Social science

Political endorsements can affect credibility

Arthur Lupia

In 2020, *Nature* endorsed Joe Biden in the US presidential election. A survey finds that viewing the endorsement did not change people's views of the candidates, but caused some to lose confidence in *Nature* and in US scientists generally.

We live in an era in which there are many attempts to politicize science. Some scientists are concerned that such attempts will reduce both public confidence in science[1] (see also go.nature.com/3tpscrs) and people's willingness to rely on scientific information to manage challenges such as a pandemic. *Nature* was one of several prominent scientific publications to endorse Joe Biden in the 2020 US presidential election, adding a political element to a publication that derives its credibility from science. How did *Nature*'s endorsement affect people who viewed it? Writing in *Nature Human Behaviour*, Zhang[2] describes an experiment that asks this question, revealing that some who saw the endorsement lost confidence in the journal as a result. This topic is important because, if people believe that political forces might introduce bias or inaccuracy into research claims, they might also think it is riskier for them to trust that research.

There have been efforts to understand how public confidence in science is affected by such concerns (see go.nature.com/3zfcpxh), and to mitigate any negative effects of this type of politicization[3]. But there have been fewer studies of how political endorsements that specifically come from inside the scientific community affect science's credibility. To my knowledge, the current study is the first to test this experimentally.

Zhang's experiment involved a survey that was completed by more than 4,000 US citizens in the summer of 2021 — about 6 months after Biden took office as president. Early in the survey, participants were asked about their level of support for Joe Biden and Donald Trump, and how likely they thought it was that *Nature* would have endorsed a candidate in the election. Later, participants were randomly assigned to view either *Nature*'s endorsement of Biden or an announcement of new visual designs for its website and print articles. They were then asked for their views of Biden, Trump, *Nature* and US scientists in general, and whether they would choose to obtain scientific information about COVID-19 from *Nature* or from other sources.

Overall, the study provides little evidence that the endorsement changed participants' views of the candidates. However, showing the endorsement to people who supported Trump did significantly change their opinion of *Nature*. When compared with Trump supporters who viewed *Nature*'s formatting announcement, Trump supporters who viewed the endorsement rated *Nature* as significantly less well informed when it comes to "providing advice on science-related issues facing the society" (Fig. 1). Those who viewed the endorsement also rated *Nature* significantly lower as an unbiased source of information on contentious or divisive issues. There was no comparable positive effect for Biden supporters.

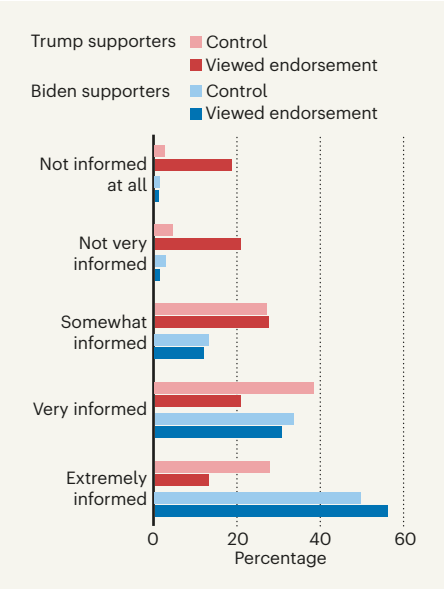

Figure 1 | Exposure to a political endorsement affects how some people view *Nature*. Zhang[2] conducted a survey to examine how viewing *Nature*'s endorsement of Joe Biden for US president affected supporters of Donald Trump and Biden in the United States. Participants were asked a range of questions, one of which was 'In your opinion, how informed are editors of the journal *Nature*, when it comes to providing advice on science-related issues facing the society?'. Trump supporters who viewed the political endorsement rated *Nature* as significantly less-well informed than did Trump supporters in a control group. By contrast, the endorsement had little effect on Biden supporters. (Figure adapted from Fig. 2 of ref. 2.)

These effects, moreover, were two to three times larger for Trump supporters who did not initially expect *Nature* to make this political endorsement than for Trump supporters who fully expected it. This type of finding reflects other research indicating that a person or organization can lose credibility by taking actions that contradict their reputation[4].

Zhang also found that viewing *Nature*'s political endorsement reduced Trump supporters' willingness to obtain information about COVID-19 from *Nature* by 38%, when compared with Trump supporters who saw the formatting announcement. This finding echoes other work on how partisanship influences interest in scientific information[5]. Furthermore, Trump supporters who viewed the endorsement also rated US scientists, in general, as much less well informed and unbiased than did Trump supporters who viewed the formatting article. There was no comparable positive effect for Biden supporters.

Like any study of this kind, design elements limit the results' generalizability[6]. First, the study focuses on a single political endorsement from a single scientific publication in a single election. The study offers no evidence for what would happen if a different publication made the same endorsement or if *Nature* made a different type of endorsement in a different election. Zhang did not collect data on how the endorsement might have altered the views of readers outside the United States, although other research into credibility suggests that the results might be similar in other regions[4,7,8].

Second, the survey collected reactions soon after participants viewed the endorsement, offering no evidence about whether these effects are long-lasting. Third, the analysis focused on the 91% of participants who initially expressed a preference for Biden or Trump. Given that the study was run nearly one year after the election, this design choice is justifiable, but it might not reflect the effect that the endorsement would have had in the middle of the campaign.

Fourth, the survey was conducted at a time when the Delta variant of COVID-19 was surging throughout the world, with science at the forefront of many news stories. The experiment cannot reveal how the endorsement would have affected responses at other points in time.

