

## The Animal Studies Repository

---

From the Selected Works of Harold Herzog, Ph.D.

---

July 26, 2016

# When Are Puppies at Their Cutest?

Harold Herzog, *Western Carolina University*



Available at: <https://works.bepress.com/harold-herzog/93/>

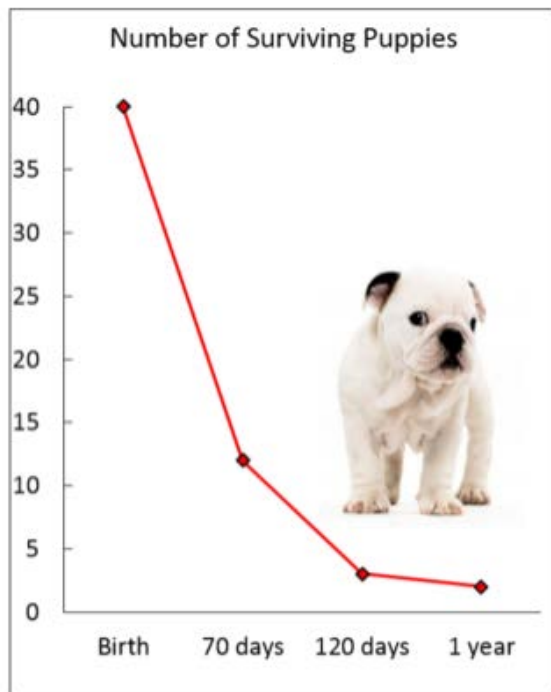
## When Are Puppies at Their Cutest?

A new study helps explain why puppies are most adorable at weaning time.

Posted Jul 26, 2016

One of the best things about studying human-animal interactions is that our scholarly organization, the International Society for Anthrozoology, holds its annual meetings in great places. This year it was in Barcelona. So while my wife took in the Gaudi architecture and the Picasso museum, I listened to talks and read poster papers on topics ranging from YouTube dog bite videos to the psychological conflicts associated with eating pet goats.

One new research project that really grabbed me was on the evolution of cuteness in dogs. Led by canine researcher Clive Wynne, the investigators sought to determine when puppies are at their cutest, and why.



Source: Graph by Hal Herzog/ Photo 300miles/flickr

The study was important: There are about a billion dogs on Earth, and according to Ray and Lorna Coppinger, authors of *What Is a Dog?*, 85 percent of them are not pets. Rather, the vast majority of dogs on the planet run wild. They are referred to variously as pariah dogs, street dogs, village dogs, and garbage dump dogs. These animals hang around human habitations, typically living on refuse. They will never sleep in an owner's bed, go to a doggie day care, or receive even rudimentary veterinary care. On the other hand, their gonads will remain intact, they spend all day with their peers and generally call their own shots. However, freedom has its costs: Diseases, automobiles, and starvation all take their toll.

Yet even with these risks, the Coppingers argue that an adult dog living in a Nairobi garbage dump has, on the whole, a better life than a Beverly Hills poodle. But this is *not* true of the puppies: The infant mortality rate among the world's village dogs is horrendous. The graph at left shows the survival rate of 40 newborn village dog puppies in central Italy. Seventy percent died before they were 10 weeks old, and only two lived to the age of 12 months. Other studies have found similarly high death rates among puppies in Kenya, India, Mexico, and the Bahamas.

Why will 80 or 90 percent of the world's feral dogs never make it to their first birthday? The reason is that female dogs typically abandon their pups when they are two or three months old. (Wolf mothers, in contrast, look after their offspring for two years.) So what is the key to survival for a puppy born at the big dump in Mexico City? Tricking a person into adopting and taking care of it.

And as the Coppingers note, it helps a lot if people think the puppy is cute.

### **The Hypothesis: Dogs Should Be Cutest When They Need Help The Most**

Dogs and humans have been hanging out together for between 14,000 and 20,000 years, and for nearly all of this time, the canine ecological niche resembled that of village dogs. Clive Wynne's University of Florida research team reasoned that if a pup's survival depended on its being adopted by a person, the genes of particularly cute puppies would be more likely make it to the next generation. Further, because selection pressure is particularly intense when animals are abandoned by their mothers, puppies should be at their most adorable around the time they are being weaned, between six and 11 weeks.

### **The Experiment**

The researchers tested this hypothesis by having people rate the attractiveness of photographs of 39 dogs taken between the time they were born and 30 weeks later. (See sample photos below.)



