# CSE 599B: Technology-Enabled Misinformation

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# Discussion: Studying Consumers
## (Starter Questions)

- Thoughts about the methodology of the study?
- Other research questions about consumers?

Polit Behav (2010) 32:303–330
DOI 10.1007/s11109-010-9112-2

ORIGINAL PAPER

# When Corrections Fail: The Persistence of Political Misperceptions

**Brendan Nyhan · Jason Reifler**

Published online: 30 March 2010


**Abstract** An extensive literature addresses citizen ignorance, but very little research focuses on misperceptions. Can these false or unsubstantiated beliefs about politics be corrected? Previous studies have not tested the efficacy of corrections in a realistic format. We conducted four experiments in which subjects read mock news articles that included either a misleading claim from a politician, or a misleading claim and a correction. Results indicate that corrections frequently fail to reduce misperceptions among the targeted ideological group. We also document several instances of a "backfire effect" in which corrections actually *increase* misperceptions among the group in question.

"backfire effect"

Journal of Personality and Social Psychology
1979, Vol. 37, No. 11, 2098–2109

# Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence

Charles G. Lord, Lee Ross, and Mark R. Lepper
Stanford University

People who hold strong opinions on complex social issues are likely to examine relevant empirical evidence in a biased manner. They are apt to accept "confirming" evidence at face value while subjecting "disconfirming" evidence to critical evaluation, and as a result to draw undue support for their initial positions from mixed or random empirical findings. Thus, the result of exposing contending factions in a social dispute to an identical body of relevant empirical evidence may be not a narrowing of disagreement but rather an increase in polarization. To test these assumptions and predictions, subjects supporting and opposing capital punishment were exposed to two purported studies, one seemingly confirming and one seemingly disconfirming their existing beliefs about the deterrent efficacy of the death penalty. As predicted, both proponents and opponents of capital punishment rated those results and procedures that confirmed their own beliefs to be the more convincing and probative ones, and they reported corresponding shifts in their beliefs as the various results and procedures were presented. The net effect of such evaluations and opinion shifts was the postulated increase in attitude polarization.

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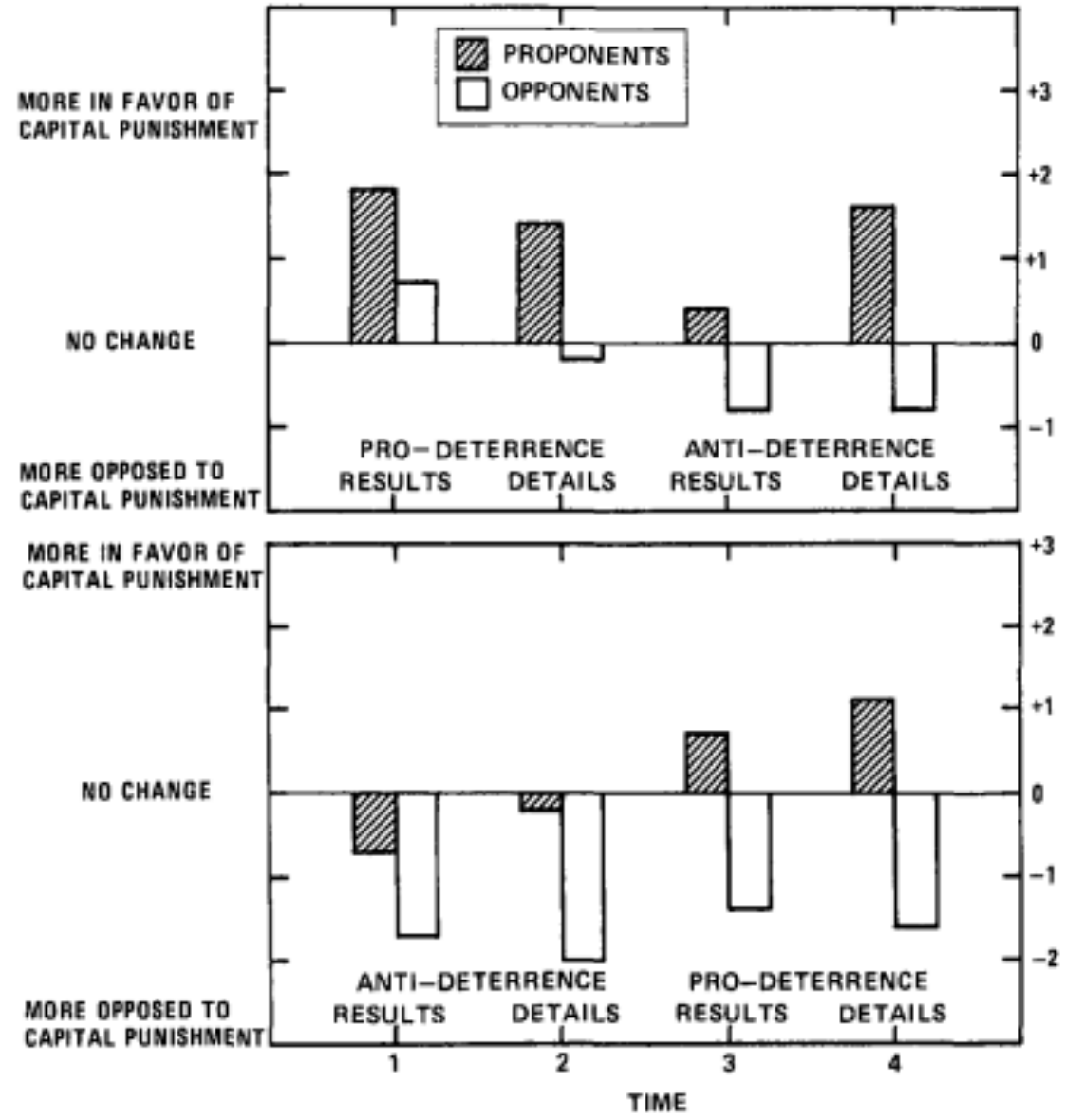


