



DEPARTMENT OF
PSYCHOLOGY
Illinois State University

The Department of Psychology & CBS Colloquium Series

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Examining The Effects of Altered Avatars on Perception-Action in Virtual Reality

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Human Factors is concerned with the application of what we know about people to the design of equipment they use, environments in which they function, and jobs they perform. One such environment, that is becoming much more prevalent, is virtual reality. In virtual reality avatars are animated graphical representation of a person embedded in a virtual environment. Previous research has illustrated the benefits of having an avatar when perceiving aspects of virtual reality. We studied the effect that a non-faithful, or altered, avatar had on the perception of one's action capabilities in VR. In Experiment 1, one group of participants acted with a normal, or faithful, avatar and the other group of participants used an avatar with an extended arm, all in virtual reality. In Experiment 2, the same methodology and procedure was used as in Experiment 1, except only the calibration phase occurred in VR, while the remaining reaches were completed in the real world. All participants performed reaches to various distances. The results of these studies show that calibration to altered dimensions of avatars is possible after receiving feedback while acting with the altered avatar. Further, calibration occurred more quickly when feedback was initially used to transition from a normal avatar to an altered avatar than when later transitioning from the altered avatar arm back to the normal avatar arm without feedback. The implications of these findings for training in virtual reality simulations and transfer back to the real world will also be discussed.



**Friday,
September 8, 2017
2:00 p.m.
48 Degarmo Hall**

*Sponsored by the
Department of Psychology*

If you need a special accommodation to participate in this program, please contact the Psychology Department at (309) 438-8651. Please allow sufficient time to arrange the accommodation.