

# Both Ends of the Leash

## Handy Paws: What's in your dog's toolbox?

Patricia B. McConnell

Thinking about tool use by non-human animals is great fun for anyone interested in animal behavior. Historically, tool use was thought to be the exclusive province of humans – Ben Franklin even suggested that our species name should be changed to *Homo faber*, or “Man, the Tool User.” But over the last 30 years, beginning with Jane Goodall's famous observations of chimpanzees fashioning twigs to pull termites out of their nests, tool use has been noted in a number of species. Chimpanzee troops in central Africa even use two tools in concert – a hammer and anvil to crack nuts – and Caledonian crows in Australia pry insects out of crevices with twigs they sculpt into crochet hooks. Way cool.

I was pondering these and other examples of tool use in animals after lecturing about them in my university class, and was still thinking about the issue when I got home and greeted my dogs. And all of a sudden it occurred to me: What about dogs? (I reminded myself of Gary Larson's cartoon cows, who jerked up their heads and said “Wait! This is grass! We've been eating GRASS!”) Nowhere, in all my research on tool use by non-human animals, had anyone ever mentioned dogs.

So I sent out the question on my blog: Have any readers seen an example of what they would consider to be tool use in dogs? I defined tool use as the use of an object, external to the self, to solve a problem or accomplish a goal. (If tool use is to be considered as an indicator of cognition, it should be something the dog figures out rather than being trained to do.) The answers I received are great fun, and serve as an inspiration to all who are interested in the mental capabilities of our dogs.

Several people wrote about dogs who toss Kongs or other stuffable toys onto hard surfaces to release the food. On one hand, you could argue that this barely



qualifies as a “tool,” since the food itself is being tossed around in hopes it will become more accessible. On the other, any good inquiry into tool use brings up academic mentions of gulls who drop mollusks onto hard surfaces to break them open, and crows in Australia who not only drop nuts onto the pavement of a highway to be crushed by cars, but do it at intersections where they can retrieve the nuts while cars are stopped at red lights. If dogs are smart enough, as some seem to be, to toss their Kongs on tile floors versus carpet, then surely they deserve some credit. Of course, all the dog has to learn is that Kong-tossing works in one place and not another, so it's unclear how much advanced cognition is actually occurring. Still, if gulls got points for using a hard surface as a tool, shouldn't our dogs?

Lots of other guardians wrote about dogs who use objects to get where they want to go: Leaping up on chairs to grab food off the table, standing on the couch to look out the window. Even more impressive are examples of dogs who move an object to use it as a kind of a stepladder to reach something otherwise inaccessible.

However, the gold standard is a behavior that closely replicates what we all think of as “tool use,” in which an object such as a hammer or a stick is used to accomplish something we can't manage unaided. Readers sent in several compelling examples, including a dog who uses a stick to move an object close enough to take into his mouth; a Dachshund who grabs a hanging towel to swing herself up onto the counter to get food (and to chase squirrels up a tree!); a Kelpie who not only pulls a towel from a crate to obtain the food lying on top of the material,

but actually raises the crate up off the ground on one side so that the food slides onto the floor. (Clearly, this dog has gravity figured out, which is more than I can say for some members of our own species.)

One of my favorite examples is the dog whose owner threw both a ball and a Frisbee to see which one the dog would bring back first. The poor dog, who couldn't seem to make a choice, ran back and forth between the two, then finally picked up the ball, placed it inside the bowl-shaped Frisbee and brought them both back together. Now that's a video I would like to see.

Another impressive, although somewhat unfortunate example sent in by a blog reader is the dog with separation anxiety who carefully jams any object available, including toys and food and water dishes, between the bars of the crate until the bars bend open and the dog can escape. Although we all have sympathy for the dog (as does his guardian), this is why, when people brag about how smart their dog is, I often say: "I am so sorry."

Other examples include dogs who prop Kongs against sturdy furniture to hold them steady so they can get the food out; bring dinner bowls or leashes to their owners to remind them of what's important; figure out how to manipulate latches and door handles; and an enthusiastic three legged dog who learned to hold a stick to counterbalance his missing limb.

My all-time favorite response was from the reader who said: "We are the tools!" Dogs manipulate us (objects external to the self, right?) to get everything they want. We get their toys from behind the couch, open doors for them, scratch their bellies when requested. When you think of it that way...why invent a tool when you have a human to do your work for you? There's a scientific basis for this, amusing as it may be. We know that dogs are much more likely than well-socialized wolves to look to humans to solve a problem. For example, dogs will try a few times to open an object with food inside, and then turn and look at the person standing behind them. Wolves, even those with lots of experience with people, never do.

One reader's dog illustrates the above observations perfectly. She brings her guardian a treat to unwrap, even though it's covered only by thin paper that any

dog could chew through in a nanosecond. Surely this dog deserves credit as an adept user of tools. What else are our flexible paws for, anyway, beyond unwrapping treats and opening cans of dog food?

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