

Climate Science, Economic Tropes, and Cultural Inertia

With the support of the Simons Foundation, SFU students were invited by the Institute for the Humanities to submit written research proposals that focused on issues related to citizenship. Patrick Belanger presented the following selected paper on November 14, 2007, at SFU Harbour Centre.

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INTRODUCTION

Canadian society embraces scientific technology, yet we are often willing to disregard predictions of the established scientific community. This work is an investigation of this paradox. My general concern is to examine the means by which robust empirical evidence may be discredited. Specifically, I consider whether and how Canadian notions of citizenship may facilitate such a project.

The study builds upon my past research into the discourse surrounding climate science. Earlier this year I examined the rhetorical tactics employed by the George Marshall Institute (referred to hereafter as the MI), a Washington D.C. think-tank, to mobilize doubt, encourage public apathy and forestall government initiatives to implement regulatory environmental policy. However, my intention in this paper is not to attack the MI (or other groups with similar political objectives). It is, rather, to assess how Canadian notions of citizenship might affect the relationship between science and policy features of citizenship today, and how may these features be mobilized to support public policy that contradicts empirical evidence?

RATIONALE

Current debate surrounding climate science hinges upon the question of whether the greatest potential danger stems from ill-conceived economic policies designed to curb emissions, or from environmental consequences resulting from unabated emissions (including the economic consequences of these results). An effective way to influence public understanding of, and response to, an issue is to frame it in a particular light. The MI employs this strategy by characterizing the debate as one between two potential societal outcomes: economic prosperity, or unwarranted, exorbitant expense. This entails strategic definition regarding the grounds of social welfare. Several questions become central. What is promoted as the basis of common value, and what is collectively prioritized? Does the idea of citizenship entail political engagement or sacrifice to the greater good? And at what scale does the greater good exist (the individual, local community, nation, all life)? Binding these concerns are the core questions: what influence is exerted by conventional patterns of belief on the formation of public environmental policy, and what is the linkage between public belief and policy enactment?

To address these questions, I consider the MI's definition of the problem domain within a neoliberal economic framework wherein citizenship entails material consumption. If there is indeed a problem, it is argued, salvation will come in the form of corporate technological innovation, embedded within and supported by the market economy. This tactic is enacted through appeals to lifestyle preservation. Depictions of stability, wealth, and material accumulation are bound to ethical constructions of the good life. This strategy hinges upon the metaphor of progress, and relegates governmental responsibility to a role supportive of entrepreneurial and technological innovation. A health/harm binary is constructed wherein the economy is depicted as guarantor of social well-being while regulatory action threatens to undermine the quality of life.

Crucially, this tactic is supplemented by cooptation of sustainable development discourse that constructs a proactive image while simultaneously reifying current economic practice. Even should the climate threat be genuine, the MI affirms that salvation will come in the form of corporate technological innovation, embedded within and driven by the market economy. Even were this practice not enacted, it is uncertain whether the previous tactic (appeal to lifestyle preservation) would have lessened impact; the MI's valorization and justification of individuals' self-interested motivations is a forceful appeal. However, the language of sustainability soothes what traces of social responsibility remain.

A P P R O A C H

My theoretical framework draws from the fields of rhetoric and discourse studies. Each field interprets society as a form of communication. Communication is held to be the creation, dissemination, and sharing of meaningful symbols as individuals and social groups; it is the core practice of human experience and one that shapes social, economic, and cultural rela-

tions. Yet while rhetorical criticism encourages detailed study of specific, purposive action, discourse analysis calls for more thorough consideration of individual texts' relations to broader patterns of social discourse. Their complementary levels.

Drawn from these two perspectives, my approach hinges on several core premises. First, while all knowledge is contingent, within the sphere of environmental debate, policy decisions should be made in light of the best available knowledge and evidence. In the material world, science has a privileged predictive capacity and thus should form the grounds of such decisions. Second, the art of rhetoric is essential to practical reasoning and collective deliberation. However, due to the provisional nature of ethics and knowledge, language may be marshalled on behalf of ambitions that run counter to the collective interests of broader society. There is always a danger that public information does not adequately reflect existing scientific data. One set of interests may be legitimated without appropriate transparency and without due public assessment of the best available evidence. The question here addressed is: how does the MI animate existing cultural values to propagate its ideas?

