Informed Citizens

Conceptions of Global Climate Change and the Ability to Act

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The recent contributions of the academic “posts” – postmodernists, poststructuralists, among others– have drastically altered the course of modern political science, philosophy, and practically all other academic disciplines that fall under the category of the arts, social sciences, or humanities. That said, the main contribution of the “posts”: their rejection of unifying meta-narratives and their suspicions of ‘objective’ knowledge, have not swept across the traditional scientific community in the same way they have affected the “soft” sciences. As has been described by contemporary postmodern theorists such as Paul Virilio, modern science has not benefited from the epistemological introspection of postmodern critique and also has also lost much of its philosophical underpinnings. In his book *The Information Bomb*, Virilio goes so far as to say that “Science, which is not so attached to ‘truth’ as once it was, but more to immediate ‘effectiveness’, is now drifting towards its decline, its civic fall from grace”\(^1\). In the face of such pessimism, the objective of this paper is to analyze the current state of climate science. Specifically, I intend to drawn upon Canadian case studies in order to analyze the political implications of the production and distribution of modern scientific knowledge with a focus on the most important issue of our time: climate change.

There is little doubt that climate change is crucial to the future of life on this planet, and yet the policy response of the developed world has been grossly disproportionate to the data presented by the scientific community. Is our inaction attributable to a declining respect for the objectivity of science? Why do we continue to consume resources, degrade topsoil, and produce energy at unsustainable rates?
With respect for the complexity of these questions, this essay will present and critique several possible explanations. I will focus on the structures and institutions that have led us to our current state of misrepresented science and environmental degradation and examine the social theories that have emerged in response to the situation. In addition, I plan to explore my skepticism of the ability of the majority of citizens in Canada, or any country for that matter, to make ‘informed’ decisions regarding environmental issues, political or otherwise. And in so doing, attempt to arrive at some sort of definition of an appropriate level of knowledge regarding environmental politics that would allow citizens to make these ‘informed’ choices.

Contemporary Enviro-Politics:

Before we examine the “why and how” of the relationship between science, knowledge, and politics, we must first contextualize modern global environmental politics. Of utmost importance are the two most recent major international conferences: Kyoto and Copenhagen as well as their objectives and subsequent agreements. Firstly, both conferences were organized in response to the consensus among the scientific community that the earth’s atmosphere was experiencing a warming trend and the agreement that anthropogenic Greenhouse-Gas (GHG) emissions at least a major cause of said warming. Furthermore, the continued warming of the atmosphere is predicted to have catastrophic effects worldwide. Thus, in 1997, the Kyoto Protocol, an international agreement linked to United Nations Framework Convention on Climate Change [UNFCCC], was adopted. “The major feature of the Kyoto Protocol is that it sets binding targets for 37
industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. These amount to an average of five per cent against 1990 levels over the five-year period 2008-2012.” Then, most recently in 2009, the international community met in Copenhagen again with the hopes of improving on Kyoto in light of updated scientific data. This time 41 industrialized countries formally communicated their economy-wide targets to the UNFCCC; however, in a press release UNFCCC Executive Secretary Yvo de Boer had this to say:

It is clear that while the pledges on the table are an important step towards the objective of limiting growth of emissions, they will not in themselves suffice to limit warming 2 degrees Celsius.

The mention of two degrees Celsius is in reference to the recommendations of the Intergovernmental Panel on Climate Change (IPCC), “…the leading body for the assessment of climate change, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide the world with a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences.” Put quite simply, an international body of respected peer-reviewed scientists believes that to avoid a global crisis of unprecedented scope, we have to keep the average global temperature from rising more than two degrees Celsius, and as of now, the international treaties intended to achieve this goal are failing.
'Appropriate’ Levels of Knowledge:

To begin our discussion of why we are supposedly failing the earth, it is useful to ask ourselves whether anyone on earth is truly ‘informed’ to an acceptable level on matters of climate science, to the point that we would trust them with the fate of our planet. Despite the cautionary merits of this question, the answer is irrelevant; we can either act with the evidence available or not. Further, it is not the nature of our political organizations that the decision-making power falls to the persons most ‘informed’ on the subject. On the contrary, in Canada’s contemporary political landscape, power is more and more concentrated in the offices of Prime Ministers and Premiers and as a result the major decisions regarding environmental policy fall to them. In light of this, I sense it is not unreasonable to expect that citizens maintain a certain level of knowledge regarding environmental issues so that they can then elect representatives that reflect their opinions.

As is fundamental to democratic theory, the citizens of a nation must be sufficiently ‘informed’ on matters of climate and environmental science in order to hold any power over the outcome of policy. Yet if we accept the previous statement, new problems emerge. Firstly, as was suggested by Virilio, modern science has become perverted by nationalistic, economic, and militaristic influences among others and thus our analysis cannot treat science as objective or free from bias. Secondly, as we accept that a certain level of knowledge is required of each citizen in order to make an informed political decision, we also must decide how much
knowledge is enough. And finally, we must analyze the accountability and effectiveness of the institutions that package and distribute scientific information.