Even with these caveats, the study deserves attention because of what is at stake — credibility. *Nature* and other scientific publications

provide a service for the scientific community and for the world in conveying rigorous, unbiased scientific information. One of the reasons these publications have this capacity is the credibility they have built up over decades. In science, credibility comes mainly from commitment to the scientific method. In politics, at least in democracies, it comes mostly from the ability to articulate why certain moral, ethical, economic or social trade-offs offer the best way to live. Scientific information can and should inform political discussions, by offering clarifying information about likely consequences of actions. But science is almost always insufficient to resolve deep and diverse moral and ethical debates about how we should live[9].

The current study provides evidence that, when a publication whose credibility comes from science decides to politicize its content, it can damage that credibility. If this decreased credibility, in turn, reduces the impact of scientific research published in the journal, people who would have benefited from the research are the worse for it. I read Zhang's work as signalling that *Nature* should avoid the temptation to politicize its pages. In doing so, the journal can continue to inform and enlighten as many people as possible.

That said, future research is needed to provide more-generalizable insights into the reputational risks associated with placing political endorsements in scientific publications. Experiments that examine the effects of various combinations of position-taking (the effects of endorsing a person or a policy, for instance) and situation (parliamentary systems or presidential systems of democracy) can provide greater clarity about when, if ever, a political endorsement advances the mission of a scientific publication.

Arthur Lupia is in the Center for Political Studies, University of Michigan, Ann Arbor, Michigan 48104, USA.
e-mail: lupia@umich.edu

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Astronomy

A compelling explanation for an enigmatic object

Marco Micheli

Seemingly contradictory observations of the first known interstellar object are reconciled in a model that presents a simple and physically realistic framework for understanding the object's many peculiarities. **See p.610**

The idea that an asteroid could pose a threat to Earth by colliding with it has prompted the development of telescopes dedicated to the discovery of asteroids and comets that range in size from metres to kilometres[1]. These telescopes often detect objects that pose no threat but are nonetheless scientifically intriguing. One such discovery was the first observation of a 'small body' originating outside the Solar System[2]. This object, known as 'Oumuamua, shows many irregularities in appearance and motion that have previously confounded astronomers[3]. But now, on page 610, Bergner and Seligman[4] present a model that explains most of the observed characteristics of 'Oumuamua without resorting to any exotic or unphysical mechanisms.

Interstellar objects have long been thought to transit our Solar System. Planetary systems eject large quantities of small bodies during the initial phases of their formation and, once ejected, these small 'planetesimals' travel through interstellar space for millions of years. It stands to reason that some of their paths will pass by the vicinity of the Sun. When 'Oumuamua was first discovered, astronomers

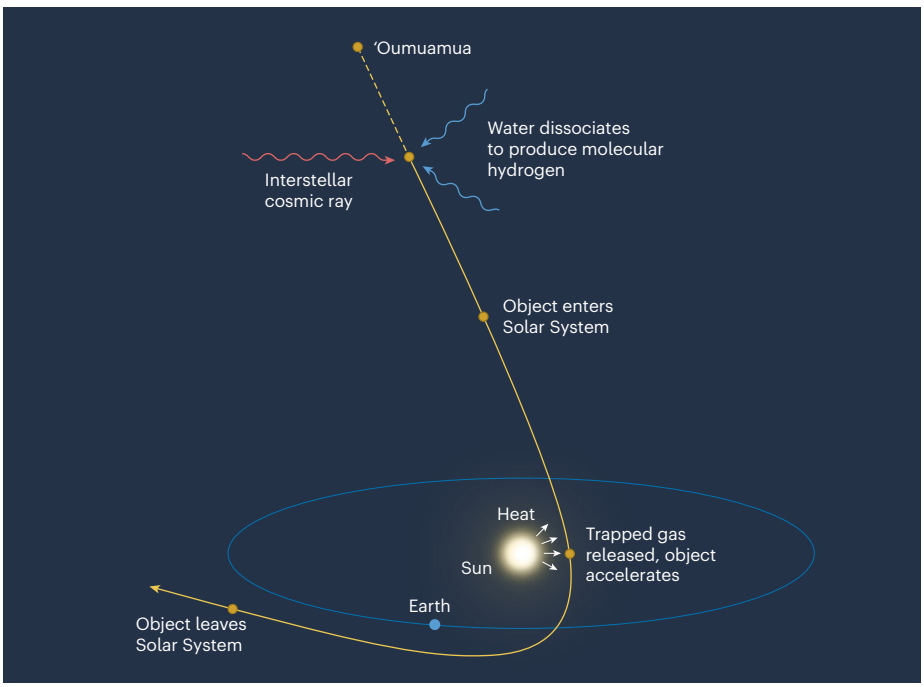

Figure 1 | A model for an unusual comet-like object. A small body called 'Oumuamua transited the Solar System and was observed for four months in 2017. It resembled an asteroid, but its acceleration was characteristic of a comet, leading astronomers to speculate about its composition and origin. Bergner and Seligman[4] present a model in which 'Oumuamua was born in another planetary system as a normal, water-rich comet. During its travel through interstellar space, it was irradiated by cosmic rays that dissociated its water to produce molecular hydrogen, which remained trapped in a water–ice matrix. The Sun then changed the crystalline structure of this ice and released the trapped gas, accelerating the object. The model is consistent with observations of 'Oumuamua, and suggests that similar objects could be found in our Solar System.