

Gestural communication in wild orangutans (*Pongo Pygmaeus*) of Tanjung Puting National Park, Kalimantan Tengah, Indonesia

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Keywords: *Pongo Pygmaeus*, evolution of language, gestures, intentionality

According to our current knowledge, the orangutan (*Pongo Pygmaeus*) was the first great ape species to split off from the evolutionary tree that led to modern humans. This happened about 14 million years ago. In search of the phylogenetic origins of human cognition and human language it is therefore imperative to gain knowledge about the cognitive and communicative abilities of this species. This includes the study of the intentional use of communicative signals like gestures and vocalizations in social interactions.

However, except for MacKinnon (1974), the study of gestural communication in wild orangutans so far has been neglected, as their solitary nature was assumed to result in a very limited gestural repertoire. Moreover, their extreme shyness in conjunction with their arboreal habitat make the observation of these great apes a painstaking task, and so far studies on gestural communication in orangutans have been limited to rehabilitated or captive individuals (Bard, 1992, Liebal, Pika and Tomasello, 2003). However, due to the (often intensive) human influence on these individuals' ontogenies, the results of these studies may not always reflect the animals' natural behaviour.

This poster provides information about an ongoing observational study on gestural communication in wild orangutans at Tanjung Puting National Park, Kalimantan Tengah, Indonesia, deliberately excluding rehabilitated individuals and their offspring in order to avoid possible human influence on the apes' gestural repertoire. The observed individuals nevertheless were habituated to humans and therefore allow close observation and extended follows.

Unlike Bard (1992), this study is not restricted to the interaction between females and their offspring or to the context of feeding. It includes individuals of both sexes and different age groups, as well as different kinds of social interactions, e.g. play, feeding, displaying. In this way the number and range of observed gestural interactions is maximized.

Data are collected on whole-day follows that may include occasional visits to the feeding station close to Camp Leakey. Data recording is done with a digital video camera which also allows capturing interactions occurring high up in the tree canopy between individuals either unaware of or at least ignoring the observer.

Following Liebal, Pika and Tomasello's (2003) analysis of gestural communication in captive orangutans, the collected data are coded according to the same coding scheme in order to facilitate a direct comparison of the results. This coding scheme includes visual and tactile gestures as well as facial expressions, actions (e.g. ritualized biting), and vocalizations.

Since data collection and analysis are still in progress, the results presented in this poster are of a preliminary nature. Nevertheless, they suggest the possible existence of a variety of conventionalized gestures used for intentional communication. Continuation of this work will hopefully contribute to a better understanding of the gestural repertoire of one of the last wild orangutan populations in the world.

References

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