The Intrusions of Politics on Science: A Look at Global Warming

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Science has touched every aspect of our lives, adding value and comfort to our long hours of hard work - including small digital pens, computers, and even smart houses. The truth is, however, that not many of us are scientists, and the lack of knowledge as to specificities of the field often leaves us suspicious when examining political support a supposedly scientific endeavor might receive. Indeed, the often lucrative nature of science has helped promote the interaction between the scientific community and external institutions like corporations and political offices, a partnership that raises the question of whether this cooperation jeopardizes the integrity of the scientific method, culture, or identity. In a number of cases, external organizations - including governments - have had a constructive drive on science, but in many other cases, it has been restrictive. Commodification of the scientific research culture remained a rather low profile topic until turn of the century concerns on the issue of global warming brought scientific research to the forefront of public interest.

The question of humans’ influence on climate change is still subject to intense scientific debate. Upon exploring both the contributions to the debate made by European and American parties and the Kyoto Protocol, it becomes evident that politicians are finding the debate on global warming to be beneficial to their agendas. Contrary to the naïve belief held by some that science is an independent and perfect culture, members of the scientific community have began acknowledging the interference of external players on scientific research. Dr. Reid Bryson, widely considered the father of modern climatology, confirms that global warming has become a media ‘free-for-all’, and more of a political issue than a scientific phenomenon. The fact is, climate change has fallen prey to heated political and media propaganda and, as a consequence, the quality of science and the scientific process have lost a considerable share of its accuracy and credibility (Keefe, William). Adding to the debate is the fact that climate research, started in the 1960’s, is a relatively new branch of science. The experimental processes of climate research include various measurements of temperature and other climatic parameters using highly sophisticated and accurate equipment. The theoretical component, on the other hand, includes computer models which are used to simulate and predict future changes, using the currently available data from the experimental part.

It is when exploring the causation behind global warming that the issue becomes most contentious. While some cite human influence, others blame a solar phenomenon that they believe is not yet fully researched (Fraser Institute). Politicians who advocate human influence on global warming have proposed what is now known as the “Kyoto Protocol”. The protocol was introduced in December of 1997 in Kyoto, Japan, and is aimed at reducing the net emissions of certain greenhouse gases by the various developed nations (United Nations). The protocol does not specify what methods to use to achieve these reductions, but it is obvious that nations must either shut down businesses, implement expensive technologies to have cleaner less harmful emissions, or apply carbon taxes on citizens and businesses (Gore). The protocol, however, is strict in relation to the extent each nation must cut its emissions (depending on each country’s current contribution to it). For example, America and the European Union alone are contributing approximately 30% of the net green house gas emissions (World Resources Institute). Hence, signing the protocol is likely to create dire economic consequences to those single nations with higher contributions like the U.S., who must cut down gas emissions by a quantity equivalent to that of 30 countries combined.
Members of the European Union have since realised the political and economic implications of using the debate on global warming to exercise pressure on the United States. The 30 members of the union formed a single body in order to address the global warming phenomenon and support the Kyoto protocol. Meanwhile, the UN launched a committee in 1988 known as the Intergovernmental Panel on Climate Change (IPCC), which assesses the global climate every few years. The IPCC’s assessment reports maintained a constant support of the idea that humans do influence climate change. Yet, when one examines the composition and circumstances surrounding the IPCC, many alarming concerns arise regarding its political inclinations. The IPCC confirms that its sessions are held at the level of government representatives (IPCC), a strange protocol since decision making powers on scientific matters should be in the hands of scientists and not politicians. Another important fact is that IPCC does not carry out research nor monitor climate related data, but instead bases a large part of its assessment on peer reviewed and published scientific/technical literature (IPCC). In fact, an independent review of the fourth IPCC assessment report by the federally funded Marshall Institute in America, and privately funded Fraser Institute in Canada, found very alarming interpretations of the scientific data. Despite agreeing that the experimental data used by the IPCC are accurate (Marshall Institute; Fraser Institute), both institutions find the interpretation of the data and the computer models associated with them to be inaccurate. For instance, the temperature data collected by weather satellites seem to exhibit little evidence of atmospheric warming (Fraser Institute), yet the IPCC assessment report considers the same data to be alarming. It is acceptable to say that human emissions of CO₂ and other greenhouse gases are responsible for much of the increase in atmospheric concentrations of these gases (Marshall Institute), but the hypothesis that these gases are the only contributors to global warming has not been proven by formal scientific arguments, and the data available allow the hypothesis to be credibly disputed and even invalidated (Fraser Institute). Reid Bryson, one of the first scientists to introduce the notion of orthogenic climate change in the 60s, explains that gases like water vapor are at least 100 times as effective as carbon dioxide, and so small variations in water vapor are more important than large changes in carbon dioxide.