H E A L T H / H A R M : E C O N O M I C S

Logic is a powerful force. It persuades through the application of proofs, whether genuine or apparent, and claims adherence to the process of rational deliberation. This practice indicates the significance of naturalized assumptions, for enthymematic appeals (incomplete syllogisms) rely upon audience participation for their completion. Such intellectual cooperation encourages commitment to the argument at hand. Yet, because an integral element of a complete logical argument is left unstated, there is danger that the omitted premise is inaccurate. If the false premise derives from an established assumption, one may mistakenly identify with

a truth-claim on the grounds that it appears to stem from logical reasoning.

In the MI's strategy, the crucial, unstated premise is that the economy forms the basis of social health. From this conceptual origin, the MI proceeds to elaborate upon both the virtues of the socio-economic status quo and the dangers threatened by governmental inference with its mechanisms.

Addressing the issue of climate science, and arguing against government-mandated emission regulations, the MI asserts that the cost of government action contrasts unfavourably with the assumed degree of scientific uncertainty. The only known factor, it claims, is the economic cost of action, and it is both unwarranted and exorbitant. While the threat is vague, the potential damages to be incurred through governmental regulation are tangible and extremely clear.

Rooting the climate debate within the metaphorical free market, the MI employs a dichotomous fear appeal and constructs a health/harm binary. The fact that climate change, left unaddressed, will likely cause substantial economic as well as environmental harm threatens to invalidate its project. This actuality is therefore simply omitted from discussion. By addressing but one dimension of the issue, the MI is able to maintain argumentative coherence: regulatory action will injure the economy, and maintenance of current economic practice assures enhanced social and material wellbeing. In the words of Livesey (2002), "the effects of governmental policy, as opposed to the effects of global warming, [a]re made the cause of crisis and concern" (p. 140).

APPEAL TO LIFESTYLE PRESERVATION

Every movement that would recruit its followers from among many discordant and divergent bands, must have some spot towards which all roads lead.

—Burke, 2006, p. 150

The MI attempts to occupy an indeterminate site within the discursive terrain. By opposing governmental introduction of industry regulations, it argues on behalf of the economic status quo. Yet this stance necessitates an attack on the established scientific community and its recommendations for such legislative measures. It is this paradox, the assault on one established institution while lauding another's virtues, that complicates its overarching strategy. Tactical mobilization of the spirit of free inquiry is central to the attempt to reconcile, or at the least, obscure, this incongruity. Humans make sense of the world by relating alien phenomena to familiar and understood patterns and beliefs, what Hall (1982) calls the "inventory of traditional ideas" (p. 73). Cultural traditions and inertia thus exert substantial influence on prevailing public opinion. Commenting on what he depicts as the common social desire for unity, Burke (2006) writes, "people are always willing to meet you halfway if you will give it to them by fiat, by flat statement, regardless of the facts" (p. 158). Within the context of debate surrounding climate science, one might readily substitute the word "unity" for "familiarity." For integral to many cultural formations is the tendency towards stability. Crucial, then, is an articulation of that which is to be stabilized.

The MI presents a choice between two opposing paths: continued economic prosperity or economic devastation. This is an appeal to economic self-interest and lifestyle preservation. The MI's definition of the good life as one based upon technical progress and material accumulation is an appeal to ethics; continued material prosperity is championed as society's core value and ambition. Presented as the ultimate goal is "economic security—the ability to continue our way of life without serious disruption and interference" (O'Keefe, 2005, p. 3). By contrast, governmental regulation is depicted as a prospective threat to society's basic structure.

Perelman and Olbrechts-Tyteca (1969) observe, "In argumentation, the important thing is not knowing what the speaker regards

as true or important, but knowing the views of those he is addressing" (p. 25). Words embody values, and thus a rhetor who stimulates his audience's desires through appeals to emotion, and encourages an association between his argument and the satisfaction of those desires, maximizes the potential for successful persuasion. Appeal to mythic heritage is one means to do so.

