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Shared perceptual decisions exhibit an animacy bias

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Abstract

This study investigates social context's effect on human perceptual decision-making in animacy recognition, a crucial skill for identifying potential social interaction partners. Visual cues, particularly goal-directed and synchronized motion, are essential in animacy inference. We hypothesize a bias (evidenced by response frequency, response time, and confidence levels) toward perceiving motion as animate when in the presence of others. Participants assess animations featuring two moving disks engaging in interactions characterized by varying degrees of synchronized and goal-directed motion. These assessments are conducted individually and alongside another participant performing the same task. During each animation, participants indicate via button press whether they perceive the disks as being alive. Subsequently, they rate their confidence in their response using a 1-5 Likert Scale. By employing Bayesian and Drift Diffusion Models, we aim to uncover how the presence of others impacts animacy perception, thereby shedding light on the role of social factors in perceptual decision-making.