

Immersed In The News: The Effect of Sensorimotor Contingencies in Virtual Reality Immersive Journalism on Empathetic Reactions and the Mediating Role of Presence

Abstract

The rise of Virtual Reality (VR) and its popularization as a potential empathy machine calls for further research into emerging immersion features that generate sensorimotor contingencies (SC) in VR. The current study examined the role of SC in VR, focusing on high vs. low SC formats, their effect on Empathetic Reactions, and the mediating role of presence. A between-subjects experiment design was used to test whether individuals (N = 70) showed stronger Empathetic Reactions towards a VR documentary's narrator after exposure to one of two SC conditions. The high SC condition allowed individuals to walk and explore the virtual environment, whereas the low SC condition restricted individuals' movements. Results showed significant positive direct and indirect effects of exposure to a documentary in the high SC format on Empathetic Reactions and level of presence. A partial mediation of presence on the influence of SC condition on empathy measured with adapted Interpersonal Reactivity Index was confirmed, supporting all hypotheses.