

Linguistic preference outcompetes alignment as a predictor for assessing others' cooperativeness

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An important quality to assess in others is their cooperativeness. Since linguistic communication requires a high degree of cooperation between interaction partners (Fitch 2010, Grice 1975, Knight 2016), people may use linguistic markers in their partners' speech as an indicator of their cooperativeness in other tasks (Roberts 2013). Further, linguistic markers can be used to assess others' in-group membership, and we tend to trust and cooperate with in-group members more than with out-group members (Balliet 2014, Evans 2009). But what exactly are the characteristics of language that may be important to assess others' cooperativeness?

We hypothesize that people are more likely to cooperate with individuals that align with them linguistically, i.e. share lexical or syntactic choices (Pickering & Garrod 2004). Such correlations have already been observed with respect to task success (Reitter & Moore 2014), and we expect that the same positive relationship exists between language and cooperation.

To test this, we conducted an online experiment with 100 native English-speaking participants. First, we determined the participants' preferred syntactic construction for describing a ditransitive event (to-dative vs. double-object construction). Then, each participant communicated with two other interaction partners (who were in fact standardized chatbots) in a picture-naming task (Bock 1986), in which the participants and the bots took turns describing pictures that represented ditransitive events. One bot aligned its language use to the syntactic constructions used by the participants, and the other one didn't. Crucially, when describing the pictures, half of the participants were forced to use their previously determined preferred syntactic construction, whereas, as a control, the other half was forced to use their dispreferred construction. This means that for half of the participants, the aligning bot accommodated to the participants' preferred construction and for the other half, the aligning bot accommodated to the participants' dispreferred construction. After each communicative interaction, participants decided in a two-alternative forced choice task with which of the two partners they would like to play a cooperation game that determined the financial bonus that they would receive for participation. The participants' choices in this task were our main variable of interest. We predicted that linguistically aligning communication partners would be preferred as cooperation partners over non-aligning ones.

Our results confirmed this prediction only partially: aligning partners were only chosen significantly above chance (mean 77.0% ± 95% confidence interval 8.0%) when participants could use their preferred constructions but significantly below chance (mean 40.7% ± 95% confidence interval 9.1%) when they were forced to use their dispreferred constructions. This indicates that participants' natural linguistic preference was a more important predictor of partner choice than alignment.

Thus, in natural conversations, where people usually use their preferred constructions, alignment is expected to positively influence perceived cooperativeness. However, the reason for this effect is most likely not that people value the cognitive effort that others make to align with them but rather that people use linguistic similarity as an indicator of in-group membership. This has important implications for communications in intercultural settings where in- and out-group members negotiate cooperative actions.

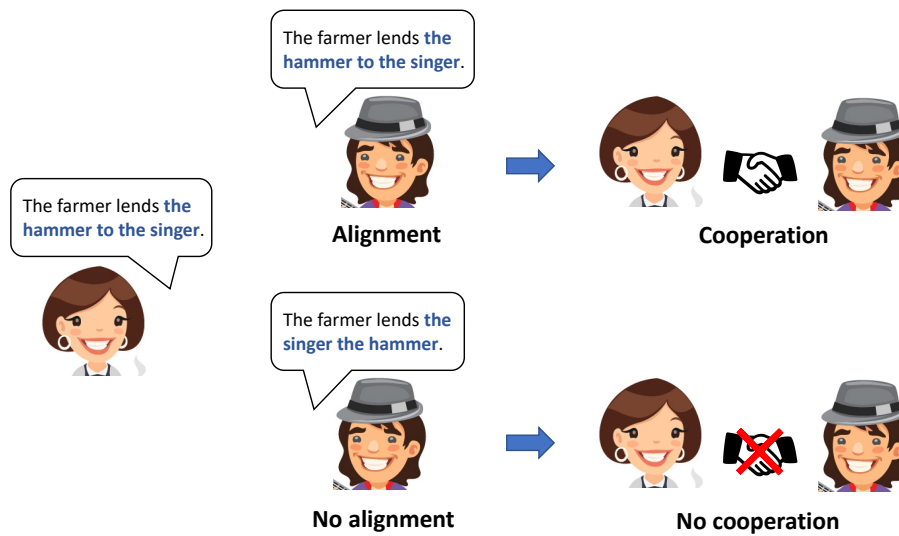


Figure 1. Experimental design and predictions. The predictions were only confirmed for those participants that could communicate using their naturally preferred constructions but not for those participants that were forced to communicate using their dispreferred constructions.

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