GLOBAL CLIMATE CHANGE; THE HUMAN CONDITION,
THE MARKET AND ECOREALISM.

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<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1. Energy Consumption and CO2 Emissions</td>
<td>18</td>
</tr>
<tr>
<td>Table 2. Growth of world merchandise trade, 1991-2002</td>
<td>18</td>
</tr>
<tr>
<td>Table 3. List of Kyoto Protocol Annex I Parties</td>
<td>31</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vi</td>
</tr>
<tr>
<td>Preface</td>
<td>vii</td>
</tr>
<tr>
<td>Chapter 1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Chapter 2. Climate Change</td>
<td>6</td>
</tr>
<tr>
<td>Chapter 3. Globalization</td>
<td>11</td>
</tr>
<tr>
<td>Chapter 4. Increasing Consumption and Anthropogenic Climate Change</td>
<td>17</td>
</tr>
<tr>
<td>Chapter 5. The United Nations, Globalization and Climate Change</td>
<td>23</td>
</tr>
<tr>
<td>The Development of the United Nations and State Sovereignty</td>
<td>23</td>
</tr>
<tr>
<td>How the UN Has Dealt With Globalization</td>
<td>26</td>
</tr>
<tr>
<td>United Nations Framework Convention on Climate Change</td>
<td>30</td>
</tr>
<tr>
<td>Chapter 6. A Long Term View</td>
<td>36</td>
</tr>
<tr>
<td>Chapter 7. Natural Price Not Paid</td>
<td>44</td>
</tr>
<tr>
<td>Chapter 8. Being Human</td>
<td>52</td>
</tr>
<tr>
<td>General Thoughts on Arendt</td>
<td>52</td>
</tr>
<tr>
<td>Action and Making as Action</td>
<td>62</td>
</tr>
<tr>
<td>Action into Nature, Loss of Common Sense and Alienation</td>
<td>66</td>
</tr>
<tr>
<td>The Future</td>
<td>68</td>
</tr>
<tr>
<td>Chapter 9. Possibilities</td>
<td>72</td>
</tr>
<tr>
<td>Introduction</td>
<td>72</td>
</tr>
<tr>
<td>Global Housekeeping, Technology and External Costs</td>
<td>72</td>
</tr>
<tr>
<td>Creative Improvement</td>
<td>76</td>
</tr>
<tr>
<td>Final Thoughts</td>
<td>80</td>
</tr>
<tr>
<td>Bibliography</td>
<td>84</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Global Temperature Rise, Hadley Center</td>
<td>7</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Global Temperature Rise, US Gov't</td>
<td>7</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Fifteen countries with higher CO2 emissions, 1997</td>
<td>9</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Cycle of Globalization and link to climate change</td>
<td>15</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Radiative forcing of greenhouse gases</td>
<td>19</td>
</tr>
<tr>
<td>Figure 6</td>
<td>World Oil Consumption</td>
<td>20</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Global Compact.</td>
<td>27</td>
</tr>
<tr>
<td>Figure 8</td>
<td>External Costs to Society</td>
<td>47</td>
</tr>
<tr>
<td>Figure 9</td>
<td>The Rise of the Social</td>
<td>57</td>
</tr>
</tbody>
</table>
Preface

In this thesis I provide several possibilities for addressing the problem of anthropogenic climate change by weaving together globalization, Gregg Easterbrook’s concept of ecorealism, Adam Smith’s theory regarding natural price and market externalities and concepts and theories developed by Hannah Arendt in *The Human Condition*. As I will discuss in more detail, I believe that human activities are causing climate change, commonly referred to as global warming. While the effects of climate change remain unclear, the potential downside is great enough to warrant attention and a solution.

Chapter 1 provides a brief introduction to climate change and the theories I draw upon in this thesis. Chapters 2–4 discuss the scientific basis for anthropogenic climate change and link that change to globalization and increasing consumption. This establishes the chain of events leading to anthropogenic climate change. Chapter 5 discusses the United Nations and efforts within the current sovereign state system to address climate change. Chapters 6–8 discuss the three theorists and how their theories both explain climate change and provide a means to address climate change. Finally, Chapter 9 ties the theories together and offers two possibilities for solving climate change.

In this thesis I offer two primary solutions to the problem. An important assumption in my arguments is that over the long term of human existence we have seen overall improvement in our health and well-being. This is not to say that all people in the world are better off than the generations preceding them; but the further one goes back the
more likely that one is better off than one's ancestors. Throughout the ages, civilizations, cultures and tribes have disappeared from the face of the earth due to environmental changes, war, famine and other causes. That trend continues today as we see globalization subsuming indigenous societies around the globe. Change has always been with us and I suspect it will always be. In spite of the loss of cultures, the human population continues to expand and humans live longer and longer. While there have been ups and downs, the overall trend of improvement has been up. I believe the upward trend is likely to continue. Through our ability to overcome adversity, I believe we will overcome climate change.

My conception of progress is primarily anthropocentric. I am a conservationist and believe that nature has intrinsic value, but that intrinsic value must be weighed against other factors in determining courses of action. An example that illustrates my position is the debate over drilling in the Arctic National Wildlife Refuge. I oppose drilling there because I don't believe the need for more oil outweighs the environmental considerations. I believe the United States is too dependent on oil and should be looking for alternative energy rather than seeking more oil production. At the present time, the balance of environmental concerns outweighs the need for more oil. If the United States, or humanity in general, were to have a more pressing need for greater oil production, I would not necessarily oppose drilling in the Arctic. If humankind's need for oil were pressing enough, then that need would outweigh environmental concerns. I am quite anthropocentric in this aspect. We are to be wise stewards of nature. Habitats should not be arbitrarily destroyed and we should conserve our resources. On the other hand,
development and modification of the landscape are not necessarily negative. The environment is the foundational infrastructure upon which human progress and life itself is based on. This makes the environment a critical resource when viewed anthropogenically. Without a viable environment human progress will cease. Humanity cannot be the parasite that kills its host.

I will draw upon ecorealism and “the invisible hand” of the free market to offer that one solution will be through “global housekeeping” and incorporation of the external costs of climate change into the marketplace. The second means of addressing climate change in the long term is found, not so much in Arendt’s theory, but by drawing out her ideas regarding our psyche. This solution requires that the free market take humanity to a level of material well-being that allows the pursuit of self-actualization through a focus on improvement of the community vice self-actualization through consumption. In this society humans could fulfill their need to establish their uniqueness through “creative improvement.”¹ This would be a society in which consumption is not the primary focus. That is not to say that consumption will not occur. Consumption will occur, but it will not be the focus of society. Arendt’s concept of action and the need to establish oneself as uniquely human could be utilized to focus the desire to establish our uniqueness on improvement rather than action, in Arendt’s strict definition. The result would not only be a solution to climate change, but also to many other problems faced by humanity.

¹This term was taken from Professors Wilson’s lecture on April 21, 2003.
Chapter 1. Introduction

"On environmental affairs I can promise you . . . that public investments yield significant benefits within the lifetimes of the people who make the investment. The first round of environmental investments did not fail; they worked, which is great reason to have more. I consider this glorious if only because as a political liberal I long for examples of government action that serves the common good. The extraordinary success of modern environmental protection is such an example: perhaps the best instance of government-led social progress in our age. _For this reason I have trouble fathoming why guarded optimism about the environment is politically incorrect._" (My emphasis, Easterbrook p. xix)

One of the most significant challenges facing humankind and planet earth is to manage the environment in a sustainable manner. One aspect of sustainability revolves around the climate change debate. Developing viable solutions to mitigate the effects of global climate change is problematic in two respects. The first is that although the occurrence of anthropogenic climate change is relatively settled and accepted, some uncertainty still surrounds the identification of the causes of climate change and much uncertainty surrounds its future effects. The science is fairly definitive that climate change is occurring and scientists are fairly sure that it is caused by anthropogenic greenhouse gas emissions. Science is also fairly certain that the entirety of climate change is not entirely due to greenhouse gas emissions. One possible significant contributor to climate change is the sun’s activity. There are countless journal articles discussing the sun’s effects on climate change. The majority of scientists attribute some role to solar activity, while a very small number deny any role whatsoever or attribute a primary role. Paal Brekke, deputy project scientist for the European Space Agency's Solar and Heliospheric Observatory satellite, told BBC News Online: "The Sun may
explain up to 20% of global warming over the last 30 years.” (Kirby, 2000) The true mystery is how much of the global temperature rise is due to anthropogenic causes versus a possible “natural” warming trend. While it is probable that anthropogenic activities are the primary cause of climate change, it is not definitive. The United Nation’s Intergovernmental Panel on Climate Change (IPCC) writes in its Third Assessment Report (TAR) that anthropogenic causes are “likely”\(^2\) to be the cause of climate change; however, the research they summarize does not provide any certainty as to what the effects of climate change in the future will be. There are scores of scenarios postulated by scientists resulting from the anticipated global warming ranging from localized benefits and no overall harm to the triggering of a cataclysmic event that could destroy the Earth’s capacity to support human life. NewScientist.com lists scenarios ranging from spreading of deserts, a sea level rise of seven meters or more and Britain’s climate becoming like that found in Canada’s Hudson Bay area.\(^3\) A study by the National Center for Atmospheric Research shows that overall U.S. agriculture will benefit from global warming by a net of $300 million in 2060, although there will be some regions that decline. An internet search will show that environmental groups tend to emphasize the negative scenarios and “climate change” doubters emphasize positive or no impact

\(^2\)Whenever the following terms are footnoted, they are being used in the same context as the following definitions taken from the IPCC TAR Summary for Policy Makers, “the following words...indicate judgmental estimates of confidence: virtually certain (greater that 99% chance that a result is true; very likely (90-99% chance); likely (66-90% chance); medium likelihood (33-66% chance); unlikely (10-33% chance); very unlikely (1-10% chance); exceptionally unlikely (less than 1% chance).” (p. 2)

scenarios. The uncertainty of the science coupled with the future component of the problem rather than an immediate, concrete problem make it extremely difficult to engender widespread support for ideas or programs that could significantly increase costs to manufacturers and consumers today.

The second problem is that a post-Westphalian system of sovereign states has no satisfactory mechanism with which to deal with global problems. It was designed to minimize wars through balance of power and non-interference in domestic issues, otherwise known as state sovereignty. The system allows each sovereign state to use or abuse its resources in any manner it sees fit regardless of how that affects other nations or the world. If other sovereign states do not approve of the internal policies of another, they have few options. They can attempt to change another Nation’s policies through the use of diplomatic influence, the United Nations, implementation of economic policies such as sanctions or military intervention. In order for these attempts to be successful in changing the behavior of another state, the state attempting to effect change in another state must have the power and will to use that power. The Kyoto Protocol is a prime example of the risk of trusting the sustainability of the earth for humans to this system of international affairs. It illustrates that if a powerful country refuses to cooperate, the effort will likely be in vain.

In order to get down to the root causes of climate change it is important to avoid the political correctness and pessimism that surround this issue. (Easterbrook, p. 276, 314-316) While the sky is not likely to fall in the short term, climate change should be recognized as an issue that has the potential to cause great harm to the earth, or more
specifically, when viewed through Easterbrook's ecorealism, humankind and our current forms of existence. David Keys links climate change in the 6th century to the plague, geopolitical change in Mongolia, Turkey and Europe and the fall of the Aztecs. Stephen Schneider writes:

"For three decades, I have been debating alternative solutions for sustainable development with thousands of fellow scientists and policy analysts--exchanges carried out in myriad articles and formal meetings. Despite all that, I readily confess a lingering frustration: uncertainties so infuse the issue of climate change that it is still impossible to rule out either mild or catastrophic outcomes, [my emphasis] let alone provide confident probabilities for all the claims and counterclaims made about environmental problems." (p. 12)

However, some clarity can be realized by applying the concept of risk management to climate change. Risk management, a concept widely used in evaluating safety issues, provides a means to determine the risk of a problem or activity. A problem is evaluated based on its probability of occurrence and its potential consequences. In the case of climate change, the potential gravity of the problem makes this a problem that must be addressed. Although the probability is in question, the potential consequences of climate change make this a problem that warrants attention and mitigation. Intuitively it makes sense that at some point too much additional greenhouse gas will cause an alteration of the world climate. Precisely because we cannot rule out catastrophe, a do nothing option is not acceptable.

In order to develop effective strategies to solve the problem, the root causes must be identified. I find two primary causes of excess greenhouse gas emissions. The first is increasing consumption. Globalization has been the catalysis that has allowed consumption to increase on a massive scale. Through her explanation of the rise of the
social, Hannah Arendt provides insight into the causes of increasing consumption and why consumption is no longer in balance with nature. She also provides a possible solution through the application of her concept of action. The second cause of climate change is that the costs of consumption are not being borne by either the producer or consumer. This means that today's consumption is being subsidized by future generations. Adam Smith, the "Father of the Free Market" provides insight into the externalities of the marketplace and how they might be addressed.

In the following chapters I will first examine the science of climate change. Then I will show how consumption, globalization and climate change are related. Next I will discuss the current international system and efforts within that system to address climate change. Finally, I will examine three theorists, Easterbrook, Smith and Arendt, in terms of climate change and provide possible solution to climate change. The solutions are not only relevant to climate change, but also provide insight into other environmental and developmental issues. These solutions not only address climate change, but could address other environmental and developmental problems.
Chapter 2. Climate Change

Climate change presents a unique challenge to humanity. It clearly exemplifies the increasing interdependence of the world and the necessity of cooperative agreements in solving global problems. Actions taken in the United States affect those in other countries and vice versa. Climate change touches on development issues and the ability of developing countries to industrialize. It brings the changing nature of sovereignty to the forefront as illustrated by the United States’ withdrawal from the Kyoto Protocol. It is a global problem that requires a global solution.