The theoretical component of the research was also put into question, particularly in relation to the computer models used to used to predict climate change. It is very important to note that modeling is one of four methods used as a scientific representation of data, and is intended to be a representation of reality, created by organizing existing data, and should not be used to predict or explain future phenomenon (Graziano and Raulin). Not only is modeling unsuitable for simulations and predictions, but many of the important processes included in IPCC’s model are not yet fully researched, such as the interactions between the oceans and the atmosphere, ocean circulation, water cycle, and the properties of aerosols, all factors that hinder our ability to accurately predict the climate system (Marshall Institute). The Fraser Institute concluded its evaluation by stating that there is no compelling evidence that dangerous or unprecedented changes in climate are underway (Fraser Institute). These and other remarks in the Marshall and Fraser reports the degree of interference politics has had on global warming research and the extend to which politicians are willing to go to gain support for their political agendas.

In contrast to their European counterparts, American politicians have done their best to silence the issue of global warming. There has been an increasing number of intrusions from the American government in scientific matters whenever science has threatened its agenda, and the intrusion into global warming is particularly important because of its moral dimensions. A famous incident exposing political interference took place in a congressional hearing in the 1980 when then-senator Al Gore asked James Hansen, a prominent director
of one of NASA’s institutes, if his testimony contradicted part of a report he wrote earlier about global warming. Dr. Hansen’s responded by saying “that paragraph is not one I wrote. It has been added to my testimony” (Gore), thereby proving that his testimony had been modified, and that NASA’s public affairs office had been ordered to review Dr. Hansen’s lectures, papers, and postings on global warming (Revkin, Andrew) - a clear intrusion on science, and a violation of Dr. Hansen’s personal freedom. This intrusion is reiterated by Francesca Grifo, a senior environmental scientist, who states that political interference in climate science has become a system-wide epidemic (Grifo) and a recent publication by the BBC states that 10,000 American researchers have protested political interference in the scientific process (Amos).

Global warming is of great concern to all of us, and political powers in both Europe and America have abused our moral commitments to Earth by manipulating climate science to serve their respective political agendas. Some reports even indicate that political and scientific lobbies have been making money out of global warming promotion and research, and governments around the world have collected taxes on the back of it all (Corbyn, Piers). The true disappointment lies in the departure of global warming from the authentic scientific arena, and that many of its scientists, unfortunately, have entered the debate to advance political or economic agendas, to gain funding for research, or to enhance personal reputations by receiving media attention (Marshall Institute). The scientific process has suffered the most in Europe, where it has been clearly manipulated. In the US however, there is no evidence that the government has intruded on the scientific method itself which is a relief mechanisms to silence the debate of global warming may change as government heads are replaced. One must concede, however, that governments have invested a lot of money into climate research to obtain good data, and advance theories about global climate, but at this point all that has been researched and published is far from conclusive, and it is still unknown to what extent humans are influencing climate change.

As an individual I have come to view global warming as less of a scientific or political issue than as a moral commitment to planet we inhabit. We cannot terminate government funding of scientific research, or climate research specifically, but we must encourage our governments to lay down rules and regulations to control political involvement in science, and to strongly enforce the scientific ethical code. Regardless of whether humans are the reason behind climate change, it is our duty, as citizens of the Earth, to protect it by using energy more efficiently, using renewable energy sources, and conserving forests and plants - all in hope that the generations to come will not have to worry about the air they breathe, the food they eat, and the water they drink.
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