

Creating Consensus on Climate Change

ARE THE INSIGHTS OF COGNITIVE SCIENCE ENOUGH TO DISPEL
CONTRARIAN MISINFORMATION ON CLIMATE CHANGE?

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Abstract

Climate change has become a polarized topic of discourse. Researchers are leveraging cognitive theories to understand how to best encourage climate action. There are moral questions that must be addressed when applying these theories to policy. The general consensus is that the public can be nudged into taking positive action in reducing the impact of climate change. Unfortunately, for all the researchers' earnest social concern, corporate interests are the true source of the political and public debate on climate. Those interests are no less capable of employing cognitive science in conveying their message. Until we address the interference of these obstructionists in our political system and public discourse, we will likely remain at an impasse until it is too late.

Climate change presents an existential threat unlike anything humanity has faced. Despite the risk to the health and wellbeing of the entire human population, our efforts to mitigate it lack resolve. Climate change should be a nonpartisan issue, but it has been deeply politicised, stifling consensus and limiting action to needless debate. We have glimpsed the types of disasters scientists predict will increase in frequency and severity, but many have yet to see themselves directly effected, and do not feel personally at risk. A lack of consensus and commitment have led to inaction that may bring us past a point of no return. We must take action immediately. Can we leverage the insights of cognitive science to create the consensus and commitment within the population to acknowledge the severity of the threat, and take meaningful action against it? I believe cognitive science has already been employed sufficiently, but is inefficient due to corporate interference in the public discourse on climate change.

The politicization of climate change presents a huge obstacle to applying cognitive theory to climate action. One reason for this is the reticence of political theorists to acknowledge truth in politics. Without a notion of correct or incorrect decisions, it is difficult, if not impossible to apply theory of heuristics and biases to political decision making. (Kelly, 2014, 179) According to Jamie Terence Kelly;

“(H)euristics are identified by showing that humans accomplish some complicated psychological task through the use of a simple rule (or set of rules), and biases are diagnosed by documenting cases where reliance on that rule leads us to make systematic errors of judgment. In each case, diagnosis of a bias in our judgment requires that experimentalists identify a standard of correctness for our judgments; otherwise there is no way to justify calling some application of the heuristic a bias.”(2014, 181)

Jamie Terrence Kelly's article "The Life You Save May Not Be Your Own" is an analysis of Libertarian Paternalism, which is an attempt to apply heuristics and bias research into design choice architecture for policymaking. The theory skirts the debate on truth and falsity, relying instead on individuals' judgement about whether the goal of policy nudging is in their best interest. While this brings us a step closer to applying theory of heuristics and bias to democratic theory, it has flaws. It is near impossible to know ahead of time what individuals' perceive to be in their best interest. This forces policy makers to work with broad statistical generalizations and assumptions, which inevitably favours the majority over minorities. The libertarian aspect of this theory is that choice architecture leaves room for the minority to make alternate choices. In this way, individuals who feel their lives are worse off due to policy nudges have not been coerced. (Kelly, 2014, 179-192) Avoiding coercion is an ethical imperative for policy makers in a democratic society. Therein lies the problem with the application of nudges in climate change discourse.

Colin Hickey, et al. argue for the use of nudging in population engineering to mitigate the effects of climate change in their paper, "Population Engineering and the Fight against Climate Change."(2020, 845-870) In it, they defend the use of choice enhancement, preference adjustment, and incentivization in policy to reduce birthrates to reduce the impact of Climate Change as morally justified. They use a "coercion spectrum" to illustrate the likelihood of a policy type to become coercive, with choice enhancement left of center and incentivisation between center and the coercive right. They are quick to differentiate their proposals from highly coercive policies like sterilizations and forced abortions, arguing that the existence of such policies does not

discount all population engineering interventions. They point to education and healthcare as effective methods of lowering fertility rates in a non-coercive manner as proof that it is possible to create ethical population engineering policy. However they immediately discount the least coercive option of choice enhancement due to the urgency of the climate crisis. (Hickey, et al., 2020, 845-870) They believe they should be implemented, but that methods that are more coercive are required.