Climate change, as defined by the United Nations Intergovernmental Panel on Climate Change (IPCC) in the Third Assessment Report (TAR) of Working Group I, means “any change in climate over time, whether due to natural variability or as a result of human activity.” (p. 2) This is a different definition than is used in the Framework Convention on Climate Change in article 1.1, which says, “‘Climate change’ means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

The global climate is extremely complex and has yet to be fully understood by scientists. The IPCC’s TAR is a comprehensive review of the science and research in respect to the climate system as of its publication. This report involved hundreds of scientists from around the world. It has been accepted by the vast majority of scientists and governments in the world. The National Research Council Committee on the Science of Climate Change was asked to review the TAR and said this in their report, “The
committee finds that the full IPCC Working Group I (WG I) report is an admirable summary of research activities in climate science, and the full report is adequately summarized in the Technical Summary." (p. 5) The USEPA also cites and supports the conclusions of the TAR. Virtually all of the literature supports that the mean global temperature has risen by around .5-.6 C. The IPCC summary for policymakers states that the global average surface temperature has increased since 1861 by approximately 0.6C+/-.2C. Figure 1 is from Hadley Center for Climate Prediction and Research and Prediction. Figure 1 is consistent with graphs from the IPCC and also to Figure 2, taken from the U. S. Environmental Protection Agency website on global warming.\(^5\) Another widely accepted observation is that sea levels have risen by approximately 10 to 20

\[\begin{align*}
\text{Figure 1: Global Temperature Rise, Hadley Center.} \\
\text{Figure 2: Global Temperature Rise, US Gov't.}
\end{align*}\]

\(^4\)BBC website.  

\(^5\)USEPA website.  
http://yosemite.epa.gov/oar/globalwarming.nsf/content/climate.html
centimeters over the last century. (p. 4, IPCC) This is due to expanding water mass because of warmer oceans and also melting ice. Snow and ice cover are very likely\(^6\) to have decreased by about 10% since the 1960's. (p. 4, IPCC) It is also generally agreed that no trends can be seen in respect to tropical and extra tropical storms. Further no systematic changes have been noted in the frequency of tornadoes, thunder days or hail events. (P. 5, IPCC) This does not mean that changes in storm events will not occur, but rather that at this time no conclusions can be drawn because of either a lack of data and/or a lack of understanding of involved systems, or because climate change will not effect these phenomena.\(^7\)

Scientifically, the debate primarily centers around the effects of global warming and not around the occurrence of global warming or whether increased CO2 levels are occurring and that these increases in CO2 are a result of human activities. According to the National Research Council, these issues have largely been resolved;

"The IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue. The stated degree of confidence in the IPCC assessment is higher today than it was ten, or even five years ago ... Despite the uncertainties, there is general agreement that the observed warming is real and particularly strong within the past twenty years." (p. 3)

The use of the word "likely," which means a 60-90% chance, indicates that science has not "proven" that global warming is a result of human activities. The NRC lists the three

\(^{6}\)Defined as 90-99% chance

\(^{7}\)USEPA website.
http://yosemite.epa.gov/oar/globalwarming.nsf/content/ClimateUncertainties.html
following areas of uncertainty in terms of the cause of global warming, "uncertainty remains because of (1) the level of natural variability inherent in the climate system on time scales of decades to centuries, (2) the questionable ability of models to accurately simulate natural variability on those long time scales, and (3) the degree of confidence that can be placed on reconstructions of global mean temperature over the past millennium based on proxy evidence." (p. 3) In addition to these uncertainties, there is a lack of understanding of feedback loops in the climate system, the role of ocean currents, what the effects of global warming will be and if they will trigger a point of no return or an irreversible cataclysmic event.

This all leads to the problem on how the world should address this problem. As

![Figure 3: Fifteen countries with higher CO2 emissions, 1997.](image-url)
can be seen in Figure 3, this is a global problem from around the world. Therefore, it can only be solved on a global level. It is currently being addressed through the near anarchy of the sovereign state system based on Westphalia, through the United Nations and through civil society. R. F. M. Lubbers said,

"The need for a transborder policy has gradually grown. The simple fact that states, companies, and societies in the various geographical locations are together filling one space with a 'dangerous gas,' as a result of which there is the threat of a worldwide climate change, already makes it clear that the CO2 problem is a transborder problem." (p. 6, 1999)

In order to arrive at solutions, the root causes of climate change must be addressed. The next few chapters set out the root causes of climate change, examining the links between globalization, consumption and greenhouse gas emissions.

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8Global Policy Forum. [http://www.globalpolicy.org/socecon/tables/co2em2.htm](http://www.globalpolicy.org/socecon/tables/co2em2.htm). Graph created by Benjamin Holt, 1997; original source is World Resources Institute.
Chapter 3. Globalization

Globalization is a word used frequently in discussions of a myriad of issues facing the world today. The Australian APEC Study Center, a unit of Monash University, states that in 1998 there were 2822 academic papers written and 589 new books published in 1998 regarding globalization and that, “One can be sure that virtually every one . . . included its own definition.” While some see globalization primarily in economic terms, many authors on globalization define it to include economic, political and socio-cultural aspects. I am in the latter camp. The political and cultural aspects play a critical role in how globalization has affected the world. Lubbers and Koorevaar define of globalization as:

“Globalisation is a process in which geographic distance becomes a factor of diminishing importance in the establishment and maintenance of cross-border economic, political and socio-cultural relations. This process reaches such intensity that relations change fundamentally, and people become aware of that change. The potential internationalisation of relations and dependencies creates opportunities, but also causes fear, resistance, actions and reactions.” (p. 2, 2000)

I will adopt this definition as a working definition, because it includes all aspects of globalization, with an emphasis on the decreasing importance of distance and national borders. Climate change, as I will show in Chapter 4, is a result of globalization. Climate change is a truly global problem. Most greenhouse gas emissions quickly mix in the atmosphere throughout the globe. Emissions in one country will affect the world, not just the country of origin.

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9APEC Website; http://www.globalisationguide.org/01.html
Globalization has two prime movers; the technological revolution, particularly in information and communication technologies, and the "hegemony of the neo-liberal ideology." (p. 2, Lubbers & Koorevaar, 1998) Technology and neo-liberalism are enabled through the principles of Adam Smith and the free market. The free market has served to enable the shift to modern, market based economies. Built on top of the free market, technology and neo-liberalism have flourished. The economic aspect of globalization has resulted in increased interdependence between countries participating in the global economy. Transition to a market economy increases reliance on currency and leads to shifts away from subsistence agriculture. As agriculture is modernized, many farmers are not able to compete, end up moving into other sectors of the economy and are forced to become more mobile and leave their villages. Once no longer in their village the traditional order breaks down. Extended family structures are altered due to distance. Traditional methods of solving village problems may not function in urban settings. The population that leaves the village must obtain jobs that pay cash in order to purchase goods to survive. This shift creates tremendous pressures on governments and once started cannot easily be reversed or stopped. It also fuels consumption.

These changes bring good and bad. A market economy often results in a better standard of living, both economically and health-wise. For instance, in Thailand life expectancy for women has increased from 68.9 in 1985 to 74.9 in 1995 and for men from 63.8 in 1985 to 69.9 in 1995. Most people have electricity. There are hospitals throughout the country. Infant mortality has improved from 84.3 deaths per thousand in

\[10\text{Thai National Statistic Office. } \text{http://www.nso.go.th/gender/table/etab19.htm}\]
1964-65 to 26.0 per thousand in 1996-1997.\textsuperscript{11} Literacy has gone from 81.8\% in 1970 to 93\% in 1990.\textsuperscript{12} The number of women who die in childbirth has fallen. The list goes on and on. On the other hand, the culture has changed, more mobility has weakened extended families, graffiti has come to Thailand, Bangkok has awful traffic and pollution and an estimated 1.8\% of the population has aids.\textsuperscript{13}

The other source for globalization is technology. Without technology there would have been no Green Revolution, increase in air travel, reduced communication costs, cell phones and personal computers. The increase in agricultural productivity has proven Malthus wrong. Without the mechanization of agriculture there could not have been a shift to industrial economies and then to post-industrial economies. Without the shift away from traditional economies, the huge urban areas throughout the world could not exist. In these areas, people are exposed to material goods and a material culture emerges, fueling the demand for more goods.

In addition to the economic aspect of globalization, technology has played a key role in reducing the importance of distance through increased speed in communications, decreased cost of long distance communication and increased speed in transport. E-mail and fax machines are now essential elements in maintaining effective communications in organizations of all sizes. They allow nearly instantaneous sharing of information


between distant people and units within an organization. Rather than having to wait for a letter to be posted, it can be faxed or e-mailed, saving days, weeks or months. This increases productivity and an organization's ability to accomplish its tasks. This reduces the importance of distance and allows organizations to function effectively over widespread distances. In fact, times zones are often a more relevant barrier to communication than distance in separating distant parts of an organization. Technology, particularly the internet, has reduced the cost of long distance communication, making it more economical. In the past, even though the telephone was available, it could be prohibitively expensive for long distance and international calls. For instance, in 1993, the cheapest rate available for telephone calls from the U. S. to Thailand was around $.70 (U.S.)/minute. Today, multiple companies sell phone cards with rates below $.10 (U.S.)/minute. From personal experience, this has definitely reduced the barrier of distance in maintaining communications within our family in North America and Asia.

Finally, intermodal shipping has played a key role in speeding the transport of goods, reducing costs and allowing more consumption.\textsuperscript{14} The cargo inside a container need only be handled by the shipper and the receiver. Prior to containerized shipping, each piece of cargo would have to be handled when it was loaded onto land transport at the place of origin, offloaded at the port, loaded onto a vessel, offloaded from a vessel, loaded onto land transport and offloaded at the final destination. A container can be offloaded from a ship in a matter of minutes while the same amount of cargo not in a

\textsuperscript{14}Steinberg states that marine shipping accounts for 95\% of global trade by weight.
container would take anywhere from 30 minutes to hours. A large container ship can be offloaded in less than twenty-fours, whereas break-bulk vessels carrying substantially less cargo could take days or weeks. This improved efficiency has drastically decreased the cost and increased the speed of international shipping.\textsuperscript{15} Globalization can be illustrated in Figure 4. Technology and neo-liberalism have reduced the importance of distance as discussed above. Through this reduction in space and expansion of the marketplace, globalization has and will likely to continue expanding the number of consumers in the world and the amount of “stuff” consumed each day. This process has not been uniform throughout the world, either positively or negatively. Neo-liberals often

\textsuperscript{15}Barkin states that marine shipping “is an order of magnitude more fuel-efficient per unit of weight and distance than moving it on trucks, with transportation by rail being somewhere between the two.” The efficiency of modern ships, combined with the efficiency of containerized cargo is an extremely importance piece of the globalization puzzle. Without these, international trade could not exist as it does today.
overlook the extreme poverty, dislocations, environmental degradation and cultural loss that result from globalization. Burawoy, et al. paint vivid pictures of how globalization impacts local situations throughout the world. From the dislocation of shipyard workers in San Francisco and their loss of prestige and livelihood (p. 106-132) to the “globalized local culture” of Irish software makers (p. 187-189) they show the change resulting from globalization. In these particular cases the changes are predominately negative. Those opposed to globalization often overlook the improvements in world literacy rates, life expectancy rates, infant mortality rates and reduction in percentage of the world population living in poverty.16 Regardless of the light in which one views globalization, it is occurring and as will be shown in the next chapter, it is increasing the amount of world consumption and, therefore, contributing to climate change.

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16UN Development Report 2003: world life expectancy at birth rose from 58.4 years (1970-1975) to an estimated 66.6 years (2000-2005) (p. 265); world infant mortality rates dropped from 96 per 1000 in 1970 to 56 per 1000 in 2001 (p. 265); world literacy rates improved in all regions for both adult and youth between 1990 and 2001 (p. 273); and the UN Development Programme states on their web page “in the 1990s the share of people surviving in extreme income poverty fell from 30% to 23%” (http://www.undp.org/hdr2003/lowd_that.html)
Chapter 4. Increasing Consumption and Anthropogenic Climate Change

Increasing consumption, on an aggregate level, is enabled by the steadily rising world aggregate GDP. Table 1 indicates that between 1965 and 1999, GDP based on purchasing parity grew in all regions, ranging from a low of just over 67% in Europe to a high of almost 321% in Asia. During the same period GDP per capita grew by 54.5% for the world. If overall GDP increased in both per capita and absolute values, then overall global consumption increased as well. Table 2 shows that between 1990 and 1998, average yearly growth in world merchandise trade exceeded growth in average yearly output by 182.6%. This indicates that world trade, an economic component of globalization, is growing. Another indicator of consumption is energy use. World total primary energy consumption increased by 143.5% between 1965 and 2002 with all regions showing increased total consumption. However the energy consumption increases were far from uniform, with Europe registering a 68.3% increase while the Middle East registered a 612.2% increase. The European numbers are highly skewed by the collapse of the Soviet Union. The nations that formed from the former Soviet Union significantly lowered both the European GDP and CO2 emissions. The significant reduction in CO2 emissions in these countries was a result of falling GDP and the closure of highly inefficient centrally-planned industries.
### Table 1. Energy Consumption and CO2 Emissions.

