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# **Proceedings of the Annual Meeting of the Cognitive Science Society**

## **Title**

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## **Permalink**

https://escholarship.org/uc/item/73d0p9qn

## **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 46(0)

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## **Publication Date**

2024

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Peer reviewed

## The relationship between non-verbal alignment and cooperativeness in a game theory-based TV show

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#### **Abstract**

Throughout evolutionary history, and in everyday lives, it has been a crucial task to identify good and reliable cooperation partners. A good way of assessing potential partners' quality and willingness is to engage in conversation with them. We investigated if non-verbal behaviours during such conversations can be reliable indicators of interactants' cooperativeness – in contrast to the semantic content of utterances that can be easily faked. Specifically, we predicted that interactants who align in their use of non-verbal behaviours would also act more cooperatively in other tasks beyond the conversation. To test this, we analyzed gestures in the British TV game show Golden Balls, where contestants discussed and faced a game-theoretic decision to split or steal a monetary prize. Results suggest that individuals choosing to split indeed align their non-verbal behaviours more than those choosing to steal. This implies that subtle movements can serve as reliable indicators of trustworthy cooperation partners.