They discuss preference enhancement as an effective and affordable option. This could take the shape of media campaigns used to change cultural norms and individual beliefs. This could range from rational persuasion to rhetorical tactics that avoid engaging the target rationally, such as “celebrity endorsement, narrative suggestion, (and) emotional appeal.” (Hickey, Colin, et al. 2016, 858) for which there are a number of effective historical examples. These methods use nudging and are viewed as non-coercive because, much like the choice architecture of Libertarian Paternalism, they preserve freedom of choice. The authors describe it as aiming “to subrationally influence citizens by suggesting ideas, role models, and narratives that emphasize and de-emphasize certain risks, costs, and benefits of procreative decisions; but these influences do not alter an individual's choice set, and preserve his or her freedom to emulate those narratives and role models or not.” (Hickey, Colin, et al. 2016, 859) In my view these preference adjustment methods are morally acceptable. Moreover they are likely far more effective than purely rational persuasion.

Joshua L DeVincenzo examines the effectiveness of climate change education to optimize its impact. In his article “Climate Change and Cognition,” he attempts to build

a foundation for a pedagogy of climate change by examining the relationships between public discourse, cognition and instruction. He observes that despite efforts to further climate change understanding through education, there are still discrepancies in public opinion. “Discrepancies are tied to a multitude of factors including partisan affinity, dynamics of in-group or out-group, impersonal versus personal interaction, and perceived thresholds of distance and time.” (DeVincenzo, Joshua L, 2019, 69) From a moral perspective, he argues, climate change must be mitigated, but there is opposition to dealing with emissions and funding interventions. He argues that “Obstacles to such actions stem from mental models encompassing ontological assumptions, cognitive biases, and misunderstandings of harm and risk.” (DeVincenzo, Joshua L, 2019, 74) I agree with this assertion, but believe he is missing the influence of bad faith actors.

His paper analyzes cognitive theory, adult learning theory and learning assessment from an online climate change course for Nurse Practitioners, using a satisfaction survey as a baseline. He observes that “The wider the distance between the self and the phenomena becomes, the more preexisting mental models of climate change will solidify, increasing the difficulty of constructing new mental models” (DeVincenzo, Joshua L, 2019, 71) He points to narratives as far more personally engaging than facts and figures and concludes;

“Vivid descriptions prompt learners to place themselves within the story and imagine the actions they would take in a low risk environment. Experiential information can supersede statistical information unless the statistical information is visually or narratively expressed in ways enmeshed with personal experience.” (DeVincenzo, Joshua L, 2019, 76)

Based on these conclusions, Colin Hickey, et al.’s beliefs that preference enhancement through rhetorical media campaigns are potentially more effective than engaging the user

rationally are sound. As a non-coercive option, this certainly has merit. However, if climate action is as urgent as experts say it is, is there a point where the moral necessity to mitigate the effects of climate change outweighs the moral cost of employing measures that are more coercive?

Colin Hickey, et al. suggest incentivization as another method to reduce fertility rates. This method leans closer to coercion, but they argue that just because it has been used coercively in the past (China's one child policy leading to infanticide, for example) does not mean incentivization is inherently unethical. However, they suggest:

“a progressive system of positive and negative incentives, in which the relatively poor are more likely to receive positive incentives and the relatively wealthy are more likely to receive negative incentives, will be the most important tool to employ in developed nations.” (Hickey, Colin, et al. 2016, 861)

Can a system that treats people unequally be ethical? Robert Franks interview in “Lessons from Behavioural Economics,” (2008, pp. 80–92.) suggests similar tactics when discussing income distribution. He argues for a “steeply progressive consumption tax. What you would pay tax on is not your income but your income minus your savings.”(2008, 86) He sees this as a way to discourage the wealthy from exorbitant spending that he believes influences the less affluent to spend beyond their means. From this perspective, everyone would be happier with what they have, and would, therefore, save more. (Frank, 2008, pp. 86-87) He avoids discussing the morality of his ideas, instead relying on a generalized assumption of public welfare. This omission presents us with the old dilemma: should individual freedoms trump the welfare of the group, or vice versa?

