2016

The ethics of environmentalism for the individual consumer

Molly Collins
University of Richmond

The Ethics of Environmentalism for the Individual Consumer

Molly Collins

Honors Thesis

Submitted to

The Jepson School of Leadership Studies
University of Richmond
Richmond, VA

April 29, 2016

Advisor: Dr. Jessica Flanigan

Abstract

The Ethics of Environmentalism for the Individual Consumer

Molly Collins

Committee Members: Dr. Jessica Flanigan, Dr. Terry Price, Dr. Eugene Wu, Dr. Robert Andrejewski

Climate change harms the well-being of humans. It is the poor choices of individual consumers that contribute to climate change. I argue that it is immoral to cause harm to others, thus climate change is an ethical dilemma for individual consumers. I begin with a pluralistic discussion of harm, before discussing the duties of individuals to make choices that will mitigate the current harms of climate change and the wrong moral assumptions that individuals make regarding their contribution to climate change. I discuss the principles of ethical consumerism, specifically in housing, food, and transportation. Lastly, I argue that climate change is an enforceable duty on the premise that those who cause or threaten harm are liable for their actions and that individuals are equally as liable for the collective well-being.

Signature Page for Leadership Studies Honors Thesis

The Ethics of Environmentalism for the Individual Consumer

Thesis presented

by

Molly Mackenzie Collins

This is to certify that the thesis prepared by *Molly Mackenzie Collins* has been approved by her committee as satisfactory completion of the thesis requirement to earn honors in leadership studies.

Approved as to style and content by:

Dr. Jessica Flanigan, Chair

Dr. Terry L. Price, Member

Dr. Eugene Yorchone Wu, Member

Senior Associate Dean for Academic Affairs
Jepson School of Leadership Studies

Table of Contents

Chapter 1

Introduction

Climate change is an urgent issue requiring attention. Climate change is relevant to every being on our planet. Climate change is important because the environment should be treated as more than a distant concept of balding rainforests and a depleting ozone. The environment is important because it matters for humans and has direct consequences from our actions. As the climate worsens, the overall status of human life will decrease and higher levels of well-being will be more difficult to achieve. Beyond the moral need to give attention to climate change, the science behind the current state of the environment gives us enough prudential reason to worry and to care.

This thesis will create a moral framework for the ideal behavior of individual consumers. I will discuss what it means to harm someone, both knowingly and unknowingly, and will apply a pluralistic principle of harm to consumers' mistakes in understanding climate change contribution as well as respond to objections of individual versus collective responsibility. This framework, in the first chapter, will inform the political ideal created in the third chapter of enforcement of liabilities. These arguments of enforcing duties correspond to the moral principles of personal moral duties in the first chapter. I reference these enforceable duties as non-ideal circumstances of noncompliance, as discussed by Laura Valntini. Within non-ideal circumstances, I understand that it is not always the case that "all relevant agents comply with the demands of justice applying to them and that natural and historical conditions are

favorable—i.e. society is sufficiently economically and socially developed to realize justice."[1] This theory of compliance helps to determine how much people ought to do if a realistic and close to ideal circumstance were to be enforced. I recognize that individual consumers may do a partial share of their responsibility within climate change behaviors, yet that it is unlikely that they will shift their lives completely to accommodate climate-related issues. My pluralistic theory of harm seeks to fulfill this understanding by recognizing different types and intentions of harm. By beginning with this understanding of a partially ideal and hopefully obtainable situation for climate change behavior within a moral framework, I am able to conclude with suggestions for enforcements of policies that shape this circumstance of partial but not full behavior shift by individuals.

In this chapter, I will argue that climate change is a moral issue because it has been caused by choices of individuals. It is an issue because it causes harm to people in the future, for people today in poor and disadvantaged countries, and because it damages nature. Furthermore, the people who are harmed by climate change did not consent to being subjected to a changing and dangerous climate. In the first section of this chapter, I will first defend this argument of the need to prevent capability-infringing harms. I will then present an understanding climate change as a real and fact-based issue. I will then discuss the people that it harms, including future people and people in impoverished situations. Lastly, I will discuss why this is a moral dilemma for the reason that it harms people who did not consent to being harmed and that it violates their rights to a sustainable and healthy life.

In the sense of conceptualizing climate change as more than a scientific problem, I will argue that climate change poses a moral dilemma as it is caused by people's choices and is

[1] Valentini, Laura. 2012. "Ideal vs Non-Ideal Theory: A Conceptual Map." *Philosophy Compass* 7 (9): 654-664. DOI: 10.1111/j.1747-9991.2012.00500.x.

perpetuated by people's behaviors. When a moral question is bought up in a large scale, such as climate change, the reason it even is a problem in the first place is due to its avoidability and the fact that one person's actions inflict lives of others in a negative way. Practices such as large carbon emissions are a choice made by certain people (or companies) that create bad consequences to future people, existing people, and nature. These bad consequences are measurable by data and are completely avoidable through conscious change of practice.

I will also argue that climate change actions infringe most upon the choices of the disadvantaged. People in developing countries are unable to fully grow to their economic capacity because they are limited by current climate change repercussions such as changing sea level and even by reparations for climate change such as higher taxes and costs of certain goods. I argue that our duty within a changing climate is first to ensure that all people are sufficiently housed, fed, and live a life free of worry for climate-related consequences.

The framework of my argument is as follows:

1. If an action substantially contributes to harm to other people then individuals have a duty to refrain from that action.

2. Individual behaviors substantially contribute to the harm of climate change.

3. Climate change harms people.

Therefore,

4. Individuals have a duty to refrain from acting in a way that that contributes to climate change.

This argument will begin with a clear defense of my harm principle. Then, I will discuss the principle with respect to climate change and individual moral obligations.

1. The Harm Principle

I will begin with a definition of harm. I define climate change as an event that harms other people because it has an impact on their well-being. I see harm as an event that has consequences which make life worse off for someone else. These consequences of making life worse off may be seen as depriving someone of certain capabilities, presenting what I will call "objectively bad situations," or by violating innate human rights. While this section does not create a full theory of the harm principle, it does present the argument harm through a pluralistic moral theory with the basis that it is wrong to injure someone or to deprive someone of their capabilities. The second part of this argument will expand upon Mill's argument that government can only interfere with people to prevent harm. I interpret this as implying that the only enforceable duty people have is to refrain from harming.

My definition of harm begins with a comparative account arguing that an action of harm makes life worse off than it had been before. As defined by Ben Bradley "a harmful event is an event that makes things go worse for someone, on the whole, than they would have gone if the event had not happened. The worse an event makes things go for someone, the more harmful it is …it leaves open what sorts of beings may be harmed; any being that has a welfare can be harmed, not just a person…"[2] This definition covers the idea that humans have strong entitlements against losses, and that it is morally worse if a thing is damaged or taken away by the actions of fellow humans. Harm is the action that makes the present comparatively worse than the past.

