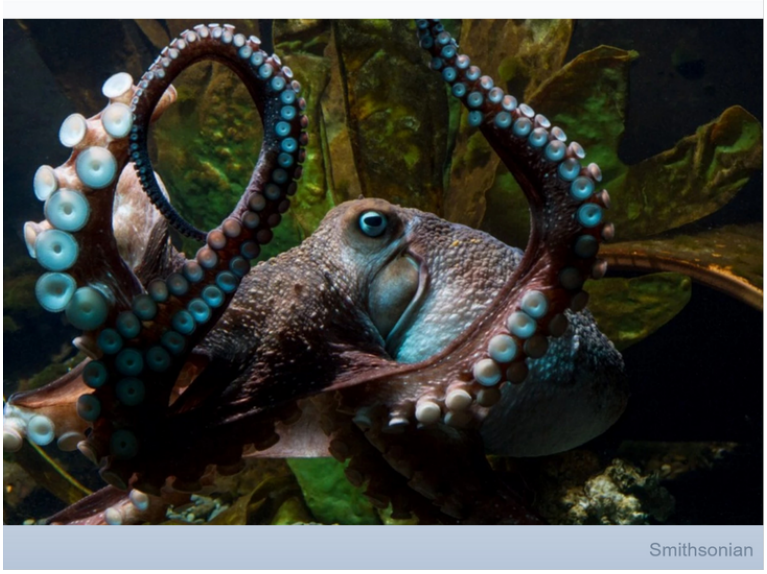


Figure 12: You might remember the story of Inky at the National Aquarium in New Zealand, who is not the only octopus to have escaped entirely his enclosure, and left the aquarium for the Pacific via a drain pipe. This is a story we can recognize. We at once give Inky a dozen attributes of humanness. He has intent. He has a plan. He's cunning. He has a yearning for freedom.

Interestingly, dog cognition is the only subfield of animal cognition I know of where the names are actually encouraged in journal publications. Giving animals names, personal names, is a way of identifying them as individuals who will have stories that we can recognize. It's making them persons. I just did a study, a survey of 8,000 dog names and why people named their dogs the way they did. The greatest majority of dog names are now human names. Many, many dogs are named after deceased relatives of the homo sapiens variety, which is a new developments in our thinking about dogs. This made me think that maybe my title should've been first naming, then un-naming, and then re-naming. What I'm proposing is that both the field of animal cognition and the foibles of the field are part of a productive approach.

The first step in considering animals is showing how they resemble us. By giving an animal a personal name, we become predisposed to see them at all -- Inky or David Greybeard -- and to see how they resemble us. The remainder of the title comes from an Ursula Le Guin story, She Unnames Them, in which an Eve figure asks all the animals of the world to forego their names, by which she means species names. Most do so without hesitation, the exceptions being the yaks who were really attached to their names, cats who denied they'd ever accepted any name, and dogs who refused, but were just confused because they were allowed to keep Rover or Fru Fru or whatever it was, just abandoned dog. They accepted.

What she writes is how close her character then feels to those animals [Figure 13]. They seem far closer than when their names had stood between myself and them, like a clear barrier so close that my fear of them and their fear of me became one same fear. And the attraction that many

of us felt, the desire to feel or rub or caress one another's scales or skin, or feathers or fur, taste one another's blood or flesh, keep one another warm. That attraction was now all one with the fear and the hunter could not be told from the hunted nor the eater from the food.

