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PRAGMATIC PLASTICITY: A PIVOTAL DESIGN FEATURE?

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Models developed to study the origins of language—both theoretical and computational—often tacitly assume that linguistic signals fully specify the meanings they communicate. They imply that ignoring the fact that this is not the case in actual language use is a justified simplification which can be made without significant consequences. By making this simplification, however, we miss out on the extensive explanatory potential of an empirically attested property of language: its pragmatic plasticity. In this short paper, I argue that pragmatic plasticity plays a substantial role in the evolution of language and discuss some of the key contributions this "design feature of language" (Hockett, 1960) has made to the success of linguistic communication.

Language exhibits pragmatic plasticity when the meaning a signal comes to communicate in a specific context differs from its conventional meaning—when the signal's conventional meaning under- and/or overspecifies the actually communicated meaning. Pragmatic plasticity may not be a feature pertaining to human language only, but I claim that, due to their highly developed ability to recognise common ground (Clark, 1996), it is employed by humans to a degree which cannot be found in animal communication. The same holds for conventionalisation, the process by means of which the meaning constructed in a specific context on the basis of a signal's pragmatic plasticity becomes enshrined as a new linguistic convention. The following aspects and consequences of pragmatic plasticity and its conventionalisation are thus particularly significant to language evolution:

1. *Creativity.* In effect, pragmatic plasticity is creative language use. It constitutes the major source of linguistic innovation. Theoretically, the presence of pragmatic plasticity is sufficient for language to be able to meet new communicative needs. Resorting to invention is not necessary.

2. *Adaptability.* Through pragmatic plasticity, linguistic conventions are adapted to novel contexts. This allows language to function as a communication system in the fast-changing dynamic environment of human societies. Frequently needed usages become more readily accessible—and language thus more efficient—through their conventionalisation.

3. *Expressivity.* Pragmatic plasticity means that novel meanings are expressed by using extant conventions in an under- and/or overspecified way. Once these novel usages become conventions themselves, they can exhibit pragmatic plasticity too, and thus make available yet another set of meanings not accessible before. This "ratchet-effect" (Tomasello, 1999) allows for the cumulative exploitation of ever new meaning spaces, and thus leads to a gradual increase of the number of meanings that can be expressed.

4. *Compression.* Articulation constitutes a bottleneck for linguistic communication (Levinson, 1995): meanings are transmitted via relatively slow physical channels (speech or gestures). Pragmatic plasticity accommodates this constraint by facilitating so-called lossy data compression: only information which cannot be inferred from context needs to be encoded in the linguistic signal—the rest can be left underspecified. Because we reason faster than we articulate, this increases the efficiency of linguistic communication.

5. *Symbolism.* A signal exhibits pragmatic plasticity even if it is not conventionally associated with a meaning (yet) and merely triggers the inference of meaning from the context. The conventionalisation of such maximally underspecified usage can lead to the emergence of symbolic associations.

6. *Grammaticalisation.* Pragmatic plasticity and conventionalisation are the origin of the semantic change found in grammaticalisation (Traugott & Dasher, 2005), the set of processes involved in the emergence of grammar.

7. *Ambiguity.* As it seems to be dysfunctional, ambiguity is often considered to pose an evolutionary puzzle (Hoefler, 2006). But only if we allow for ambiguity, novel usages can become conventionalised. Ambiguity is thus a crucial prerequisite for pragmatic plasticity to unfold its potential.

I conclude from these considerations that pragmatic plasticity and conventionalisation are pivotal to the emergence and evolution of language. They should therefore occupy a more central position in evolutionary linguists' models.

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