Myths embody a group's cultural ideals. And persuasive strategies may benefit from the reification and exploitation of these principles, a practice that can occur unconsciously as an appeal draws upon conventional patterns of belief. In turn, a strategy cognizant of deeply ingrained beliefs stands to profit immensely. Crucial here is an appreciation of the resilience of existing cultural and socio-economic patterns and consideration of their exerted influence upon interpretive acts. Canadian culture is essentially predicated upon beliefs dating from the Enlightenment, a time associated with the birth of modernity and roughly articulated by the publication of John Locke's *On Human Understanding* in 1690, and the American and French revolutions (1776 and 1789). Of central consequence is a belief in humanity's capacity for progress through formal reason and technological advancement. Classical liberal thought came to perceive humanity as an aggregate of rational, utilitarian individuals, a perspective that calls for limited governmental interference in individuals' drive to amass wealth.

Demonstrating an understanding of "when to "spiritualize" a material issue, and when to "materialize" a spiritual one" (Burke, 2006, p. 163), the MI thus employs an ambiguous representation of the scientific project. Its properties are depicted as at times rigid, at times ephemeral. When critiquing the politicization of climate science, the MI alludes to a metaphysical strain of purity. However, when discussing the potential economic repercussions of governmental regulation, it emphasizes immediate material consequences: "Make no mistake about it, when advocates make their

case for reducing live" (O'Keefe, 2005, p. 4). This point is reiterated: "The bottom line is that achieving Mr. Gore's objective would result in economic stagnation and a reduction in our standard of living" (O'Keefe, 2006, p. 2). In an attempt to expand this argument's resonance into the sphere of ethics, it is argued that the governmental legislation recommended by the IPCC "At a minimum . . . wastes money and scientific talent," and at worst, "will lead to policies that do significant harm to national economies and human aspirations" (O'Keefe, 2006a, p. 4). This reference to "human aspirations" suggests the MI's attempt to broaden its appeal into the realm of ethics. Yet even this ideal is soon reduced to an underlying economic framework.

TECHNOLOGICAL INNOVATION

Arguing, "technology and not energy starvation is a better road to take" (O'Keefe, 2006, p. 3), the MI advocates a set of policies which congregate under the metaphor of the neutral market economy. Elucidating this position, it states, "There is a moral imperative to ensure that future generations enjoy greater prosperity that can be achieved only by maintaining a strong economy and promoting the innovation needed to keep it strong" (p. 3).

Such a model pays no heed to the relation between environmental and social quality standards. The economy is depicted as both provider for and guarantor of social health and progress. Within this entrepreneurial framework, welcome innovations are assumed to arise within a precise domain: the corporate sector. In contrast to its portrayal of climate science as either deficient or biased, corporate volunteerism is heralded as the means by which to achieve technological, environmentally-beneficial premise integral to the MI's prescribed response framework.

Heralding the promise of financially-driven private innovation, the MI claims:

Energy is a cost, and businesses and consumers have real incentives to reduce costs where it makes sense to do so. Today's prices are almost certainly stimulating further improvements in energy efficiency and impacting changes in our capital stock. But, those improvements take time to become evident. (O'Keefe, 2005, p. 4)

Beyond its familiar call for patience, this passage is notable for its prescribed reliance upon market mechanisms. As noted by Sharon Livesey (2002), within such a framework, "the market functions as an ostensibly neutral and apolitical arbiter of competing social interests" (p. 135). This model, it is suggested, provides the stimulation required to assure the development of efficient technologies, which may diminish any negative impacts of climate change.

In an exemplification of argumentative self-reinforcement, the MI thus demands that its audience "[accept] the fact that abundant, competitively priced energy is essential for a robust economy. And, a robust economy is essential for the R&D needed to bring forward new and more secure sources of energy" (O'Keefe, 2005, p. 6). This formula seems effective due to its circular insularity. If one accepts the premises that, first, economics are the paramount social consideration, and second, any restriction of CO₂ emissions will cripple national economies, then there is no access point for critique. Here, "Uncertain knowledge about nature has thus been exchanged for certain truths, [from a] commercial perspective, about what constitutes basic social necessity" (Livesey, 2002, p. 130). The sole certainty in this equation is the potential for economic (and thus social) harm wrought by ill-founded governmental regulations. Not only is climate science still insufficiently conclusive to justify such actions, their implementation would hinder society's best hopes for ameliorating the problem should it eventually prove genuine.