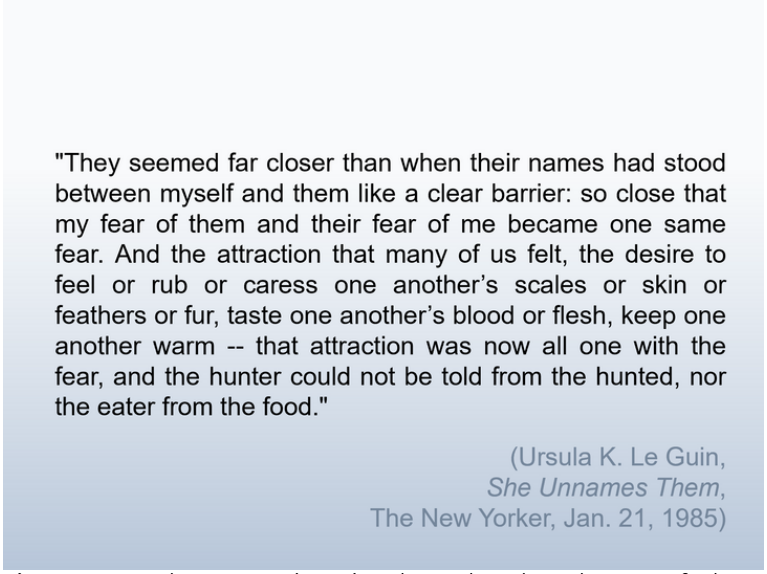


Figure 13: Ursula K. Le Guin writes how close her character feels to animals. They seem far closer than when their names had stood between myself and them, like a clear barrier so close that my fear of them and their fear of me became one same fear.

What is she doing in un-naming? The dog can still keep his personal name – he's Finnegan. But she's taking away all that's implied by dog or sheep or chimpanzee. Divisions that seemed to reify human exceptionalism. Comparative psychology, or animal cognition at its best, could show us the same thing by submitting non-human animals to the same tests that show the cognitive abilities that we admire so much in ourselves. It breaks down what seems to be that uniquely human thing.

Frans De Waal says, the more an animal is like us, the easier it is to extend our moral outlook to it. I'm sure he meant he or she, or they. So yes. But to stop here is the failure of animal cognition. It's not sufficient to show them to be similar. I suggest that from that position, it's only if we then acknowledge their otherness that they are saved, hence the re-naming. That's the second part, a kind of defamiliarizing, taking apart that feeling of knowing, once you've already been drawn in.

And I say this from a position of a researcher of dogs for 20 years. What's become a retrospect a motif of my research with dogs is something that I think has a powerful application in affecting change for animals in this last stage. I've really been engaged in defamiliarizing dogs. The thing about studying dogs is that people feel like they already know all about the mind of a dog. People already say what their dog knows or wants or feels as soon as they get that dog.

I got interested in the kinds of statements that people were making about dogs, we could call them anthropomorphisms, just wondering if they were accurate or not. I began studying the anthropomorphisms. For instance, the guilty look of dogs [Figure 14], that look that dogs put on,

the ears back and head down, ducking away, tail between the legs wagging frantically. That makes people say, my dog knows she did something wrong, and all the things that fall out of that. My dog is on this policy of right and wrong ways to act in our society.

Figure 14: The "guilty" look of dogs - the ears back, head down, ducking away, tail between the legs wagging frantically.

What I found was that instead of being a look which came up when dogs did something for which they could feel guilty for, like get into the trash or eaten something they weren't supposed to, the look, which is a real look, comes up as a response to owners thinking that they've done something wrong. It's a submissive response. It's an appeasement response to an owner who's angry or about to be angry or has the belief that the dog has done something wrong.

It's even more interesting, right? Just like Clever Hans wasn't doing math but instead was actually really attuned to the sensitive body movements of his trainer. The dog is just watching us and very attuned to when they need to put on that super cute face so they don't get yelled at. Then once I start deconstructing the statements we make that make us feel like dogs are in on it with us, I put something else in its place. For me it's smell. Re-naming the dog as an olfactory creature living in a world of smell that we really know nothing about.

The main branch of my research looks at the olfactory acuity of dogs. Further defamiliarizing the dog in front of us by simply describing their perception, their umwelt, the world of smell that they live in, and then by prescribing that people take their dogs on smell walks where the walk is all about the dogs smelling whatever they want on the walk. Not about making it around the block or making good time. That I ask people to let their dog sniff other dogs and themselves. To stop bathing dogs in coconut lavender shampoo, which is aversive to dogs. The response I've gotten is gratifying. People do it. Because they already love their dogs and know they're in on it with them. So, then they're able to acknowledge them as having needs and a perceptual world which is different from ours.

NAME, UN-NAME, RE-NAME THE INDIVIDUAL

I think of this a little bit like a bait and switch. So, you think dogs are very cool and familiar. But in the end, you're not Charlie Brown lying on your back being discouraged. The dogs are actually, as it turns out, even more wonderful but in a foreign way. A way that we couldn't have gotten in on with them. So, you see the individual, she has a name, she is us: bait. Switch: this is who that named individual actually is.

