Locating the emergence of hominin pragmatic competence

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Interest in language has a recorded history stretching back to the ancient Greeks, and, as Chomsky rightly notes, 'the traditional description of language as sound with a meaning [is] traceable at least back to Aristotle' (1995: 2). In the intervening years, the study of 'grammar' encompassed inquiry into linguistic sounds and their patterns (phonetics and phonology), the internal structure of meaningful units (morphology), the relationships between these units (syntax) and the encoding of meanings (semantics). P*ragmatics*, the study of how speakers rely on shared contextual information in communication, was a lamentably late addition to the field of linguistic inquiry and the domain was only afforded a name in the last century (Morrison, 1938) and for much of its subsequent existence was considered an adjunct to the mainstream: a 'wastebasket' for problematic phenomena in Bar-Hillel's (1971) terminology.

In recent years, pragmatic competence has begun to be, rightly, seen as an indispensable component in understanding the evolution of language. However, a number of questions arise before the nature of the pragmatic role in language evolution can be fully established. The most fundamental of these concerns the relative temporal location of the emergence of pragmatic competence, and its consequences, in the interpretation and generation of linguistic structure.

It is now generally agreed that linguistic code is semantically underspecified and that, at the very least, effective communication relies upon pragmatic enrichment (Grice, 1967; Sperber & Wilson, 1986). Currently though, there is still disagreement among even those who place the role of pragmatics at the centre of the human capacity for language, as to the nature of its role, and thus evolutionary history. On the one hand, there is a school of thought which maintains that a 'proto presumption of relevance' emerged in precursor species prior to that of any form of language (e.g. Scott-Phillips, 2014; Scott-Phillips & Heintz, 2023). An alternative position posits the existence of an intermediate stage of pragmatic competence beyond the synthesis of simple immediate contextual information, but lacking the cognitive complexity of processing implicature (e.g. Bar-On, 2021). Finally, some (e.g. Carston, in prep) stress the primacy of hierarchical, structured syntax as a necessary impetus to kick start the pragmatic process required for the production and comprehension of modern language.

In all cases, pragmatic competence relies upon a number of pre-requisites including, firstly, a substantial willingness to cooperate in the exchange of information, and, following from this, a cognitive bias among interlocuters towards the presumption of shared relevance. A very rudimentary form of the first of these appears attested in the behaviour of chimpanzees and bonobos who (alone among primates) appear to have some capacity for latent collaboration (Melis et al., 2006; Gibson, 2012). Furthermore, they appear able to apply this basic cooperation to communication, and are capable of using context to determine the meaning of ambiguous gestures (Graham, in prep). However, evidence for more substantial cooperation only begins to be seen around 1.9 million years ago (mya) in the hominin clade with the appearance of *Homo erectus* (Tomasello, 2008; Tomasello et al., 2012) and species' specific concomitant cultural developments including the production and use of the first mode 2 tools (Beyene et al., 2013), coordinated hunting and scavenging, the first exodus out of Africa and possibly the controlled use of fire for the processing of food (Wynn, 2012; Wrangham, 2009). As this period is also associated with the earliest evolutionary adaptations for vocalisation, it is not implausible to posit the advent of protolanguage during the subsequent 500 thousand years during which these innovations arose (Bickerton, 2009; Tallerman, 2012).

However, the question that then surfaces is why, if these early hominins were cooperative and tuned to the presumption of relevance (and even had protolanguage), there was almost complete cultural stasis in the million years or so that followed from around 1.5 mya. As the archaeologist J. Desmond Clark is reported to have observed, if *H. erectus* had (proto)language then 'these ancient people were saying the same thing to each other, over and over and over again' (Stringer, 2011: 125). Whatever evolutionary adaptations had been bestowed upon this species, possibly including a vocal protolanguage, they were incapable of initiating a second punctuation of hominin equilibrium, which occurs only around 500 thousand years ago (kya). Pragmatic competence, in the form of 'expression unleashed' (Heintz & Scott-Phillips, 2023) alone, while necessary, was not sufficient for the transition to modern language. The problem is resolved if we conclude that at this point hominins underwent another major neuro-cognitive development that resulted in an enhanced cognition, again attested by the relatively sudden appearance of cultural changes. This cognitive machinery ultimately gives rise to multi-order intentionality, and only at this stage did the extant pragmatic (and other linguistic) capacities become utilised in the development of modern language.

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