Morality: Do your worst, virtually

Read more: *Special report: Morality put to the test*

*Immersive virtual reality technology allows researchers to see how people respond to real and risky moral dilemmas, says **Samantha Murphy***

WHAT would you do if you came upon a fight between a violent attacker and a weaker victim? Would you intervene? Go for help? Or merely join the crowd of onlookers? Now that you've determined your answer, think a bit deeper. Is that really what you would do, or is it only what you think you would do? It's a question that plagues morality research: how do we differentiate moral behaviour from moral judgement when the hypothetical dilemma cannot be replicated without risk of harm to the participants?

Enter immersive virtual reality (IVR). Though you might think people would act differently in virtual situations, studies consistently show that they react just as they would in real life, as long as the environments seem realistic enough.

Simulated truth

For example, Mel Slater of the University of Barcelona, Spain, and University College London, has used IVR to recreate some of psychology's most controversial experiments, including the 1960s obedience experiments by Stanley Milgram in which participants were instructed by an authority to administer what they believed were real electric shocks to other study participants.

> " The most controversial experiments in psychology are being recreated virtually "

find themselves reluctant to administer virtual electric shocks.

This is why IVR is becoming an extrememly useful tool for researchers. Sylvia Xueni Pan of University College London is excited by its potential to shed light on the role of emotion. "Most moral dilemma tests reveal how people think," she says. "In real life our behaviours are driven not only by what we consciously think, but also how we feel. Sometimes, this feeling is so strong that it overtakes the rational side of us and drives our behaviours directly."

For instance, take the classic dilemma, in which a runaway trolley is about to kill five people unless you throw a switch and divert it to another track, where it will kill just one (discussed by Peter Singer on page 41). Most people agree that sacrificing one life for five is the right thing to do - but would you actually throw the switch when it came down to it or would emotions stop you? This is what Pan aims to find out.

Meanwhile, Kathryn Segovia, a researcher at the Virtual Human Interaction Lab at Stanford University in California, has been using IVR to study moral identity. The importance an individual places on morality was thought to be unchanged by their experiences, but IVR studies are showing otherwise. In Segovia's study, participants watched their virtual characters perform immoral actions, such as punching other avatars. Afterwards, they no longer judged morality to be as important as before.

With its ability to remove the risk while maintaining scientific integrity, IVR opens the door to exploring some of the darker questions in morality research. At the same time, it allows researchers to put their understanding of morality to the test.

Still, if virtual reality is so realistic, aren't there real ethical implications to be considered when subjecting people to virtually traumatic situations? "Sure," says Segovia, "but people are exposed to similar or worse scenarios in TV and video games all the time" - only in those cases, there is no review board to weigh the benefits against the risks.

Samantha Murphy is a freelance writer based in Pennsylvania