To do this, we have to name them to make them individuals, to familiarize them and then we have to un-name their species, make them human, show the resemblance between them and us. And then we have to make them again who they are. Defamiliarize them and kind of re-name them [Figure 15]. I see how this can kind of be wielded in the same breath with that guilty-look study.

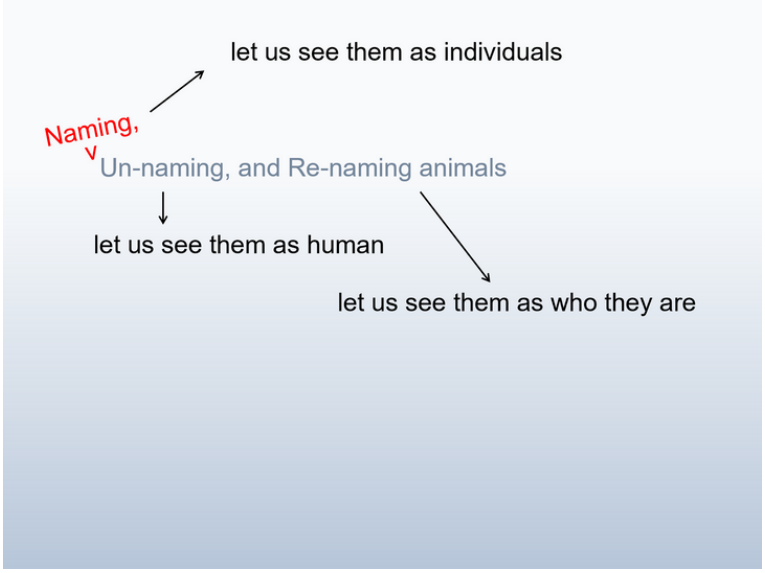


Figure 15: We have to name them to make them individuals, to familiarize them and then we have to un-name their species, make them human, show the resemblance between them and us. And then we have to make them again who they are. Defamiliarize them and kind of re-name them.

I did that research 11 years ago, I've given a lot of talks about it, and a few years after I did the research, I was at the Michigan Humane Society. After my talk, which included information about the guilty look, some people from the Humane Society who were involved in the behavior and training program came up to me and said, you know, we're so interested in this guilty looks study and how it's not really a reflection of whether dog feels guilty or not. And they said, what we decided to do was train all our dogs that we're trying to get adopted to show the guilty look.

At first, I was horrified, right? But they had a bigger plan. Their idea was that when they train dogs to give this look, what they were really doing was giving the dog a way to almost immediately be responsive to the person. So that the potential adopter was likely to see them as in on something together. Then three months later, after the dog has been named, adopted, and

Living in the family as a member of the family, they call them up to see how it's going and to debrief them saying, Oh, you know that guilty look? We taught them that in the shelter. It's not a reflection of their understanding of right and wrong, per se.

Instead, it's something they've learned. They're defamiliarizing. They're doing this process along the way but you've already named them Mr. Peppers and you feel that he loves you, so they're okay with it. Now, with dogs we have a baked in-attraction head start. Everyone says they want to save them. They already had names. We think they resemble us, although I think in some sense they've been strangled by our inability to see who they actually are. They're stuck with that familiar name and I see defamiliarization is what will improve their life.

But for other animals, what are some familiarizing experiments that can bring them into that coveted posture - ones that animal cognition might be interested in for a kind of phylogenetic comparison reasons? I'm interested in the reason that we recognize ourselves in them. I think they're things like animal humor; attachments that animals have to each other and family. Familiar gestures like hugs and smiles and scratching your nose; and some emotional expressions like righteous anger and grief. That's part of what people respond to.

All of them have in common ways that animals resemble us, taking advantage of our narcissism as a species. There are studies like this that show that they're like us. They're facially expressive like us. Dogs have developed an inner eyebrow muscle to make this recognizable expression. And those that do that expression are adopted out of shelters faster than those who don't have that muscle or use that expression [Figure 16].

Figure 16: Dogs have developed an inner eyebrow muscle to make this recognizable expression. And those that do that expression are adopted out of shelters faster than those who don't have that muscle or use that expression.