[2] Bradley, Ben. 2012. "Doing Away with Harm." *Philosophy and Phenomenological Research* 85 (2): 396. doi:10.1111/j.1933-1592.2012.00615.x.

Alternatively, we may take a non-comparative approach and define harm as actions or events that can make life objectively bad, such as a physical or emotional injury. As described by Seana Shiffrin, "typically, harm involves the imposition of a state or condition that directly or indirectly obstructs, prevents, frustrates, or undoes an agent's cognizant interaction with her circumstances and her efforts to fashion a life within them that is distinctively and authentically hers."[3] These harms to the imposition of a state are those that can be listed out as objectively bad. For example, driving a car and dirtying the air around a nearby person, dirtying the water of a nearby population with toxic chemicals, removing all water from a population's nearby source, or removing all trees in a rainforest that provides shelter to animal populations. These are harms that interfere with the previous intent of a being and that disturb the personal well-being or personal desires of an individual.

Harm may be further defined as those capabilities that are taken away due to a certain action. This idea expands upon Shiffrin's definition of harm to intention because undermining capabilities removes the ability to achieve some action. This distinction within the capabilities approach to harm defines capabilities as "a person's real freedoms or opportunities to achieve functionings. Thus, while travelling is a functioning, the real opportunity to travel is the corresponding capability."[4] Functionings exist both as "beings and doings," while beings involves the wellness of a certain human—this may involve nourishment, housing, education, emotional state, health, and more.[5] These beings may be harmed and a person may become malnourished, poorly housed, uneducated, depressed, ill, and more. The doings within capabilities involve the ability to achieve a higher state of being or to achieve well-being. Harm

---

[3] Bradley, "Doing Away with Harm," 400.
[4] Robeyns, Ingrid. 2011. "The Capability Approach." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Summer 2011. http://plato.stanford.edu/archives/sum2011/entries/capability-approach/.
[5] Sen, Amartya. n.d. "Rights and Capabilities." *Harvard University Press*, 307–24.

may include the restrictions to become well-nourished, sufficiently sheltered, well-educated, well-fed, healthy, happy, and more.[6] Harm to capabilities presents an important argument for when the ability to achieve increased well-being is removed, it is equally as problematic as the injury to existing well-being.

The fourth approach to harm comes from the consideration to not violate any natural human rights. This "non-consequentialist" harm does not involve the comparison of better-off or worse-off following a harmful event.[7] Rather, it is an action "that violates some right possessed by or obligation to that person."[8] While this is not the main focus of my harm principle, it is important to recognize how harm may be dangerous for its violation of a human right. Harm can come in the form of violating a right to not be discriminated against on the basis of religion, or the right to choose where to live. The non-consequentialist account, however, cannot account for naturally occurring events that make life comparatively worse-off (such as earthquakes), and would not consider these events harmful, as they do not violate any human rights. I still consider this argument, however, because there are many human-caused events that violate rights such as those to a healthy life.

Within my harm principle, I find it is also beneficial to discuss the idea of harm as the failure to benefit. There are arguments that would define harm as a lack of altruism, as it comparatively leaves people worse-off than before. When I fail to donate 10% of my annual income to solar energy research, I am making life worse-off for people whose well-being is significantly worse-off due to coal or oil as a primary energy source. This argument can also be seen as a duty to mitigate harm—thus to benefit preemptively. While I later discuss this

---

[6] Sen, "Rights and Capabilities."
[7] Woodward, James. 1986. "The Non-Identity Problem." *Ethics* 96 (July): 804–31.
[8] Bradley, "Doing Away with Harm," 401.

argument and understand it as important argument to address, it is not my main definition of harm.

I adopt a pluralistic account of harm. Later arguments will not depend on any particular account. The main takeaway from this discussion of harm is that it is less demanding than utilitarianism, as utilitarianism would dictate benefiting as much and as many people as possible. It is also distinct from a purely deontological approach because well-being can matter in addition to rights. I conclude my definition of harm with the idea that it is our duty to refrain from harm and that these duties are enforceable. This principle serves as a basic understanding of what constitutes as good and bad, and how decision making—for individual consumers specifically—can be harmful to others. I qualify this harm principle within a duty through moral reasoning to do your duty as an individual. Moral principle of duties to others fulfills my designation of the duty to resist harm and to understand how individual choices relates to harm.

2. The Facts of Climate Change

Looking at climate data alone can be large and ambiguous, yet much of it relates to an aspect of every person's life. Recent studies of Greenland and Antarctic glaciers indicate that their melting rate is 10 times faster than predicted and sea level can rise at least 10 feet in as little as 50 years.[9] With this rate of sea-level rise, coastal cities with immense populations, such as New York, Miami, and Washington D.C. are most prone to seeing changes in the lifestyles possible in those areas.[10] Climate change will bring about stronger storm systems and jet streams

[9] Holthaus, Eric. "Earth's Most Famous Climate Scientist Issues Bombshell Sea Level Warning." *Slate*, July 20, 2015.
[10] "IPCC 4th Assessment Report Working Group 2." Accessed September 29, 2015. http://www2.epa.gov/sites/production/files/documents/IPCC4thAssessmentReportWorkingGroup2.pdf.

due to a difference in ocean area temperatures.[11] With each of these changes in the Earth's natural patterns comes the need to question where all of these changes stem from. Greenhouse gases are a major contributor to the global air and ocean temperatures, current ecosystem changes, and threats to agriculture, forestry, and human health. These greenhouse gasses are created by an excess emission of gasses such as carbon dioxide, methane, nitrous oxide, and more. The recent—in the past 150 years—increase in the burning of fossil fuels has significantly contributed to the percent of greenhouse gasses in the air and thus has led to an increase in threats to the natural environment.[12]

To turn directly to the source of climate change, there is a causal connection between individual consumers' choices and the amount of carbon emission. The most CO2 emissions result from fossil fuel combustion in the human-created energy production in the sectors of electricity generation, transportation, industry, residential, and commercial.[13] With this understood as the primary cause of climate change, we can begin to comprehend the amount that consumers are the reason for the existence of climate change. It is the over-consumption of energy and fossil fuels passed down through generations that has created a hunger for constant energy usage that is seen today. In the average consumer's life, he or she will emit the equivalent of 23 metric tons of CO2 per day, which is 1,840 metric tons over an average lifespan of 80 years.[14] Furthermore, the "direct energy use by households accounts for approximately 38% of

---

[11] "The Point of No Return: Climate Change Nightmares Are Already Here | Rolling Stone." Accessed September 29, 2015. http://www.rollingstone.com/politics/news/the-point-of-no-return-climate-change-nightmares-are-already-here-20150805?utm_source=newsletter&utm_content=daily&utm_campaign=080515_16&utm_medium=email&ea=aXJyZXZAbWFjLmNvbQ%3D%3D.