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<td>Total North America</td>
<td>85.4%</td>
<td>81.5%</td>
<td>138.3%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Total S. &amp; Cent. America</td>
<td>302.7%</td>
<td>169.5%</td>
<td>138.2%</td>
<td>132.3%</td>
</tr>
<tr>
<td>Total Europe &amp; Eurasia</td>
<td>68.3%</td>
<td>63.6%</td>
<td>67.1%</td>
<td>.6%</td>
</tr>
<tr>
<td>Total Middle East</td>
<td>612.2%</td>
<td>360.8%</td>
<td>122.3%</td>
<td>588.6</td>
</tr>
<tr>
<td>Total Africa</td>
<td>395.7%</td>
<td>376.1%</td>
<td>109.8%</td>
<td>198.4%</td>
</tr>
<tr>
<td>Total Asia Pacific</td>
<td>455.6%</td>
<td>557.6%</td>
<td>320.7%</td>
<td>205.8%</td>
</tr>
<tr>
<td>TOTAL WORLD</td>
<td>143.5%</td>
<td>142.5%</td>
<td>145.6%</td>
<td>57.6%</td>
</tr>
</tbody>
</table>


### Table 2. Growth of world merchandise trade, 1991-2002.

(percentage change from previous year)

<table>
<thead>
<tr>
<th></th>
<th>1991-98 (annual average)</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>World trade growth</td>
<td>6.5</td>
<td>4.2</td>
<td>5.2</td>
<td>8.3</td>
<td>6.9</td>
<td>6.5</td>
</tr>
<tr>
<td>World output growth</td>
<td>2.3</td>
<td>1.9</td>
<td>2.9</td>
<td>3.5</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: International Bank for Reconstruction and Development, p. 16
Greenhouse gas emissions and their radiative forcing characteristics are summarized in Figure 5. The radiative forcing characteristics of a gas or particle indicate how much it will warm or cool the earth. As can be seen in Figure 5, very little is understood about the characteristics of many of the greenhouse gasses in the atmosphere. The science is more settled regarding CO2, the single largest contributor to positive radiative forcing in the atmosphere. Since 1981 approximately 70 to 90 percent of anthropogenic CO2 emissions result from the burning of fossil fuels. (IPCC TAR, p. 39) The remainder is from deforestation and altered patterns of land usage. As the world economy has expanded, use of fossil fuel has increased as well (See Table 1 and Figure 6).

![Figure 5: Radiative forcing of greenhouse gasses.](source: IPCC TAR, p. 8)
Figure 6: World Oil Consumption.

The International Energy Agency (IEA) publications, CO2 Emissions From Fuel Combustion (p. xxiii-xxxxvii) and The Road From Kyoto (p. 15-17), link increasing GDP to increasing emissions from fossil fuels with some caveats. The ratio of GDP to emissions is affected by several factors. Climate is a major factor in determining a specific country’s emissions to GDP ratio. “Within the OECD, European countries with temperate climates consume less energy for heating and cooling than do the United States and Canada.” (IEA 2001, p. xxv) Another important factor is the industrial structures within various countries and the energy intensity of that structure. Economies that move
toward non-CO2 intensive industries, such as computer and software development and pharmaceuticals, can lower the ratio of CO2 emissions per GDP. For example, Ireland experienced 79% growth of GDP from 1990 to 1999 but its intensity of emissions, measured by CO2 emissions/GDP fell by 30% during the same period. (IEA 2001, p. xxviii) Overall the world has lowered emissions/GDP by 35.6% between 1971 and 1999 and 14.7% between 1990 and 1999.¹⁷ (IEA 2001, p. II.71)

That was the good news, but the efficiency gains have not offset increases in GDP. This illustrates the positive and negative factors of globalization. The decreasing importance of distance as a result of globalization has allowed an increase in world trade, the spread of neo-liberalism and a resulting increase in world GDP. This has raised global consumption and increased total CO2 emissions. At the same the technological aspects of globalization have increased our efficiency in terms of CO2 emissions per unit of GDP. This has been accomplished through use of cleaner fuels, more fuel efficient vehicles, more emphasis on non emitting industries and more use of hydro electric and nuclear power sources. (IEA 2001, p. xxiii-xxxxvii and IEA 2000 p. 25). On the one hand globalization provides steady increases in world GDP resulting in more greenhouse gas emissions and contributing to climate change, while on the other it provides technologies that to some degree offset increases in consumption. If the current trend continues, improving the efficiency of emissions will not, and has not, offset the increase in consumption. There are some technologies on the horizon that may change the

¹⁷GDP is based on PPP in 1995.
equation, such as fuel cell cars, solar power and other alternative fuels, but they have yet to become broad based.

Consumption, as measured by GDP, results in greenhouse gas emissions. Globalization is spurring ever increasing consumption. Due to the external costs of climate change in the free market system, the free market system is not currently keeping up with climate change. The sovereign state system doesn’t readily lend itself to solving issues such as climate change. Technology has improved the efficiency of emissions, but efficiency gains have not offset the aggregate increase in consumption. Given this, the next chapters will look at climate change through the existing framework of the United Nations and the theories of Easterbrook, Smith and Arendt.
Chapter 5. The United Nations, Globalization and Climate Change

The Development of the United Nations and State Sovereignty

As the primary international organization in our world, the United Nations bears examination in respect to globalization, the environment and climate change. This will illustrate some of the difficulties in addressing global problems in a world based on sovereign states. A brief look at the history and development of the United Nations is necessary to understand the United Nations and its relationship to sovereignty. A historical view will also help shed light onto why the United Nations has chosen certain mechanisms through which to address climate change. The first I will examine is the Global Compact. Although not designed specifically to address climate change, if successful, it could address climate change as well as a myriad of other problems. The second mechanism is United Nations Framework Convention on Climate Change under which the Kyoto Protocol was developed.

The UN was born directly out of the ashes of World War II and was shaped by the League of Nations and its demise. It was conceived of primarily to prevent interstate wars, such as WWI and WWII. On January 1, 1942, a United Nations Declaration was signed by Britain, China, the US and the USSR. Although this was a declaration of unity in the pursuit of war, it also referenced the Atlantic Charter which supported the establishment of a permanent system of general security. (p. 12, Taylor & Groom) This was followed by a joint declaration on October 30, 1943 of the foreign ministers of the four powers that recognized the “... necessity of establishing at the earliest practicable date a general international organization, based on the principle of the sovereign equality
of all peace-loving states, and open to membership by all such states, large and small, for
the maintenance of international peace and security.” (p. 44, Bennett) The Dumbarton
Oaks meeting in the fall of 1944 set the stage for the San Francisco conference and the
birth of the UN. During this meeting the four powers developed the foundation that
would be presented as the basis for the UN: a security council with five permanent
members, each with a veto; the General Assembly; the Secretariat; and an International
Court. Some of the details were still to be worked out, but the foundation was laid.

Finally, on April 25, 1945 the conference opened in San Francisco with 51
countries represented. The agenda was set by the four powers with other participants
offering amendments. The four powers and France stood firm with each other in respect
to the principal agreements from the Dumbarton Oaks meeting. According to A. J.
Groom, “... they were not prepared to break ranks over any basic issues, particularly
those concerning the Security Council and the question of the veto. Indeed, it was made
abundantly clear in the course of debate that, in essence, it was either the Dumbarton
Oaks United Nations, or no United Nations.” (p. 16, Taylor & Groom) The smaller
powers sought less power for the permanent members of the security council and more
democracy; however, the permanent five did not give on this point. The permanent five’s
response was:

“In view of the primary responsibilities of the permanent members, they
could not be expected, in the present condition of the world, to assume the
obligation to act in so serious a matter as the maintenance of international
peace and security in consequence of a decision in which they had not
concurred. Therefore, if a majority voting in the Security Council is to be
made possible, the only practicable method is to provide, in respect of
nonprocedural decisions, for unanimity of the permanent members plus the concurring votes of at least two of the nonpermanent members.” (p. 18, Taylor & Groom).

Although the five did not give way on the veto and their permanent status on the security council, the San Francisco conference resulted in more emphasis on non security issues, such as decolonization, economic and social issues. This can be seen in the elevation of the Economic and Social Council from a subordinate body to the General Assembly to a principal organ and the establishment of the Trusteeship Council as a principal organ.

The establishment of the United Nations was a monumental achievement envisioned and developed during a brutal war. It was and is not a perfect body, but it is hard to conceive that it could have been better designed given the circumstances in which it was created. (p. 19, Taylor & Groom)

In spite of the additions by the smaller powers, the primary purpose of the UN was peace and security. Given the circumstances described above and the recent World Wars, it is clear why the major powers were primarily concerned with peace and security.

Although the UN has always played a role in respect to human rights and development, these roles have become more significant, particularly since the end of the Cold War.

The UN has embarked on more peacekeeping missions in the 1990's than any other decade. As David Whittaker says, “Peacekeeping between nations (the spirit of the UN Charter) has increasingly become peacekeeping within nations.” (p. 46) Additionally, development programs are often the center of debate, as is the gap between rich and poor.

The UN Environmental Programme has taken a prominent role through the Framework Convention on Climate Change (FCCC) and the Kyoto Protocol. While prevention of
interstate war is an important purpose of the UN, these other issues have gained prominence, including development and environmental issues which are particularly tied to globalization.

How the UN Has Dealt With Globalization

At this point in time, the UN is the foremost international body, and has a representative from virtually every sovereign state in the world. The UN appears to be the only organization that could possibly manage globalization; however, the UN is not a global government. Since its inception, the UN has served as a forum for exchange of ideas, or more cynically a forum for propaganda. It is through the UN’s role as a forum for ideas and its development role that the Global Compact was launched in June 2000. It serves as a loose network of stakeholders. It is managed through the International Labour Organization, the United Nations Environment Programme, the Office of the UN High Commissioner for Human Rights, and the United Nations Development Programme. There are 600 companies that have signed and submitted letters of intent to support the principles of the Global Compact. Additionally, there are 18 business associations, more than 20 NGOs, five labor organizations and “numerous leading think tanks from around the world” that participate in the Global Compact. This network of diverse organizations is illustrated in Figure 7.19

18UN Global Compact. http://www.unglobalcompact.org/Portal/, click on “network”.

19ibid.
The network is organized to share best practices, participate in dialogue and develop partnerships among diverse groups in order to uphold the core values of the Global Compact as expressed in nine principles. As Secretary-General Khofif Anan said, “I call on you — individually through your firms, and collectively through your business associations — to embrace, support and enact a set of core values in the areas of human rights, labour standards, and environmental practices.” (p. 3, Global Compact Progress Report) The nine principles are:
"Human Rights
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights within their sphere of influence; and
Principle 2: make sure that they are not complicit in human rights abuses.

Labour Standards
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4: the elimination of all forms of forced and compulsory labour;
Principle 5: the effective abolition of child labour; and
Principle 6: eliminate discrimination in respect of employment and occupation.

Environment
Principle 7: Businesses should support a precautionary approach to environmental challenges;
Principle 8: undertake initiatives to promote greater environmental responsibility; and
Principle 9: encourage the development and diffusion of environmentally friendly technologies."\(^{20}\)

If these principles are universally accepted and implemented, it certainly should improve the plight of many in the world. Universal acceptance implies that the world has accepted a core of principles, which is the height of globalization and will further the economic effects of globalization. The Global Compact, if successful, will reinforce globalization.

The global compact has been warmly received as evidenced by the large number of participating organizations. Dr. Klaus M. Leisinger provides valuable insight into why industry has begun to embrace the Global Compact:

"The continuing warm reception has several reasons - one of the most important is that the Compact is an open process of engagement, with few formalities and no rigid bureaucratic structures. In a situation where markets have gone global and major players have to commit a lot of energy to addressing societal skepticism, it is the right thing to do and in

\(^{20}\)UN Global Compact website. \url{http://www.unglobalcompact.org/Portal/}, click on "about the GC"
the enlightened self-interest of corporations not only to avoid negative attention but also to develop best practices of corporate citizenship."

Corporations can and do incorporate social interests into their planning and costs, when it is in their best interest to do so. The Global Compact provides a forum in which corporations can begin to build constructive dialogue and partnerships with groups that they have often been criticized by.

On a much smaller scale, this type of partnership has been extremely successful in the United States at reducing marine oil spills from oil companies. Organizations have been established in every port in the country that are chaired by the local U. S. Coast Guard Captain of the Port and include oil industry representatives, state and local government, NGO’s and other concerned citizens. These groups serve to address oil spill prevention and mitigation strategies and other port safety issues. The partnerships formed are critical in reducing maritime pollution and result in better industry self-regulation. Self-regulation should be the ultimate goal of any program as it is the most effective means to achieve a goal. Outside regulators cannot be present all the time and organizations can be quite ingenious in hiding violations. Compliance is best guaranteed when the goals of the regulations are understood by all stakeholders and have been internalized from the lowest worker to the CEO. In regards to the U.S. oil industry, the goal of preventing oil spills has been internalized as a result of the partnerships formed. Of course, the EXXON VALDEZ debacle and the resulting legislation provided a very

\[21\text{http://www.foundation.novartis.com/novartis_un_global_compact_globalization.htm}\]
large stick to make the carrot more attractive and help speed internalization of the creed that spilling oil is bad.

The Global Compact can serve as a mechanism to help corporations internalize the nine principles into their daily operations. One of the criticisms of the Global Compact has been that corporations can “bluewash” themselves through their participation. The term is widely used by environmentalists to depict corporations (or other organizations) that use their participation in the UN as a shield for pervasive practices that violate the principles of the UN. The term is a take off on the term “greenwash” developed by Greer and Bruno. Corporations are accused of conducting a few token projects to satisfy the requirements of the Global Compact and then using their superficial participation for PR purposes. While it is very likely that some corporations will do so, that does not invalidate the Global Compact. Without cooperation from corporations globalization will continue on unchecked and the negatives will not be lessened.

**United Nations Framework Convention on Climate Change**

With the Declaration of the United Nations conference on the Human Environment, adopted at Stockholm on 16 June 1972, the United Nations made environmental issues a much more important agenda item within the UN and, arguably, the world. After Stockholm there were some important conferences, conventions and protocols regarding the environment, but climate change came to the forefront at Rio de Janeiro in 1992. This conference resulted in 154 countries signing the United Nations Framework Convention on Climate Change (FCCC). It had four key elements:
1) It sought to stabilize greenhouse gas levels, ensure integrity of food production and ensure sustainable development;

2) Developed countries were to take the lead and developing countries were exempted from all but the most general requirements;

3) No specific timetables or reduction targets and no penalties for violations were established; and

4) It established the Conference of the Parties (COP) system during which the details would be developed. (Makarenko)

This was followed by COP-1 and COP-2 in 1995 and 1996 respectively. During these conferences, specific targets and timetables for reductions were established and a declaration was issued that the science of climate change was compelling. COP-3 was convened in 1997 and the resulting Kyoto Protocol was developed. The Kyoto Protocol set the following reduction requirements:

Table 3. List of Kyoto Protocol Annex I Parties.