Some animals are liars [Figure 17]. Dorothy Cheney and Robert Seyfarth's famous vervet monkeys who had alarm calls for different predators. They found that some used an eagle call, for instance, which caused everyone to run out of the tree to the ground to avoid being the eagle's prey, to

deceptively displace a vervet who was sitting on a perch that they wanted for themselves.

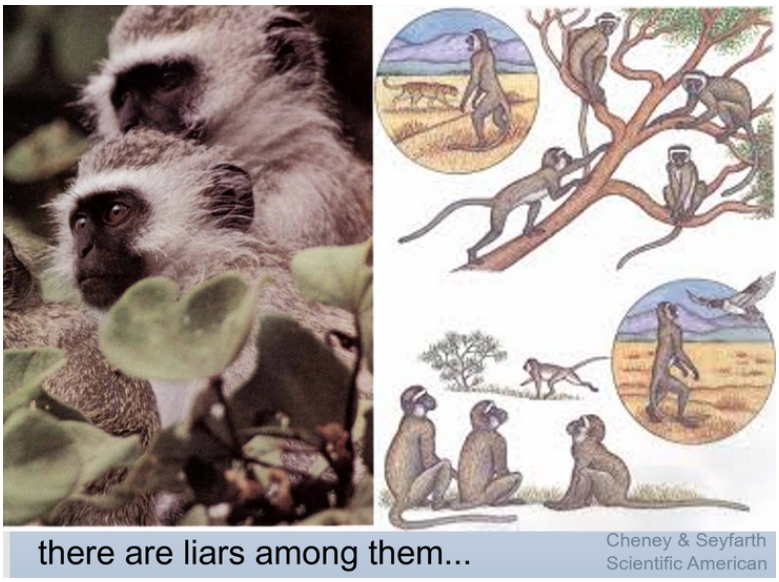


Figure 17: Dorothy Cheney and Robert Seyfarth's famous vervet monkeys had alarm calls for different predators. They found that some used an eagle call, which caused everyone to run out of the tree to the ground to avoid being the eagle's prey, to deceptively displace a vervet who was sitting on a perch that they wanted for themselves.

Some animals notice what we're wearing [Figure 18]. Prairie dogs have also many alarm calls and it's been found that not only do they have alarm calls for different predators, they chatter about people and their calls comment on our height, our weight, and our t-shirt color choice, just like we do. They have different calls for the tall, thin person with a blue shirt or the yellow. They recognize celebrities. This was a study with eight Welsh mountain sheep and a flock at the University of Cambridge who were taught to find Emma Watson in the array of faces and can do so reliably from any direction [Figure 19].

Figure 18: Some animals notice what we are wearing.

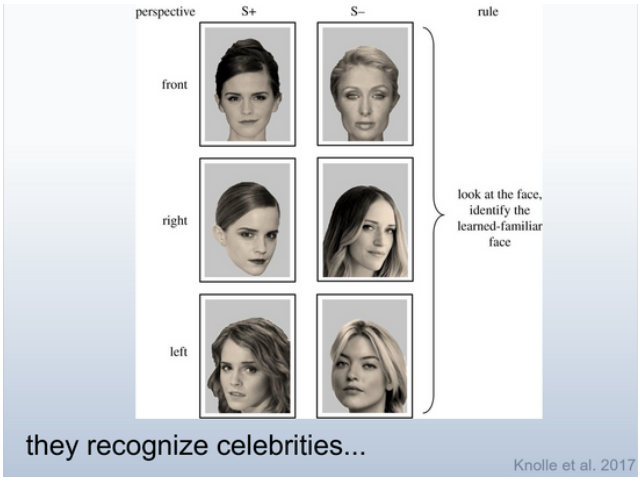


Figure 19: Welsh mountain sheep were taught to find Emma Watson in the array of faces and can do so reliably from any direction.

They eavesdrop and thieve like us and work to thwart thieves [Figure 20]. These are western scrub jays. There's great research by Nikki Clayton and her colleagues who discovered if they see eavesdroppers on their caching of food, hiding of food, will wait till eavesdroppers go out of sight and then unbury and rebury their food. Their resemblance to us brings us into that individual story, or since dogs are already there, we can use other animals' resemblance to dogs, for instance.

