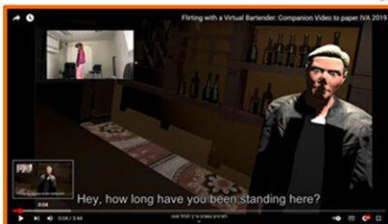


Virtual reality can be used to prevent infidelity and betrayal in real-world relationships

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Biting the Forbidden Fruit: The Effect of Flirting with a Virtual Agent on Attraction to Real Alternative and Existing Partners

Three studies demonstrated that flirting with a virtual agent inoculated people against the lure of real alternatives

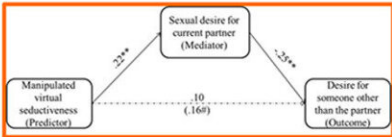


Participants conversed with an other-sex virtual bartender who behaved either seductively or neutrally.



In Study 1, an attractive confederate interviewed participants.

In Study 3, participants interacted with their current partner.



Then, participants interacted with a real other-sex human being and rated their perceptions of both targets.



In Study 2, a confederate sought participants' help and recorded their helping behavior.

Results
Flirtatious virtual encounters led people to desire their partner more and devalue the alternatives' attractiveness.

This research is the first to show that interacting with a virtual agent promotes real-world relationships

Biting the forbidden fruit: The effect of flirting with a virtual agent on attraction to real alternative and existing partners. Credit: *Current Research in Ecological and Social Psychology* (2022). DOI: 10.1016/j.cresp.2022.100084

Many people enter into a monogamous romantic relationship hoping to

remain faithful to their partner and enjoy all the benefits such a relationship can offer, including a sense of security, belonging and intimacy. However, in an age where the possibilities are seemingly endless, maintaining sexual exclusivity becomes challenging, as high rates of infidelity will testify.

Prof. Gurit Birnbaum of Reichman University's Ivcher School of Psychology and Prof. Doron Friedman of the Sammy Ofer School of Communications, together with honors program graduate Yael R. Chen, doctoral student Kobi Zholtack, and Dr. Jonathan Giron, investigated how [virtual reality](#) can be used to examine the circumstances that will help people in a monogamous [relationship](#) resist the temptations of infidelity.

The researchers based their study on the inoculation theory, which proposes that exposure to weakened threats increases [self-control](#) by allowing people to prepare ahead of time for a more serious threat. As an illustration, imagine a situation in which you decide to limit your food intake in order to lose weight. An encounter with a forgotten half-eaten cookie may remind you of your desire to lose weight.

This increased awareness of the goal you set for yourself will encourage you to resist the greater temptation of your favorite cookies, fresh out of the oven, which pose a more significant threat to your diet.

The researchers conducted three experiments in which they tested whether exposure to a weakened threat to the relationship, in the form of flirting with a virtual character, would help immunize people against real-world temptations that could threaten the stability of their romantic relationship. In this context, exposure to a weakened threat is expected to make people aware of their obligations to their current [partner](#) and prepare them in advance to deal with a more serious threat to their relationship.

Accordingly, the researchers hypothesized that exposure to a seductive [virtual character](#) would increase people's desire to protect their current relationship, so that they would subsequently experience more desire for their current partner and perceive alternative partners as less sexually attractive.

To test the research hypothesis, in all three experiments, participants in monogamous relationships put on virtual reality (VR) glasses and "entered" a bar. There they had a conversation with a virtual bartender whose gender was the same as their partner's.

The bartender avatar behaved in two ways: in the experimental condition he flirted with the participants, and in the control condition he behaved neutrally towards them. Afterwards, each participant met with a real person. At the end of this session, the participants were asked to rate their feelings and perceptions, both during the interaction with the virtual bartender and during the real-world interaction.

In the first experiment, an attractive interviewer interviewed the participants about their attitudes towards various interpersonal issues immediately after the interaction with the virtual bartender. The interviewer used a fixed script, asking questions such as "Should people play 'hard-to-get' at the onset of a relationship?"

The interviewers were trained in advance to radiate warmth and convey interest in the participants. At the end of the interview, the participants rated how sexually attractive they perceived the interviewer to be. The findings revealed that after flirting with the virtual bartender, participants perceived the human interviewer as less sexually attractive compared to participants who had had a preliminary interaction with a neutral virtual bartender.

In the second experiment, the researchers sought to examine whether

participants who had engaged in an encounter with the flirtatious virtual bartender would not only perceive a real person as less sexually attractive, but would also minimize their actual interaction with them. To this end, following the virtual interaction, the participants met an attractive stranger who asked them for help.

The experiment focused on providing assistance as this is a more legitimate channel of expressing interest in a possible partner than blatant flirting, especially when people are in a relationship defined as monogamous.

Specifically, the participants had an encounter with an attractive person (of the same gender as the participant's partner), whom they thought was another participant but who was in fact collaborating with the research team. The participant and the research team member were asked to sit side by side and build two five-story pyramids using plastic cups.

When the "collaborator" finished building the third floor of the pyramid, he knocked it over, ostensibly by accident, saying: "Oh! I'm so clumsy! Could you please help me rebuild my pyramid?" Using a stopwatch hidden in their pocket, the research team member measured the amount of time the participants spent helping to rebuild the pyramid.

As the researchers hypothesized, the participants who had had a preliminary interaction with the seductive virtual bartender spent less time providing help compared to those who had had a preliminary interaction with the neutral bartender avatar.

In the third experiment, the participants were invited to the laboratory with their partners. The couples were separated into different rooms, one of them interacting with the virtual bartender, and the other watched a neutral video.

After the virtual interaction, the participants were reunited with their partners, and were asked to have a discussion with them about the satisfying and frustrating aspects of their sex lives. At the end of the discussion, the participants rated the extent to which they experience sexual desire towards their partner and towards other people.

The findings showed that the participants who had had a preliminary interaction with the flirtatious virtual bartender reported a stronger sexual desire for their partner and a reduced sexual interest in other people, compared to those whose preliminary interaction was with the neutral virtual bartender.

Prof. Gurit Birnbaum of Baruch Ivcher School of Psychology, Reichman University, says, "The findings of the three studies indicate that it is possible to inoculate people and make them more resistant to threats to their romantic relationship. This is the first study in the world to illustrate how a virtual reality interaction can improve real-world relationships."

"The study shows that a weakened virtual threat, which by definition cannot directly harm the relationship, allows people in a monogamous relationship to prepare ahead of time to deal more effectively with significant threats in the real world. In this way, virtual reality interactions may contribute to people's ability to maintain stable and satisfying relationships with their actual partners."

The findings are published in the journal *Current Research in Ecological and Social Psychology*.

More information: Gurit E. Birnbaum et al, Biting the forbidden fruit: The effect of flirting with a virtual agent on attraction to real alternative and existing partners, *Current Research in Ecological and Social Psychology* (2022). [DOI: 10.1016/j.cresp.2022.100084](https://doi.org/10.1016/j.cresp.2022.100084)

Provided by Reichman University

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