

AN EXPERIMENTAL STUDY OF BEHAVIORAL SYNCHRONY IN CHIMPANZEES USING MATCHING TO SAMPLE TASK

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Previous studies suggest that unconscious synchrony of behaviors between individuals promote bonding and facilitate prosocial behaviors. However, little is known about whether and to what extent nonhuman primates share such synchronous tendencies. In this study, using a matching-to-sample task, we investigated behavioral synchrony of chimpanzees. In a test trial, a video clip where another conspecific (or an object) chose (or approached) a target or distractor stimuli was presented after touching a sample stimulus. We analyzed how the video clip affected chimpanzees' choice of the target stimuli. The result suggested that chimpanzees were more affected by conspecific's behaviors than those of objects, although these two models moved in a similar way. Asymmetrical effect of the video clips, that is strong effect of distraction but little facilitation on their performance, was also found. Relationship between this result and common coding theory of perception and action will be discussed.

Keywords: social cognition, synchronous behavior, matching to sample task, chimpanzees