

Gestural communication in olive baboons and domestic dogs

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Most research investigating how communication may shed light on primate social cognition has focused on vocal rather than visual (gestural) signals (Tomasello and Call 1997). Since visual signals predominate when individuals relate "up close and personal," their study is especially useful for understanding how animals establish, maintain, and negotiate affiliative and cooperative relationships. Here I describe research on gestural communication in wild baboons and domestic dogs. "Gestures" include all non-vocal actions with potential communicative significance, including facial expressions, body postures, tail carriage, variations in gait and body carriage, and motions of limbs, muzzles and other body parts that may or may not involve touching another animal. Most of this work relies on detailed analysis of videotaped interactions and only preliminary results are available.

Greetings among male olive baboons

During a long-term study of male-female relationships in a large group of olive baboons near Gilgil, Kenya (Smuts 1999), I became intrigued by ritualized greetings between adult males in which one male would present his posterior to another and then allow him to handle or even mouth his genitals. Literally placing the source of one's future reproductive success in the hands of another male seemed like an act of extreme trust inconsistent with the highly aggressive nature of male baboons.

To address this paradoxical behavior I teamed up with John Watanabe, a cultural anthropologist interested in ritual (Smuts and Watanabe 1990; Watanabe and Smuts 1999). Olive baboons live in female-bonded societies (Wrangham 1980), such that males spend much of their adult lives with unrelated and initially unfamiliar others. Most male-male interactions involve mutual antagonism, including occasional severe wounding. Adult males virtually never groom or play with one another and participate in only two kinds of non-agonistic interactions with other males: greetings and alliances.

When one male baboon approaches another, the other usually threatens or avoids him. However, a subset of approaches is accompanied by an exaggerated gait and the "come hither" face (a striking expression with eyes narrowed and ears flattened back against the skull). Sometimes the approaching male also lip-smacks, another friendly sign. These very distinctive signals invite the other male to greet, and, compared to routine approaches, the approached male is much less likely to move away. Typically, he will indicate acceptance of greeting by reciprocating eye contact (in other contexts, eye contact constitutes a threat) and often by lip-smacking and making the come hither face in return.

Upon completion of the approach, the males usually begin an exchange of gestures that typically involves one presenting his hindquarters while the other either grasps his hips, mounts him, touches his scrotum or pulls his penis. Less often, one greeter nuzzles the other, or, very rarely, they embrace and play briefly (this is the only context in which I've seen adult males playing with one another). The gestures used during a single greeting most often entail asymmetrical roles, with one male taking the more active, "dominant" role (e.g., mounting). Occasionally, a mutual exchange occurs such that each one mounts the other in turn, or each touches the other's genitals simultaneously or in rapid succession. Immediately after the exchange, one (or occasionally both) of the males moves rapidly away using the same exaggerated gait characteristic of the approach. The entire sequence usually takes no more than a few seconds.

Initiation of a greeting never guaranteed its completion. Either male may break off at any time simply by moving away, and in our sample of 637 adult male greetings, nearly half of the time one male pulled away before completing the exchange. Occasionally (seven percent of our sample) attempts to greet ended in threats, chases, or fights. Remarkably, however, of the