[12] Grossman, Margaret. 2010. "Climate Change and the Law." *The American Journal of Comparative Law* 58 (January): 223–55.

[13] Grossman, "Climate Change and the Law."

[14] Nolt, John. "How Harmful Are the Average American's Greenhouse Gas Emissions?" *Ethics, Policy & Environment* 14, no. 1 (January 2011): 3–10. doi:10.1080/21550085.2011.561584.

overall U.S. CO2 emissions, or 626 million metric tons of carbon in 2005. This is approximately 8% of global emissions and larger than the emissions by any country except China."[15]

These considerations of the average American's output of energy is a thought that needs to be considered and taken seriously by each individual. These lifestyle choices of energy consumption may seem like such a small contribution to a larger problem of factory and industrial energy consumption, yet it is this mindset that only perpetuates these habits and choices of energy use. Every day, consumers are faced with choices that range on a scale of seemingly easy and tangible—such as turning off a light switch—to improbable and distant, such as never flying on an airplane or never eating meat. These choices are so strongly affected by our daily interaction with climate change news and information, available options for more sustainable choices, and our general opinion or capacity for caring about this phenomenon. Our choices are what will directly impact the idea of sufficient health and well-being for every person. While our choices may seem to be small and insignificant—as I will discuss later—it is these small choices and our lack of attention to them that lead to greater problems. I propose that a minimal shift in lifestyle behaviors for those who consume the most can increase the health and well-being of those who are in disadvantaged positions because of climate change. The increase in health and well-being that the advantaged produce is the main goal of reform. First and foremost people must refrain from creating harm that makes life worse off for the worst off. The evidence predicts a future where life (both human and non-human) is worse (meaning more difficult, more dangerous, and less healthy) than it is today.

---

[15] Dietz, Thomas, Gerald T. Gardner, Jonathan Gilligan, Paul C. Stern, and Michael P. Vandenbergh. "Household Actions Can Provide a Behavioral Wedge to Rapidly Reduce US Carbon Emissions." *Proceedings of the National Academy of Sciences* 106, no. 44 (November 3, 2009): 18452–56. doi:10.1073/pnas.0908738106.

Too many consumers today are faced with task of consciously deciding to care about energy use, and then how to make a change and how to reduce their energy emissions. Currently, consumers who are not living a "carbon neutral" or "zero-impact" lifestyle are often doing so because they feel that the problem of climate change is too distant, that the information presented about climate change is too "doom-and-gloom," leading to a feeling of desperation and powerlessness, and then they put up psychological defenses to "avoid feeling guilty about their own contributions to fossil fuel emissions."[16] It would appear to too many consumers that the ability for them to make a drastic change is out of their hands and that their small daily choices, such as driving a car compared to walking or biking, will have no impact in the long run, so they might as well continue to live as they are without interruption. It is these sets of attitudes that leads to even less progress towards a cleaner and more sustainable future. A sustainable future can only be achieved by way of small choices that make people's lives better. While the psychological toll of making drastic climate change-related behaviors may seem too daunting, it is the small actions that will even out the playing field of humanitarian rights and well-being for current and future disadvantaged people.

Due to the fact that harms are inherently worse for those in the worst conditions, the considerations related to the well-being of the disadvantaged are especially morally urgent. Those in disadvantaged positions are there because of the constant marginal utility of advantaged consumers in wealthy economies. As affluent economies grow, their consumerism is a constant cycle of producing and purchasing, which leaves out options for economic growth for the disadvantaged economies. They are caught in the position of seeking economic opportunities and are denied the abilities to grow into sufficient purchasing power. Thus, these economies require

[16] "How Can We Make People Care About Climate Change? By Richard Schiffman: Yale Environment 360." Accessed September 29, 2015. http://e360.yale.edu/feature/how_can_we_make_people_care_about_climate_change/2892/.

immediate moral attention in order to bring them up to a higher standard of well-being. The cycle of diminishing marginal utility is related to harm because wealthy consumers continue to behave harmfully even as the profit of their behaviors decreases. In terms of my pluralistic theory of harm, the behaviors that are found to be wrongful create a moral wrong because humans are independent agents who have the ability to make choices to harm or not to harm. In the most anthropocentric view of my pluralistic theory of harm, the worst kind of harm one can do is harm another human being. For climate change, this anthropocentric pluralistic theory of harm dictates that any climate change behavior which has a negative effect on another human is wrong. Thus, to respond to the objection that climate change harms to future people and the environment are negligible, and I argue that climate change harms are morally urgent for the sake that they create further issues for people in disadvantaged conditions.

A major issue currently facing the energy usage debate is the disparity between energy consumption in developed countries—such as the U.S.—compared to still-developing countries. These countries have not had the economic resources to be able to emerge into the same energy-guzzling industrial and individuals as seen in developed countries. When larger countries are using so much energy they are three-fold placing these countries at a disadvantage. First, it is often the developing countries that are the first to feel the effects of our energy use and thus of climate change. Southeast Asian countries such as Bangladesh are going to immediately face the rising temperatures as well as the rising sea levels.[17] Secondly, in our noble efforts to reduce global carbon emissions by placing a limit on each country's emissions and by placing a further tax on energy usage, developed countries are setting the poorer countries at a disadvantage by taking away something they do not yet have (economic and therefore industrial or agricultural

[17] Snyder, Timothy. "The Next Genocide." *The New York Times*, September 12, 2015. http://www.nytimes.com/2015/09/13/opinion/sunday/the-next-genocide.html.

stability). Third, many companies now want to put labels on products to highlight the environmental impacts of the product and its energy usage, especially in transport. Many of these products, especially fruits and vegetables traveling from distant and poor countries to well-developed countries would see a decline in purchasing if this was to happen, thus further harming the underdeveloped country. "If consumers were to boycott fresh produce air freighted from Africa, UK's total emissions would be reduced by less than 0.1% but impacts on workers, communities, and economies in countries that have invested in developing a niche in perishable goods would be much more significant."[18] These impacts of climate change on poorer countries add a few unforeseen difficulties in trying to do the "right" thing by stopping such aggressive levels of carbon emissions.