<table>
<thead>
<tr>
<th>Party</th>
<th>Emission Limit or Reduction **</th>
<th>Party</th>
<th>Emission Limit or Reduction **</th>
<th>Party</th>
<th>Emission Limit or Reduction **</th>
<th>Party</th>
<th>Emission Limit or Reduction **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>108</td>
<td>Austria</td>
<td>92</td>
<td>Belgium</td>
<td>92</td>
<td>Bulgaria*</td>
<td>92</td>
</tr>
<tr>
<td>Canada</td>
<td>94</td>
<td>Croatia*</td>
<td>95</td>
<td>Czech Republic*</td>
<td>92</td>
<td>Denmark</td>
<td>92</td>
</tr>
<tr>
<td>Estonia*</td>
<td>92</td>
<td>European Community</td>
<td>92</td>
<td>Finland</td>
<td>92</td>
<td>France</td>
<td>92</td>
</tr>
<tr>
<td>Germany</td>
<td>92</td>
<td>Greece</td>
<td>92</td>
<td>Hungary*</td>
<td>94</td>
<td>Iceland</td>
<td>110</td>
</tr>
<tr>
<td>Ireland</td>
<td>92</td>
<td>Italy</td>
<td>92</td>
<td>Japan</td>
<td>94</td>
<td>Latvia*</td>
<td>92</td>
</tr>
<tr>
<td>Liechtenstein</td>
<td>92</td>
<td>Lithuania*</td>
<td>92</td>
<td>Luxembourg</td>
<td>92</td>
<td>Monaco</td>
<td>92</td>
</tr>
<tr>
<td>Netherlands</td>
<td>92</td>
<td>New Zealand</td>
<td>100</td>
<td>Norway</td>
<td>101</td>
<td>Poland*</td>
<td>94</td>
</tr>
<tr>
<td>Portugal</td>
<td>92</td>
<td>Romania*</td>
<td>92</td>
<td>Russian Federation*</td>
<td>100</td>
<td>Slovakia*</td>
<td>92</td>
</tr>
<tr>
<td>Slovenia*</td>
<td>92</td>
<td>Spain</td>
<td>92</td>
<td>Sweden</td>
<td>92</td>
<td>Switzerland</td>
<td>92</td>
</tr>
<tr>
<td>Ukraine*</td>
<td>100</td>
<td>United Kingdom</td>
<td>92</td>
<td>United States of America</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Percentage of 1990 Greenhouse Gas emission level.
* Countries that are undergoing the process of transition to a market economy.
The ultimate target is a reduction of greenhouse gas emissions of 7% over 1990 levels by 2012. COP-4 through COP-6 were held between 1998 and 2000. Some progress was made on the specific operational implementation details of the Kyoto Protocol but progress stalled. Then in 2001, President Bush announced the U. S. withdrawal from the Kyoto Protocol. Kyoto requires at least 55 total countries to ratify that account for at least 55% of the pollution from Annex I parties (the countries listed in Table 3) in order for the protocol to enter into force. With the withdrawal of the U. S., virtually all major industrialized nations must ratify in order to achieve the 55% pollution threshold. As such, Japan and Canada, had an extremely strong hand in winning concessions at COP-6 which was held after the U. S. withdrew. Concessions by the EU were critical in keeping Kyoto alive and without which Kyoto would never have had a chance to be ratified. Canada and Japan ultimately ratified the treaty. The U. S. or Russia must ratify in order for the Protocol to enter into force. Russia recently announced that it will not ratify. Kyoto as an international treaty will not come into force, unless the U. S. or Russia alter their position.

If Kyoto is ratified and nations abide by the targets and deadlines, many scientists and commentators doubt that the treaty will significantly address climate change.\textsuperscript{22}

Jonathon Shaw writes in \textit{Harvard Magazine},

\begin{quote}
"...Harvard scientists and economists who study climate change express almost universal criticism of the accord, which they fault as economically inefficient, unobjective, inequitable, and—worst of all—ineffective. And
\end{quote}

\textsuperscript{22}Easterbrook, Shaw and Gray to name a few.
they point out that the protocol fails to include the largest future sources of CO2 emissions. China, for example, will pass the U.S. in annual emissions of CO2 by 2013... Another projection suggests that, by 2050, China's cumulative contributions of CO2 to the atmosphere will exceed those of the United States.” (p. 43)

Easterbrook writes, “Will the goal of the treaty, stabilization of carbon emissions at the 1990 level, prevent global warming? The answer is: Not a snowball’s chance in, well, Alberta, should the warming occur.” (p. 312) It did not address emissions in the developing world, where in a matter of decades China, currently the world’s second largest emitter of greenhouse gases, will exceed the United States as the world’s premier greenhouse emitter. This is one of the primary reasons that the U.S. Senate passed the Byrd-Hagel resolution in 1997 by a vote of 95-0. It stated that the Senate would not ratify the treaty until the following issues are resolved: 1) the Kyoto Protocol makes no specific requirements of non-Annex I countries and 2) specific costs of implementation are extremely uncertain. Ironically, President Bush’s withdrawal really had little meaning because the treaty would not have been ratified by the Senate as Kyoto didn’t levy any specific demands on non-Annex I countries. Shaw goes on to propose that the selection of 1990 as the target date gave the EU significant advantages in the Kyoto targets:

“...the choice of 1990 immediately introduced inequities into the ensuing political process to determine who should cut how much, says Butler professor of environmental science Michael B. McElroy. That particular date "gave the Europeans a massive advantage relative to other countries," he says, because "reunification of Germany led to the elimination (for economic reasons) of a lot of dirty, polluting industry in what was formerly East Germany." Similarly, in the United Kingdom, the discovery of natural gas in the North Sea facilitated Margaret Thatcher’s phase-out of the coal industry, which had been a major source of fuel." That meant the European Union could apportion emissions not needed by Britain and Germany to big polluters (awarding large net increases in some cases),
thereby obtaining flexibility that no individual country had. The United States, of course, had in the meantime experienced unprecedented economic growth.” (p. 43)

Other problems with Kyoto, from an economic standpoint, are the rapid implementation date, which will require immediate replacement of less efficient sources of emissions, such as power plants and cars, before their useful life is complete. (p. 43, Shaw) Finally, even if all Annex I parties (including the U. S.) fully comply with Kyoto, many are skeptical that it will make any difference at all. Some scientists believe that some of the key assumptions regarding greenhouse gases and feedback loops are incorrect. In fact, most sources agree that full implementation of the protocol, without addressing emission increases in the developing world, will at best slow the rate of temperature rise.

Further, there are many who feel that some of the IPCC’s work is politically motivated. The NRC report specifically says that the full report and technical summary are an adequate summary of mainstream scientific thought on global warming but says the following regarding the often cited summary for policy makers:

“This change in emphasis appears to be the result of a summary process in which scientists work with policy makers on the document. Written responses from U.S. coordinating and lead scientific authors to the committee indicate, however, that (a) no changes were made without the consent of the convening lead authors (this group represents a fraction of the lead and contributing authors) and (b) most (my emphasis) changes that did occur lacked significant impact.” (p. 5)

This statement, when read closely for what it doesn’t say, is less than a resounding endorsement, particularly when compared to the clear wording regarding the technical summary.

http://news.bbc.co.uk/1/hi/in_depth/sci_tech/2000/climate_change/1023334.stm
Given that Kyoto is unlikely to come into force internationally, it failed to account for the developing world and it may not have made any difference even if were ratified and the targets met, the current system of sovereign states through the UN has yet to significantly address global climate change. Undertakings such as the Global Compact provide some measure of hope but will take time to bear fruit. Ensuring that anthropogenic climate change does not occur will not happen without the cooperation of all nations, including the U.S. and developing nations. Given that the international system of sovereign states has yet to adequately address the problem of climate change, the following chapters examine the problem through various theories and provide possible solutions, both within the sovereign state and free market system and through the evolution of human society into a non-consumption oriented society.
Chapter 6. A Long Term View

Amidst the often shrill debate surrounding the environmental issues, including climate change, Gregg Easterbrook provides a perspective through which some of the superfluous rhetoric can be stripped away. In *A Moment on the Earth*, Easterbrook puts forward his concept of ecorealism which is undergirded by three core principles, "... that logic, not sentiment, is the best tool for safeguarding nature; that accurate understanding of the actual state of the environment will serve the Earth better than expressions of panic; that in order to form a constructive alliance with nature, men and women must learn to think like nature." (p. xvii) The first two aspects, basing decisions on logic and determining the actual state of nature seem to make sense and would probably be agreed on by most. The latter principle, thinking like nature, provides a philosophical lens through which environmental problem can be examined and provides a starting point through which the impact of human actions can be considered.

In considering the impact of human action from the viewpoint of nature, Easterbrook takes two major avenues of thought. The first is that from the viewpoint of nature, human impacts on the environment are no different from "natural" impacts on the environment. Nature cares little whether air pollution comes from humans or volcanoes. They can cause the same difficulties. He finds that most human environmental alterations of the planet pale in comparison to natural events. He says, "Would nature be so impressed with the accomplishments of bulldozers and backhoes? Transplanting soil and rock is child's play to the natural world." (p. 19) He then describes the consequences of glaciers; the reshaping of continents, the massive weight that caused continents to sink a
bit and may have created cracks in the crust that led to volcanic activity. Compared to the effects of glaciers, the effects resulting from the weight of skyscrapers and mining are quite minor. He uses theories of past events to further make this point. Human alteration of the landscape is minuscule in comparison to the forging of mountain ranges resulting from continental drift. (p. 41) Natural climate change, the probable cause of extinction for the dinosaurs, may have been around twelve degrees Celsius, which is greater than projections of anthropogenic climate change due to greenhouse gas emissions. (p. 40)

The second point is that nature is incredibly resilient in recovering from manmade and natural environmental disasters. Oil spills are a case in point. Easterbrook describes a visit to Prince William Sound in Alaska in 1992 to visit areas impacted by the EXXON VALDEZ oil spill. He writes, “already the sound was so close to its former state it was impossible to determine where the spill had occurred without resorting to navigation charts.” (p. 55) He goes on to describe that closer inspection reveals that many of the beaches cleaned, were in fact clean. They were spotless, but dead. This lesson has not been lost on the Coast Guard oil spill response community. Clean up is often better accomplished through natural means than through human means. Clean up must be undertaken carefully and by weighing benefits against costs. Response strategy will be based on protecting areas that cannot be cleaned up without causing more damage. An effective response will attempt to divert the oil to points that are less valuable ecologically and easily cleaned. During the course of nearly ten years responding to and overseeing clean up of oil spills and hazardous materials release, it is clear that the general public underestimates nature’s ability to clean itself. I have seen instances in
which hundreds of gallons of diesel were spilled in a small harbor covering more than a square mile with a sheen. The oil was not recoverable, but through nature, evaporation, waves, wind and dissipation, it was gone in a few days with no lasting impact. This is not to say we should allow oil spills or other activities with negative environmental impacts to go unchecked. We should put forth reasonable, productive measures to solve the most pressing problems at hand. Responses should be logical and fit the circumstances based on the best information available at the time. Easterbrook writes:

"A living system able to withstand the detonation of Mount Saint Helens is a green fortress indeed. This does not rationalize any human assault on the fortress, for ingenious as the environment's defenses are, men and women may someday find a means to breach them. But understanding the strength and resilience of life help us put the environmental issue of the day into a perspective larger than our own. Without such perspective humankind will not be able to make rational choices regarding which environmental alarms are genuine and which [are] merely this year's fad." (p. 45)

Easterbrook devotes nearly 500 pages discussing specific issues using this viewpoint. He states that, "nearly all current environmental problems: (are) genuine but exaggerated, subject to correction surprisingly quickly at reasonable cost." (p. 162) He uses these pages to get beyond the "hype" surrounding the issues and bring out the voices that often get drowned out in the hype. He illustrates this point with acid rain. Part of the hype, from both pessimists and optimists, comes from each camp's underlying viewpoints.

"Early in the acid rain maneuvering, as in many areas of environmental conflict, conventional ideological lines were drawn. Most important acid rain pessimists, such as Michael Oppenheimer, chief scientist for the
Environmental Defense Fund, were political liberals; most who denied the problem, such as Reagan and Burford, were political conservatives.” (p. 166)

Pessimists are likely to hold a belief that corporations are bad, as seen in some of the criticisms of the Global Compact discussed earlier. On the other side, those denying the problems often hold that the pessimists don’t understand the real world and want to subvert our way of life or the “American Dream.” Given limited facts, because few people have time to really investigate and understand the issues in depth, people tend to understand the world through their own beliefs. Hence, you see the Cato Institute promoting science that is nearly a decade old regarding climate change, while environmentalists grasp at worst case scenarios not currently supported by science. A recent case of “hype” getting carried away can be seen in the sinking of the oil tanker PRESTIGE and the ensuing calls for an accelerated phase in of double hull standards for tankers.24 Currently, IMO regulations require that single hull tankers be phased out by 2015. In the case of the PRESTIGE, double hull construction would not have prevented the PRESTIGE from sinking. To truly address the problem, we should apply Easterbrook’s principles. First from the standpoint of nature, the spill is probably not even the equivalent of a mosquito bite; however, for humans it has caused great short term damage. Fishing has suffered and thousands of kilometers of coastline will be

unable for some time (probably less than 10 years, certainly less than 20). The sovereign state system had more to do with the catastrophe than double hulls. The ship was denied entry into numerous ports because it was not seen as a local problem and they did not want a ship leaking heavy fuels to enter their port. Calculations show that the ship would not have sunk had it been in a sheltered port; however, by keeping it at sea the dynamic wave forces caused catastrophic hull failure. Had the vessel been allowed into a port it would have created a serious environmental impact, but it would have impacted a much smaller stretch of shoreline and, most importantly, much less product would have been spilled. Further, a localized spill would have allowed much of the oil to be recovered as sensitive areas could have been protectively boomed and equipment could have been pre staged. Instead the spill impacted thousands of miles of coastline and a tremendously complicated response ensued.25 Double hull standards will prevent some spills and are a positive step, but this incident illustrates that it is much easier to jump on a catchy phrase, such as, “double hull tanker” than to gain support for addressing the problem of sovereign states.