Goats who have more recently been researched, and I think the field of farm animal cognition is very promising, perform really well on tasks that we thought that dogs were so special for per - forming well at. That includes an object choice test [Figure 21]. That communicative test that I talked about before, where we point at one of two plates that's bated with food and you let the goat make the choice. They also perform well at that task. They understand our gestures as communicative. Or, when faced with an impossible task, food under something that they can't reach, they don't just go at it and try to solve the puzzle physically. Like dogs, they look to humans for help.

Figure 20: There's great research by Nikki Clayton and her colleagues about western scrub jays, who discovered if they see eavesdroppers on their caching of food, hiding of food, will wait till eavesdroppers go out of sight and then unbury and rebury their food.

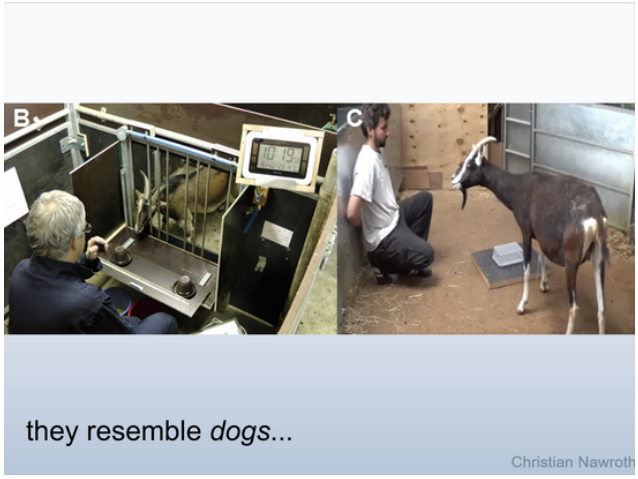
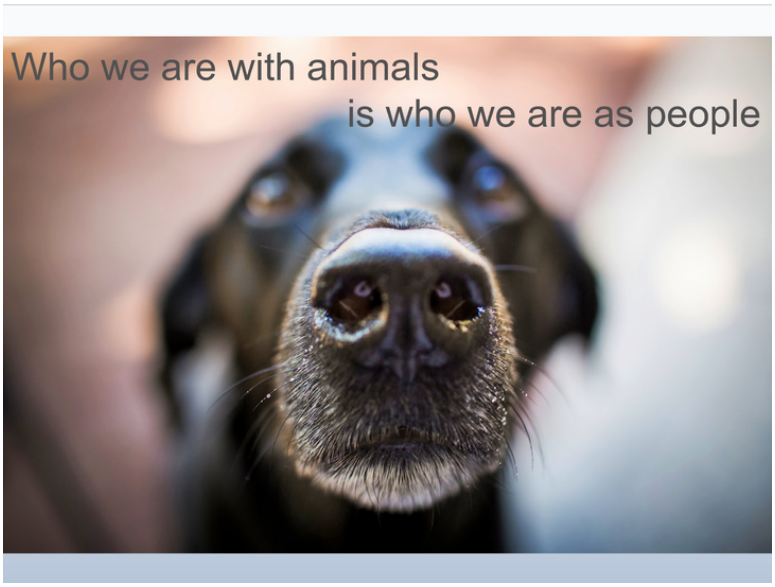


Figure 21: Goats perform really well on tasks that we thought that dogs were so special for performing well at. That includes an object choice test.

How can we find out what kind of current resemblances, in fact, could lead to this un-naming process? One thought I had was we could use the critiques of researchers who are accusing other researchers of non-objectivity to see exactly what it is that feels so powerfully persuasive. This is actually a response to a piece on Psychology of Cows by Lori Marino and Kristin Allen. A strong critique of their piece said that words like intelligent, like humans and primates, complex cognition, feats of memory, attachments, emotional contagion, sophisticated abilities, self-awareness, self-efficacy, mother-child bonds, severe psychological, social impairments, and distinct personalities were unwarranted in the paper because they were too anthropomorphic.

In other words, that she just identified for us, the things that make people feel like scientists shouldn't use them. But those are the ones I think we should be doing the science on. To summarize, I'm suggesting, and I hope this is a topic for discussion, that animal cognition is

useful in un-naming animals, in unhinging them from the species name that we've given them by showing how they resemble us. And so too, is an individual story and an individual name, a part of that. Then you take the next step and defamiliarize them, re-naming them as wondrously other. Thank you.



Note: Some responses may have been edited for brevity and clarity.