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Separating chicken and eggs with ostensive-inferential communication

“Who did the first speaker talk with?” is a classic chicken-and-egg argument against the Darwinian evolution of language, still occasionally heard as an argument for non-communicative language origins. Various language-origins scenarios solve the problem in different ways. But I will argue that ancestral ostensive-inferential communication provides a general solution, insensitive to scenario details.

Apes use communicative gestures intentionally and likely ostensively (Moore 2016; pace Scott-Phillips 2015), and interpret each other’s gestures accordingly. Such proto-ostensive-inferential abilities in proto-humans will handle new expressive abilities in “speakers” without requiring simultaneous changes in “listeners”, thus relaxing chicken-and-egg constraints on language evolution.

Dendrophilia (Fitch 2014), if evolved for non-linguistic hierarchic-processing purposes, may similarly help bootstrapping the final step from proto-language to modern language.

Chicken-and-egg is a problem for language evolution only if communication is a coding-decoding process. Ostensive-inferential communication can handle substantial mismatches between speakers and hearers, separating chicken from eggs.

Fitch, W Tecumseh (2014) Toward a computational framework for cognitive biology: unifying approaches from cognitive neuroscience and comparative cognition. *Phys Life Reviews* 11:329-364

Moore, Richard (2016) Meaning and ostension in great ape gestural communication. *Animal Cognition* 19:223-231.

Scott-Phillips, T C (2015) Meaning in animal and human communication. *Animal Cognition* 18:801-805.