

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Theory of Mind (ToM) and motivation in Human-AI interaction

Permalink

<https://escholarship.org/uc/item/5p13x4p8>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 48(0)

Authors

Bosco, Francesca Marina

Boldi, Arianna

Silacci, Alessandro

et al.

Publication Date

2026

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Theory of Mind (ToM) and motivation in Human-AI interaction

Bosco Francesca M.^{1,2} Boldi Arianna³, Alessandro Silacci³, Maurizio Caon³

¹ University of Turin, Department of Psychology, GIPSI Research Group, Italy

² Neuroscience Institute of Turin (NIT), Italy

³ Haute Ecole Spécialisée de Suisse Occidentale (HES-SO), Digital Business Center, School of Management Fribourg, Switzerland

Keywords: Theory of Mind; Human-AI collaboration.

Abstract:

A previous study (Silacci et al. 2026) investigated the effectiveness of Simulated Exercising Peers (SEPs)—AI-powered virtual agents designed to provide social support in promoting physical activity. Participants have a weekly goal of 10.000 steps and their behavior is tracked using a custom mobile app exercise across different conditions: alone with no peer, with another human peer, with a human-like virtual peer or with a cyborg-like virtual peer. Results showed that AI simulated peers offered more consistent encouragement and stronger working alliances, whereas human peers were perceived as more authentic, with both supporting physical activity through complementary motivational pathways.

In the present investigation, we assess Theory of Mind (ToM) through post-hoc semi-structured, validated interview (Bosco et al. 2016) administered to participants from the previous experiment. Our preliminary results show that greater performance in ToM correlates with the perceived relatedness experienced during the intervention across the conditions.