

Sensational COVID-19 communication erodes confidence in science

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Scientists, policymakers and the media should acknowledge inherent uncertainties in epidemiological models projecting the spread of COVID-19 and avoid "catastrophizing" worst-case scenarios, according

to new research from Cornell University.

Threats about dire outcomes may mobilize more people to take public health precautions in the short term but invite criticism and backlash if uncertainties in the models' data and assumptions are not transparent and later prove flawed, researchers found.

Among [political elites](#), criticism from Democrats in particular may have the unintended consequence of eroding [public trust](#) in the use of models to guide pandemic policies and in [science](#) more broadly, their research shows.

"Acknowledging that models are grounded in uncertainty is not only the more accurate way to talk about scientific models, but political leaders and the media can do that without also having the effect of undermining confidence in science," said Sarah Kreps, government professor and co-author of the study.

Kreps and Doug Kriner, government professor, conducted five experiments—surveying more than 6,000 American adults in May and June—to examine how politicians' rhetoric and media framing affected support for using COVID-19 models to guide policies about lockdowns or economic reopenings, and for science generally.

The researchers found that different presentations of scientific uncertainty—acknowledging it, contextualizing it or weaponizing it—can have important implications for public [policy](#) preferences and attitudes.

For example, they said, Republican elites have been more likely to attack or 'weaponize' uncertainty in epidemiological models. But the survey experiments showed that their criticism, which the public apparently expected, didn't shift confidence in models or in science. Support for

COVID-19 science from several Republican governors who split with their party's mainstream also did not affect confidence.

Criticism by Democrats, in contrast, registered as surprising and was influential. When shown a quote by New York Gov. Andrew Cuomo disparaging virus models, survey respondents' support for using models to guide reopening policy dropped by 13% and support for science in general decreased, too.

"It suggests that the onus is on Democrats to be particularly careful with how they communicate about COVID-19 science," Kriner said.

"Because of popular expectations about the alignments of the parties on science more broadly and on issues like COVID-19 and climate change, they can inadvertently erode confidence in science even when that isn't their intent."

Another way of ignoring or downplaying uncertainty is to present narratives that sensationalize or 'catastrophize' the most alarming projections and potential consequences of inaction. An April article in *The Atlantic* about Georgia's reopening strategy, for example, referred to the state's "experiment in human sacrifice."

The researchers' experiments showed that type of COVID-19 communication significantly increased public support—by 21%—for using models to guide policy, with gains primarily attributed to people who were less scientifically literate.

Provided by Cornell University

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