This relates to climate change because we often hear that climate change could spell the end of the world as we know it. Applying Easterbrook’s principles, climate change does pose a threat and it should be addressed. It is necessary to point out that in his chapter on climate change, the science he quoted was fairly accurate at the time he

25My knowledge of the PRESTIGE incident is based on information presented at the British Columbia/Western States Oil Spill Conference during August 2003 in Honolulu, Hawaii, general readings on the subject and more than a decade of Coast Guard marine safety experience, including ship inspections, marine casualty investigations and oil spill response.
wrote it. The science for climate change was much less certain in the early 1990's than it is now. As discussed earlier, climate change is occurring and some percentage of that is probably due to anthropogenic activity. The certainty of anthropogenic climate change is growing, not waning. Some of Easterbrook's points are well taken and emphasize some of the areas that are not often mentioned in the popular media. An important area is that while CO2 is the primary greenhouse gas emitted by humans, methane is also a big contributor. Reducing methane emissions is much more problematic than CO2 because it comes from some human related activities that would be extremely difficult to curb, such as agriculture and livestock "emissions." The hype generally doesn't discuss this aspect of climate change.

Ironically, Easterbrook's position of looking at issues from a logical standpoint, attempting to ascertain the real state of affairs and using the viewpoint of nature was soundly criticized by environmentalists. Many of the critics apparently never read the book and accuse Easterbrook of being "anti-environmental" or a right-wing hack. Dr. Steven Hamburg, of the Environmental Defense Fund, said at a speech at Kansas State University on September 12, 1995, "Rush [Limbaugh] plants seeds of doubt that Easterbrook and others try to cultivate." Having listened to Rush Limbaugh off and on since 1995, Easterbrook and Limbaugh have little in common in regards to the environment. Limbaugh's position is that climate change is promoted by "environmental wackos" and is not occurring. For him it is an issue hardly worth debating. Further, he opposes government regulation and hardly "longs" for it as Easterbrook does. (p. xix) Although Easterbrook feels that many environmentalists have seized the issues for less
than altruistic reasons, he does not deny that it is a problem that it should be addressed. Easterbrook praises most environmental regulations, including the 1970 and 1990 Clean Air Acts, Acid Rain reductions, international agreement to abolish CFC’s and the ban on DDT to name only a few. (p. 12, 175, 186, 456) In spite of his written and clearly articulated positions, he has been bombarded as being anti-environmental. This comment from a reviewer of his book on Amazon.com typifies many of the criticisms of the book, “A prime example is the arguments he makes against the need for having regulations on air quality: he points out that the air has gotten cleaner in the US over the last 30 years. Well, yes it has, but BECAUSE of the clean air act, not in spite of it.” The anonymous reviewer obviously didn’t read the book at all, or didn’t comprehend it, because Easterbrook actually wrote that the Clean Air Act of 1970 was responsible for reductions of acid rain and pollution from automobiles. (p. 172-174, 186-187) In fact, Easterbrook uses the Clean Air Act of 1970 as example of why we should be wary of doomsday predictions by industry in response to pending regulations. The predictions of pollution controls costing thousands of dollars per car were not even close to reality. Industry estimates are made based on current technology. Regulations force industry to develop technology to reduce costs, “In 1970, when gloom forecasts were made regarding auto controls, no one had ever heard of the catalytic converter. Once this device was invented, rapid and cost-effective reductions in auto emissions were realized.” (p. 188) Finally, Leonie Haimson writes, “Notorious environmental gadfly Gregg Easterbrook, author of A Moment on the Earth, wins this month's Heat Beat award . . .” While notorious may not
be the correct word to describe Easterbrook, gadfly probably is. Easterbrook writes in the preface,

"Through the course of this book you will find many pages devoted to reasons for guarded optimism about the ecology juxtaposed against few detailing the evidence for ecological despair. There are passionate arguments for the latter position . . . But the arguments for optimism are rarely presented. So here I emphasize the story you haven’t heard at the expense of the story you have heard." (p. xix)

Climate change provides an issue ripe for polar positions and hyperbole. Particularly when Easterbrook was writing, the uncertainty of climate change allowed for a wide range of scientifically correct positions. The problem is that partisans use the issue for their own ends; "...global warming affords Republicans an opening to paint the other side as eager to clamp unneeded regulations on the economy. For Democrats, there is the chance to depict the opposition as playing fast and loose with the very future of the Earth." (p. 309) Many cry the sky is falling, while many more bury their head in the sand.

In the end Easterbrook provides some sage comments:

"Nothing in natural history suggests that toxic wastes, radon, smog, sewage, logging, landfills, or other current human environmental obsessions could trigger a chain of circumstances that leads to extinction. Climate change might. Any reasonable policy that reduces the odds of climate change is more than worth the price." (p. 316)

Examining climate change from an ecorealist perspective leads to the conclusion that reasonable policy should be put into practice in order to address the problem. Smith provides insights into what this policy might look like.
Chapter 7. Natural Price Not Paid

Given that consumption is causing global climate change, two means of addressing the problem are apparent. The first is to reduce the greenhouse producing intensity of the process of consumption so that it does not lead to increased greenhouse gas emissions and anthropogenic climate change. The second is to reduce consumption. Simply put, we can reduce our output of pollution by improving the efficiency of consumption and/or reducing overall consumption. Through Smith’s theory we find a means to both improve the efficiency of greenhouse gas emissions and a possibility for overall reduction of greenhouse gas emissions. His theory is primarily concerned with the efficient allocation of resources as a means for countries to achieve a better overall standard of living. He also discusses the appropriate circumstances under which government intervention is beneficial to society. Through these aspects of Smith’s theory, a means to decrease the harm of consumption can be found.

In general, Smith does not support government interference in the market. However, there are instances in which he supported intervention and asserted that the sovereign had a critical role, that if not properly executed, could have devastating effects on the economy. One role for the sovereign, or state, is the maintenance of infrastructure. I propose that the environment should be treated much the same as infrastructure when applying Smith’s theory. Just as commerce is impeded without roads, well-maintained harbors, the postal service and other types of infrastructure, without an environment conducive to human life and capable of sustaining a certain standard of living, commerce
will be impeded and could even stop. In fact, it could be argued that the environment is the most important piece of infrastructure we have, without which we cannot prosper.26

Adam Smith described in the Wealth of Nations how the free market might work most efficiently. He proposed that the most efficient use of resources will be achieved through a free market with the sovereign’s role limited to certain areas. For Smith, each person trying to maximize their self-interest results in individuals making the most out of their available resources, including their own labor, and contributing to the betterment of society overall. Smith wrote the following for which he is most famous, “By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.” (p. 484-485) The free market, with a division of labor, and each person trying to maximize the use of their talents and resources is certainly what Smith had in mind; however, some of his other thoughts are not nearly so well know. He believed that capitalists could and often did support special interests, becoming an impediment to the free market system. Smith

26This line of thought is soundly rejected by deep ecology and those who find Anthropocentrism objectionable. See Chapter 2 in Dobson for a good discussion of Anthropocentrism and its complexities. While I think Smith would view the environment as “infrastructure”, I also propose that nature has intrinsic value as well. I believe my background, growing up in the “woods” of Northeastern Washington, where logging, hunting and fishing were primary activities, contributes to my view of the environment both as a means for survival and as having intrinsic value. There are very few experiences that can compare to cross country skiing in fresh snow with no other tracks, the trees covered with a blanket of snow, the lake frozen solid and seeing a deer in the clearing.
would certainly have advocated vigilance to ensure that government is not manipulated by special interests to the detriment of the entire society. (p. 2, Yardenni & Moss)

Further, Smith felt that governments had an obligation toward society, "THE second duty of the sovereign, that of protecting, as far as possible, every member of the society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice . . . " (p. 766) Another surprising position, given the popular conception of Smith's ideas, is that he acknowledged class distinction and that governments in many instances perpetuate inequalities of wealth. "Civil government, so far as it is instituted for the security of property, is in reality instituted for the defence of the rich against the poor, or of those who have some property against those who have none at all." (p. 771) In summary, Smith believed in the free market as the solution that provides the best standard of living to the most people. At the same time he recognized that special interests, avarice of the rich and government policies often work to counter the good of the free market.

In Smith's free market system, he assumed that the costs of goods would eventually be borne by the consumer. The problem with climate change, subscribing to the majority scientific view that indicates that some portion of climate change can be attributed to anthropogenic activity and will have adverse consequences on humankind, is that the market system does not factor in the future costs of climate change. Climate change is an external cost in the current market system. Lubbers said, "In the title of this essay, the emission of greenhouse gases has been designated as an 'external effect.' External effects are the effects of economic affairs on prosperity and well-being which are
David Korten clearly articulates that:

"Market theory also specifies that for a market to allocate efficiently, the full costs of each product must be born by the producer and be included in the selling price. Economists call it cost internalization. Externalizing some part of a product's cost to others not a party to the transaction is a form of subsidy that encourages excessive production and use of the product at the expense of others. When, for example, a forest products corporation is allowed to clear-cut government lands at giveaway prices, it lowers the cost of timber products, thus encouraging their wasteful use and discouraging their recycling. While profitable for the company and a bargain for consumers, the public is forced, without its consent, to bear a host of costs relating to water shed destruction, loss of natural habitat and recreational areas, global warming, and diminished future timber production."

Figure 8 shows that when negative societal costs are externalized, the price will be artificially low and an excess quantity will be produced ($Q^*$). This maximizes the marginal private cost but passes the excess cost to society as a whole. For example, the cost of damage to Pacific Islands as a result of the rising seas because of greenhouse gas emissions from developed countries will not be borne by the people that consumed the

27From http://www.bized.ac.uk/stafsup/exams/revec_mfail.htm
goods, but rather by people thousands of miles away. On the other hand, if the consumer had to pay the full cost, including the costs of damage to the Pacific Islands, consumption would decrease until the total costs and benefits were equalized.

The foundation of Smith’s free market is undercut by externalization of costs, which increases inefficiency and inequity, be they pollution costs passed to future generations, government subsidies borne by taxpayers, support of monopolies (in most, but not all cases) and tariffs. Smith supported mechanisms to factor in external costs, e.g., taxes on infrastructure through the imposition of tolls. He finds that tolls must be based both on weight and value. Assigning a toll based on value is critical to Smith because if the toll is based solely on weight, then those carrying large bulky commodities, often of low value, will pay the most for the upkeep of the roads. Those transporting high value luxury goods will have paid a small toll and not their fair share. He says that a toll based on value is necessary so that luxury goods are taxed appropriately and that, “the indolence and vanity of the rich is made to contribute in a very easy manner to the relief of the poor, by rendering cheaper that transportation of heavy goods to all the different parts of the country.” (p. 781) In all of these cases, the consumer will end up paying the costs of the goods, including their portion of the upkeep of the infrastructure. (p. 781) In essence, the toll is a means to ensure that all the costs of the process of consumption are borne ultimately by the consumer. If costs rise too much, consumption will fall. This can be applied to environmental costs as well. Just like the use of the road, a pollution “toll” can be assessed. This will result in the consumer paying the full price of the goods they consume.
Based on the above Smith, would have supported a mechanism to factor in external costs such as climate change. He would have been very leery of the Kyoto Protocol because it does not require significant commitments from the developing countries, particularly China, and because it will likely not do a lot to reduce climate change and associated societal costs. Because the protocol does not require developing countries to make sacrifices (i.e., to pay the costs), it does not fairly assess the costs. He would support the “rich” paying more than the “poor,” as illustrated in the luxury toll example cited above, but he would not support a “free ride” for developing countries, which reinforces Smith’s idea that the poor just want a life of ease. Kyoto does not require all to contribute as they are able, which is not in keeping with his idea that all people should work to maximize their productivity, rich and poor alike. I believe he would have supported a Kyoto that required developing countries to pay a portion of the costs. He would certainly have supported a prorated amount based on each country’s wealth and emissions. Smith was a practical man and as such, he may have supported Kyoto in spite of its significant flaws because it is probably the best result that can currently be achieved.

In respect to the United States withdrawal, he would support the decision if certain conditions were met. The first is that the decision was made in order to better the national society as well as global society rather than to satisfy special interests. If you subscribe to the administration’s reasoning, the Kyoto Protocol was fatally flawed for the

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28 "But avarice and ambition in the rich, in the poor the hatred of labour and the love of present ease and enjoyment..." (p. 766)
reasons noted above and the withdrawal was not based on special interests. Critics of the Bush administration say the withdrawal was due to special interest pressure. In any case, if the Senate would not ratify, it made little real difference. The administration has announced policies that aim to; slow the growth of greenhouse gases in a manner “comparable to the average progress that nations participating in the Kyoto Protocol are required to achieve,” increase spending on research and increase foreign aid to assist developing countries combat climate change. (U.S. Department of State) The second condition that Smith would have required in order to support the U. S. position (and Kyoto as well) is that the ensuing policies are effective in reducing the costs of climate change. If these policies are not effective and the IPCC’s conclusions come true, the U. S. will in effect have harmed our own environment as well as the global environment and effectively passed off costs to others circumventing the free market. Smith would not have approved of that.

