Gestural Pragmatic Inference among Primates: An Experimental Approach

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Abstract: Humans are able to derive semantic content from syntactic and pragmatic sources. Multimodal evidence from signaling theory, which examines communication between individuals within and across species, suggests that non-human primates possess similar syntactic and pragmatic capabilities. However, the extent remains unknown because primate pragmatics are relatively under-examined. Our paper reviews research within communication theory amongst non-human primates to understand current theoretical trends. We examine evidence for primate pragmatic capacities through observational, experimental, and theoretical work on gestures. Given fragmented theoretical perspectives, we provide a unified framework of communication for future research that contextualizes the available research under code biology. To achieve this, we rely on biological semiotics (biosemiotics), the philosophy of biology investigating prelinguistic meaning-making as a function of signs and codes. We close by discussing areas of potential research for studying gestural pragmatics amongst non-human primates, particularly chimpanzees (Pan troglodytes), Diana monkeys (Cercopithecus diana), and other potential candidates.

 $\textbf{Keywords:} \ pragmatics, \ non-human \ primates, \ gestural \ communication, \ biological \ semiotics, \ information \ ecology, \ code \ biology$

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