

TRUE LIES! PATTERNS OF GENERALIZATION IN TACTICAL DECEPTION BY WILD BONNET MACAQUES *MACACA RADIATA*

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Tactical deception involves behaviour drawn from an agent's repertoire, deployed such that it is likely to be misinterpreted by the audience, with some tangible benefit to the agent. All acts of deception, though, may not necessarily be intentional or cognitive. We examined tactical deception in wild bonnet macaques by examining patterns of generalisation governing individual acts in order to discern underlying cognitive abilities. Focal animal sampling and opportunistic observations were conducted on four troops over a period of four years in and around the city of Bengaluru in southern India. A total of 155 instances of tactical deception, by 18 females and 20 males, were observed in three multimale-multifemale troops, with the only unimale-multifemale troop failing to display any deception. We classified the observed deceptive acts under 11 established categories of deception and under nine major objective goals. Our results suggest that bonnet macaques are capable of generalisation (context-independent deception) with individuals deceiving for a variety of goals using several different behavioural categories. A particular deceptive act was often used in different circumstances to achieve more than one goal while different behaviours could often attain the same goal. Some individuals also changed their repertoire of deceptive acts with a change in status, as they moved across troops. In the spectrum of cognitive complexity, tactical deception by bonnet macaques thus appears, in most cases, to be rule-governed cognitive processes rather than context-dependent, learned behaviours.

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