How much science should Canadian citizens understand before they are sufficiently ‘informed’? Are peer-review scientific articles about the oil sands important to a citizen before they ultimately support or oppose them with their vote? Is it even possible to predict the aggregate environmental effects of the oil sands project? Can we say with any certainty that the oil sands’ environmental destruction is not worth its economic benefits if that wealth leads to innovation for the future? My initial answer to these questions is no; uncertainty abounds. And as a result, any organization or individual who is completely convinced of the correct course of action should be met with severe suspicion.

So again we return to the question of how citizens should approach the situation. “Look at the science!” is the rallying cry of environmentalists who plead with us to consider their ‘objective’ reality. Ironically, there exists more potential in the rhetoric of the economists and skeptics who manufacture doubt and point to the economic and human costs of ‘sustainability’. In his book *The Archaeology of Knowledge*, Michel Foucault, writes: “we must also question those divisions or groupings with which we have become so familiar. Can one accept, as such, the distinction between the major types of discourse, or that between such forms or genres as science, literature, philosophy, religion, history, fiction, etc., and which tend to create certain great historical individualities?”6 Thus we must heed both
Foucault and the skeptics by questioning scientific information as a separate category free from the bias, advocacy, and self-interest that we deal with in the fields of political science and sociology.

Ultimately, as has been argued by postmodernist theory, context and intention influence all knowledge-producing individuals and apparatuses. Foucault provides just such an argument that I contend is an excellent template for analyzing climate science issues: “...these divisions” he writes, “whether our own, or those contemporary with the discourse under examination - are always themselves reflexive categories, principles of classification, normative rules, institutionalized types: they, in turn, are facts of discourse that deserve to be analyzed beside others; of course, they also have complex relations with each other, but they are not intrinsic, autochthonous, and universally recognizable characteristics”7. So to heed Foucault’s advice, I contend that analyzing the relationship between the disciplines that surround Canadian and international climate science is crucial to unearthing some form of predictive ‘truth’. Using Foucault’s framework, we can work towards a transparency of influence in the realm of climate debate, allowing us to deconstruct some the arbitrary classifications, normative rules, and perversions. In so doing, gain a better understanding of the impediments to climate policy and ‘informed’ citizens. Two such impediments that I see as critical, ability and motivation, will be the topic of my next section.
The Interplay of Ability and Motivation:

Perhaps the most compelling theory explaining the modern citizen’s inability to formulate ‘informed’ opinions regarding climate change policy is simply the availability of practically limitless information. As Virilio writes in *The Information Bomb*, “…the information revolution shows itself to be also a systematic snooping operation, which triggers a panic phenomenon of rumour and suspicion, and which is set to ruin the foundations of ‘truth’ in professional ethics and hence the freedom of the press”8. In essence, Virilio is suggesting that the availability of information on the Internet or otherwise has led to our current state where decades of scientific research can be called into question through a simple newspaper article, an idea that was validated just this year in Canada’s national newspaper.

During the UN Climate Conference in February of 2009, several scientific scandals involving the IPCC became the subject of media scrutiny. Following this trend, an article was printed in the influential Canadian newspaper *The Globe and Mail* entitled “The Great Global Warming Collapse”. Its author, Margaret Wente follows the title with the disclaimer “as the science scandals keep coming, the air has gone out of the climate-change movement”9. Now I refuse to spend any serious time defending the thousands of scientists of the IPCC, but rather wish to focus on the political and epistemological implications of Wente’s article. In addition, I do not propose to refute climate skepticism in this section of my paper, for articles such as Wente’s are not uncommon, climate skeptics of all levels of intensity exists all throughout levels of society. My main intention is to use Wente’s article to analyze
the influence of skepticism on the citizens seeking to become ‘informed’. As has been suggested, ‘informed’ citizens are positives influences on our political institutions. Thus the question becomes, does Wente’s article facilitate or impede our progress towards an ‘informed’ citizenry?

In its skepticism I argue that Wente’s article has crossed the line into the territory of advocacy that she so vehemently rejects. To illustrate, near the end of her article Wente writes that none of her previous criticisms of the IPCC are “…to say that global warming isn’t real, or that human activity doesn’t play a role, or that he IPCC is entirely wrong, or that measures to curb greenhouse-gas emission aren’t valid. But [she asserts that] the strategy pursued by activists (including scientists who have crossed the line into advocacy) has turned out to be fatally flawed”10. In response I turn to a titan of modern skepticism, Friedrich Nietzsche who said, we “…are all advocates who do not want to be seen as such; for the most part, in fact, [we] are sly spokesmen for prejudices that [we] christen as ‘truths’”11. Thus inherent in Wente’s argument is the acceptance of the climate ‘scandals’ as truth, and by publishing those claims in a nationally-read newspaper her actions absolutely advocate a certain level of climate skepticism that will have measureable consequences.

As Foucault, Virilio, and Nietzsche have suggested, science cannot achieve complete objectivity so in this same way I find it ludicrous that Wente scolds a community of scientists for their advocacy without truly considering the meaning of
the term, especially without considering its implications in her own work. All that said, the main point I wish to take away from Wente’s article and the IPCC reports is evidence that wildly conflicting scientific viewpoints are presented to the average citizen from supposedly credible sources such as the United Nations and *The Globe and Mail*. Especially for the majority of Canadian citizens, whose day-to-day contact with the UN is limited, it becomes very difficult to discern whom to trust.