Smith’s theory can be utilized to establish a global greenhouse gas emission “toll” to protect the infrastructure of the environment. Unfortunately at the global level this solution is problematic for three primary reasons. The first and most difficult problem will be to overcome the system of international governance based on state sovereignty. Because climate change is a global problem, it cannot be solved by individual states alone. Just as the Kyoto Protocol will at best be symbolic, even if the United States is somehow persuaded to support it, getting all states to cooperate and enforce a climate change toll would be a monumental task. The second problem is that the costs, particularly costs to future generations, are currently unknowable. Essentially, any tax
imposed would be more of an anti-consumption tax than a true assessment of cost, or a toll. It may or may not result in aligning the market price with the natural price. The last difficulty would be that even if an equitable “taxation” system was subscribed to by all states, it would necessitate a large regulatory and enforcement body, creating an immense bureaucracy.

The second two problems could be overcome if consensus among world states, particularly the most powerful, could be achieved. Achieving consensus will be the biggest challenge. As stated before, the science of global climate change is still evolving and at the present time leaves room for debate in terms of the future effects. Consensus can be achieved if the science becomes more definitive or if values shift toward an emphasis on conservation and long-term sustainability over short term expediency.
Chapter 8. Being Human

General Thoughts on Arendt

Given the fact that globalization is increasing consumption, consumption contributes to greenhouse gas emissions, climate change costs are external to the marketplace and the international system is based on the sovereign state system, seriously addressing climate change is possible, but will be difficult within the context of the current system. Arendt’s theory provides a basis from which vision for a system that funnels action and the desire to establish our uniqueness into creative improvement may evolve or be developed. Much of her theory is centered on the importance of action as a means to establish oneself as a human being and of maintaining separation of the spheres of labor, work and politics. The revealing of one’s self through action and the resulting accomplishment of having acted is something that most people seek. Humans need social interaction. Through interacting with others, we gain our sense of self. One of the flaws in her theory is the fact that many people assert their uniqueness outside of the political realm, without having acted.\(^{29}\) Channeling of this desire into creative improvement may provide a solution to climate change.

Arendt is fascinating because of her abstractness, writing style and the emotions her readings generate. She develops a unique and complex paradigm within which to examine human kind. She redefines words, such as labor, work and politics, in ways that

\(^{29}\)She does say that pleasure can be derived from work and labor, but that a human is not truly human until they have acted and established their uniqueness. I discuss this in more detail later in the chapter.
are not common. She draws sharp lines between these activities that are generally not present in modern society. Her paradigm is not common to this world and by her own admission the sphere of action has withered in the modern age. The resulting abstractness of her paradigm increases the difficulty in understanding it. Further complicating the difficulty of in understanding her concepts is that her writing is complex. She does not always follow her thoughts to completion. Her grammar and style are difficult. As Margaret Canovan wrote in the introduction, “Many academics take exception to the book’s unorthodox style and manner. Paying no attention to mainstream debates, Arendt sets out her own analysis without defining her terms or engaging in conventional argumentation.” (p. xv) The difficulty of this text is more a result of her theory not fitting into a linear argument than her “unorthodox style.” There is not really a starting point with which to examine her theory, because all strands are interrelated. Her unorthodox style, may be due, partly at least, to the subject matter she is discussing and her writing style might be taken as illustrative of her concept of acting into a web of relationships and the ensuing uncertainty. Her ideas are almost like a spider’s web in which there is not really a beginning or ending point.

**Socialized Mankind**

The following passage makes a good lead into the specific discussion on environment, because it clearly shows the risks of a consuming society that has corrupted her concept of labor:

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Throughout this chapter the words labor, work, action, political, politics are used in the sense Arendt meant them unless otherwise noted.
"There is no lasting happiness outside the prescribed cycle of painful exhaustion and pleasurable regeneration, and whatever throws this cycle out of balance - poverty and misery where exhaustion is followed by wretchedness instead of regeneration, or great riches and an entirely effortless life where boredom takes the place of exhaustion and where the mills of necessity, of consumption and digestion, grind an impotent human body mercilessly and barely to death - ruins the elemental happiness that comes from being alive." (p. 108)

Using Arendt's frame of reference to identify the root causes of environmental problems, the most obvious are the rise of the social and the cycle of labor becoming out of balance with nature. In Arendt's concept of a natural state, humans are *animal laborans* and they survive by meeting their basic needs through labor. This was true for pre modern societies that were based on hunting and gathering and/or subsistence agriculture. Their culture was in harmony with nature; "Labor's products, the products of man's metabolism with nature, do not stay in the world long enough to become a part of it, and the laboring activity itself, concentrated exclusively on life and its maintenance, is oblivious of the world to the point of wordlessness." (p. 118) This society has little impact on the environment because there is no work being done, only labor. "When man no longer acts as an individual, concerned only with his own survival, but as a 'member of the species,'" the rise of the social will then "follow its own "necessity," that is, its automatic course of fertility in the twofold sense of multiplication of lives and the increasing abundance of goods needed by them." (p. 116) Social man requires an abundance of goods and has an insatiable appetite for them.

Arendt does not explicitly state where this insatiable need came from. She hints that it is a result of the ideal of *animal laborans*, which is abundance. She also ties it to the division of labor, which removed the limits to consumption and production that a
single person could engage in. The insatiable appetite is also a function of the corruption of labor, making as acting and the devaluing of goods. Although she doesn’t explicitly state where this comes from, it is most certainly related to most people wanting more “stuff”; a seemingly inborn desire to consume. I agree with her that up to a point humans have an unsatiable need, but for many people there is a point of wealth accumulation at which consumption takes on a much less important role in our life. In economics this is explained through the law of diminishing returns. Many academics and many military officers, among others, stay in their chosen field not because they are maximizing their ability to accumulate wealth, but rather because they enjoy what they do. They attain satisfaction through their job. This is related to my discussion of teamwork later in this chapter. Her boundaries for action are quite rigid, if the rigidity is removed, the allure and satisfaction of action can be seen in both the world of work and labor. A useful framework for this is Maslow’s hierarchy of needs. If one is struggling to find food and shelter, wealth accumulation becomes extremely important as a means to protect against hunger and cold, but as one’s basic needs are met and one moves toward self-actualization, the importance of wealth decreases. I see hope for the environment along this line of thought if technology can mitigate our damage and accommodate the world’s population at a high enough level of wealth to support self-actualization.

Our modern property-based society has served to break down the differences between the private and public spheres. “The development of the modern age and the rise of society, where the most private of all human activities, laboring, has become public and been permitted to establish its own common, realm, may make it doubtful whether
the very existence of property as a privately held place within the world can withstand the relentless process of growing wealth.” (p. 112) From Arendt’s perspective, there should be a clear distinction between the public and private realms and that distinction has broken down. As society has become made up of laborers, or jobholders, who are no longer laboring in the private realm, wealth is pursued as opposed to property and that pursuit is insatiable. Arendt says the following about our consuming society “… we must consume, devour, as it were, our houses and furniture and cars as though they were the “good things” of nature which spoil uselessly if they are not drawn swiftly into the never-ending cycle of man’s metabolism with nature.” (p. 125-126) This drive for consumption and increasing complexity of labor’s products has fueled a consumer’s culture creating clogged highways, perpetual smog in many cities and waste disposal problems. Using Arendt’s frame of reference; given that global warming is caused by anthropogenic CO2 emissions, given that the developed world produces the vast majority of these emissions, and given that these emissions are a result of consumption; then it can be argued that the rise of the social is a cause of global warming.

It is important to note that labor can only become destructive because of its transformation. In Arendt’s frame of reference, labor and labor’s products did not stay in stay in the world long and were not destructive to nature in pre modern times. Only work had the potential to be destructive to nature because it took from nature to make a permanent world. Without work, man and nature should remain in “recurring cycles of natural movements.” (p. 100) It is because of labor’s transformation, that a wealth-
Figure 9: The Rise of the Social.

Based, consuming society made up of laborers (jobholders), has become the corruptor of nature, when in fact labor should be in “metabolism” with nature.

Transformation of Labor

Her arguments explaining the ascendancy of labor over work and action and the resultant corruption of her concept of labor into a destabilizing force on nature are extremely complex. She has multiple lines of arguments that have to all be considered simultaneously. I have tried to summarize her thoughts in Figure 9.\textsuperscript{31} She traces the origins of the transformation of labor to Locke and his concept of labor as the source of

\textsuperscript{31}In general the ideas flow down the chart with the dotted lines indicating important lateral relationships.
all property. This became the basis for a materialistic society, further refined by Smith, and was a foundation for the transformation of labor.\footnote{During her arguments on this she mentions that the political scientists of the seventeenth century were attempting to explain an already occurring phenomenon, the "hitherto unheard-of process of growing wealth, growing property, growing acquisition." (p. 105) If they were in fact trying to explain an existing phenomenon, then their ideas did not spawn the phenomenon and serve to explain something that was already existing. If this is an already existing concept then it could be a "natural" state and serves to show that her concepts of private and public spheres are incorrect or at least too restrictive and sharply defined.} \footnote{For Arendt this distinction is very important and has been lacking throughout history: "the differentiation between the private household and the public political realm, between the household inmate who was a slave and the household head who was a citizen, between activities which should be hidden in privacy and those which were worth being seen, heard, and remembered, overshadowed and predetermined all other distinctions..." (p. 85) This could be viewed as an apparent flaw in her distinctions. She readily admits that her assessment of labor and work has not been supported, either in modernity or pre-modernity, by political thinkers. (p. 79-80). It can be argued that since the distinction between labor and work has always been blurred, the blurring in modernity is not cause for the corruption of labor.} \footnote{The Western idea, that one's body is one's own and should not be possessed by another, has become a core foundation for Western ideals. We have seen the abolition of slavery and the rise in the importance of individual rights. This has enabled the use of one's body (or labor) as the starting point for the accumulation of wealth. When this is linked to modernity's and pre-modernity's failure to adequately distinguish between labor and work, labor begins to take the place of action.\footnote{It is the distinction between productive and unproductive labor that has helped elevate labor over work and action. Arendt says that both Adam Smith and Karl Marx, the "two greatest theorists in the field" (p. 85), "were in agreement with modern public opinion when they despised unproductive labor as parasitical, actually a kind of...}}
perversion of labor, as though nothing were worthy of this name which did not enrich the
world.” (p. 86) For Arendt, this is a serious mistake in understanding labor. Those
laboring for sheer subsistence are indeed what all pre modern peoples identified with
laboring and slavery. The “freeing” of much of humanity\textsuperscript{34} from slavery, and increasingly
from poverty, and increasing wealth in the modern age has led to “… an almost
irresistible tendency to look upon all labor as work and to speak of the animal laborans in
terms much more fitting for homo faber . . . ” (p. 87)

Another critical portion of this argument is the effect the Christian value of life
has had on labor. In Arendt’s system, the “world” is the only place that man can truly
appear and exist. For her a permanent world in which the public can flourish can only
arise out of fabrication. Labor is the basest activity and is synonymous with life and
survival. The value of life began to “reverse the ancient relationship between man and
world and promoted the most mortal thing, human life, to the position of immortality,
which up to then the cosmos had held.” (p. 314) Arendt sees this as a key departure for
humans from the importance of action in the public sphere because being immortalized
through stories is an important consequence of action. The Christian concept of eternal
life, awarding of immortality to everyone, regardless of whether they had entered the
public and done action, subjugated the public to life (labor) and served to mitigate the
need to be immortalized through stories. This served to “free the laboring activity . . . 

\textsuperscript{34}I am not arguing that all people are free, but do believe that our world is more
free from slavery than it has every been. Slavery is outlawed in most of the world.
According to the World Bank’s World Development Report 2000/2001, although the
absolute numbers of people in poverty have gone up, the per capita numbers have fallen.
There are exceptions, but the general trends are upward.
from some of the contempt in which antiquity had held it,” (p. 316) and allowed the
modern age to continue to operate “under the assumption that life, and not the world, is
the highest good of man.” (p. 318) This value was not only welcomed, but has become a
“self-evident truth” because it has provided hope for a “doomed” world. (p. 314, 319)35

The reversal in hierarchies that has resulted, making life the “ultimate focal point
in the modern age,” is a crucial step in enabling a materialistic, laboring society. Again,
Arendt presents another critical and related argument that is interdependent with the
previous arguments. That is that the transformation of the exchange market from a public
space for displaying work into a forum for the exchange of products was an enabling
factor in the transformation of labor. There were two primary reasons that the exchange
market changed in this manner. The first is the possession of one’s own body as
discussed above. This allowed a person to use their own body, or labor, as a commodity.
Value was placed on labor and was therefore a tradable commodity. The increasing
exchange of labor in the market, led to the encroachment of labor in the traditional space
of work. The second point, much more abstract and “Arendtian” (for lack of a better
description), is that homo faber is able to participate in a public space, the exchange
market, while animal laborans cannot participate in a public realm. Homo faber’s
making of goods can only be done in the private and in isolation, hence, he “can find his
proper relationship to other people only by exchanging his products with theirs.” (p. 160)

35 Arendt doesn’t elaborate on what exactly she meant by doomed. I believe the
most logical explanation would be that people are doomed because we will all die at
some point in time. Since few people are ever able to engage in action, as defined by
Arendt, and fewer still are “immortalized”, most people are “doomed” to a mortal life of
living and dying without leaving any permanence in the world.
The only way the craftsman can appear in public is through the exchange of products and craftsmanship with others. So the injection of *animal laborans* into the exchange market as a tradable commodity has corrupted the exchange market by placing value on labor. This has been followed by valuation of all things.\(^{36}\) Arendt finds that value is not intrinsic in a good and that a good’s only value lies in “the esteem of the public realm where the things appear as commodities.”\(^{37}\) (p. 164) This has allowed money to become the measure against which an object is judged, although money has no intrinsic value. For Arendt, though, this is a problem, because homo faber needs absolute measures; “whose whole activity is determined by the constant use of yardsticks, measurements, rules, and standards . . .” (p. 166). Through “universal relativity” the world of homo faber has lost its compass:

> "Historically, the last public realm, the last meeting place which is at least connected with the activity of homo faber, is the exchange market on which his products are displayed. The commercial society, characteristic of the earlier stages of the modern age or the beginnings of manufacturing capitalism, sprang from this “conspicuous production” with its concomitant hunger for universal possibilities of truck and barter, and its end came with the rise of labor and the labor society which replaced conspicuous production and its pride with “conspicuous consumption” and its concomitant vanity.” (p. 162)

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\(^{36}\) And eventual devaluation of all things. I will discuss this later in the context of alienation.

