

A personal benefit of social distancing: lower odds of getting COVID-19

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Considering the greater good by social distancing during a pandemic turns out to have an attractive personal benefit: A new study has found that staying away from others also reduces an individual person's chances of contracting COVID-19.

Researchers presented study participants with virtual [behavior](#) scenarios of various public settings—a grocery store, a crowded beach, a crosswalk—and asked them to place themselves or fictional people in those contexts based on their [social distancing](#) preferences.

Four months later, the participants were asked if they had tested positive for SARS-CoV-2 infection or otherwise believed they had been sick with a case of COVID-19.

Statistical analyses showed that the more participants demonstrated a preference for social distancing in the scenarios, the less likely they were to have gotten sick with COVID-19. The study's implication was clear—what was good for society according to public health advice was also good for individuals who wanted to avoid the virus.

"The evidence from our work indicates there is value in socially distancing—not only to reduce the spread of a virus within a community, but because it is actually beneficial for the individual engaging in the social distancing," said Russell Fazio, senior author of the study and a professor of psychology at The Ohio State University.

"There's a selfish notion to it all: 'Hey, it's good for me personally. I'm not just benefiting other people.'"

The research is published today (Feb. 4, 2021) in *Proceedings of the National Academy of Sciences*.

The researchers did ask participants to report how much they practiced social distancing in real life. But the team added an innovative element: virtual social distancing scenarios in which participants made "in the moment" decisions about how they would react in different situations.

"The virtual behavior measure worked much better as a predictor of

illness than the self-report measure, and there are a variety of explanations for that," Fazio said.

For example, some people may over-report their actual self-distancing behavior to provide a good impression to others.

"If I like to view myself as somebody very conscious of the science and supportive of reducing the pandemic, that is also affecting my memory process when I try to engage in this reconstruction and provide a rating that represents what my past is like," Fazio said.

"The virtual behavior measure, which required asking at a moment in time, in a concrete situation, 'What would you do?' did a better job than an abstract summary report of someone's past."

Fazio's lab studies how personal beliefs and attitudes influence behavior. When COVID-19's emergence in the United States led to lockdowns and stay-at-home orders, his team agreed to devote their efforts to trying to understand social distancing behavior.

"The entire lab group came to view the pandemic as a call to action for behavioral scientists because this was ultimately a test of human behavior," Fazio said. "Rarely does a whole society get called upon to change behavior."

The researchers recruited participants from Amazon's Mechanical Turk crowdsourcing marketplace. The sample in this study consisted of 1,885 U.S. citizens representing a range of ages, geographical locations and political ideologies.

In separate surveys conducted in May and June, participants were asked whether they had pre-existing health conditions or jobs that required them to leave home, and the extent to which they were socially

distancing—either at the time of the survey or looking back in time if they were responding after economies had begun to open.

The virtual behavior scenarios, initially created for a study of interactions with strangers, were expanded for this new research. Fazio's team told participants the scenarios would be used to assess "people's behavior in common everyday situations, and how this behavior may have changed in light of the current COVID-19/[coronavirus](#) pandemic." Researchers instructed participants to view scenes of social situations and indicate how they personally, as individuals, would navigate them.

Ten scenarios were presented. Four situations assessed walking routes participants would take along a street or park path or in a library with people around, and which seat they would choose in a coffee shop. In six interactive scenarios, participants moved a slider to indicate how much distance they would want between themselves and friends, grocery shoppers, a passing stranger or several people standing in line; drew the path they would take crossing a crowded plaza; and placed their towel on a busy beach. Responses were compiled into a composite score for each participant, with a higher score indicating more adherence to social distancing recommendations.

Four months later, the researchers asked the participants if they had been tested for COVID-19 since they had completed the surveys and, if so, whether they tested positive or negative. Those who had not been tested were asked if they believed they had ever had COVID-19.

At the time of the follow-up, 199 participants reported either a positive test result since the initial surveys (85 people) or that they believed they had contracted COVID-19. The researchers measured relationships between the survey variables—pre-existing health condition, working outside the home, self-reported social distancing practices and virtual scenario scores—and the likelihood of contracting the virus, either based

on actual positive tests or people's beliefs that they had caught the virus.

Statistical analyses consistently yielded the same results: The more participants exhibited social distancing behavior, the less likely they were to have contracted COVID-19. The strongest evidence that social distancing was protective to individuals was found in the relationship between a low virtual behavior score and higher odds of testing positive for COVID-19.

More information: *Proceedings of the National Academy of Sciences* (2021). [DOI: 10.1073/pnas.2023131118](https://doi.org/10.1073/pnas.2023131118) , www.pnas.org/content/118/8/e2023131118

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