Deixis and declarative communication among apes

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Until recently, it was widely claimed that apes could not point, because they lacked the neurobiological or cognitive adaptations for reference that uniquely characterized the human species. It is now manifestly clear that apes do, in fact, very commonly point in captivity, and pointing and other referential behaviors have been reported for wild apes. Proponents of the view that the cognitive bases for human communication are discontinuous with the rest of the animal kingdom have taken to arguing that apes either (a) do not point “declaratively” (to “comment” on the state of the world) or (b) do not point amongst themselves. Both of these claims are false. In this paper we will review historical accounts of pointing by apes over the last century and summarize several hundred pointing episodes, including apparent “declarative” pointing, from our laboratory. The significance of these experimental findings is that ape pointing demonstrates that apes are capable of establishing joint visual reference with others, a pre-semantic referential capacity. Thus, neither of the two major human evolutionary adaptations, for bipedalism and for extreme encephalization, are necessary for intentionally achieving states of joint attention to specific foci. Thus, cognitive adaptations for nonverbal deixis arose in Miocene or Pliocene common ancestors of humans and the living great apes.