Within the MI's proposed responsive framework, government is thus to play a "supportive," as opposed to a regulatory role. Its chief func-

tion is to create and defend a socio-economic environment congenial to corporate technological development. The MI thus draws upon the values of Classical liberal thought: humanity is characterized as an aggregate of rational, utilitarian individuals, and governmental regulation threatens to interfere with the private sphere. To heed the IPCC's recommendations, it is argued, governments will be required to transgress individual freedom: "government action would be needed to induce or seduce people to purchase something that they have chosen not to" (O'Keefe, 2005, p. 5). Worse still, "achieving a reduction in emissions would require government controls on the type of vehicles sold" (O'Keefe, 2006, p. 2).

Such a position stands in stark contrast to the MI's suggested role for government within the context of missile defence. For with regards to the latter, it calls for state adoption of an explicitly interventionist stance involving legislation, regulation, and selective funding of research initiatives. Of note is the re-mobilization of idealized democratic practice. The MI argues, "the government has failed to provide effective missile defense largely because the demand for it has not been strong enough to overcome the demand against it" (MI, 2006, p. 56). This claim is echoed in the call for "direct citizen participation in demanding necessary government action" (p. 83). Beyond its assertion that governmental regulatory action is, in this instance, welcome, this argument brings into conflict two discrete convictions regarding the foundations of sound policy. On one hand is public advocacy; on the other, hard scientific data and expertise. This admission breaches the MI's fabricated distinction between pure and contaminated science.

ABSTRACTION AND NATURALIZATION

Allusion to a compassionate social model is an entreaty to ethics. Attempting to translate this discourse into an instrumental framework, the

MI transfers its argument from an evaluative to a descriptive realm. This move aims to reify current socioeconomic practice and provides for evasion of notions of individual or national responsibility. For when the arbitrary natures of existing political and economic institutions are rendered invisible, all calls for their transformation are obviated.

Hall (1982) claims that humans consent to existing socio-political and economic systems because they either think it's beneficial to their interests, cannot imagine an alternative, or think the current status quo is natural (p. 65). Through appeal to lifestyle preservation, the MI targets the first of these motives. Yet no matter how well presented, few arguments will convert an entire audience. In response to this understanding, the MI strives to appropriate, and thus eliminate, opponents' argumentative grounds. Stating "problems poorly defined are problems poorly solved" (O'Keefe, 2005, p. 1), the MI claims a knowledge deficit in the field of climate science. But the phrase might also serve as a summary of the organization's broader discursive ambitions. Two tactics are central towards this end: obfuscation of responsibility and assimilation of sustainable development discourse.

The MI's chief ambition is to equate economic and environmental interests in order to fuse the two and render them mutually dependent and thus inseparable. The intended result is what Carvalho (2005) labels a "discursive coalescence" (p. 21), wherein "The very forces that could constitute a threat [a]re discursively turned into tools of legitimation and reinforcement of the existing order" (p. 9). A second, related, desired subvert alternative proposals and restrict the discursive terrain. As within patriotic discourse, only one voice and language is possible. Towards this end, the language of sustainable development is employed to "harmonize economic growth with environmental protection . . . [It] annihilate[s] most of the scope for critique" (p. 12). Drawing additionally upon the discourse of ecological moderniza-

tion, which argues environmental protection can lead to economic gains, the MI endeavours to preserve and legitimate the foundations of current economic practice whilst accommodating requisite ecological concerns. Once again, by evading consideration of which institutions should be responsible for regulating this process, it attempts to shroud the debate and potential responses in strategic formlessness. The aim is to obscure potential courses of, and agents and sites for, action. Even were citizens' direct political involvement desirable, in this context, it is wholly unnecessary.

Contrast this strategy to that directed towards the issue of missile defence. Elucidating relevant actors and tasks regarding the latter, the MI (2006) writes:

[W]e provide a succinct list of recommendations whose purpose is to focus attention on missile defense requirements and provide a programmatic basis for action. They are designed to furnish an agenda that sets forth concisely what must be done, how it should be done, and who should do it if the United States is to deploy the robust, layered missile defense that will be essential for our national security in the years ahead. (p. ix)

This passage asserts that this complex scientific problem is straightforward to address through a combination of existing technical infrastructure and political will. This characterization directly opposes that allocated to the issue of climate change. While precision is king in the former, vagueness rules in the latter.

