

# Companion Animal Psychology

By Zazie Todd, PhD. Happy cats. Happy dogs. Thanks to science.

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28 February 2018

## To gesture or not to gesture in dog training?

Are visual cues more effective than verbal cues in dog training?

**Guest post by Sienna Taylor, MSc (Hartpury University Centre).**



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A new study by [Anna Scandurra](#) (University of Naples) et al. investigates whether visual cues are more effective when dogs are trained to fetch an item under four conditions: using only hand gestures, using only verbal cues, using both hand and verbal cues and using contradictory hand and verbal cues.

It turns out that dogs responded better to visual hand gestures than verbal cues although sometimes better when both hand and verbal cues were used together.

Many pet owners teach their dogs to respond to both visual and verbal cues, for example, asking a dog to lie on the floor by simply using the verbal command “Lie Down” or alternatively using a hand gesture or a combination of both! Whilst dogs do use vocalisations to communicate (such as attracting attention, being context specific) (Serpell, 2017), they communicate largely through the use of discrete signals (Scandurra et al. 2013), both intra-specifically (dog-dog) and inter-specifically (human-dog).

Dogs are adept at responding to our gaze or if we nod (Kaminski and Nitzschner, 2013) or if we point (Lakatos et al. 2012). Sometimes we find that when we ask a dog to verbally “Lie Down” they give an altogether different response! Yet if we use a hand gesture such as point to the floor or use a visual cue the dog instantly lies down. This more immediate response to a visual cue, even when accompanied by a verbal cue, has often puzzled owners and begs the question are visual cues more effective in dog training? Or should we be using both?

The study by Scandurra et al. (2018) set out to test whether 13 pet dogs responded better to visual cues alone (unimodal) or both visual and verbal cues (bimodal) which took into account the dog's hearing and auditory capabilities.

Dogs were trained to ensure they responded equally well to both verbal cues and visual hand gestures. They were then asked to perform a pre-test fetch task. Objects included a piece of wood, a plastic bottle and a pencil.



Twenty four trials took place in the pre-test phase, eight trials used verbal cues only (spoke directing the dog to retrieve one of two items), followed by eight trials using hand gestures (directed the dog by pointing to one of two items). A further eight trials used both verbal and visual cues (directed one of the two items through the use of both verbal and visual cues at the same time).

Nine dogs met the requirements of the pre-test phase and were selected to take part in the combination of both cues were used. However, this time the cues contradicted one another to retrieve, the owner pointed at one object but named another.

Dogs were found to respond equally well to both verbal and visual cues when used on their own. When verbal and visual cues were given together, dogs were found to respond significantly more quickly to the visual cue. When given contradictory information, 78% of dogs (7 out of 9 dogs) chose the hand gesture. This is above a chance level and randomly chose to retrieve the verbally indicated or the object visually presented. An interesting finding is that none of the dogs preferred the verbal cue over the hand gesture. This highlights the importance of verbal cues to dogs.

How we use verbal communication (e.g. quality of spoken word) and also level of eye contact affect the dog's responsiveness in the dog. Fukuzawa et al. (2005) found that when a dog was asked to retrieve an object through a tape recorder, there was a significant decline in performance. It also took the dog longer to respond to the command in the absence of lip or facial movements. Similarly, when the person obscured their eyes by a screen, the command was played through the tape, the dog's responsiveness to the command also reduced. When the dog's eyes were worn and a spoken verbal command was given no reduction in responsiveness was seen. This suggests that eye contact is important to dogs but not in all contexts. Fukuzawa et al. (2005) also found that responsiveness was reduced when a person's back was turned. This implies that body postures appear to be important in understanding signals as part of human-dog communication but may be context dependent.

Next time you use a cue, if the dog does not respond it is worth following up with a hand gesture response!

### About Sienna Taylor:



Sienna Taylor FdSc, BSc (Hons), MSc in Applied Behaviour and Welfare at Hartpury University, Gloucestershire. Her research interests are in dog-human interactions and the use of olfactory cues by animals. Sienna enjoys training her dogs and they are currently working towards their titles.

You can follow Sienna Taylor on Twitter @SiennaTaylor

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Posted by [Zazie Todd, PhD, for Companion Animal Psychology](#) at [February 28, 2018](#)

Labels: [dog training](#), [fetch](#), [guest post](#), [research](#)

## 2 comments:

**Jenny H** 5 March 2018 at 17:24

I've always found that if you give a dog mixed signals -- that is body and facial cues that do not match the verbal cue, the dog will respond to the body and facial cues, and ignore the verbal cue.

The lesson to be learned from this, is that one must be very, very careful NOT to give the dog mixed signals. This is very common in beginner dog trainers, and they tend then to get cross with the dog.

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**Blair Anderson** 5 March 2018 at 20:20

I like my dogs to be bimodal. One command can help reinforce the other. However the more you use both commands at the same time. That becomes a pattern that where one command (or dog) is incomplete and thus degrades both modalities. The way I think of it is, use one modality to teach the other. Repeat using modalities in reverse order, as the dog approaches conformance drop the weakest one. I also teach that being aware of body position and other cues, a great example is often with outstretched hand when saying 'COME'. Dog is learning the visual + verbal pattern. If the hand posture is not there the 'pattern' is incomplete. Thus both modalities are 'weak'. So clear hand/arm/facial gestures, being visual also aids your dog in learning. Looking at you for 'cues' helping solve the cloth ear syndrome.

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