



SFI TRANSMISSION

COMPLEXITY SCIENCE FOR COVID-19

STRATEGIC INSIGHT: The current spike in public trust in science gives science communicators an opportunity to reach new audiences.

FROM: Mirta Galesic, Santa Fe Institute; and Henrik Olsson, University of Warwick and Santa Fe Institute

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Our social circles are a crucial source of information about many things. Whom to trust? What behaviors are useful in the current environment? What is expected and what is possible?

Relying on our family, friends, and colleagues to answer such questions is usually a good idea. Using the collective wisdom of people who are similar to us and who live in similar circumstances can be a quick shortcut to solving a variety of problems in our own daily lives.¹ Moreover, we tend to seek people who are similar to us, as this typically enhances coordination and cooperation and helps to avoid costly conflict.^{2,3,4} We also influence each other — ever more strongly and widely due to social media — further contributing to the homogenization of our own societal pockets.^{5,6}

It is therefore not surprising that different sections of our society have very different beliefs about how dangerous COVID-19 is, what the appropriate individual and societal actions are, and what figures of authority should be trusted.^{7,8} Our reliance on social circles for our judgments and decisions⁹ has an unfortunate corollary: It is difficult for people to change their minds and also keep their social networks intact. Science educators know this all too well.¹⁰ The immediate social costs of not being aligned with one's social circle might appear much larger than the costs of not being correct, especially when a risk is perceived to be distant and personally irrelevant.^{11,12}

Scientists are not a part of most peoples' social circles. Scientific judgment is not readily trusted as unbiased by significant parts of society,¹³ and scientists can be perceived as a part of an elite that is not aligned with "our" own best interests. Significant sections of the US population have beliefs that do not align with the current scientific evidence.¹⁴ Lack of basic scientific knowledge is likely both a consequence and a cause of further distrust that prevents acceptance of science facts — a cycle that is becoming hard to

break¹⁵ as it impacts people's decisions about which policies and politicians are worthy of their support.

But, in all its epidemic darkness, the current moment provides scientists with a unique opening: confidence in medical professionals is very high even though trust in other authorities can falter.¹⁶ Scientists routinely appear on national televisions and in a variety of online settings to brief the public about the current progress of the disease. Furthermore, the general public has both more time (involuntarily) and more interest in hearing what scientists have to say.

Because of the current spike in trust and interest in science, this is *the* moment for science communicators to make a difference. Sending another tweet to our usual followers will likely not persuade anyone who is not already in our own social circle. But reaching out to audiences who otherwise have little exposure to scientific ideas and reasoning — and who may now be more receptive — can be a real game-changer.

Scientists can use these times to start a dialogue with the general public not only about the epidemics, but also about the many related broader issues ranging from how the scientific process works, what constitutes scientific evidence, and how scientists check their findings, to the societal value of many scientific discoveries. Science is not the answer to everything, but it now at least has a chance to be heard.

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