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Title: Transformed Social Interaction and the Cyranoid: The Impact of Non-Verbal

Behavior on Persuasion in an Immersive Virtual Environment

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ABSTRACT

We are all familiar with the story of Cyrano de Bergerac who loved Rosalyn, but provided prose to help another man to woo her. From his name, Stanley Milgram coined the term "cyranoid" to describe an intermediary that communicates with a target using the words or non-verbal behavior of another individual. To examine the use of a cyranoid in social interaction, Milgram conducted a study in which participants interacted with an individual who, unbeknownst to them, was a cyranoid whose words were being controlled by a third party. Milgram described cyranoids as: "People who do not speak thoughts originating in their own central nervous system: Rather, the words they speak originate in the mind of another person who transmits these words to the cyranoid by radio transmission" (Milgram, Sabini, & Silver, 1992).

In the present research, two studies examined the impact of Transformed Social Interaction (TSI; changing the nature of a social interaction by altering how individuals are rendered to perceivers in an Immersive Virtual Environment; Bailenson, Beall, Loomis, Blascovich, & Turk, 2004) on persuasion via the use of a cyranoid. In this case, a research assistant attempted to persuade two research participants on a counter-attitudinal topic during a multi-person interaction in an Immersive Virtual Environment (IVE).

We employed a cyranoid to communicate via the rendered head movements of the research assistant. The cyranoid attempted to provide persuasive head movements to accompany the persuasive passage read by the research assistant to the two research participants. The cyranoid was instructed to engage a particular participant during the interaction. We expected that targeted non-verbal engagement by a third party (i.e., the cyranoid) would be more persuasive than a natural interaction (no TSI), an augmented TSI in which the persuader appeared to stare at all targets in the interaction 100% of the time, or a reduced TSI in which the persuader appeared to look away from the targets 100% of time. We expected this because a cyranoid can provide tailored non-verbal engagement because she does not have to split her attention between words and movements – the cyranoid's sole duty was to engage the target non-verbally.

Results indicated that as compared to the other conditions, participants who were engaged by the cyranoid remembered more details of the persuasive passage, engaged in more mutual gaze with the persuader, liked the persuader better, and perceived more engagement via eye-contact. Additionally, participants were more persuaded as compared to the no TSI interaction (i.e., natural interaction) but not more so than the augmented

TSI condition. Our second study replicated and expanded on these findings by

demonstrating that a cyranoid who is knowledgeable about non-verbal behavior and

persuasion is more effective than one who is not. Thus, the results of this study have

several implications for computer-supported social interaction and group processes.

References

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