Remembering Conversation in Group Settings

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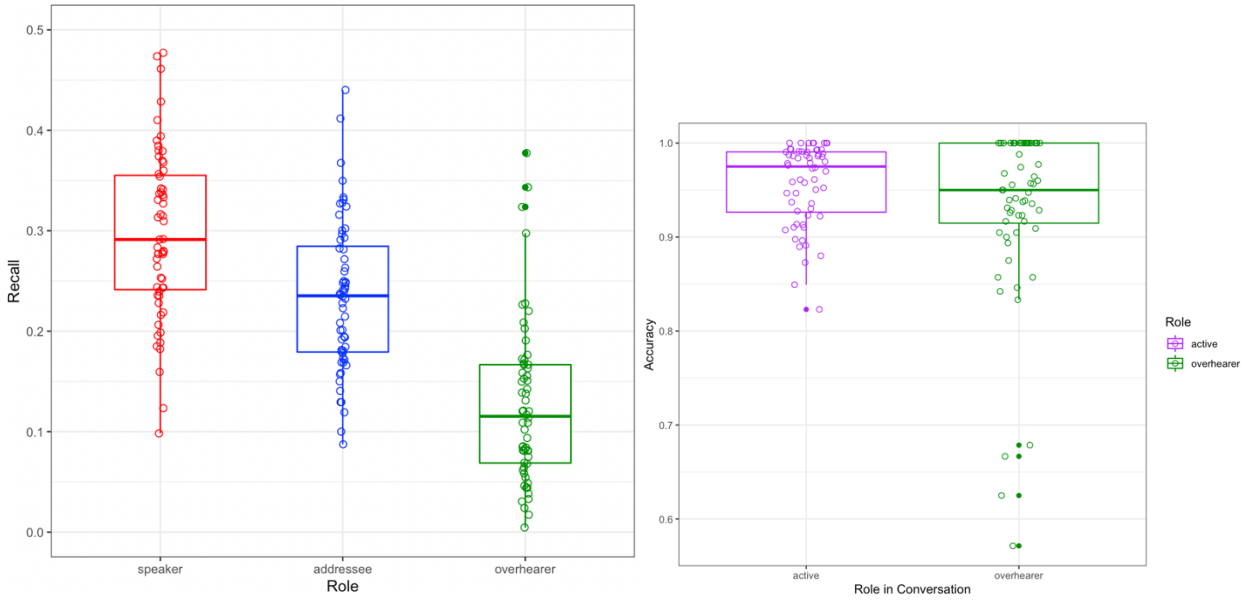
Conversational memory is a common and critically important type of evidence in legal settings and other governmental proceedings (Davis & Friedman, 2007). Conversations often take place in groups, and participants can take on various roles – some more active, and some passive, like when one is an overhearer. Overhearing typically involves managing the dual demands of listening in while simultaneously continuing one's primary task. It is well known that multitasking is likely to impair memory in overhearers, but we don't know which aspects of memory will be affected. Classic studies demonstrate that overhearers do not comprehend conversation as well as active participants (Schober & Clark, 1989). Little is known, however, about memory for conversations in overhearers. We examine—for the first time—the impact of one's role as speaker, addressee, or overhearer on memory for conversation. We employ a recall procedure to probe conversational memory in which participants are asked to recall (in writing) as much of a prior conversation as possible. A key finding in this literature is that memory for what a person said in conversation themselves is often superior to memory for what was said to them (Ross & Sicoly, 1979, *inter alia*). We predicted that participants who are privy to the entire conversation but experience it in the role of an overhearer are not in a position to participate in the formation of common ground for the conversational exchange (Wilkes-Gibbs & Clark, 1992), and as a result, would have limited memory for the conversation. Given prior work, we also predicted speakers would have better memory than addressees (Zormpa, et al. 2019).

Method. 20 groups of 3 participants (Ps) engaged in a total of 60 conversations in English in pairs while the 3rd P was seated in the same room. Conversations were unscripted, but Ps were given prompts to get the conversation started. Each group engaged in three 5-min conversations, rotating each time who played the role of overhearer. We mimicked real-world situations where an overhearer is preoccupied with another task but is nearby and able to listen to the entire conversation. The selected task (computerized chess) did not have an auditory component, was reasonably familiar, and did not require rapid visual processing so that overhearers would be occupied with that task but not distracted to the point where they could not listen to the conversation. After a brief delay, the Ps were separated, brought to a new room, and asked to recall the contents of all three conversations in writing, one at a time.

Results. Conversations and recalls were broken into idea units (roughly, phrases) following standard conventions (Stafford et al., 1989). Conversations were compared to recalls to assess completeness (see **Figures**) and accuracy. GLMM analysis revealed that of 13K conversation idea units from 60 conversations, overhearers recalled significantly fewer idea units (12%) compared to active Ps (26%), $b = 1.69$, $z = 11.13$. In addition, speakers accurately recalled significantly more idea units (30%) than addressees (23%), $b = 0.44$, $z = 8.55$. The recalls were highly accurate, with a small difference in accuracy between active Ps (speakers and addressees, 95.8% accurate) and overhearers (92.5%, $b = 0.44$, $z = 1.961$). Of accurate recalls that attributed a source (e.g. *He mentioned that…*), accuracy of source identification was higher for active Ps (speakers = 96.5%; addressees = 96.1%) than overhearers (90.0%, $b = 1.42$, $z = 4.07$), with no significant difference between speakers and addressees ($b = .06$, $z = 0.48$).

Conclusions. Consistent with theoretical arguments that overhearers are limited in the degree to which they can form common ground for conversation, we find that overhearers recall significantly less content from conversation compared to active participants. Accuracy was high, though weaker in overhearers. The ability to accurately and completely recall a conversation is relevant to daily activities such as keeping up with friendships, but can also be relevant in certain business, law enforcement, and political settings where there is a need to uncover the content of a past communicative exchange. Here, we show that active conversational participants – and in particular, speakers – are best positioned to provide a complete recall of a prior conversation, compared to a person who overheard the same exchange.



Figures. *Left panel:* Recall completeness for the 13,239 idea units across 60 conversations as a function of participant role (speaker, addressee, overhearer). Individual participant means indicated by circles. *Right panel*: Recall accuracy for the 9473 recall idea units across as a function of participant role (active participant, overhearer). Participant means indicated by circles. Note that the speaker/addressee role is undefined for incorrect recalls, thus we collapse speaker and addressee into the "active participant" category in the accuracy analysis.

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