

857

COMPARATIVE UNDERSTANDING OF CAUSALITY BY GREAT APES: WHEN IS A ROPE WORTH PULLING?

S.T. Boysen¹, B. Bell², C. Richard², P. Khan², J. Rafert²

¹Ohio State University, Columbus Ohio USA; ²Milwaukee County Zoo, Milwaukee Wisconsin USA.

Presenter's Email: boysen.1@osu.edu

Significant differences in performance on similar cognitive tasks have been reported from several facilities where the cognitive abilities and capacities of apes have been investigated. This has been especially notable for different chimpanzee groups. In Experiment 1, recent results on a tool task that addressed the causal mechanism of physical attachment by captive chimpanzees revealed significant performance by all animals, including two infants. With the exception of the youngest subjects, all participants had prior experience with other tool-use tasks, including the T-Tube, a tool construction task using a hook or an inserted rod, and a raking task. The subjects were also reared in a highly social (both human and chimpanzee) and physically-enriched environment. For Experiment 2, captive bonobos, gorillas, and orangutans in a zoo setting were tested with the same task, and all were highly successful. The zoo subjects had extensive prior shaping and operant training for veterinary examination from their caregivers, including echocardiograms and sonograms without anesthesia. All zoo animals were also raised under intensive social and physical enrichment. We hypothesize that key features of the subjects' rearing histories and environment contributed towards their understanding of causal relationships, including the recognizing the significance of physical attachment.

Keywords: cognition, causality, Great Apes, comparative