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DOES SYMBOLIC COMPETENCE PREDICT PERFORMANCE OF BONOBOS, PAN PANISCUS, ON MATCH-TO-SAMPLE TASK?

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Match-to-sample tests can inform learning theories and indicate what is apprehended as similar or different, across species or between individuals with different experience and skills. A range of primate and non-primate species are able to learn simple match-to-sample tests. Further, there are suggestions that apes having received previous language training perform better at certain matching tasks, in particular relational matching, than other apes. Here, we aim at studying the influence that experimental experience, language training, and age plays in the acquisition of a matching task and subsequent maintenance of the learned skill on new stimuli. The subjects were five bonobos, ranging in age from 9 to 40 and diverse both in their level of symbolic competencies and experimental experience. Two of these individuals, Kanzi and Panbanisha, are well-known for their language skills. The apes were tested in a 3-choice task with graphic images as stimuli, 50 trials in each session. Three bonobos needed less than 2 sessions to reach criterion and two of these individuals maintained performance on subsequent tasks. 2 individuals needed more than 5 sessions to reach criterion and transferred the learning significantly slower. The results indicate that experience with experimental tasks rather than language competence predict performance on a simple identity matching task. These results will be discussed in the light of the same bonobos' performance on a subsequent categorical matching task and current theories of the relationship between cognition and language. Research approved by and complied with Iowa State University IACUC, PRUETZ 6740.

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