In Canada we have no binding legislation that reflects the severity of the climate change issue despite the dire warnings from the IPCC and numerous scientists within our borders. On the contrary, as of 2007, our GHG emissions were 26.2% above 1990 levels and 33.8% over our Kyoto Protocol targets”12. Thus it would appear that the IPCC, at least in Canada, is doing little to reverse growth or, as mentioned previously, climate skepticism is likely contributing to our lack of respect for the international climate agreements. Nonetheless, I will argue that there is potential in the analysis of another factor presented by anthropologist Joseph Masco at the University of Chicago. Masco’s article *Bad Weather: On Planetary Crisis* examines the relationship between the imagining of planetary catastrophe in mainstream cinema and the ability of the public to conceptualize a truly planetary crisis. Masco’s focus is “…an alternative history of the nuclear age… consider[ing] the US national security implications of a shift in the definition of planetary crisis from warring states to a warming biosphere”13. Within the article it is interesting to consider Masco’s argument that within the United States, climate change has been treated not as a threat to the earth but rather a threat to American national security.
Masco suggests that in the same way that film clips of nuclear detonations changed the way the public perceived issues of nuclear security in the 20th century, climate focused apocalypse films like 2004's *The Day After Tomorrow* and events like hurricane Katrina will change the way climate change conceptualized in the United States. In light of Masco’s arguments, I would argue that an understanding and respect for the possible catastrophic effects of climate change among the general public would definitely provide motivation for citizens to ‘inform’ themselves. And in this way, the public’s ability to conceptualize climate change issues is a crucially important factor in their motivation for the development of future climate policy.

At this point I wish to unite the previous concepts of ability and motivation in relation to climate change action. Giving the public credit for their powers of reasoning, it is important to recognize that their motivation to inform themselves is dependent on their respect for the institutions that create and distribute information. This notion is related to Virilio’s idea that in some cases the amount of conflicting viewpoints is overwhelming; however, I now intend to focus on the individuals who have decided to sift through various sources while at the same time evaluating their respective credibility. What I truly hope to suggest is that the motivation of individuals to inform themselves is eroding not only due to the explosion of new sources of information, but also to the crumbling credibility of traditional institutions of knowledge.
Case in point, recent news reports have detailed a leaked federal document that suggests that federal climate scientists are feeling “muzzled” by the federal government\textsuperscript{14}. The scientists in question take specific issue with new rules restricting their ability to speak to the media without government approval, which they feel is intended to reduce the number of climate change stories in the media. Regardless of the ultimate truth of the news reports, it is stories such as this that can wear away at the credibility of all forms of climate reporting, governmental or otherwise. The motivation of citizens to ‘inform’ themselves on any issue is dependent on their feeling of empowerment to seek out credible sources of knowledge, an ability that I argue is hampered not only by an explosion of sources but also the degradation (perceived or not) of traditionally reliable sources.

**Conclusion:**

For a citizen seeking to combat the potentially devastating consequences of climate change, knowledge is definitely power. That said I hope this essay has shown that ‘knowledge’ is a complex and delicate concept. As we have learned from the postmodern theory, there can be no knowledge of the ‘truth’ with our acceptance that no objective knowledge exists. Thus when faced with the issue of climate change, where the prognostic power of our knowledge will eventually determine our fate on earth, the rejection of ultimate truth is troubling to say the least. Yet, I reject the notion that this is cause for inaction, overly cautious deliberation, or apathy.
One of the initial uncertainties that this paper sought to investigate was the appropriate level of knowledge required of each citizen in order to make ‘informed’ decisions regarding climate change policy; however, in the conclusion the answer is no less tenuous. Perhaps due to the influence of the postmodernists, I now wish to remove the term ‘appropriate’ from the discussion. We cannot ask everyone to uphold an ‘appropriate’ level of knowledge by the same logic that we cannot ask everyone to agree on the distinction between knowledge and belief. If we accept that knowledge is inextricably qualified by advocacy, bias, and context as has been suggested by to varying degrees by Nietzsche, Foucault, and Virilio, then so too is the ‘appropriate’ level of knowledge dependent on context and perspective. That said, acknowledging that there is not singular level of knowledge required of democratic citizens is not an argument against the type of study proposed by Foucault. The facts of discourse undoubtedly deserve to be dissected. Simply because all citizens will never be equally ‘informed’, the thoughtful exposition of the prejudices and biases of our concepts, social structures, and institutions is still invaluable on our search for reliable prognostic knowledge.

Overall, in our modern political realm, I feel that dogma is the enemy, especially in reference to climate science. If we truly intend to satisfy needs of the current generation without compromising the ability of future generations to realize their potential, it is absolutely our responsibility to tirelessly endeavor towards the knowledge that will give us the best chance to avoid catastrophe.
Notes:


7 Ibid.

8 “The Information Bomb”: 108.


10 Ibid.


Bibliography:


