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Do Tonkean macaques (*Macaca tonkeana*) understand human goal-directed actions?

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Abstract:

The present study investigated goal understanding in Tonkean macaques (*Macaca tonkeana*) using the unwilling versus unable paradigm, previously used in several species. Fifteen subjects were tested in three experimental conditions that varied according to the goal-directed actions of a human actor. In the “unwilling” condition, the actor was capable of giving the subject food but unwilling to do it; in the “unable” condition, she was willing to give food but was unable to do it because of a physical barrier; and in the “distracted” condition, she was occupied by manipulating a pebble instead of food. We report that Tonkean macaques attempted to grasp food in the actor’s hand and displayed significantly more gaze alternation in the presence of an unwilling actor rather than an unable or a distracted one. Moreover, they threatened significantly more an unwilling experimenter rather than an unable or distracted one whereas they exhibited more yawning and self-scratching in the presence of an unable experimenter rather than an unwilling one. These results suggest that Tonkean macaques understand the experimenter’s goals, that is a component of intention reading abilities. This study was funded by University of Strasbourg Institute for Advanced Study.