Psychological proximity guides multimodal communication in interactive settings

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Traditional accounts posit that demonstratives signal *spatial distance* [1], while recently it has been argued that they signal *psychological proximity* [2]. We tease these apart using naturalistic materials by testing demonstrative and pointing use in Turkish where "şu" (the middle demonstrative) is theorised to be used to redirect the listener's attention towards the intended referent, alongside pointing [3,4].

Experiment: 58 Turkish speakers saw 48 videos in which a speaker and listener stood across a table with 4 identical objects (Fig. 1). Participants played the speaker role, requesting a target object (in the circle) from the listener by completing the phrase ("Now I need…") with "bu", "şu" or "o" (i.e., 'this one', 'that one' and 'that one over there'). We manipulated the listener/target position (1-4), the listener's perspective (aligned or misaligned) and use of pointing for a fully crossed design.

Results: Our LMER model of Şu Choice with Pointing, Position and Perspective as FE revealed main effects of Pointing, Perspective and Position (p's<.001) with şu selected more with pointing, in misaligned trials and in middle positions. There were also Pointing x Position and Position x Perspective interactions (p's<.05) where Pointing and Visual Perspective had a greater influence on şu choice in more distant positions, perhaps because in close proximity interlocutors rely on subtle eye/head movements. Bu and O models did not reveal greater use in misaligned trials, supporting the idea that şu is used for attention correction in Turkish.
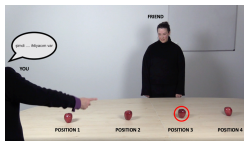

Figure 1: Trial with misaligned perspectives and pointing. Video link: https://osf.io/s7dq3.

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