3. Individual Choice and Climate

I propose that climate change is a moral issue because those who contribute to it harm other people. The Earth's heterostatic conditions have been brought about by individuals' use of fossil fuels and of wasteful habits. These habits and behaviors, however, are not equal amongst every citizen in every country, and those who have committed these behaviors need be mindful of the way that their actions impact people who are not directly in front of them. It is my argument that the consumers who create the most negative climate impact have a moral duty to recognize their actions and to take the necessary steps that will decrease their climate impact and that will mitigate the harm to those who live disadvantaged lives. This argument continues to support my second premise in that individuals do contribute to climate change. The existing

[18] "What Assures Consumers on Climate Change?" Accessed September 29, 2015. http://www.accountability.org/images/content/2/1/211/What%20Assures%20Consumers%20on%20Climate%20Change.pdf.

harmful habits and behaviors of consumers lie most prominently in housing, food, and transportation. The consumer's choices of individuals within these three categories are harmful not only to the climate but also the rest of the global population. The type of harm that I argue is most applicable to a discussion of individual choice that affects other people is harm that makes life worse off than it would be. It makes the most sense, in this context, to compare the lives of those who are contributing to climate change problems with those who are most deeply and negatively affected.

This argument rests namely on the premise that rich people's consumption choices harm people in poorer and still-developing countries, and people in the future who have yet to exist. People in poorer countries are disadvantaged because their carbon emissions cannot be as high as those in fully developed countries, thus they are not contributing as much to the damage to the environment. In order for these countries to grow and develop to the same level as those such as the United States and the United Kingdom today, they must first increase their emissions levels. In current attempts to limit emissions across all countries, these developing countries would be then further disadvantaged and would not be able to develop to their full capability.[19] This discrepancy between developed and underdeveloped countries emissions capabilities present the idea that climate change is a moral issue because it violates the rights that all people should have. When people are inhibited from growth and development because of another country or person's past behaviors, then a moral problem arises. This moral problem can be simplified into the idea that not every person in existence is receiving sufficient or equal health and well-being that is a basic human right. In order to even out the playing field and ensure that lives are not negatively harmed by climate change, those who benefit the most from climate-harming consumer

[19] Costello, Anthony, Mark Maslin, Hugh Montgomery, Anne M. Johnson, and Paul Ekins. "Global Health and Climate Change: Moving from Denial and Catastrophic Fatalism to Positive Action." *Philosophical Transactions: Mathematical, Physical and Engineering Sciences* 369, no. 1942 (May 13, 2011): 1866–82.

behaviors have a duty to proportionally regulate their energy usage and impact on the climate. Those who did not consent to the current levels of emissions and who are not responsible for current climate statuses should not be submitted to the current and future plans that would harm them further.

Beyond people who are in distant countries, people who are at a distance in time are also harmed through climate change because of existing people's behaviors and actions. Thus climate change poses an additional moral problem that warrants attention for the sake of future needs. The emission of greenhouse gasses may not cause significant changes to the lives of a large portion of today's living population, yet as long as people continue to reproduce and as long as populations continue to grow, the people of the future will face impacts of climate change that they did not consent to nor are they responsible.

One of the largest reasons for this disregard for future people is the psychological barriers surrounding an acceptance of climate change for current people. These barriers are distance, doom, dissonance, denial, and identity present the foundations for the moral issue of climate change.[20] In a sense, people receive the facts or news of climate change similarly to receiving bad news about a terrorist attack. They create protective psychological barriers to prevent themselves from feeling too anxious about a problem they cannot see right in front of them. They also do not change their behaviors, reflecting the psychological distance and physically maintaining the seemingly non-existent problem. Not only do present climate change contributors feel powerless to do something for their own good, but they have a psychological block from seeing why they need to make a change for the good of other people too. This psychological block does not, however, diminish the harm and injustice done to these future and

[20] "How Can We Make People Care About Climate Change? By Richard Schiffman: Yale Environment 360." Accessed September 29, 2015. http://e360.yale.edu/feature/how_can_we_make_people_care_about_climate_change/2892/.

distant people. There is a distinct relation here between individuals who contribute to an event (climate change) and individuals who are harmed by this event (future people starving or lacking water). While we may not yet see these individuals, we know their harm is imminent and must consider our actions before harming others.[21]

4. Parfit's 5 Mistakes of Moral Mathematics

Some of the psychological blocks that prevent people from changing their behavior relate to what Derek Parfit calls the 5 mistakes of moral mathematics. I will describe Parfit's arguments and explain how each mistake relates to consumer's behaviors regarding climate change. This argument will support my second premise that it is wrong to cause substantial harm to people. As I have already defined, harm is caused by making life worse-off for another living being in certain ways, such as causing non-comparatively bad states of affairs, undermining capabilities, violating rights, or other ways too.

I use these five mistakes to address this form of harm in order to counter-argue any idea that it is acceptable to ignore individual choices that seemingly do not directly or immediately impact the environment. If it is wrong to cause any type of harm, I argue, then any moral mistake only further contributes to climate-driven harm.

The five mistakes in moral mathematics, as set forth by Derek Parfit, describe other issues that consumers are faced with in terms of battling personal psychological beliefs and moral truths of harming and helping others.[22] These mistakes are relevant because they are common mistakes that people make in the assessment of the consequences, harms, and benefits

---

[21] Bradley, "Doing Away with Harm," 401.
[22] Derek Parfit. 1994. "5 Mistakes of Moral Mathematics." In *Reasons and Persons*. Oxford: Oxford University Press.

of their actions. The assessment of consequences is applicable to climate change because the acts of all consumers have some climate-related impact in some form, thus all consumers' actions have consequences related to the climate. These mistakes are not meant to create a normative baseline of how people should be acting and what they deserve. It is meant to reframe the psychological drivers behind consumer choices that relate to climate change. The purpose of these moral calculations is to ensure that each consumer (who lives a comfortable life and is not in any life-threatening danger related to climate change) understands the proper impact of his choices in regards to those who lead a lesser or worse off existence due to climate change. These arguments serve not as a call for drastic and life-altering changes for the advantaged consumer, rather they aim to guide the consumer in the direction of ethical consumption to help the disadvantaged.

The first mistake of moral mathematics is the Share-of-the-Total View, in which one ignores opportunity costs. This mistake entails the dilemma of deciding which way to act the best, in terms of saving 300 people alongside three other people, or singlehandedly saving 10 people while 4 other people save the 300 people. According to Parfit, it would be best to save the most lives possible, thus saving 300 people with three other people. I agree with this judgment because according to my theory of harm it is harmful to let someone die because that would deprive her of developing her capabilities.

This mistake applies to climate change in the sense that consumers might think it better to do a little amount of good such as turning off a light. However, it is actually better for more people to do a larger amount of good, such as an entire town banning the use of plastic bags.

Case: By taking collective action to make a large effort in saving lives or doing a significantly positive action for the environment, the long-term impacts of this action will

resonate larger than a small action. Simply turning out a light every so often is certainly beneficial for the environment, yet it has less weight compared to the effort of a town to remove plastic bags altogether. While the individuals in the town may have had less of an independent effort in this policy, they are part of a long-term larger benefit.