This brings us to the crux of the matter, corporate personhood and corporate social responsibility. The former affords corporations rights and freedoms of persons, which protects them from the repercussions of antisocial behavior. The latter is meaningless, because it is self-regulated, and, legally, no ethical imperative supersedes their obligation to shareholders. The Union of Concerned Scientists in “Who Helps and Who Hinders the Climate Conversation,” observes, “Companies are more likely to express commitment or concern about climate change in venues directed at the general public, and more likely to misrepresent climate science through their funding of outside organizations or in venues directed at the federal government.” (2012, pp. 20–30)

Climate change has been communicated through preference adjustment, both rationally and rhetorically, through statistics and narratives in media for decades, yet remains polarized. Recent attempts to use incentivization in Canada through the carbon tax have proven divisive despite the redistribution of funds back to citizens from the coffers of polluters. The source of this polarization is the alternate discourse being presented and funded by corporations to preserve their interests at the expense of public safety. According to Justin Pharrell’s article “*Corporate funding and ideological polarization about climate change*,” (2016, pp. 92–97) “Much attention has been given to understanding individual attitudes, but much less to the larger organizational and financial roots of polarization.” (2016, pp. 92) His study researches 164 countermovement organizations through 40,785 texts released between 1993 and 2013, and uncovers that;

“(O)rganizations with corporate funding were more likely to have written and disseminated texts meant to polarize the climate change issue. Second,

and more importantly, that corporate funding influences the actual thematic content of these polarization efforts, and the discursive prevalence of that thematic content over time.”(2016, 92)

He points to a growing number of corporate lobbyists and grassroots lobbying firms working for corporations, industry groups and associations, combined with deregulation of political finance and corporate wealth concentration as the source of climate contrarian discourse. (2016, 92) Due to the identified primary source of anthropogenic climate change, fossil fuel emissions, it is of little surprise that the Union of Concerned Scientists identified a number of energy sector actors as obstructionists. (2012, 21, Fig. 7) Their playbook is no less deceptive than the tobacco industries efforts to sow confusion when evidence arose that smoking causes cancer. (*The Evangelization of Peoples,*” 2019, 93-146) That playbook works extremely well;

“by taking advantage of precisely the network structure that...can under many circumstances help a community of scientists converge to a true consensus. When the propagandist consistently shares misleading data, they bias the sample that generic scientists in the network update on. Although unbiased scientists’ results favoring B tend to drive their credences up, the propagandist’s results favoring A simultaneously drive them down, leading to indefinite uncertainty about the truth. In a case like this, there is no need for industry to distort the way results are transmitted to the public because scientists themselves remain deeply confused.” (*The Evangelization of Peoples,*” 2019, 124)

These corporate actors, prioritizing profits over public welfare, are the source of climate inaction. Obstructionists employ the very insights I was hoping to leverage towards climate action. The anti climate science attitudes in Alberta are a prime example of incentivization in action. What narrative could be closer to the self than the loss of livelihood for those employed in oil and gas? That negative incentive is a great enough threat to solidify their pre-existing mental models of climate change. We must confront

and put an end to corporate obfuscation of the subject to move forward with climate policy.

For all the value research into cognitive theory offers us to improve the general welfare of our population, it is meaningless in the face of such well-funded deception. So long as this false debate on climate change exists, there will be political paralysis on the issue. We are already leveraging cognitive theory to improve education and guide public opinion on climate change, but those theories are being used to pull the public both ways. No amount of nudging will create the consensus we require to mitigate our effect on the climate so long as we allow corporations to fund politics and media discourse. So long as both sides employ it, cognitive research will not provide the clarity researchers hope it will.

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