

No news is better news: Weak supporting evidence can undermine belief in an outcome

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Experiments by Brown University psychologists have produced positive evidence that people often think about positive evidence the wrong way -- if it is weak. Defying logic, people given weak evidence can regard predictions supported by that evidence as less likely than if they aren't given the evidence at all.

The finding, described in a paper published in advance online in the journal *Cognition*, has serious implications for professional persuaders such as marketers and can help explain public perceptions of policy and the [rhetoric](#) that politicians use to debate it, said authors Philip Fernbach, Steven Sloman, and Adam Darlow — professor, postdoctoral associate, and graduate student respectively, all of the Department of [Cognitive](#), Linguistic, and Psychological Sciences. They call the phenomenon "the weak [evidence](#) effect."

Consider the following statement: "Widespread use of hybrid and electric cars could reduce worldwide carbon emissions. One bill that has passed the Senate provides a \$250 tax credit for purchasing a hybrid or electric car. How likely is it that at least one-fifth of the U.S. car fleet will be hybrid or electric in 2025?"

That middle sentence is the weak evidence. People presented with the entire statement — or similar statements with the same three-sentence structure but on different topics — answered the final question lower than people who read the statement without the middle sentence. They did so even though other people who saw the middle statement in

isolation rated it as positive evidence for, in this case, higher adoption of hybrid and electric cars.

"It's not a conscious choice to behave this way," said Sloman. "When people are thinking forward in a causal direction, they just think about the cause they have in mind and the mechanism by which that would lead to the consequence they have in mind. They neglect alternative causes."

Fernbach put it this way: "People take what you suggest and run with it."

Give people a weak reason and they'll focus too much on it. Give people no evidence and they'll supply their own probably more convincing reason to believe that the outcome is likely.

Hence, supportive but weak evidence seems to work against belief in a prediction.

Wanna bet?

The Weak Evidence Effect is strong enough to influence people when real money is in play.

In two of the five experiments described in the paper published Feb. 21, the authors asked participants to bet on an outcome, such as whether Republicans would retake the house in 2010 or whether milk in the fridge would spoil by a certain date. The participants could either opt to receive \$10 no matter what happened, or could take the risk to receive \$30 if the predicted outcome came to pass. Some were shown weak but positive evidence (e.g., a GOP candidate in a close race received an endorsement; the power to the fridge was out for 30 minutes) and some were not. In each experiment those who saw the mildly reinforcing evidence were less likely to take the risk that the prediction would come

true.

Perverse Persuasion

Fernbach and Sloman said the effect might help explain why other researchers have found a peculiar pattern in consumer behavior: Sometimes adding a feature or promoting a product can make consumers less likely to buy it.

Fernbach said the effect might explain why people have more trouble supporting sweeping policy proposals (such as the Affordable Care Act), even when they support individual initiatives within them. It also leads to potential devices for political rhetoric, Sloman said. A way to undermine an opposing position might be to emphasize that side's weakest argument.

But Fernbach and Sloman said the effect is hardly an inevitable thought pattern. People in roles ranging from juror to scientist to investor to homebuyer often factor multiple pieces of evidence into their thinking.

"People have the potential to be good researchers if they have enough incentive to be," Sloman said. "Although you'd be surprised."

Provided by Brown University

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