Parfit's second mistake of moral mathematics includes ignoring the effects of sets of acts in as such that doing (or not doing) one act will not change the outcome because a simultaneous act as the same effect as the first. This moral reasoning of performing one act only because its effects will occur anyway is flawed. This moral mistake can be seen in climate change when two people drive a car, carbon dioxide is released into the air from both cars. One person decides to drive because he knows cars are already on the road and thus the effects from his acts are occurring with or without him. The climate change mistake here is to assume that neither this man nor a car he may pass are morally wrong because their act was not done in singularity.

In the third mistake of moral mathematics, Parfit describes the mistake of ignoring very small chances that would affect many people. He applies this mistake to voting, in a case that one citizen might not think his one vote will make a difference, yet this is a mistake because when many people start to think this, then fewer and fewer will vote and thus the election will be negatively harmed. This applies to climate change in the idea that a consumer may ignore the very small chances of his driving actually making a difference. He will drive his car a short distance, underestimating the climate cost of this action, and thus feeling no moral consequence. Once this action and underestimation has been committed by many other consumers, the negative impacts on climate change will increase and the moral compromise of driving a car will also increase.

In the fifth mistake of moral mathematics, Parfit shows that ignoring imperceptible effects is also mistaken. For example, donating one pint of water to a water cart that will serve many wounded soldiers may be imperceptible to the donors, yet there will be lasting positive effects for the soldiers to each drink your small contribution when it is combined with others'. To reverse this use of water will make an effective argument for climate change. If every person turned off his or her shower water 30 seconds earlier than they normally do, this might initially seem like an imperceptible effect that would have no lasting climate change, yet it would make a drastic impact once all people make this positive change. This mistake relates to his sub-idea of overdetermination. By ignoring the imperceptible effects of a small action, the consumer might overdetermine the impact that one small action against the climate may have. The consumer will overdetermine that his use of water for 30 seconds longer will not have a significant impact, as he thinks he is too small a part of the population to matter. This overdetermination effects further leads people to believe that they cannot make positive changes and that their negative acts cannot make harmful changes to the environment.

Parfit's fourth mistake of moral mathematics includes the mistake of ignoring very small effects. He outlines that when people overuse a resource, they do not see how the individual use by one consumer made a significant impact, yet when many people believe this—similarly to overdetermination—then there will be a depletion of resources. In terms of climate change, this can be thought of as the consumer cutting down one tree on his front lawn. He sees no large effect to this, and feels only personal benefit. If all of his neighbors, however, also decided to cut down a tree, then there would eventually lead to a depletion of resources and a lack of trees. While the effect of one tree seemed small enough to ignore, the lasting impacts of many people following that ideology creates harmful effects for the environment.

It is important to consider these mistakes in moral mathematics when discussing climate change because these mistakes signify many of the reasons there have been insufficient efforts to reverse climate change. These ideologies commonly held by consumers lead to courses of inaction, overdetermination, and ignorance stemming from the belief that one person cannot do enough. I will argue that this is not true and it is in fact the duty of the consumer to take individual responsibility and action through small daily habits and behaviors that help the fight against climate change. In the end, each of these mistakes can be seen as an excuse for causing harm and worsening the lives of others. These psychological barriers allow us to believe that there is a further distance between an event and individual who receives harm from said event. This violates the harm principle in that any event which causes harm (to any being, at any distance, and at any time), is immoral and supports the premise that it is wrong to cause harm to people.

5. Can Harmful Action be Excused or Justified?

There are several objections, however, to the idea that a small cost to an individual is a moral duty if it saves the life of a suffering person. The first objection to this argument comes from Leif Wenar in his discussion on challenges for the affluent.[23] This argument focuses on the idea that the calls for altruism on behalf of the distant poor are not plausible for most of the population, even the affluent. He brings up questions of the reality of where efforts at assistance will go, in "The Donor's Question," saying that organizational factors such as resources constrict the ability for affluent people to control the results of their efforts to benefit the poor. Thus,

[23] Wenar, Leif. 2010. "Poverty Is No Pond: Challenges for the Affluent." In *Giving Well: The Ethics of Philanthropy*, 104–32. Oxford. http://static1.squarespace.com/static/55abfeaae4b0ba2b92833a23/t/55b54eb5e4b043b826887867/1437945525291/WenarPovertyNoPond8-09.pdf.

Wenar questions the effectiveness of individual reform on behalf of the global poor. According to the aforementioned harm principle, this objection is valid, insofar as a failure to change does not constitute a particular harm or offense. But individual change would certainly mitigate further harm, even in the absence of true effective altruism people must not promote an injury or restrict the liberty of an individual by contributing to climate change.[24] One might argue further to the extent that harm is done to the individual if he changes his behavior to help someone in need, as he is restricted from future liberties and freedoms that could have been granted from acting altruistically but that restriction would be outweighed by the benefit to whomever he helps.

The second objection comes from Christian Barry and Gerhard Overland. Following Barry and Overland's objection to Singer's argument on behalf of global aid, one might argue that there are too many abstractions and variables in measuring the cost and effectiveness of self-sacrifice. An affluent person may be able to donate to and save a starving child, yet this is not going to be possible for all people. Non-affluent people who can donate would be much worse off in their life if they were to donate for the sake of a child they do not know.[25] They might not become starving and might not become at the level of desperation of the child, yet they will be compromised. Furthermore, Barry and Overland argue that one cannot be forced, nor required to get hurt while being morally obligated to save a child. For example, they argue that it would be morally wrong to force a man to cut off his finger in order to save the life of a child.[26] This argument understands that as much as it is a positive duty to help someone, these acts are sensitive to cost. Similarly, one may extend this argument to the claim that there are too many

---

[24] Brink, David. 2014. "Mill's Moral and Political Philosophy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Fall 2014. http://plato.stanford.edu/archives/fall2014/entries/mill-moral-political/.
[25] Barry and Overland, "How Much for the Child," 200.
[26] Barry and Overland, "How Much for the Child," 192.

questions of cost in the duty to mitigate harm that dilute the potency of the moral obligation to save a child without further moral harm. Though people have equal worth and thus, "it is reasonable to expect that all individuals would be required to make certain sacrifices to protect others from very bad things happening to them," they suggest that radical changes could be reasonable.[27]

These objections to the duty to mitigate harm suggest that harm to oneself is not worth the benefit brought to another individual. This objection supports the comparative harm principle in that any event that leaves someone worse off than they would have been is a harmful event. This harm done to oneself (such as cutting off a finger) is worse than the harm done to a child in a lack of donations. The child's life is relatively the same and while they can compare it to a better life, they cannot argue that they have been made worse off. Furthermore, this objection understands the non-consequential harm argument, saying that harm is done by infringing on a natural right. Poor children are not necessarily born with a natural right to altruistic donations from wealthy Americans. Their liberty is not taken away by a lack of donations, and they do not exist in a worse state.

