

# Correspondence

## Use newfound trust in science wisely

The current COVID-19 pandemic calls for a renewed public trust in science – for better or worse. We urge the global scientific community to seize this opportunity to build on that trust.

Three months into the pandemic, we issued a questionnaire to a panel of 337 US residents who represented a cross-section of the general public. Our aim was to find out how their trust had changed from before the pandemic (data collected in mid-August 2019). Those reporting “a lot of trust” in the federal government remained at an abysmal 1%, whereas “strong trust” in science jumped from 41% to 48%. We found that trust in science was the most important predictor of compliance with public-health recommendations for limiting viral spread.

With great trust comes great responsibility. As we ramp up research to meet the public’s need for solutions, we must be especially careful to communicate transparent information about our capabilities, uncertainties, disagreements or agreements (see S. van der Linden *et al.* *Nature Hum. Behav.* 2, 2–3; 2018).

Competence and warmth are judged by psychologists to be crucial for trustworthiness. Although scientists rate highly on competence, they can sometimes come over as dispassionate (see G. Cardew *Nature* 578, 9; 2020). Now, more than ever, we must show our commitment to humility, honesty and the public good.

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## Better lives call for more than insight

Hetan Shah argues that global problems need social science to help solve them (*Nature* 577, 295; 2020). I contend that he is both right and profoundly wrong.

Developing social inquiry as a social ‘science’ is a blunder that goes all the way back to the eighteenth-century Enlightenment (see [go.nature.com/34exatc](http://go.nature.com/34exatc)). To promote human welfare, academia needs to provide practical solutions to problems of suffering, poverty, injustice and avoidable death. It needs to articulate and assess possible solutions in terms of actions, policies, political programmes, philosophies of life and ways of living.

The task of social inquiry and the humanities is to guide people on how to resolve such issues and conflicts in effective, intelligent, humane ways. In connection with the climate crisis, for example, the public needs to know precisely what must be done by governments, businesses, the media, public institutions and individuals to mitigate global warming.

However, social scientists down the decades have fallen short in providing such guidance. In my view, this is because their focus has been on acquiring knowledge about society when it should instead be on promoting social progress towards as good a world as possible.

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## Climate: managing deep uncertainty

In our view, Zeke Hausfather and Glen Peters’s recommendation to assign a single set of best-estimate probabilities to all future emissions scenarios as a means to assess climate-change risks (*Nature* 577, 618–620; 2020) could give decision-makers a false sense of certainty, leading to costly adjustments if the world evolves in unanticipated ways.

The Society for Decision Making Under Deep Uncertainty ([www.deepuncertainty.org](http://www.deepuncertainty.org)), to which we belong, offers a better strategy. It relies on methods that focus on the implications of alternative scenarios and the extent to which response tactics are shared across a wide range of scenarios. This helps to manage uncertainties – for example, in sea-level rise after 2050 – by identifying long-term options and short-term, flexible actions that can prepare for a range of future emissions.

Bypassing the need to assign probabilities enables decision-makers to better understand the combination of uncertainties that most affect their choices, thereby reducing locked-in choices and decision delays that can arise when using a single scenario.

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## Climate: why use 2100 for timeline?

Zeke Hausfather and Glen Peters’s discussion of future climate scenarios focuses on what we might expect by 2100 (*Nature* 577, 618–620; 2020). But why 2100? This inordinate focus on the century’s end, largely derived from Intergovernmental Panel on Climate Change scenarios, has coloured much of the literature for years and now saturates the public debate.

Take, for instance, the authors’ tags for warming above pre-industrial levels: 1.5 °C, “mitigation required to reach Paris goals”; 2.5 °C, “modest mitigation”; 3 °C, “weak mitigation (likely)”; 4 °C, “average no policy (unlikely)”; 5 °C, “worst-case no policy (highly unlikely)”. Peak warming will post-date peak emissions and, depending on feedbacks, the planet will still be warming in 2100 – even in some of the “likely” pathways and certainly in the “unlikely” and “highly unlikely” ones.

Let’s move the discussion to peak impact and a full-recovery timescale, especially when considering policy.

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