\(^{37}\) This is a very powerful argument in my estimation. Monetary value is clearly determined by what the market is willing to pay for an item. A prime example of this is the value of “collectables”. Old baseball cards, stamps, cabbage patch dolls or even artwork have no intrinsic value. Money itself has no intrinsic value. They have only the value society is willing to give to them.
Action and Making as Action.

For Arendt action, "in its most general sense, means to take an initiative, to begin . . . to set something into motion." (p. 177) Action can occur because of the plurality of humans. If we were identical, we would not require action because we would not need to "appear" in a public sphere. Without plurality, we could fully understand others by understanding ourselves. At the same time, action also requires equality. In order to be able to act, people must be able to appear in public as equals. Appearance as unequals would be tantamount to tyranny and would not allow a person to truly appear or reveal their uniqueness. By appearing and disclosing one's uniqueness, we engage in a "web of human relationships." Human affairs could not exist without this web. This is critical, because once an action is initiated in this web, the outcome is completely unpredictable. "The disclosure of the "who" through speech, and the setting of a new beginning through action, always fall into an already existing web where their immediate consequences can be felt." (p. 184) Because the consequences are felt in the "web of human relationships," the revelation of the "who" and the resulting action causes reactions in others, starting "a new process which eventually emerges as the unique life story of the newcomer." This continues affecting others. Because of the uniqueness, or plurality, of man with "conflicting wills and intentions," others' reactions are not predictable and their actions

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38She makes an interesting argument for equality here because many of Arendt's examples of public and action could only have been accomplished through an unequal society. Athens would not be viewed as particularly egalitarian by today's standards. Slave labor was required to allow property owners to participate in action. I think her argument that to appear in public requires equality is valid, but that she did not explain how a public sphere could exist in an egalitarian society, in contrast to Athenian society. In fact, she almost makes contradictory arguments on p. 175 and p. 215.
will in turn affect the original action. The result is that “action almost never achieves its purpose,” (p. 184) and “the smallest act in the most limited circumstances bears the seed of the same boundlessness, because one deed, and sometimes one word, suffices to change every constellation.” (p. 190)

Because of the unpredictability of action, man has undertaken several methods to control action. The first is the establishment of government. For Arendt, the boundaries established by laws are essential to the “stability of human affairs,” because within the public sphere there are no boundaries that control the uncertainty of action. (p. 191) The boundlessness of action is potentially destabilizing to the world and, as I will discuss later, has already begun processes that have the potential to destroy the world. Using the Greeks as an example, Arendt places legislation and the setting of boundaries around the public within the sphere of fabrication. The Greeks felt that “the lawmaker was like the builder of the city wall, someone who had to do and finish his work before political activity could begin.” (p. 194) Arendt’s use of the wall is probably no accident, as it helps reinforce the idea that the lawmaker is determining a boundary for action. As a builder, the lawmaker occupies the sphere of work. For Arendt, boundaries are absolutely necessary to both establish a space in which action can take place and as a protection from action. The problems with these boundaries are that legislation has a tendency to become a substitute for acting and the fabricated world they originated in may begin to encroach on the public space. When this occurs, society begins to move away from Arendt’s distinctions between labor, work and action. In regards to the environment, this encroachment may, through global housekeeping, provide a means to counter a
consumption oriented society and reduce the ensuing negative impact on the environment. At the same time this encroachment and reduction of public space is a factor in the rise of labor which has led to a consumer oriented society.

The second way in which humans have dealt with the uncertainty of action is the substitution of making for action. She traces the origins of this substitution to Plato when he drew a distinction “between the two modes of action, archein and prattein (“beginning” and “achieving”).” (p. 222) According to Arendt, in the Greek conception, the two actions were connected and the person that begins an act should be the same person that completes the act. Plato saw this as a problem, because in order for the actor to achieve their purpose, the help of others had to be enlisted. This is problematic, because the other actors have their own aims and goals which may alter the original purpose. In other words, as Arendt says again and again, action is uncertain. To make action more certain, Plato sought to separate the thought (archein) for achieving (prattein) by extending the model of the Athenian household into the polis. In this model, the master of the household controls all by controlling the beginning, or thought portion of action. The master issues the orders and the ruled execute the orders, thereby, eliminating the web of human relationships and the uncertainty of action. According to Arendt, “Plato was the first to introduce the division between those who know and do not act and those who act and do not know.” (p. 223) This separation of thought and action is exactly how the world of fabrication is built. The craftsman conceives an idea and then the idea is executed. They are two separate and distinct processes, whereas, beginning and achieving in the public sphere should be interconnected. Arendt says, “The Platonic
The separation of knowing and doing has remained at the root of all theories of domination which are not mere justifications of an irreducible and irresponsible will to power.” (p. 225)

The forms of government that have arisen from the substitution of making for action have been quite successful. For Arendt, the difficulty with these governments is not their cruelty, but their functionality. They work well, but they banish citizens from the public realm. They prevent action and force all but the ruler to stay in the private and not cross into the public realm. (p. 221-222) This leads her to a critical passage:

“The commonplace notion already to be found in Plato and Aristotle that every political community consists of those who rule and those who are ruled (on which assumption in turn are based the current definitions of forms of government - rule by one or monarchy, rule by few or oligarchy, rule by many or democracy) rests on a suspicion of action rather than on a contempt for men, and arose from the earnest desire to find a substitute for action rather than from any irresponsible or tyrannical will to power.” (p. 222)

The substitution has worked well in providing “stability, security, and productivity,” in other words building socialized mankind. Although there are generally short term benefits to tyranny, be it rule by one or the many, Arendt warns that because of the

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39This is probably one of the most critical passages in *The Human Condition*. It illustrates her concept of equality for those who appear in the public realm and the true sense of freedom that arises from such participation. *Participation in the public realm is freedom from being ruled by anyone else*. Although subject to the uncertainties and conflicts of action, one is free to truly appear because one appears in the public realm as an equal. This is a key foundation as to why one might desire action in the public realm over national housekeeping and socialized mankind. This is a key argument in favor of the political and against *homo faber*’s desire to make the world more beautiful and *homo laborans* desire to make the world easier and life longer (p. 208).
"inevitable loss of power" that follows from the loss a one's access to the public realm or loss of the public realm entirely, disaster may occur.\textsuperscript{40}

The break down of action into the components of the world of fabrication, thought and action, has enabled governments to effectively encroach upon the public realm. The Platonic concept of effective government of the \textit{polis} drawing from the private realm of the household has enabled governments to extend their roles from the role of “building walls” to enable the public realm to exist into that of replacing the public realm in its entirety. This has allowed process-based social democracies, welfare states to ascend over the action based public realm. To fully understand this argument, we must also examine action, nature and science.

\textbf{Action into Nature, Loss of Common Sense and Alienation}

As indicated in Figure 9, there is another strand in her argument as to why labor has transcended work and action as the pre-eminent activity in the modern world. The strand is that action into nature has had unforseen consequences, leading to the loss of our common sense and resulting in the alienation of mankind. As stated before, action is uncertain and once started cannot be predicted or stopped. Because humans have attempted to limit action because of its uncertainty through making, the urge that humans have to act has been channeled into nature and caused the “beginning of new and spontaneous processes which without men never would come into existence.” (p. 231)

We have begun to act into nature, altering nature. We have “developed . . . ever-

\textsuperscript{40}For Arendt power can only occur in the public sphere. A discussion of power as Arendt defines it is beyond the scope of this paper. See sec. 28 in the \textit{The Human Condition}.  

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increasing skill in unchaining elemental processes.” These processes would not have been initiated without our actions. “Through the introduction of the experiment, in which we prescribed man-thought conditions to natural processes and forced them to fall into man-made patterns . . .” (p. 231)

One of the unforeseen consequences of the transition from mere observation of nature to action into nature is the resultant loss of “common sense.” For Arendt common sense is the sense that all humans share. It is a sense that consolidates all of five senses and fits our perceptions into a world that is common to all. The common sense is based on the world, not on introspection or the “structure” of our minds. (p. 208, 283) Viewing the world through instruments has altered our common sense. Because the understanding of nature now requires the use of instruments, there can be no common sense or common understanding. Humans began to doubt our common sense because our instruments have allowed us to learn more about the universe and its vastness; “the more man learned about the universe, the less he could understand the intentions and purposes for which he should have been created.” (p. 281) Hence, the modern age has seen the common sense slip away with increasing world-alienation as a result.

Alienation is a key to understanding how animal laborans triumphed over homo faber. Alienation removed humans from the common world. It eliminated absolute measures and standards with which homo faber once measured the earth to build a permanent world. With no objective measures, the value of all things has become relative. Since the results of fabrication, the goods that were built, only have a relative value and not an intrinsic value, they are no longer permanent. This resulting relativity of
value resulted in the devaluation of all things as they no longer have an intrinsic value.

As a result, homo faber began to shift his emphasis from the end product to the process.

(p. 307) This fundamental shift away from utility and usage spelled the fall of fabrication. *Homo faber*'s ultimate measurement has become, "the amount of pain and pleasure experienced in the production or in the consumption of things." (p. 308) This has led to a process oriented world instead of a world of permanent goods (work) or action (public), the triumph of labor and the rise of the social. Arendt has made a good case as to why we see consumption oriented societies and why greenhouse gasses are being emitted at a rate faster than nature can apparently handle.

**The Future**

The rise of socialized mankind is a result of modern concepts, such as one's body belonging to oneself and the immortality of human life (from Christianity) combined with action into nature. This led to alienation and the eventual devaluation of all things. However, it was the uncertainty of action that served as the catalyst that when combined with the factors above catapulted labor into primacy. As a result the world, particularly the developed world, has entered an era of consumption. Given that many environmental problems are a result of excess consumption and given Arendt’s framework, there is not much hope that the clock can be turned back to a world in which political action is pre-eminent.

I hold this view for several reasons. By Arendt’s definition, once action is initiated, its consequences are unpredictable, but more importantly, it begins a chain of actions that in all probability cannot be stopped. The unstoppable character of action into
nature has led to a socialized and consumption-oriented world. Few people that taste a modern lifestyle are willing to give up its convenience. While we often wish for the "good old times," but in reality that is little more than nostalgia, because even if it were possible to go back in time not many people would choose to live in a time without electricity, running water, television, computers and cars. This is particularly true when one realizes that one's life expectancy will go down, infant mortality and death rates will go up and one would likely have to kill their own food in order to survive. If we can't turn back the clock to a non-consumption oriented society that has no significant impact on the environment, what options lie in the future?

One spot of hope for an Arendtian might be that technology will at some point enable people to escape labor and a consumption-oriented society. We have seen tremendous productivity increases over the last few centuries and even the last few decades. It is not all that difficult to imagine a world in which machines will labor for us, essentially freeing humans from labor. If so, humans could be free to participate in the public realm unhindered. Participation in the public realm unhindered, would presumably cause one's focus to shift from self-actualization through consumption to self-actualization through action. This shift in focus could free the world from excess consumption and most environmental problems would fall away.

Unfortunately, I don't see mass participation in the public realm as plausible. There has never been extended public activity as strictly defined by Arendt. This is partly due to Arendt misunderstanding an important part of laboring. She says:

"It is indeed in the nature of laboring to bring men together in the form of a labor gang where any number of individuals "labor together as though
they were one,” and in this sense togetherness may permeate laboring even more intimately than any other activity. But this “collective nature of labor,” far from establishing a recognizable, identifiable reality for each member of the labor gang, require on the contrary the actual loss of all awareness of individuality and identity; and it is for this reason that all those “values” which derive from laboring . . . are entirely “social” and essentially not different from the additional pleasure derived from eating and drinking in company.” (p. 213)

Speaking as one who has truly labored, she is absolutely wrong in saying that laboring does not involve individuality.41 The best groups to labor with are those that can unite, bringing together each person’s unique skills and personality to accomplish a difficult task. In fact, the process of laboring is often made up of many instances in which people act. Whether it is determining the best way to fall a tree, the most efficient way to work the “green chain” or the best way to mitigate an oil spill, there is often much debate over the best course of action and individuals assert themselves, taking risks and entering the complex web of human relationships. She is absolutely correct that this “gang” forms a bond of togetherness, but the truly great teams do so while maintaining individuality. In fact a team that does not value plurality and individuality loses the primary benefit of a team, the synergy that arises from diversity. Because of the tremendous satisfaction that many people derive from laboring as a team, action in the strict Arendtian framework is not necessary for people to appear and establish their uniqueness.

Since humans cannot go backwards and are unlikely to enter into a society based on action, what does Arendt contribute to the discussion of global climate change? Using

41To name of few of the activities I have labored in; I have “bucked bales” (gathered 80-120 pound bales of hay from fields), cut trees, built fences, “pulled green chain” (sorting the wet [green] lumber in a lumber mill, the most physically demanding job in a lumber mill and possibly in the United States) and split fire wood.
some of Arendt's ideas, one could synthesize "action, work, labor and thought" into a society seeking creative improvement. As discussed above, I believe action and labor have already been synthesized in labor. If one drops the sharp contrasts between the boundaries that Arendt proposes in her explanation of the human condition and concedes that the realms are not nearly as clearly defined as she describes them, a world of creative improvement in which contemplation drives action and stimulates a fusion of work and labor is quite possible. This would shift the focus of society from fulfillment through consumption to fulfillment through improvement.\footnote{I will discuss how this might occur in the next chapter.} Further, because of the thoughtful nature of this society, it would also be likely to value the environment because it would understand that without a viable planet, there is no future. While this sounds good, it is still too far away as much of the world is still undeveloped and I don't believe a society based on creative improvement could be realized except in a society that is highly automated, allowing people to focus on self-actualization rather than survival.
Chapter 9. Possibilities

Introduction

Ecorealism provides a framework through which to examine climate change. It shows that climate change is a legitimate problem and should be addressed through implementation of logical regulations. One seemingly logical solution can be found in Smith. He provides insight into the role of government in maintaining infrastructure and providing people the opportunity to better themselves. Expanding on Smith’s concept of a toll, the costs of pollution might be factored into the marketplace reducing pollution while spurring technology that both reduces pollution and improves our quality of life. A second, long term vision of the potential direction of society may be seen by drawing upon Arendt’s thoughts in respect to what motivates people. If people truly desire to establish their uniqueness through action, then that desire could be funneled into a society based on creative improvement. By capitalizing on this desire, society may be able to achieve self-actualization through accomplishment focused on service much in the same way that the free market capitalizes on self-interest.