These infractions upon personal liberty while being obligated to mitigate harm come from a third objection or clarification of the duty to mitigate harm by Judith Lichtenberg in "New Harms." She sets forth that there are common sense and philosophical restrictions to the amount of moral obligation that is acceptable before it infringes upon personal liberty. In her argument, the individual's desire for liberty can outweigh the moral requirement to help others in need, and moral requirement would disrupt one's own concerns and needs.[28] She questions whether the sacrifice of autonomy is a valid cost for ensuring the health and security of a person in need. She

---

[27] Barry and Overland, "How Much for the Child," 200.
[28] Lichtenberg, Judith. 2010. "Negative Duties, Positive Duties, and the 'New Harms.'" *Ethics* 120 (3): 557.

goes on to address the fact that many common habits have recently developed that lead us to in fact harm people more frequently—yet indirectly—than we may realize. In her argument, "the moral contrast between not harming people and helping them may once have been sharp, but no longer is."[29] She addresses the current consumer behaviors that help the lives of the affluent while producing indirect harms and consequences for both distant people and for the climate.

These "new harms" may be so insignificant and imperceptible as Parfit's understanding of mistakes in moral mathematics that we haven't realized that our habits and behaviors are making a significant impact on the lives of others. And if we do not recognize their long-term impact, we are likely to ignore them and continue to act in these harmful ways. Lichtenberg's argument calls the comparative account of the harm principle into question. The comparative account for the harm principle implies that an event is harmful if it failed to benefit or improve the life of another being. The account may specify that an event is harmful when it worsens the life of the receiving party, yet this suggests that a lack of help is equally as harmful as an active injury. Lichtenberg understands that there must be a balance between not causing or creating more of these "new harms" while continuing to live our lives in a content and autonomous manner according to personal liberty. In the end, she understands that it is more effective to consciously avoid doing harm and to take responsibility for ourselves before attempting to help others and ease their pain.

This argument applies well to the call for behavior adjustment in relation to climate change. It is valid that a failure to benefit does not consist of an active harm. I argue that climate behavior harms because it creates life worse off through active injury to well-being. I agree with Lichtenberg that the comparative argument is wrong here in the sense that consumer behavior is only morally susceptible to only change in order to mitigate climate harm. There is no climate

[29] Lichtenberg, "Negative Duties," 558.

duty to benefit others as long as no further injury is created. While the altruistic and actively beneficial aspects of consumer behavior change are of course accepted and promoted, they are not enforceable. Furthermore, Lichtenberg's argument for maintaining personal autonomy applies to my argument for climate change. I do not create a call for all people to change their lifestyles so that they feel harm to themselves. I recognize the daily sacrifices that may have to be made—for example, carrying reusable silverware rather than using plastic disposable silverware every day at lunch—yet that maintain personal autonomy and liberty.

Through these objections to the obligation to mitigate harm, we have seen that the idea of limiting harm is prevalent and important, yet not always applicable. There are understandable limits to the duty to mitigate harm, especially when considering the costs to the individual. These objections, however, must not be considered as a reason not to establish a duty to mitigate harmful consumption. These must be considered for the purpose of understanding the boundaries within which these duties will manifest.

6. Moral Obligation of Preventing Climate Change Harms through Consumer Choices

So far, I have defended the claim that individuals have a duty to mitigate harm. In this section I will discuss the moral obligation of people to mitigate harm and suffering if they have the ability to do so without causing further harm. I will make this argument under the third premise that climate change harms people, following our previous discussion of the definition of harm. Due to the fact that climate change does present a harmful situation to many people, it is right that people ought to attempt to mitigate these harmful effects and current situations.

Furthermore, it is also due to the fact that climate change is promoted and sustained by choices of individuals, that they must then definitely make changes to their lifestyles. Therefore, the possibility of lifestyle change indicates that there is a moral obligation to make some change if it will then cause some benefit in the future. This argument does not assume moral consequences for those who do not accept this moral obligation to mitigate harm and suffering. I propose only that it is important to consider people in the world around us who are impacted by our actions. Our harmful actions that we have full control over and that can most hurt other people include our consumer choices that affect our global climate and environment.

Following the principles of Peter Singer, if a person has an obligation then it does not matter the distance (time, geographic, or otherwise) of the beneficiaries.[30] If acting in a morally justified way can prevent further climate change, it is still a moral obligation even if the beneficiaries are distant. The individual must not only stop a certain action that causes climate change (such as driving a car), but he or she must make a further effort to reduce or reverse climate change damages. Again following Singer's principle, if there is no damage or significant cost to attempting to do a moral good, then it is an obligation to reduce consequences of climate change. The damage done to people in distant places, such as far away and impoverished countries or future people, as previously discussed, makes no difference to whether or not the mitigation of climate change is a moral obligation. It is an obligation because it is harmful in the first place and causes damage and brings suffering to many people without their consent or responsibility. There are a variety of arguments that I will discuss regarding how an individual takes moral responsibility for climate change and attempts to mitigate harm through his or her mental acceptance.

---

[30] Singer, Peter. 1972. "Famine, Affluence, and Morality." *Philosophy & Public Affairs* 1 (3): 229–43.

First, mitigating climate change will bring the greatest happiness to the greatest amount of people. In a utilitarian light, it is only ethical to act in a way that will bring about an equal amount of happiness and satisfy the greatest amount of desires for the most people. Without causing significant damage to the lives of existing people, changing individual consumer habits to align with the prospect of the happiness of the most amount of people is thus a moral duty and should be carried out as much as possible.

Another argument that supports the fact that it is individual consumers of relative wealth who must make changes to mitigate climate change comes in the "Polluter Pays" Principle (PPP). In PPP, one might suggest that moral duties do not bring harm to this individual "polluter" who must pay for climate mitigation.[31] By changing one's lifestyles only a certain amount so as to prevent further harm, they will feel no moral harm or pain. Thus, it is a moral duty for those who pollute to pay for the negative effects of climate change. A further address of this argument takes shape in the idea that those who benefit today from industrialization and pollution-causing inventions must pay for the actions of their ancestors. Those who drive cars and use the fruits of the industrial revolution must accept that because they are directly related to their ancestors and because it was the fault of the ancestors, they must make individual changes to mitigate harm from climate change. This Beneficiary Pays Principle (BPP) can be thought of in the sense that "you ought to bear the burdens of climate change because without industrialization you would be much worse off than you currently are."[32] Furthermore, the fact that you are a recipient of a harmful habit means that the costs to decrease this habit and to mitigate the harms done by this harmful habit are not morally significant and must be paid.

---

[31] Gardiner, Stephen. 2010. *Climate Ethics*. Oxford University Press.
[32] Gardiner, *Climate Ethics,* 129.

