

Virtual reality could help people lose weight, fight prejudice, research says

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(Medical Xpress)—Internet-based interactive games and social media outlets have become intertwined with the physical realities of millions of people around the world. When an individual strongly identifies with the cyber representation of themselves, known as an avatar, the electronic doppelganger can influence that person's health and appearance, according to a University of Missouri researcher's study. Harnessing the power of the virtual world could lead to new forms of obesity treatment and help break down racial and sexual prejudices.

"The creation of an avatar allows an individual to try on a new appearance and persona, with little risk or effort," said Elizabeth Behm-Morawitz, assistant professor of communication in MU's College of Arts and Science. "That alter-ego can then have a positive influence on a person's life. For example, people seeking to lose weight could create fitter avatars to help visualize themselves as slimmer and healthier."

In Behm-Morawitz's study, 279 users of a virtual reality community, [Second Life](#), answered a questionnaire about their engagement with their avatar and relationships they developed online, as well as their offline health, appearance and emotional well-being. Self-presence, or the degree to which users experienced their avatars as an extension of themselves, was found to predict the influence of the avatar on people's [physical reality](#). A strong sense of self-presence in the social virtual world positively promoted health and well-being of study participants. People with high degrees of self-presence in the cyber world reported that their experience with their avatar improved how they felt about

themselves offline. Self-presence also correlated to greater satisfaction with online relationships.

"This study found no evidence of negative effects of a high degree of self-presence in the [virtual world](#) on [study participants](#); however, that doesn't rule out the possibility," said Behm-Morowitz. "Users should practice moderation. Virtual entertainment, like other forms of diversion such as books or television, can be used in unhealthy ways."

Further research by Behm-Morowitz on virtual worlds will look at how avatars may be used to encourage tolerance of diversity. A person's race, gender or ethnicity can be altered in the virtual reality world and they can be put into simulated situations where they suffer prejudice and discrimination. Avatars can create the modern version of the book *Black Like Me*, in which the Caucasian author darkened his skin to experience life as an African-American in the Deep South of the 1950s.

"I am also interested in studying how using an avatar with a different race or ethnicity may increase empathy and decrease prejudice," said Behm-Morowitz. "This may occur through the process of identification with an avatar that is different from oneself, or through a virtual simulation that allows individuals to experience discrimination as a member of a non-dominant group might experience it."

Provided by University of Missouri-Columbia

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