

The Politically Motivated Reasoning Paradigm, Part 1: What Politically Motivated Reasoning Is and How to Measure It

DAN M. KAHAN

Abstract

Recent research identifies *politically motivated reasoning* as the source of persistent public conflict over policy-relevant facts. This essay, the first in a two-part set, presents a basic conceptual model—the *Politically Motivated Reasoning Paradigm*—and an experimental setup—the *PMRP design*—geared to distinguishing the influence of PMRP from a truth-seeking Bayesian process of information processing and from recurring biases understood to be inimical to the same. It also discusses alternative schemes for operationalizing “motivating” group predispositions and the characteristics of valid study samples for examining this phenomenon.

THE NEW POLITICS OF “FACT POLARIZATION”

Polarization over questions of fact is a signature feature of contemporary political life. Citizens divided on the relative weight of “liberty” and “equality” disagree less intensely on the justice of progressive taxation (Moore, 2015) than on the reality of human-caused global warming (Frankovic, 2015). Democrats and Republicans argue less strenuously about whether public schools should permit “voluntary prayer” (Smith, Marsden, & Hout, 2014) than about whether permitting citizens to carry concealed handguns increases or decreases homicide rates (Newport, 2015).

These are admittedly complex questions. However, they are empirical ones. Values cannot supply the answers; only *evidence* can.

Whether humans are heating the earth and concealed-carry laws increase crime, moreover, turn on wholly distinct bodies of evidence. There is no logical reason for positions on these two empirical issues—not to mention myriad others, including the safety of underground nuclear-waste disposal,

the deterrent impact of the death penalty, the efficacy of invasive forms of surveillance to combat terrorism—to cluster *at all*, much less form packages of beliefs that so strongly unite citizens of one set of outlooks and divide those of opposing ones.

However, there is a *psychological* explanation. Or at least a very strong candidate, the emergence of which has supplied an energizing focus for decision science research.

That explanation is *politically motivated reasoning* (Jost, Hennes, & Lavine, 2013). Where positions on some policy-relevant fact have assumed widespread recognition as a badge of membership within identity-defining affinity groups, individuals can be expected to selectively credit all manner of information in patterns consistent with their respective groups' positions. The beliefs generated by this form of reasoning excite behavior that expresses individuals' group identities. Such behavior protects their connection to others with whom they share communal ties (Sherman & Cohen, 2006).

Indeed, what an ordinary citizen believes about the effect of private gun possession, the contribution of humans to climate change, and like facts will typically have no meaningful impact on the risks these states of affairs pose or on adoption of policies relating to them. The reliable activation of affective stances that convey group allegiance will be the *only* use most citizens have for such beliefs. In such circumstances, politically motivated reasoning can be understood to be perfectly rational (Kahan, in press).

This essay, the first of the two, will synthesize the research supporting this account. Its foundation, is a conceptual model: the "Politically Motivated Reasoning Paradigm" (PMRP). PMRP identifies the features of politically motivated reasoning that distinguish it not only from a truth-convergent Bayesian model of information processing but also from various other, non-Bayesian cognitive biases.

The validity of study designs used to test hypotheses about politically motivated reasoning depends on how readily they enable manipulation and observation of the key elements of PMRP. This essay also describes an experimental setup—the *PMRP design*—geared toward these ends. How the PMRP model and design can be used to address unresolved research questions will be the focus of the companion essay.

PMRP: A CONCEPTUAL MODEL

Motivated reasoning refers to the tendency of individuals to unconsciously conform assessment of factual information to some goal *collateral* to assessing its truth. Such goals are myriad: maintaining a positive self-conception (Dunning, 2003); rationalizing self-serving behavior (Hsee, 1996); perceiving coherence rather than complexity in evidence informing important decisions

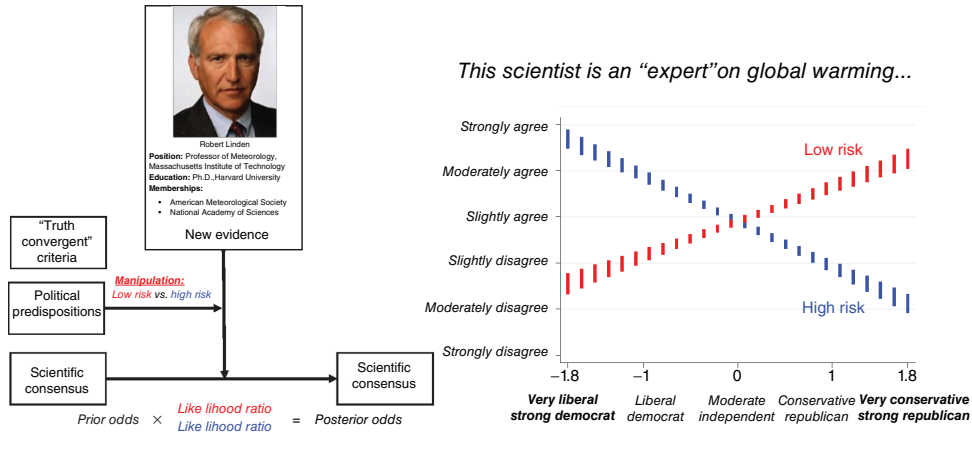


Figure 2 Politically motivated cognition of evidence of science consensus. Colored bars reflect 0.95 CIs. Source: Adapted from Kahan *et al.* (2011).

was represented as taking, study subjects effectively assigned this evidence a likelihood ratio equal to or greater than one depending on whether it supported or contradicted a conclusion congenial to their identities: namely, expert scientists agree with the position that predominates in *my* cultural group (Figure 2).

If individuals reason this way outside the lab, groups who are polarized on the contribution of human activity to climate change, the safety of deep geologic isolation of nuclear wastes, and the impact of concealed-carry laws on crime should hold opposing perceptions of *scientific consensus* on these issues as well. And they do (Kahan *et al.*, 2011).

This form of motivated reasoning is *not* confirmation bias, although it can easily be confused with it. Someone who engages in politically motivated reasoning will predictably form beliefs consistent with the position that fits her predispositions. Because she will also selectively credit new information based on its congeniality to that same position, it will *look* like she is deriving the likelihood ratio from her priors. However, the correlation is spurious: a “third variable”—her motivation to form beliefs congenial to her identity—is the “cause” of *both* her priors *and* her likelihood ratio assessment (Figure 1d).

This difference matters. Imagine we construct an experiment that changes subjects’ perception of how evidence relates to their political commitments. For example, we might furnish individuals’ information that manipulates the perception of how crediting evidence on climate change coheres with their groups’ identity-expressive attitudes toward free markets. We can then measure the significance subjects afford new evidence on climate change. If we assume a person will weight such information consistent with her priors due to “confirmation bias,” we should not expect the manipulation to matter.