Beyond the BPP, we are obligated to refrain from doing harm to the global poor, regardless of the costs. According to Simon Caney, looking at climate change effects in a human-rights approach clarifies the fact that the costs of climate change mitigation for consumers is so small compared to the harms committed against impoverished and disadvantaged people.[33] Taking a human-rights approach matters because it is moral to care about other humans. Every individual has his or her own rights that should not be harmed by the actions of other people. There is a standard of acting towards other people that needs not be violated. Human rights matter and climate change threatens the human right to life and health.[34]

One may object to this human-rights argument to consider the costs of climate change on the grounds that an anthropocentric view of the world and of nature is justified. In this view, it is acceptable for humans to act however they want because the earth was made for them.[35] But even if we adopted an anthropocentric moral perspective, humans would not be able to function without nature. All that we have comes from nature, and if we abuse the resources that we have been given, we will be hurt in the long term. It should be irrelevant that we are one species with a feeling of moral and intellectual superiority. We should be conscious of all beings that can feel pleasure or pain. We should avoid bringing pain to those that can feel it and are morally obligated to prevent further harms from being done to those that can feel it. There is a moral duty to promote the health and pleasure of all living and sentient beings. As per Peter Singer's argument for reducing animal suffering, causing harm to nature will have more negative long-term consequences for humans than it will have positive short-term consequences. To preserve

---

[33] Gardiner, *Climate Ethics,* 163.
[34] Gardiner, *Climate Ethics,* 167
[35] Brennan, Andrew, and Yeuk-Sze Lo. "Environmental Ethics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Winter 2015., 2015. http://plato.stanford.edu/archives/win2015/entries/ethics-environmental/.

nature is obligatory not because of the value of nature itself, but because will provide both humans and animals with long term positive experiences and consequences.[36]

Another argument against changing behavior to prevent climate change is that an individual might feel that she is not obligated to change and when a large scale organization is not changing either. The solution to overcoming this indifference is a change in mindset. It is wrong to suggest that you should leave it solely to the governments and large institutions to create change and policy to mitigate harms of climate change. Individuals still have moral duties even when policies continue to permit injustice to others. An objection to a moral duty to prevent climate change is that the expected benefits are weightier than the costs associated with consumer change. According to Nick Bostrom, there are calculations that can be made to the risk of the existence of society as we know it, and if we can decrease the chance of extinction even by a little, the benefits to all future generations will outweigh the costs.[37] His argument implies that there should be an immense focus on the decrease of existential risks in order to save humanity. This focus may not be on the betterment of the quality of life as a whole, but rather on saving the existence of humanity even if it goes on to exist at a sub-par state. There are technological advancements that can and should be made as acts of prevention against human extinction. Furthermore, these acts should not only be preventative, but they should be obligatory and of dominant focus.

Returning to Barry and Overland's discussion of personal cost within obligation to prevent harm to others brings the idea of working together to eliminate climate change. They argue that individual sacrifice for the sake of helping others is in fact a personal duty. Their

---

[36] Singer, Peter. "Choosing Causes and Organizations: Reducing Animal Suffering and Protecting Nature." In *The Most Good You Can Do: How Effective Altruism Is Changing Ideas about Living Ethically*, 144. Yale University Press, 2015.

[37] Bostrom, Nick. 2013. "Existential Risk Prevention as Global Priority." *Global Policy* 4 (1): 15–31.

argument regarding the costs to the individual underweigh the moral reasons to assist those in need. Though Barry and Overland would argue that when there are costs of helping those in need that are too large and much worse (i.e. cutting off a limb), one may refuse to help the child at all, Barry and Overland's argument would say that people are at least required to make small sacrifices, even for future people.

Lastly, one may cite the nonidentity problem in response to these arguments. For example, Walter Sinnott-Armstrong argues that the nonidentity problem entails the idea that the effects of global issues on future generations are irrelevant to existing individuals because climate change will determine the identities of future people.[38] The identities of future people will be significantly impacted by climate change practices because people's procreative choices will be influenced by the climate. By acknowledging the nonidentity problem, positive efforts against climate change are potentially threatened because it is difficult to see who is made worse off by a policy that determines the identities of future people. Individuals today do not see how their car's carbon emissions will lead to rising temperatures and thus a different world of existence for future people whose lives are worse than those who would otherwise have existed. The people today do not want to pay the high costs of sustainability in order to increase the level of life-worth, happiness, and health for those in the future when no one will be made worse off by a less-sustainable policy.

It is this mentality which undermines a moral decision to mitigate harm to others though. The nonidentity problem calls into question the role of existential risk because when people lack a feeling of self-worth and an understanding of personal value, they are less inclined to perform

---

[38] Sinnott-Armstrong, Walter. "It's Not My Fault: Global Warming and Individual Moral Obligations." In *Perspectives on Climate Change: Science, Economics, Politics Ethics*, 5:293–315, 2005. http://sites.duke.edu/wsa/papers/files/2011/05/wsa-itsnotmyfault2005.pdf.

acts to save the rest of humanity. Within the nonidentity problem, the lack of existence entirely is worse than a life that does not feel full value. So one may think that as long as future people exist, they are better off than others and cannot be harmed.

Objections to this argument include the case of a wrongful life. In this argument, Seana Shiffrin makes the case for the ability to harm future people even if they would not exist otherwise.[39] This harm is created by causing objectively bad conditions for life. This reply to the nonidentity problem discusses the defensibility of being liable to create life even when it will exist in poor conditions. She makes her claim around the case of a physically disabled child suing his parents for giving him life that was painful and arguably not worth living. She recognizes that these suits are justified, even if life is overall worthwhile. In this case, the argument for the nonidentity problem is weakened and it can be argued that individuals are able to question their existence and fight against its requirement if it can only exist in a poor condition. This argument relates to climate change in the sense that it heightens the moral responsibility of individuals to create a better world for those in the future. It is in the hands of the individuals to understand how their behaviors will contribute to the worthiness of future lives and to therefore ensure that all lives should be felt worth living.

[39] Shiffrin, Seana. "Wrongful Life, Procreative Responsibility, and the Significance of Harm." *Legal Theory*, 5: 117-148, 1999. http://www.public.iastate.edu/~jwcwolf/Papers/Shiffrin%20Wrongful%20life%20procreative%20responsibility%20and%20the%20significance%20of%20harm.pdf.

7. Implementing Moral Requirements into Climate Change Efforts

Now that I have gone through many arguments within the moral obligation to produce efforts against climate change, I will discuss the obligations of the individual consumer. This consumer obligation follows the third premise that climate change harms people. I set out to understand the ways that a consumer can fully understand the previous moral frameworks so that their decisions are well-informed not only for themselves and their well-being, but for the well-being and harm prevention of others. The consumer habits that make up most of affluent society today are that of wastefulness and indiscretion regarding harms to others. It is important for the consumer to have an awareness of what his or her habits truly entail and what it would take to sustain those behaviors for every individual around the world.

