



Canine Cognition Center Newsletter

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Welcome!

Hello everyone, and welcome to our inaugural newsletter! We are delighted to announce that our first paper was just accepted for publication in *Developmental Science*. We could not have reached this important milestone without the consistent and enthusiastic support of the entire CCC@Yale community, and for that we are extremely grateful.

In celebration of our first publication, we are kicking off our first biannual newsletter. This newsletter is designed to keep you up to date on all of our most recent findings and also to answer your questions about canine cognition. If you have any questions that you'd like to see featured in the next newsletter, or any other general feedback on our work at the center, we would love to hear from you:

<http://bit.ly/cccatyalesurvey>

Hot off the presses: our first publication

Some of you may remember participating in a puzzle study that began during the first summer we were open in 2014. In this study, one of our staff members hid a treat inside a puzzle box and then showed dogs how to open the box. Rather than demonstrating the most efficient way to solve the puzzle, the demonstrator sometimes added in some extra, unnecessary steps before opening the box. We were curious whether dogs would copy, or “overimitate,” the demonstrator’s actions, even when they were unnecessary for opening the box.



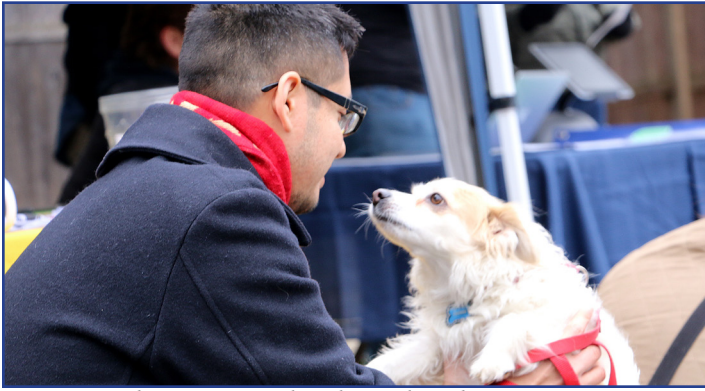
Vader, a CCC Junior, approaching the puzzle box.

Prior research with human children has shown that children systematically copy – or “overimitate” – all of a researcher’s actions, regardless of whether they are necessary or not. In contrast, we found that dogs leave out these unnecessary steps when there is a more efficient way to solve the puzzle. Although dogs are surprisingly human-like in their tendency to learn from social cues (e.g., pointing), they do not show our human tendency to overimitate.

We are particularly excited about these new results because they highlight a unique aspect of human learning. Although our human tendency to copy unnecessary actions may seem silly at first, it may actually be beneficial. Think about all the seemingly irrelevant actions children need to learn, such as washing their hands. Even though the importance of these actions is not immediately clear, children have a lot to gain from performing them.

The final version of our article should be published in June. We look forward to sharing the full version with everyone once it is published!





A guardian giving thanks to his dog at our recent Animal Gratitude Ceremony.

FAQ: Bonding with your dog

The dog-human bond is a unique relationship that emerged around 10,000 years ago as a result of domestication. Some of the earliest studies in canine cognition found that the attachment dogs feel toward their guardians is similar to the attachment human infants feel toward their parents. When frightened, dogs run to their guardians, just as human children run to their parents. This attachment is mutual; researchers at Harvard discovered that many of the same brain regions that were active when parents viewed their children were also active when guardians viewed their dogs, but not when they viewed photos of unfamiliar dogs or children.

Eye contact seems to facilitate the formation dog-human bonds. Although sustained eye contact between two dogs is interpreted as an aggressive signal, eye contact between dogs and their human guardians serves to reinforce their bond by tapping into an “oxytocin feedback loop.” Oxytocin is a hormone that facilitates bonding and promotes feelings of attachment between parents and infants. A recent study from Japan showed that eye contact between dogs and their guardians also triggers the release of oxytocin in both parties. Interestingly, this study showed a large difference between dogs and wolves, since wolves rarely made any eye contact with their guardians. These results suggest that, during the process of domestication, dogs may have tapped into a pre-existing system of parent-child bonding, using eye contact to strengthen their relationships with their human companions.

Check us out on social media!

@yaledoglab:



Thanks to you: our newest study

A few months ago, we emailed all of you to ask what you wanted to know about canine cognition. After receiving nearly 100 responses, we compiled a list of the most frequently asked questions. We will present a new article in each newsletter that covers one of these questions and then post the FAQs on our website (for our first FAQ article, see the article on “Bonding with your Dog” to the left).

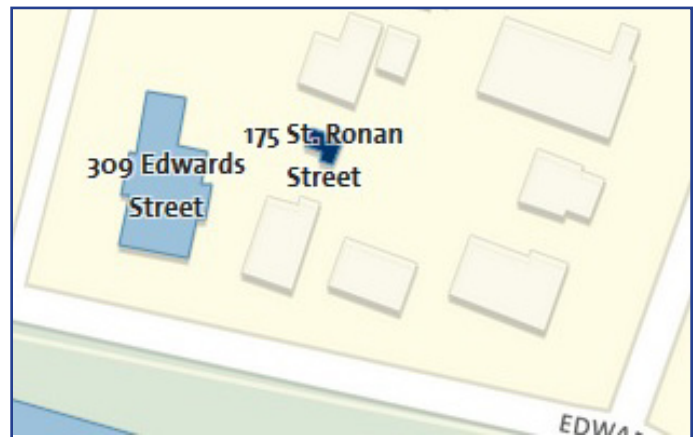
In fact, one of our studies this summer is inspired by one of the FAQs. Several people were curious about what dogs really understand about words. For instance, do dogs just use tone or body language to determine our intentions or do they actually pick out specific words and know what they mean? This summer, we will start testing this question by exploring how dogs learn new words they’ve never heard before.

Calling all dogs with a high vocabulary!

For our new study described above, we will be recruiting dogs who already know the name of two or more physical objects, such as toys. If your dog (or a dog you know) knows the name of two or more objects please fill out the survey below and let us know, because we would love to see you in our new study!

<http://tinyurl.com/ccwordsurvey>

Click the map to see where our lab is located.



Looking for more? Visit our website for additional information:

doglab.yale.edu