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Interrogation computers work—if you believe they are human controlled

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Avatars can potentially make interrogations more efficient. However, a study by psychologists based at the Institute for Innovation and Governance Studies, a University of Twente research institute, shows that they are only effective if the subjects under interrogation believe that the avatar is under human control. The study was published in *Frontiers in Psychology*, an open access journal.

There is a growing need among government bodies, investigative agencies, and customs authorities for effective methods of detecting lies during interrogations. Automated lie detection could be an important weapon in the effort to make interrogations more efficient. For instance, an interrogation could involve the use of an avatar (a graphical representation of a person, displayed on a computer screen). However, it was important to find out whether these systems are sufficiently effective. Research at the University of Twente has shown that avatars, as such, are suitable for use in interrogations. However, this approach only works if the subjects under interrogation believe that the avatar is being controlled by a person, rather than a computer.

Interrogation

In the context of what was supposedly a recruitment and selection procedure, the 79 subjects who participated in the study were required to take over various tasks from a transport sector worker who had reported in sick. As part of the study, they were offered the temptation of signing

a contract for which they were not actually qualified. Once the subjects had completed the tasks in question, they were interrogated by an avatar. The avatar (which has been named Brad) was being controlled by a researcher, but the subjects were unaware of that. Some subjects were instructed to always tell the truth while others were told to constantly tell lies. During the interrogation, the subjects' skin conductance was measured, to see how much they were sweating. With larger groups of people, this is a reliable way of finding out whether someone likely to be lying. So what did the researchers find? In subjects who believed that the avatar was being controlled by a computer, it was impossible to tell whether or not they were telling the truth. In subjects who believed that the avatar was being controlled by a person, measurements revealed a clear difference.

Next step

One of the researchers involved, Elze Ufkes, describes this study as exploratory research, but the conclusions are clear: "Avatars are more effective if the subjects under interrogation see them as human beings." Furthermore, Dr Ufkes feels that there is still plenty of scope for follow-up research. "In this study, we examined the differences between those who had come to believe they were communicating with a person and those who were convinced that it was a computer. During the next step in this study we will manipulate our subjects by convincing some of them that they are communicating with a computer or, in other cases, with a human controlled system."

  More information: Sabine Ströfer et al. Interviewing Suspects with Avatars: Avatars Are More Effective When Perceived as Human, *Frontiers in Psychology* (2016). DOI: 10.3389/fpsyg.2016.00545

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