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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 38(0)

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Publication Date

2016

Peer reviewed

Linguistic alignment with artificial entities in the context of second language acquisition

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Abstract: Native-speakers often adapt to non-natives in order to foster mutual understanding and successful communication, sometimes with the negative outcome of interfering with successful second language acquisition (SLA) on a native-speaker level. In two experimental studies we explored the potential of artificial tutors to avoid inhibition effects and exploit linguistic alignment processes in HCI for SLA. Study 1 (n=130 non-native speakers) investigated the influence of system voice (text-to-speech vs. pre-recorded speech) and embodiment (virtual agent vs. robot vs. speech based interaction) on participants' perception of the system, their motivation, their lexical and syntactical alignment during interaction and their learning effect after the interaction, while in Study 2 (n=85) embodiment and the presence of expressive nonverbal behavior were varied. The variation of system characteristics had barely influence on the evaluation of the system or participants' alignment behavior. Moreover, although participants linguistically aligned this did not result in significant short-term learning effects.