

Common Ground and Perspective-taking in Real-time Language Processing

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Successful communication would seem to require that speakers and listeners distinguish between their own knowledge, commitments and intentions, and those of their interlocutors. A particularly important distinction is between shared knowledge (common ground) and private knowledge (privileged ground). Keeping track of what is shared and what is privileged might seem too computationally expensive and too memory intensive to inform real-time language processing--a position supported by striking experimental evidence that speakers and listeners act egocentrically, showing strong and seemingly inappropriate intrusions from their own privileged ground. I'll review recent results from my laboratory using unscripted conversation demonstrating that (1) speaker's utterances provide evidence about whether they believe information is shared or privileged; and (2) addressees are extremely sensitive to this evidence. I'll suggest an integrative framework that explains discrepancies in the literature and might be informative for researchers in the computational dialogue community.