

Study shows female chimps have distinct gesture strategies

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Image: Wikipedia.

(Phys.org) —Nicole Scott, of the University of Minnesota, working with the Centre for Research in Evolutionary Anthropology at the Chester Zoo in the U.K. has found that captive female chimpanzees use different sorts of physical gestures when interacting with other females, versus males. In her paper published in the *American Journal of Primatology*, she describes the differences in gestures she observed while studying videotapes she made of the interactions of 17 female and 5 males in their enclosure at the zoo.

Scott notes that interactions and communications between group members is one of the most important aspects of primate life. How members behave towards one another has a very real impact on how they are treated by others in the group. Interaction between males and females, for example, is one of dominance and submission—failure to adhere to [social norms](#) can result in abuse.

To gain a deeper understanding of the ways the chimps interact, Scott chose to focus on gestures, which she defined as movement of the head, body or limbs that are done intentionally. In particular she wanted to find out whether different members of the group used different gestures when interacting with members of the opposite gender versus their own. She focused on four main types of gestures: aggression, submission, greeting, and reassurance.

In so doing, she found that the chimps as group all had the same repertoire of gestures, regardless of gender. She also found that the female [chimps](#) tended to display more negative type gestures when interacting with their female group members which in some cases could be construed as aggressive. They also used few reassurance or apologetic type gestures. In contrast, gestures used by the females when interacting with males was more submissive and included greetings when crossing paths with them. Males, on the other hand tended to use the same general types of gestures to interact, regardless of which gender they encountered.

Scott notes that her observations indicate that female [chimpanzees](#), of necessity, are more sensitive to gender and adjust their gestures accordingly, than are males. She adds that her findings agree with prior research that indicates differences in social behavior between [males and females](#). Males must get along with their male counterparts to maintain a peaceful existence within the group—females, on the other hand, don't benefit by being nice to their female peers, and thus, don't appear to

even bother trying.

More information: Gesture Use by Chimpanzees (Pan troglodytes): Differences Between Sexes in Inter- and Intra-Sexual Interactions, *American Journal of Primatology*, DOI: 10.1002/ajp.22133 [onlinelibrary.wiley.com/doi/10 ... 2/ajp.22133/abstract](https://onlinelibrary.wiley.com/doi/10.1002/ajp.22133/abstract)

Abstract

Communication and social relationships are two of the most important aspects of primate life, but few studies have focused on linking these aspects in apes. There are some shared social pressures between the two sexes (e.g., kin selection, alliance formation, and protection against attack), but there are also differences (e.g., mate selection, dispersal, and social ranking systems). The aim of this study was to identify the communication strategies of the sexes with respect to their particular communication partner. I hypothesized the sexes use different strategies in their gestural communication based on their different social pressures. Specifically, males should have more positive intra-sexual relationships than females because of high focus on male–male alliance formation and maintaining high social rank, both of which directly affect their mating opportunities and relationships with all other members of the group. On the other hand, females should have more positive inter-sexual relationships due to the abuse they could receive from insubordination to males and because there is less focus on maintaining multiple, positive relationships with other females. Furthermore, because of differences in social pressures, males should have higher incidence of reassurance in same-sex interactions than females because it should be more important for males to mitigate negative interactions. I analyzed the characteristics of the gesture repertoire and frequency of gesture use for each sex in each of four contexts: (1) aggression, (2) submission, (3) greeting, and (4) reassurance. I looked at intra-sexual and inter-sexual interactions, separately. I found that, indeed, males and females utilize different strategies of gestural communication. I also found that females, but not

males, have a distinct gesture strategy for communicating with the opposite sex than for the same sex. This study shows there are distinct strategies utilized by the two sexes and these differences may be explained by their differing social pressures.

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