Source: Used with permission of Clive Wynne

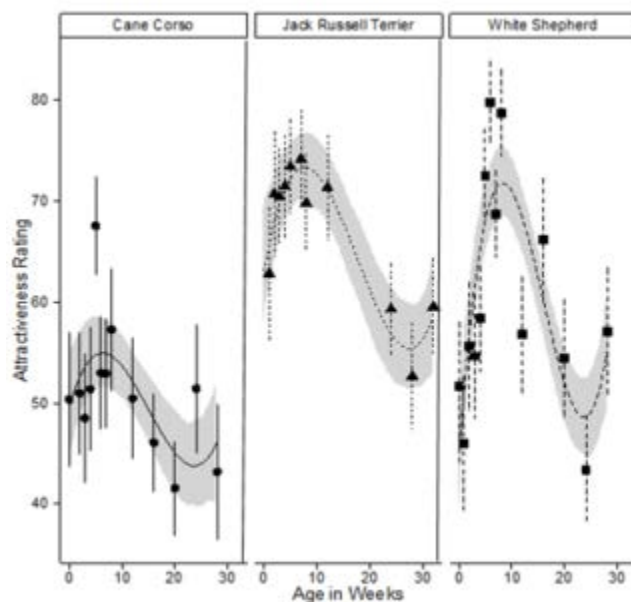
The photos were all head shots with neutral backgrounds and the same level of brightness. They represented three diverse breeds:

- Cane Corsos are sometimes called “the Italian mastiff.” They are large, dark-colored dogs originally bred for guarding and hunting animals such as wild boar.
- Jack Russell Terriers are small energetic dogs that originally bred for fox hunting. They are typically white or light colored.
- White Shepherds are an all-white variant of the German Shepherd Dog. It is recognized by some kennel clubs as a separate breed.

The photographs were presented on a computer. Fifty-one college students rated the attractiveness of each dog on a scale of 0 (“not at all attractive”) to 100 (“very attractive”).

## The Results

The results were clear. As shown at left, the attractiveness ratings supported the hypothesis that puppies are most appealing to humans right about the time they are weaned. (For statistics wonks, the points on the graph indicate the average attractiveness rating for dogs in the photographs at each age. The vertical lines are the 95 percent confidence intervals.)



Source: Figure by Clive Wynne

The Cane Corsos were rated as less attractive at all ages than the other two breeds. Further, while the Jack Russell and White Shepards were cutest when they were about eight weeks old, the cuteness of the Cane Corsos maxed out at the age of six weeks. (All three breeds showed an uptick in cuteness when they were 30 weeks old. I have no idea why.)

## **The Bottom Line....**

In 1943, ethologist Konrad Lorenz argued that humans are instinctively attracted to *kindchenschema*, features of infants that elicit our parental instincts, such as large eyes and bulging craniums. Modern brain research and recent studies of the visual preferences of young children support this idea. We are, in short, suckers for creatures that hook our parental urges. Wynne's research shows how the human preference for cuteness may have shaped the developmental trajectories of man's best friend, and why puppies are at their most irresistible exactly when they are most vulnerable.

This study, however, was done in a laboratory with photographs rather than real dogs. Would similar results be found using real puppies in a natural setting? We can't be sure, but a 1998 field study with an adorable 10-week-old Golden retriever named "Goldie" suggests the answer is yes. Over five months, researchers took Goldie to well-traveled spots on the University of California at Santa Barbara campus and counted the number of passersby who came over to pet or play with her. Goldie's ability to seduce strangers dropped precipitously over the weeks as she transformed from puppy to adult dog. The decline was particularly steep among women: When Goldie was at her cutest, women were twice as likely as men to chat her up. But by the end of the study, the number of women who stopped to stroke her head and say hi had dropped 95 percent and the sex difference had completely disappeared.

I'm not sure how Goldie would have fared in the Mexico City dump.

## **References**

- Boitani, L., & Ciucci, P. (1995). Comparative social ecology of feral dogs and wolves. *Ethology Ecology & Evolution*, 7(1), 49-72.
- Coppinger, R. & Coppinger, L. (2016) *What is a dog?* Chicago: University of Chicago Press.
- Chersini, N., Hall, N., & Wynne, C. D.L. (2016). *Dog pups are most attractive to humans at weaning*. Presented at the conference of the International Society for Anthrozoology, Barcelona.
- Fridlund, A. J., & MacDonald, M. J. (1998). Approaches to Goldie: A field study of human approach responses to canine juvenescence. *Anthrozoös*, 11(2), 95-100.