Group membership impact on referential communication

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Arriving at the speaker's intended meaning involves linguistic, cognitive and social processes, which include incorporating knowledge of the speaker's identity. Previous research focused on social characteristics of the speaker or listener, but often overlooked effects of group membership and specifically intergroup interactions (i.e., when speaker and listener are part of different social groups). These interactions have been shown to interfere with theory of mind abilities [1].

In this study, we explore a well-tested case, which is directly related to ToM abilities, the communication of referring expressions. To effectively use referents, interlocutors have to consider if objects are shared or privileged. This requires representing the knowledge of the others [2]. If the ability to represent the knowledge of outgroup members declines, then a more egocentric perspective is expected in intergroup settings.

To test this hypothesis, we employed the Director's Task [3]. In this task, participants are presented with an array of objects (Fig. 1). A confederate director instructs them on which object to choose. Critically, some objects are privileged only to the participants. In critical trials, privileged objects are competitors for the target object. If participants represent the director's perspective, they should ignore those objects. Yet, previous studies have shown that participants do consider the competitor to some extent [4]. We assume both more errors and longer processing times when interacting with an outgroup member than when interacting with a neutral speaker.

We conducted an online experiment (N=72 out of expected 90) in English. Participants were American native English speakers who identified as Democrats. To avoid intergroup task effects, we divided the participants into three groups: (i) an ingroup condition where the director was a member of their group, (ii) an outgroup condition where the director was a member of the other group, (iii) a control group, to serve as a baseline (no party affiliation mentioned).

In the experimental groups, participants first had to indicate their political affiliation by clicking on the appropriate party logo. All the participants were then told they will play a "game" with another player (who was actually a virtual-decoy) who played as the director in the game. In the experimental groups, the party affiliation of the speaker was constantly highlighted (Fig. 1).

We modelled the rates of correct (non-privileged) responses with a fixed effect of group (control/ingroup/outgroup; Fig 2a.). The model did not reveal an effect of group (p = 0.11). We then modelled the RTs for correct responses in both control (no privileged option) and critical trials with fixed effects of group and trial-type, as well as the interaction between the two (Fig 2b.). The model revealed an interaction ($p < 0.05$) where RTs for critical trials were significantly longer than for control trials in the outgroup condition ($p < 0.05$), but not in the ingroup and control conditions. There were no main effects of group or trial type (p =0.64 and p = 0.51).

Our preliminary results show that a high-threat intergroup setting impacted the processing time of referring expressions, though it did not affect accuracy. This suggests an egocentric perspective is considered more often in cases where the speaker is an outgroup member, perhaps due to difficulty in representing the knowledge of the speaker. This processing cost can, in turn, result in more inefficient communication.

Notably, Savitsky et al. (2010, [5]) suggested increased familiarity between interlocutors (friends rather than strangers) causes listeners to adopt a more egocentric perspective. They argued that listeners erroneously attributed a similar perspective to their more familiar interlocutors. Thus, these results are interesting in showing: (a) that an egocentric perspective may also be reached by a lesser identification with the speaker; and (b) that increased *similarity* between the interlocutors in terms of group membership (i.e., ingroup interactions) do not lead to the adoption of egocentric perspectives. This may suggest a difference between two types of 'familiarity' - frequency of interaction or similarity between interlocutors [6].

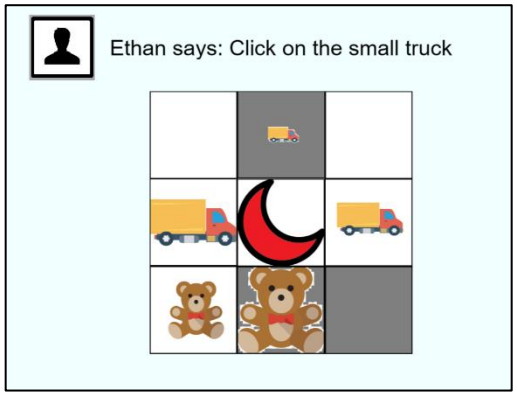

Fig 1. An example of a critical trial in the control group – the smallest truck is privileged (as indicated by the grey background) so an accurate response would be to choose the medium sized truck. In the experimental groups the picture beside the name was the logo party.

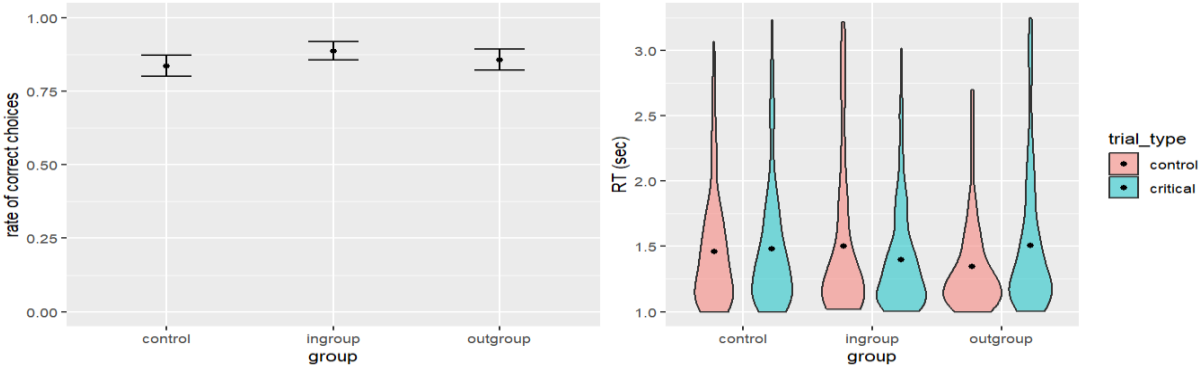

Fig 2. a. rate of correct responses in critical trials by group; b. RT for correct responses in the control and critical trials.

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