

Dialogue mis-alignment

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The idea that people make predictions during language comprehension at different levels is uncontroversial, evidenced by a vast psycholinguistic literature (Altmann and Kamide, 1999, a.o.), but long-range prediction also operates in explanations of production (e.g., Pickering and Garrod, 2013), as well as in the neuroscience of general cognition and artificial intelligence (Friston et al., 2021). However, it is also uncontroversial that we cannot, and should not, predict exactly what our interlocutors are going to say and when – otherwise there would be no need for us to converse at all. Divergence and uncertainty are the key motivational factors and sources of agents' exploratory activity rather than passive exploitation of current circumstances. For this reason, it is argued that people maintain a range of options as open perception or action possibilities to be able to act adaptively in an uncertain environment (see, e.g., Bruineberg et al., 2021; Friston et al., 2015; Pezzulo and Friston, 2019). Hence, even within an individual agent, there is no unequivocal convergence, in the sense of absolute commitment to a single perceptual judgement or a determined course of action.

This tension, between divergence and convergence in dialogue, has typically been addressed from the convergence perspective (Pickering and Garrod, 2004). However, corpus studies show that in ordinary dialogue people systematically diverge from one another, for example, in their use of syntactic structures (Healey et al., 2014; Green and Sun, 2021). In our view, repetition of words, sounds and other actions between people is not a matter of automatic priming. Instead, reuse of items that are more predictable in the local context form a background onto which projection of divergence and unpredictability becomes more efficiently differentiated and pursued.

Explaining interaction through convergence, alignment, or “common ground” as the duplication of propositional contents within each interlocutor's discourse model is, in our view, an artifact of the view of language under the assumptions of a code model. Our alternative characterisation of language takes an action-oriented perspective where the goal of interaction is not to derive converging shared representations of denotational content. Instead, the role of verbal actions is to mesh with other sociomaterial resources to allow the action coordination of agents, which might involve not only synchronisation and complementarity, rather than repetition, but also adaptability in the sense of functionally deploying underspecification as a tool for exploration and ‘solution probing’ (Steffensen et al., 2016). Nor do we presume higher-order reasoning capacities for successful communication. Instead, in our process-based framework, linguistic skills allow access to multimodal affordances for interaction (see, e.g., Bruineberg et al., 2019; Gregoromichelaki et al., 2019; 2020a,b).

We present corpus and experimental data (Healey et al., 2018) supporting this view of a continuous self-reflexive process of making predictions and checking for mismatches (cf. Pickering and Garrod, 2013). This leads to characteristic phenomena of dialogue including repair and backchannels (Howes and Eshghi, 2021), split utterances (Kempson et al., 2016), and repetition (Tannen, 2007), which, together, serve to move conversations forward.

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