the plastic dog. Overall, the test proved to be a suitable tool to investigate breeds differences in inter-specific social behaviors. These preliminary findings will be implemented with more data collection including more subjects for each breed and more breeds.

**Key words:** adult dog; breed; behavior; temperament test

## INVESTIGATING THE INFLUENCE OF PERSONALITY ON PERFORMANCE BY FAMILY-OWNED DOGS IN A HUMAN-CUED TASK

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Over the past decade, the object choice task has been used extensively to test the hypothesis that the ability of dogs to understand human social cues has resulted from the coevolutionary process of domestication (Hare et al., 2002). However, numerous factors can influence performance on this task (Reid, 2009), including artificial selection for attention and cooperation in specific working breeds (Gacsi et al., 2009). In 2005, Svartberg et al. proposed that certain canine personality traits could have been favored during the evolution of domestication. Based on this hypothesis, we predicted that boldness, trainability, and sociability – traits that should enhance the ability to attend and respond appropriately to human gestures - would be positively related to performance in a human-cuing situation.

We first had owners complete a questionnaire, and a canine personality survey developed by Kubinyi et al. (2009). Twenty-three adult dogs of various breeds each completed 16 trials on the object-choice task either indoors or outdoors. An unfamiliar human indicated the correct container using a momentary, proximal cue (gaze plus three taps). Mean percent correct performance (78.5%) was significantly better than random (one-sample t-test $< 0.001$), but individual binomial tests showed that only 16/23 dogs performed above chance ($\chi^2$ goodness of fit test $P = 0.061$). We simultaneously regressed performance onto seven predictor variables; together, they accounted for 62.5% of the variance in performance ($P = 0.011$). Treat motivation ($P = 0.001$), calmness ($P = 0.02$), and indoor testing location ($P = 0.05$) were unique significant predictors, all positively related to performance. Surprisingly, boldness, sociability, and trainability each had no significant relationship to performance. In fact, once treat motivation, calmness, and test site were taken into account in the multiple regression analysis, higher trainability scores were a significant negative predictor of performance ($P = 0.05$).

Thus, contrary to our predictions, personality traits that one might expect to have been favored during the evolution of domestication were not related to performance on the object-choice task. We conclude that some dogs may be predisposed to pay attention to human cues simply due to their willingness to work for treats and their calmness in particular testing environments.

**Key words:** personality; performance; dogs; human social cues

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## ASYMMETRICAL PAW PREFERENCE AND PERSONALITY

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Despite a century of research, insights into the factors giving rise to brain and behavioral asymmetries remain obscure. The majority of explanations offered up until now were human-specific but accumulating evidence suggests that brain and behavioral asymmetries are also observable in non-human species such as fish, primates, and dogs. Therefore, we argue that previously proposed human-specific explanations should be disregarded and new theories should be proposed with animal models involving multiple species. Here we present our first step forward in achieving this goal by analyzing how laterality is manifested in dogs. A recent finding suggests that left-handed marmosets tend to express more fear and reactivity to novel environment than right-handed ones. In addition, dogs were found to express asymmetrical tail-wagging responses to different emotive stimuli, indicating hemispheric dominance in processing emotions (i.e., left-wagging to unfamiliar dominant dogs or right-wagging to their owners). Based on these findings, we hypothesized that dogs' regular behavioral asymmetries would be observed in relation to their dominant hemispheres and furthermore, the asymmetries would correlate with dogs' average temperaments. More specifically, we measured dogs' paw preference in a task that induced them to remove a piece of duct tape from their snouts and examined how the observed paw preferences are correlated with a five-dimension personality