Global Housekeeping, Technology and External Costs

In the short term, it seems that global housekeeping holds the most hope for addressing climate change. Arendt discusses a means through which global housekeeping may be realized in the short term. Although she does not use the term globalization, she recognizes one of the essential components of globalization, the reduction in importance
of distance. She says, "Speed has conquered space . . . it has made distance meaningless, for no significant part of a human life . . . is any longer necessary to reach any point on the earth." (p. 250) The elimination of distance as a barrier has been achieved through technology which has given rise to air travel, rail travel, interstates, telephones, fax machines, e-mail and the internet. This is serving to increase communications and reduce the cultural gaps between societies. More and more societies are becoming secular and materialistic. While this might seem to complicate environmental issues, the increasing global common frame of reference will increase the possibility of successful global housekeeping in terms of climate change because without shared values there can be no common ground upon which to apply global housekeeping.

She also provides hope for global housekeeping as a solution through her assertion that making has substituted for action. Reducing the opportunities for action and its uncertainty and relying on craftsmanship to legislate can certainly mitigate environmental hazards. In the marine industry, the International Maritime Organization has established effective rules that have mitigated safety hazards in the global marine environment. Strict international conventions have played a significant role in improving the quality of ships throughout the world. If part of an emerging global culture includes

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43She identified the trend of globalization in the 1950's by understanding that distances were becoming irrelevant. She also proposed the possibility of the global citizen, "Precisely when the immensity of available space on earth was discovered, the famous shrinkage of the globe began, until eventually in our world...each man is as much an inhabitant of the earth as he is an inhabitant of his country." (p. 250)

44This is particularly true in the developed countries that actively enforce the conventions. Detentions of substandard vessels in the U. S. and Europe have fallen since international conventions gave Port States more ability to detain substandard vessels.
placing value on the Earth, then there will be common ground upon which “craftsmen” can fashion global legislation to protect the environment. This legislation could be achieved in much the same way as the IMO has garnered international support for improving shipping safety and environmental standards. These regulations could incorporate a greenhouse gas emission toll aimed to reconcile the natural price and the actual market price of goods. This could reduce emissions by improving the efficiency and reducing the quantity of emissions.

As stated before, the science of global climate change is still evolving and at the present time leaves room for some debate as to the effects of global warming. Consensus on solving the problem will be more readily achieved when the science becomes more definitive. Developing partnerships, such as the United Nations Global Compact and work between NGO’s and businesses, is another method through which partnerships may be formed. A final means to address the problem within the existing system of sovereign states and capitalism will be when societies, including governments and business, realize that conservation and reduction in pollution ultimately result in more efficient business practices and cost savings.45 An emissions toll will help reduce consumption and increase efficiency, but it seems improbable that as standards of living improve throughout the globe, overall consumption will continue to increase.

45Easterbrook gives several examples of this: elimination of vinyl chloride in plastics resulted in better processing process, reduced costs and increased profitabilities (p. 318); the costs of the Clean Air Act of 1990 were offset by improvements in lighting efficiencies, cleaner air was achieved with no cost to industry (p. 318-319);
While technology can mitigate excess consumption, it is entirely possible that at some point technology will no longer enable humans to keep increasing consumption. If we haven’t found an alternative to our consuming society when we reach that point, humans may indeed sacrifice the earth as a result. Arendt warns that “men . . . have become capable today even of the potential destruction of what man did not make - the earth and earthly nature” (p. 233) and that, “Modern natural science and technology . . . seem . . . to have carried irreversibility and human unpredictability into the natural realm, where no remedy can be found to undo what has been done.” (p. 238) Although, she was probably referring to atomic or nuclear weapons and the potential of a nuclear war between the U.S.S.R. and the U.S., they are equally fitting in reference to the environment.

Technology seems to be a two-edged sword in respect to the environment, providing the means to harm the environment and then creating means to protect the environment. Technology, as discussed before, has not only allowed us to develop chemicals and other substances that harm the environment, it has enabled more and more consumption by improving production techniques and lowering prices. It has enabled global trade. It has enabled consumption on a scale not seen before. The free market has driven technology in the ever constant quest for competitive advantage. At the same time technology has allowed us to mitigate the damage caused by technology and consumption. We should be extremely wary of reaching a point at which technology can no longer protect nature from our pollution. No matter what one’s political, religious or philosophical beliefs are, we are dependent (at least for the foreseeable future) upon this
Earth. As such, it is in all human kind's best interest to ensure we do not reach a point of no return.

**Creative Improvement**

A long-term solution may be found through adaptation of Arendt's ideas into a society focused on creative improvement. By providing a means to appear through improvement, it could provide a new "common sense" for humans and reduce the "alienation" that humankind has undergone during the rise of the social. It could break the destructive drive to "consume" and "devour" our possessions and decouple the current tie between increasing quality of life, increasing consumption and increasing greenhouse gas emissions. This idea holds hope for several reasons. We can see the beginnings of this sort of society in the fact that job satisfaction is an important factor in how people choose a career. 46 I know many military officers and senior enlisted that could take a job making more money, but they stay in a lower paying job because of a desire to serve. Many professors do the same. Doctors work in developing countries for a fraction of the monetary compensation they would receive elsewhere. 47 Creative improvement is activity that provides an opportunity for people to establish their uniqueness in ways that result in improvements to society. Activities could include

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46 Gill discusses importance of quality of life in light of 9/11. Phillips & Phillips studied MBA graduates and the most important factors in job selection, "good pay" was not listed among the top factors.

public service, responsible corporate activity, research or any other activity that promotes improvement of some aspect of humanity or nature.

As poverty decreases in the world, a creative improvement society becomes more viable because people move up Maslov’s hierarchy of needs. As people become less concerned about food, shelter and security, seeking self-actualization through means other than consumption becomes more viable and the need for ever increasing wealth decreases. We could see a shift away from achievement of self-actualization through the primacy of production and consumption toward self-actualization through the primacy of to improvement to community. Society could be transformed to focus on creative improvement. As “stuff” becomes less important, people can turn to accomplishing more noble things (and polluting less).

One of the most powerful ideas Arendt discusses is the need for people to appear in and establish themselves as a unique human being. This is clearly related to Maslov’s hierarchy of needs. As one moves away from the urgent needs, self-actualization, which for Arendt should be accomplished through action in the public sphere, becomes more possible. This is clearly articulated by Arendt. In The Human Condition, it is clear that in Athens only a person with a large enough household to free the master of laboring and working could appear in public. One of the most promising aspects of globalization and the gains made by a vast number of people in the world, is that we are moving closer to a world in which more and more people will be able to appear in public. However, I would modify Arendt’s sharp lines and assert that people can establish their uniqueness in any forum that requires interaction between people. If this modification is accepted and if
globalization and the marketplace can be managed to bring all to a minimum standard of living, we can achieve a society focused not on consumption but through self actualization achieved through a focus on improvement of the human community.

The primary barrier to widespread creative improvement is to achieve the shift away from self-actualization through consumption to self-actualization through focus on improvement of community or human society. As mentioned before, there are select groups of people who forgo more wealth and focus on improvement. Most of these people (i.e., doctors, professors, military officers, clergy, etc.) have attained a high standard of living in terms of the world population. They have reached a point of receiving diminishing returns from consumption. Consumption is less important to this group of people than gaining satisfaction through improvement. The challenge is to achieve this on wide scale.

Wide spread creative improvement can only occur after there is widespread achievement of a standard of living that allows movement up Maslov’s hierarchy of needs. The World Bank Report 2000/2001 clearly shows the mixed results of development. Between 1987 and 1998, in East Asia the number of people living on less than $1 per day fell from around 420 million to around 280 million. This is an astonishing improvement, especially given that it is in absolute numbers and not percentages. At the same time one in four adults in Botswana are infected with HIV/AIDS. Poverty has risen Latin America, South Asia and Sub-Saharan Africa. (p. 3-4) Creative improvement will not occur globally, although it could occur locally or regionally, until development becomes widespread.
Achieving a society focused on creative improvement will require an education system that pushes students to focus on improvement. It will have to foster the desire to focus on improvement and highlight the satisfaction obtained through a focus on improvement. This value system will have to be taught much the same way children are taught not to litter or to dial 911. Children can be taught not to litter and they can be taught to recycle. This takes it one step further. It must key on the idea that it is in one’s best interest to focus on improvement, not consumption. The education must capitalize on the saying that, “it is better to give than to receive” and instill this concept in the public.

Finally, a society focused on creative improvement is not dependent upon any particular political system. The political system only need enable individuals to move up Maslov’s hierarchy and enable an educational system as described above. The key for creative improvement is to allow exploitation of peoples’ need to appear and establish their uniqueness outside of the “social” in order to break the “insatiable need to consume.” A global, or regional, society based on creative improvement is by no means certain. I see three primary stumbling blocks to the establishment of widespread creative improvement. The first is whether or not the environment can support widespread material well-being at a level that allows people to reach diminishing points of marginal utility of consumption. Unless that point is reached, creative improvement cannot occur. The second is whether or not globalization and the current spreading of the market will allow progress for more and more people. Without widespread well-being, creative improvement will be limited to the privileged few. Since the poor of the world contribute
a much smaller amount of the world’s pollution, this may alleviate a fair amount of
environmental pressure and greenhouse gas emissions; however, this is not the ideal as it
requires people to live in poverty and is not equitable. Finally, the biggest question is
will more than a hand full of people decide that improvement is more fulfilling than
consumption. Building a society focused on creative improvement must be planned in
order to nudge people away from consumption. As stated before it will be dependent on
effective education. The shift will also require global housekeeping methods
incorporating the external costs of pollution. This will make consumption more
expensive and difficult. This should make a lifestyle of creative improvement more
attractive than a lifestyle focused on consumption.

Final Thoughts

Addressing climate change, both in the short term through incorporation of
external climate change costs into the market and in the long term through a society based
on creative improvement, is dependent on humans being predominately rational. In the
short term it is simply a matter of incorporating the true costs of goods into the market.
In the long term, to ensure we don’t go beyond a point of non-sustainability, it is
dependent on individuals realizing that they can “appear” and establish themselves as
humans through improvement of their community. Both are based on self interest. The
need to appear may be satisfied through many activities, including improving technology
and making consumption more efficient, charity, work, and turning contemplation into
action. All of these avenues provide people with an opportunity to appear in public and
establish their uniqueness, without a focus on consumption, thereby reducing greenhouse
gas emissions and anthropogenic climate change.

I hold guarded optimism for the future of our planet and humans. I believe that
environmental problems can be solved and the overall quality of life for most people is
getting better. We have seen improvements in water quality, air quality and near coastal
oil pollution. Humans are resilient and have overcome many problems in the past and
will continue to do so in the future. It is certainly better for most people to be living
today than 500 years ago. I recognize that there are serious problems that must be
addressed; however, at the same time we should not lose focus on all of the gains that
have been made.

Amidst the often strident and shrill rhetoric in today’s political commentary and
discourse, it seems that we may have lost sight of the fact that regardless of the political
views or labels we attach to ourselves, the vast majority of us could come up with general
objectives that we agree on. Eliminating poverty is a good thing. Improving literacy is a
good thing. Reducing racial discrimination is a good thing. Ensuring the sustainability of
the environment is a good thing. We would all like to see quality of life improve
throughout the world and our own society. While we would have differing definitions of
what constitutes improved quality of life, these differing definitions would probably share
some common ground. The vast majority of humans share common ground but we often
differ on our interpretation of history and the best way to get there from here. If we can
keep in mind our common ground as we debate the best route to get there from here,
solutions can be found. We cannot be closed off to those who wear different labels from
us. When labels become the most important definition of who we are; capitalist, Marxist, conservative, liberal, etc., we tend to focus on our differences and lose sight of our common ground and what has been accomplished.

An important theme in Easterbrook is that many in the environmental movement have lost sight of the great improvements that have been made. The principles of Easterbrook’s ecorealism argument could and should be applied on a broader level. If we are on a march toward a better quality of life for a growing number of people in the world, then the conception of society based on creative improvement is possible. A society in which the reason for action, to distinguish oneself as human, is met through creative improvement is conceivable. It is ironic, that the path forward might be found by mating “Arendt’s ‘sociological’ pessimism” with Easterbrook’s guarded optimism. Easterbrook’s long term view of nature provides hope that the environment can endure until we reach a stage of material well-being that will enable a society to be based on creative improvement. It can also help to move beyond the rhetoric and focus on the most urgent environmental issues. We need Arendt because, through action and her description of the need to establish oneself, she provides the key that can transform a consumption oriented society based on growth into one based on creative improvement. Smith’s invisible hand has proven to be a powerful concept because it capitalizes on our drive toward self-interest. In a similar manner a creative improvement system must be built upon fulfilling the drive for self-interest through self-actualization and “appearing” on the human stage, not through consumption. It must enable people to “appear” in a

\[\text{From comments by Dr. Wilson October 2003.}\]
space that focuses on improvement of the human state of affairs, maximizing our rationality and minimizing our irrationality.
Bibliography


Class lectures and discussion, POLS 611. (Spring 2003).


