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Where does language come from? Why don’t other primates have it? Drawing on decades of experimental work with children and chimps, *Origins of human communication* offers nuanced and rich answers to these questions.

Ch. 1, ‘A focus on infrastructure’, provides a brief overview of what is to come. The main thesis of the book is that pointing and gesture are the ‘primordial form of uniquely human communication’ (3), both phylogenetically and ontogenetically. Tomasello notes that rich inten-
tions can be conveyed by simple gestures because of our uniquely human ability to share common ground, and our uniquely human inclination to share information.

Ch. 2, ‘Primate intentional communication’, argues that many primate gestures, carefully analyzed by T, show evidence of being learned signals that are used intentionally to garner attention or to elicit behavior in another. By contrast, primate vocalizations are not relevant precursors to human language, since they are strikingly fixed and largely involuntary. ‘How could such mechanical reflexes be a direct precursor to any of the complexities of human communication and language, beyond simple cries of “Ouch!”?’ (54).

In Ch. 3, ‘Human cooperative communication’, T unravels the complex psychological ‘infrastructure’ revealed by even the seemingly simple act of pointing. Pointing, and also pantomime, require joint attention and shared common ground and they can be performed for cooperative goals, namely to inform and share information. T argues that these aspects of human communication are uniquely human. It is these traits that underlie our impressive ability to form social institutions and build real and metaphorical bridges. Without these special social-cognitive abilities and prosocial motivations, other species are unable and unmotivated to (create and) learn human-like languages.

The psychological infrastructure presupposed by language is in place by a child’s first birthday. One-year-old children have begun to point and pantomime, not only in order to request another cookie, but also simply to share the excitement of seeing a plane overhead. These gestures require that children understand others to be intentional agents with whom they can engage in joint attentional interactions. Not coincidentally, in Ch. 4, ‘Ontogenetic origins’, T argues that children begin to use language shortly after gesturing begins. That is, our ability to intuit another’s intentions and understanding of the world underlies our skill at using both communicative gestures, and words or phrases.

T observes in Ch. 5, ‘Phylogenetic origins’, that modern great apes have rudimentary versions of some of humans’ key abilities. Apes are able to use gestures flexibly and sequentially, understand the intentional actions of others, display social intentions, and engage in group activities and occasional helping behaviors. But apes’ communicative gestures fall short of shared intentionality: recipients do not attempt to relate a gesture to another’s inferred intention in a social context; that is, unlike humans, apes do not share common ground with others. There are also no normative conventions governing apes’ gestures; they do not spread through a community the way our conventional signs do.

Primates do not point to one another, and while they can learn to point for their human caregivers, they only point to make requests (often for food). Primates laboriously trained to use American Sign Language or other sign systems likewise almost always use the signs to make requests. They very rarely use learned signs in order to simply share information.

In Ch. 6, ‘The grammatical dimension’, T argues that requests, insofar as they tend to be more deictically grounded, require less syntactic marking to determine who did what to whom. That is, direct requests most commonly involve my asking you to perform some specific action. T suggests that (most) requests therefore require only ‘simple syntax’. As soon as we attempt to convey nondeictically representable information, the linguistic forms that are needed become more complex, particularly if we want to convey information about multiple events involving multiple participants.

This chapter includes a whirlwind visit with home-signing deaf children, Nicaraguan sign language communities, ‘linguistic’ apes, and processes of grammaticalization. Although speculative, the idea that different sorts of speech acts minimally require different sorts of grammatical resources is intriguing and might be put to the test in artificial language evolution systems.

Ch. 7, ‘From ape gestures to human language’, presents a compact overview of the arguments made. The book makes the case that the abilities and inclinations for cooperation and social interaction are likely biological adaptations, with clear evolutionary advantages to the species. Human language, by contrast, while impossible without these prerequisites, is culturally constructed and not biologically inherited. Gestures form the evolutionary basis of language, and the key difference between humans and apes is that the latter lack the social-cognitive infrastructure that is needed for human-like language.
The suggestion that gestures are precursors to language is a venerable one, and there are a growing number of books that make the case from different perspectives (e.g. Armstrong & Wilcox 2007, Burling 2005, Corballis 2002). But the combination of evidence from primate and infant studies, much of it from T’s own lab, is unique and particularly compelling. En route to an understanding of the likely basis for human language, we learn about a multitude of fascinating behavioral studies involving both primates and young humans. T clearly knows the terrain of which he speaks. An expert in primate cognition, early social cognition, and language acquisition, he is a part-time philosopher, part-time linguist, part-time anthropologist, and full-time psychologist.

Origins of human communication can be read as the third of a trilogy. Cultural origins of human cognition (Tomasello 1999) details differences between humans and other primates, and Constructing a language (Tomasello 2003) offers a detailed theory of language acquisition. Origins of human communication provides the link between the two earlier books, considering language both from phylogenetic and ontogenetic perspectives. T’s most recent work also reveals an evolution in his own thinking. Whereas Cultural origins had emphasized primates’ seeming inability to understand triadic communicative relationships (involving a communicator, a recipient, and a third entity), Origins of human communication allows that primates have rudimentary versions of the basic traits that enable language to flourish. T makes the case for the appealing idea, foreshadowed by Charles Darwin, that humans differ from other primates in that we manifest an ‘extreme form of cooperativeness’ (238).

Far too many linguists assume some version of universal grammar based on the mere fact that humans talk and chimps and chinchillas do not. This facile reasoning is clearly flawed in that it assumes that language itself must be in some sense ‘hard-wired’ or ‘innate’ without recognizing a more empirically grounded alternative: certain prerequisites for language may be missing from our nearest evolutionary relatives. Origins of human communication offers a compelling account of exactly what these prerequisites may be. It also offers proposals for how deictic gestures can incrementally give way to conventional symbols, which are then pressed by communicative demands into the development of syntactic constructions.

Origins of human communication has won the APA’s 2009 Eleanor Maccoby Book Award in Developmental Psychology. It is a pleasure to read and the arguments are easy to follow. I recommend it highly to anyone who has ever wondered about what makes humans special or where language comes from.

REFERENCES


