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Kelly Grace Bast
College of DuPage

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by Kelly Grace Bast

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"Walking a mile in another person's shoes" means to experience, or try to imagine, the world from another person's point of view. The phrase is used when cautioning someone to consider another perspective, perhaps before criticizing it, or to persuade someone to a course of action. A few factors are involved to make the practice effective. First, it depends on the individual's ability to mentally construct a realistic situation. It can be difficult for some to imagine a perspective other than their own, as it is contingent on the person's willingness to remove their own personal opinions from the scenario, or the tendency to warp the situation to a more accommodating, comfortable one, which they are not challenged to confront. Therefore, the practice has been limited in its ability to affect the individual's perspective. The implementation of virtual reality technology to construct realistic simulations can prove a valuable tool in understanding others' perspectives, both of individuals and groups, leading to more empathetic actions.

Virtual reality (VR) is not always considered useful and practical technology; many view it as simply the next evolution of immersive video games for pure entertainment. Brands like Oculus Rift and HTC Vive are the current frontrunners in VR technology, providing immersive game play in virtual sports, action adventure games, digital art, and even relaxing, meditative scenery. However, the capability of VR to simulate any environment, both visually and auditorily, has the possibility of changing people's minds, and maybe their hearts, through the use of virtual reality perspective-taking (VRPT).

To be accepted as a useful, practical device, it needs to be established that VRPT is effective in enabling people to walk in another's shoes. The ability to create thought experiments is the subject of a 2017 study, which suggests the use of VR as a better method than imagination alone (Ramirez).[1] Ramirez argues that since different subjects are unable to simulate the same "background" content, the resulting judgements will not be reliable (p. 515). He suggests that the use of VR to create the exact same situation cuts out the varying details. "Accuracy here means that the experience successfully mimics the relevant situational features in such a way as to allow them to affect a subject's experience subdoxastically" (Ramirez, p. 521).[2]

If VR can create a realistic situation to elicit authentic, accurate responses from participants, what can the technology be used to accomplish? Studies using VRPT have found it can reduce prejudice and bias, and increase helping behavior (van Loon, Bailenson, Zaki, Bostick, & Willer, 2018, p. 3). The next two studies detail the impact VRPT can have on empathy. The first study measures cognitive empathy for specific people, and the second, empathy for a certain group or class. The former deals with empathy for people in similar situations to oneself, which will inevitably affect the actions taken toward those people. The latter is a study on the self-reported empathy agents experienced toward the homeless, and whether or not the VR technology increased the chances of those participants' acting on those empathetic feelings in real-life actions.

In a 2018 study, undergraduate students participated to help observe the prosocial behavior of those who took on the point of view of a hypothetical student. It also considered the level of immersion the participant experienced in the virtual simulation. Using the HTC Vive headset, participants embodied either "Steve" or "James." They interacted with their virtual avatar, such as looking in a mirror and placing virtual items around the simulated room; this was intended to "invoke 'body transfer'" (van Loon et al., p. 5). Participants then had to deliver a speech in front of a

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classroom as their embodied person, working only off of bullet points. The researchers believed this would allow participants to be cognitively engaged, while adhering to the focus of the experiment (van Loon et al., p. 6). The participants were asked to play a series of games paired with either Steve or James, and their actions (empathetic to the other player or not) were measured. Some were paired with the character they had embodied, some were not. The conclusion discovered that the level of empathy, or taking the perspective of another, was dependent on how present the player felt in the virtual world, and on the condition that they interacted with the same character they had embodied earlier (van Loon et al., p. 13).

The second study compared VRPT to traditional narrative-based perspective-taking, both immediately after the task and throughout the following eight weeks (Herrera et al., p. 6). The researchers hypothesized "that the more immersive the perspective-taking task, the more empathy and prosocial behaviors participants would exhibit toward the homeless" (Herrera, Bailenson, Weisz, Ogle, & Zaki, 2018, p. 28). Participants were presented with a narrative—a day in the life of someone living out of their car. One set experienced it through VR, and another set only read the narrative. They were questioned immediately, and received several tests over the next eight weeks. Results showed that the two sets reported similar levels of empathy toward the homeless immediately after the intervention. However, the empathy of those who had only read the narrative deteriorated over the two months, while the VR group's remained strong. Also, as opposed to the "less immersive perspective-taking," experiencing the simulated environment produced "significantly higher proportion of participants exhibiting helpful behaviors toward the homeless" (Herrena et al., p. 28).

These studies support the use of VR to increase empathy. They also touch on the ability to induce real world actions in response. But what specific instances could be affected by the technology in the everyday lives of people? One area that is being impacted is journalism. A study from Sundar, Kang, and Oprean posits that "heightening the senses of being-there, interaction, and realism can trigger positive heuristics, which carry over to readers' judgments of content credibility" (2018, p. 673). The researchers presented participants with an article from the *New York Times* in text, 360°-video,[3] and full interactive VR. They predicted VR would yield the highest sense of "being-there" (Sundar et al., p. 673), and text the lowest. This proved to be true, despite the use of text that was "rich with imagery" (Sundar et al., p. 678). Sundar et al. explained that "when individuals receive multimodal inputs to their senses, as well as ability to explore the story environment by their actions, they experience greater sense of embodiment in the story" (p. 678). This ability to let viewers across the world experience what it is like in another country or economic situation could affect that person's own perspective and change his behavior in accordance. For example, participants in a VR water conservation game "tended to have higher levels of affective response and intention to modify their behavior for conserving water" (Hsu, Tseng, & Kang, 2018, p. 201).

VRPT has been shown to increase empathy in many studies, and is creeping its way to more common use, but there are concerns that come with the technological territory. In journalism, there is a great amount of trust put upon those constructing the virtual experience to accurately portray the situation. There is the danger of the technology being taken advantage of to wrongfully manipulate people for personal gain, instead of simply educating them objectively. VR also cannot allow people to take on the character of another person, meaning that "a brave individual experiences a situation differently from a cowardly one" (Ramirez, p. 514). Therefore, the knowledge and resulting empathy gained from VRPT should be taken with a grain of salt to ensure the integrity of the technology, as it is only as truthful and reliable as the person utilizing it. With these cautions in mind, VR can continue to evolve the way people relate to one another and experience empathy, even across continents. Hopefully, people will take more empathetic actions that they may never have considered otherwise, because VR will enable them to "walk in another's shoes."

Notes

1. A thought experiment is used to propose a certain scenario for the purpose of predicting consequences of actions. They are used in many fields for many reasons, such as physics to question what we know about the laws of nature, or in psychology to better understand the human mind.
2. The prefix "sub-" is from the Latin for "below" while the word "doxastic" means of or pertaining to a belief. Therefore, in this context, "subdoxastic" refers to underlying assumptions.
3. 360°-video is a medium in which the viewer may pivot in place to view a photo or video as if one is standing in it. This technology is set apart from full VR, in that one is not able to interact with the environment in 360°-video.

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