*Figure 1.* Top panel: Attitude changes on capital punishment relative to start of experiment as reported across time by subjects who received prodeterrence study first. Bottom panel: Attitude changes on capital punishment relative to start of experiment as reported across time by subjects who received antideterrence study first.

LETTERS
PUBLISHED ONLINE: 27 MAY 2012 | DOI: 10.1038/NCLIMATE1547
nature climate change

# The polarizing impact of science literacy and numeracy on perceived climate change risks

Dan M. Kahan[1]*, Ellen Peters[2], Maggie Wittlin[3], Paul Slovic[4], Lisa Larrimore Ouellette[3], Donald Braman[5] and Gregory Mandel[6]

**Seeming public apathy over climate change is often attributed to a deficit in comprehension. The public knows too little science, it is claimed, to understand the evidence or avoid being misled[1]. Widespread limits on technical reasoning aggravate the problem by forcing citizens to use unreliable cognitive heuristics to assess risk[2]. We conducted a study to test this account and found no support for it. Members of the public with the highest degrees of science literacy and technical reasoning capacity were not the most concerned about climate change. Rather, they were the ones among whom cultural polarization was greatest. This result suggests that public divisions over climate change stem not from the public's incomprehension of science but from a distinctive conflict of interest: between the personal interest individuals have in forming beliefs in line with those held by others with whom they share close ties and the collective one they all share in making use of the best available science to promote common welfare.**

literacy—that is, concern should increase as people become more science literate.

Second, and even more important, SCT attributes low concern with climate change to limits on the ability of ordinary members of the public to engage in technical reasoning. Recent research in psychology posits two discrete forms of information processing: system 1, which involves rapid visceral judgments that manifest themselves in various decision-making heuristics; and system 2, which requires conscious reflection and calculation[10]. Most members of the public, according to this research, typically employ system 1 reasoning without resorting to more effortful system 2 processing. Although system 1 works well for most daily contingencies, ordinary citizens' predominant reliance on heuristic rather than analytic modes of reasoning is viewed as leading them to underestimate climate change risks, which are remote and abstract compared with a host of more emotionally charged risks (for example, terrorism) that the public is thought to overestimate[2,3].


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Another link
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# Discussion: Studying Content Creation
## (Starter Questions)

- Why do these findings matter? What do we learn?
- What are next steps / follow-on research questions?
- Comparisons / benefits / diminishing returns across case studies?
- Is this amount of manual, qualitative analysis necessary, or could it more be automated given these initial studies?
- Could attackers' efforts be more automated?
- How to determine account authenticity (by Twitter, outsiders)?

# Discussion: Tools
## (Starter Questions)

- (What) are these tools actually helpful (for)? And for whom?
- How could we make these tools better?
- What other tools would we create?