

## How “puppydog eyes” do their trick: chemistry

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If you’ve ever wondered how just one dole-ful look from your dog always makes you forgive that chewed-up shoe—or almost anything else—scientists may have an answer.

A dog’s gaze triggers release of the so-called “trust hormone” oxytocin in owners, according to Japanese researchers.

Oxytocin, produced by the pituitary gland at the base of the brain, is implicated in bonding behaviors in animals including humans.

Experiments have even found that [sniffing](#) oxytocin increases a person’s trustfulness of others.



In a new study, Mino Nagasawa of Azabu University in Japan and colleagues placed dog owners together with their pets in a series of half-hour sessions.

The experimenters measured the levels of oxytocin in owners’ urine before and after the interactions.

The investigators found increases in the hormone level that were highly correlated to “the frequency of behavioral exchanges initiated by the dog’s gaze,” they reported, writing in the Dec. 14 issue of the research journal *Hormones and Behavior*.

The researchers arranged another set of experiments that were similar, except that owners were instructed not to look at their pooch during the interactions. In these tests, the oxytocin-gaze correlation wasn’t found, the scientists reported.

In the past, it hasn’t been clear whether oxytocin is linked to bonding between different species, wrote Nagasawa and colleagues. “We conclude that interactions with dogs, especially those initiated by the dog’s gaze, can increase the urinary [oxytocin] concentrations of their owners as a manifestation of attachment behavior.”

*Image; A dog’s gaze triggers release of the so-called “trust hormone” oxytocin in owners, according to Japanese researchers. Oxytocin, produced by the pituitary gland at the base of the brain, is implicated in bonding behaviors in animals including humans. (Image courtesy Franklin County Dog Shelter, Ohio)*