Towards this end, a crucial shift is enacted which transfers charge for climate-related initiatives from the national to the international level, thereby justifying policy responsibilities. The core argument hinges upon the qualitative nature of varying nations' obligations under the Kyoto Protocol: primarily, China and India's exemption from mandatory CO₂ emission limits due to their status as developing nations. There are multiple arguments for and against such exceptions. In brief, developing nations argue

the following: the majority of historical anthropogenic CO₂ emissions are the responsibility of Western nations; such countries should shoulder the burden of tackling the problem. Second, implementation of environmental technologies requires economic growth; development must thus take precedence. Those who counter this position argue the redundancy of developing nations' repetition of past mistakes. They claim, rather, that environmental initiatives should be implemented in concert with development projects. Demands have been made that developed nations subsidize relevant technologies towards this end. The case of China is of particular importance, for by 2008, the nation is likely to become the world's leading emitter of CO₂ due to lack of environmental measures and reliance on coal combustion to meet its energy needs ("A Warming World," 2007).

In an attempt to address this issue while simultaneously claiming moral high ground, the MI argues, "There is a moral imperative to help developing countries, which will soon account for 60% of greenhouse gas emissions, develop in a way that meets their economic aspirations while better controlling those emissions" (O'Keefe, 2006, pp. 2-3). Articulating this tactic, the MI asserts:

Since most of the future growth in emissions will be from developing countries, a major focus must be to help them realize their economic aspirations, while also lowering their carbon intensity. That is clearly doable and cost-effective. In addition, it is the right thing to do. There can be no justification for ignoring serious human and environmental problems that we know how to solve—malnutrition, high mortality and disease rates, and polluted water for example—while focusing on one that we do not adequately understand and, at best, is distant. (O'Keefe, 2005a, p. 2)

It is impossible to draw a precise distinction between social, economic and environmental considerations. This acknowledgment informed negotiations at the 2002 World Summit on

Sustainable Development in Johannesburg. At that instrumental conference, all three elements were defined as integral pillars of sustainable development (Louka, 2006, p. 52). The MI is thus justified in questioning the ethics of dedicating resources to an environmental issue while poverty remains ubiquitous. However, absent from its proffered list of "serious human and environmental problems that we know how to solve" is the issue of climate change. This argument is, therefore, at best a reminder that any effective solution to the issue will require joint consideration of social and economic factors. At worst, it is an attempt to exploit their audiences' compassions in a manner which averts unwelcome attention from past and present industrialized nations' economic practices and their environmental repercussions.

CONCLUSION

This paper has tried to demonstrate how language may be mobilized to create both doubt and conviction in the face of compelling empirical evidence. But, moreover, it has brought into question the role varying conceptualizations of citizenship may enact in public debate.

Elaborations upon conventional Canadian beliefs (e.g., allusion to the principle of free inquiry, and affirmation of the present economic formation's crucial relationship to social health), may encourage uncritical reception of rhetorically-charged messages. A conception of citizenship that emphasizes the term's political heritage is fundamentally interested consumer. By stressing the potential economic costs to be spawned by governmental regulation, the MI speaks to the latter of these narratives.

Two central questions remain unaddressed. First, informed civic deliberation may indeed depend upon the quality and accuracy of commonly available information. However, even if quality, accurate information were readily available, it is uncertain whether average Canadians would be prone to accept substantial changes to their lifestyles? Is the MI's association of mate-

rial and social well-being with neoliberal economics sufficient to encourage public aversion to governmental policy that might impact the status quo? Second: who are the targets of right-wing think-tanks: the general public, or policy-makers who share the MI's political orientation? If the situation is the former, what impact do such discursive projects enact? If the answer is the latter, and the public is thus excluded from the policy debate, what does this say about how our policy decision are created?

This paper has not tackled these matters. However, a fuller understanding of the interface between science, media, and public policy decisions would benefit from an articulation of each factor's mutual relations. In a functioning democratic society such as Canada, public opinion does matter. And in the context of an issue as broadly significant as global climate change, the role and definition of citizenship is of very real consequence.

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