



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Irena L. Dezazzo	Project Number J1207
Project Title Effects of Human Social Engagement Cues on Canine Responses	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Behavioral scientists have recently begun testing canines for their ability to recognize simple forms of human social engagement cues, or body language. I wondered how dogs would respond in more complex tests and whether the responses might differ in pet dogs versus shelter dogs. To do this, my project focused on three potential cues: body orientation (body facing towards versus away from the dog); arm position (arms down versus arms crossed); and eye contact (open eyes versus closed eyes), using two human testers. I hypothesized that pet dogs would respond to cues favoring social interactions - body towards; arms down; and eyes open - but that shelter dogs, who might lack socialization skills, would not show as strong responses.</p> <p>Methods/Materials For each of the three cues, I performed 8 tests designed to evaluate the strength of the cue and to control for other variables. In total, I performed 960 tests on 20 pet dogs and 20 shelter dogs (40 dogs, 24 tests each). I videotaped all tests, later reviewed the footage and recorded the results in my binder.</p> <p>Results My results revealed all three cues were important in human-canine interactions, but the results differed for pet dogs versus shelter dogs. Body orientation was a strong cue for both pet and shelter dogs. 76% of pet dogs and 79% of shelter dogs chose the human facing towards rather than away from them. Arm position and eye contact were also strong cues in pet dogs, but these cues were weaker for shelter dogs: 83% of pet dogs and 57% of shelter dogs chose the human with arms down rather than crossed; 75% of pet dogs and 50% of shelter dogs chose the human with eyes open versus eyes closed.</p> <p>Conclusions/Discussion My findings show that both pet and shelter dogs have a strong preference for a person facing towards them. Pet dogs showed strong preferences in the other two tests, but shelter dogs did not, perhaps because they do not have as much human contact as pet dogs, and so are not as attuned to subtler human social cues. Shelter animals were often timid, and may have avoided looking at the human testers eyes and not noticed if they were open or closed. My results imply that dogs often do understand and can respond to a variety of human social engagement cues. This information can be used to help train shelter dogs to respond more consistently, and to help people adopting shelter dogs to understand their limitations and training needs.</p>	
Summary Statement My project tested the abilities of pet dogs versus shelter dogs to recognize and respond to forms of human social engagement cues.	
Help Received My mother drove me to the dogs, and acted as my assistant tester.	