

## **When another person's perspective interferes with one's own: Evidence for automatic spatial perspective taking**

**Xuan Zhao**

Brown University, Providence, Rhode Island, U.S.

**Bertram Malle**

Brown University, Providence, Rhode Island, U.S.

**Abstract:** People can adopt someone else's spatial perspective and judge whether an object is on the person's left or right. Such level-2 perspective taking has been considered effortful, but our studies find evidence for automatic perspective taking and reveal some conditions of this automaticity.

Participants watched videos showing four objects on a square table and an agent sitting somewhere around the table. Agents were either (1) merely present, (2) gazed at, or (3) reached for a random object. Encouraged to ignore the agent, participants made speeded judgments of whether an object was on their own left/right. On congruent trials the correct answer was the same for self and other; on incongruent trials it was opposite. Self-perspective judgments were slower and more erroneous on incongruent trials, indicating an other-to-self interference and thus automatic perspective taking—but most strongly for the reach condition, partially for the gaze condition, and not for the mere-presence condition.