Therefore, the consumer has an obligation to address the climate needs at hand and to begin to shape his or her choices. The first and most prominent set of behaviors will be within the consumer's purchasing decisions. These purchasing decisions, mainly in housing, transportation, and food, will be addressed in depth in Chapter 2. The second type of consumer choices to be addressed by the consumer lie in the possibility of donating to environmental programs or to buy carbon offsets. These two choices are possibly the most controversial as they are costly to the consumer (monetarily) and to the environment. They are costly to the environment in that the negative impacts of consumer behaviors will still exist (carbon will still be emitted), even if there are positive actions being taken at the same time to a greater degree (such as trees being planted). A further discussion of offsets and donations will also take place in chapter two.

Following the previous theories of harm, these changes in behaviors, I argue, are morally obligatory based on evidence that the choices of the consumer will, in fact, make a significant impact on climate change. While the constructs and specific definitions of the harm principle rely on context to be made a duty, they still exist within this duty to bring about positive changes. There has been enough harm done already (in the context of well-being being worsened and liberties being infringed upon) that moving forward, it is in the hands of the consumers to prevent further harm from climate change. Positive behavioral changes will enhance the state of the environment as well as mitigate harms brought to other existing people. As we have seen, there are moral obligations of all people to address and to react to the harms associated with climate change. In the following chapter, I will address specific examples of consumer purchasing as their effects apply to climate change and I will make the case that behavioral changes must be made immediately.

Chapter 2

In this chapter, I will discuss three areas of consumer behavior and contributions that create the greatest climate harms. These three areas include housing, food, and transportation choices. Through a discussion of the impact of consumer choices on the climate, I will argue for the importance of being an environmental citizen. This chapter will serve as way to implement the duty to prevent climate change that I defended in Chapter 1. Here I relate the duty to real life situations for consumers. I will begin by defining the principles of ethical consumerism that play a large part in how consumers make choices for their housing, food, and transportation. I will then discuss each of these consumer actions in terms of their empirical data and how the principles of ethical consumerism can shape consumer behavior. I will lastly include a brief discussion of the benefits and drawbacks of offsets in terms of ethical consumer behavior.

8. Three Principles of Ethical Consumerism

Consumers make daily purchasing choices in many areas of their lives. These choices leave a mark on both the trajectory of the market and on the state of the climate. Everything from clothing choices to what temperature to keep a house determine the demand for products that increase carbon emissions. In this section, I will focus on the importance of the voice of the consumer through purchasing choices. I will argue that there are ethical principles within consumer choices that, once recognized, can lead to true impact and a real change made by consumers. The three principles of ethical consumerism that I will offer in this section include:

1. People can make ethical (or unethical) choices as consumers. This is called being an ecological citizen.

2. There are deep psychological roots behind consumer choices, including financial incentives for behavior change, and the marketing strategy of certain products.
3. Given the empirical data of climate change, the principle of the Reversal Test proves the argument of the need to mitigate climate change.

A. Ethical considerations are relevant for individual consumers. Social Justice and the Ecological Citizen

First, people can make ethical consumer choices. This idea is supported by the principles of social justice and ecological citizenship. Within these schools of thought, it is important to distinguish people's duty to engage in charitable acts from their duty to change their purchasing habits for ethical causes such as environmentalism.[40] The examples of the duty to give to charity or to volunteer for a charitable cause are much more open and public. They are also external motivations that are often presented in a much more dramatic or urgent sense—such as donating after a tsunami or an earthquake. My argument in this discussion is to promote the use of charity and behavioral change for climate purposes. I strive to show the importance of consumer behavior related to climate change as equal to that of donating to a natural disaster or protecting people from other natural threats that are harmful.

The daily choices that consumers make within their purchasing of goods, food or transportation choices, are private and often appear less urgent than choices that directly affect people because those who are harmed often are not visible and often go unnoticed. It is the job of the consumer to self-monitor his purchasing and decisions that will impact the climate in order to benefit and avoid harming the victims of climate change. It is this internal voice that will guide

[40] Dobson, Andrew. 2007. "Environmental Citizenship: Towards Sustainable Development." *Sustainable Development*, no. 15: 277. doi:10.1002/sd.344.

consumers towards fulfilling the moral duty to avoid harming others. Only the individual can control his purchases, and when he begins to understand the social and climate weight of every one of his purchases, he becomes an ecological citizen. This social justice voice of the consumer is important for the discussion of the consumer's ability to make ethical choices because the consumer needs to understand that duties of social justice come from within. Making an ethical consumption choice is within the range of possibilities for all individuals. This internal drive for the ethical consumer is contrasted from duties that come from the law, such as the duty not to kill. While the duties that come from the law may seem like inherent refrain from action, they do originate, to some degree, from the same place of individual decision not to kill. The governmental involvement in this duty augments the internal decision, just as it can with climate-related behaviors.

The concept of an ecological citizen supports this principle. Andrew Dobson outlines the definition of the ecological or environmental citizen as those who recognize that self-interested behavior will not always protect or sustain public goods such as the environment. Thus, environmental citizens make a commitment to the common good.[41] The environmental citizen is cognizant of how his or her behavior affects the larger world. He remains informed regarding the positive and beneficial actions for an individual within the social collective. His attitudes drive his behavior from an internal motivation to mitigate climate harm. Further within this definition is the feeling of a "sense of environmental responsibility on a planetary scale," where he or she will take daily purchasing decisions and behavior into consideration in terms of global impact.[42] The ideal of environmental citizenship is premised on the idea that it is possible for individuals to make positive consumer choices that lie within ethical structures of purchasing and living

[41] Dobson, "Environmental Citizenship," 280.
[42] Seyfang, Gill. "Ecological Citizenship and Sustainable Consumption: Examining Local Organic Food Networks." *Journal of Rural Studies* 22, no. 4 (October 2006): 384. doi:10.1016/j.jrurstud.2006.01.003.

decisions. It is seen how these principles reaffirm the duties defended in Chapter 1. I argued that individuals have moral duties to refrain from harming and to benefit people through their consumer choices, therefore, individuals should also embrace the ideals of ecological citizenship.

B. The Psychology of Consumer Choice

Consumers have a massive impact on the state of the climate and the economy. Consumers are faced with daily choices to consume at a highly wasteful level in which their purchases include products with a high carbon footprint and a high likelihood for waste. They are also given options, however, to purchase goods that were manufactured with a low carbon footprint, that will not create significant waste, or that are recyclable. These options exist within the concept of ethical consumerism where consumers may come to realize their power for change within their purchasing choices and avoidance of environmentally harmful products.[43] This behavior suggests that consumers have an interest in the ethics of product choices and purchasing behaviors in addition to their moral duty to change for the sake of those who are most harmed by climate change.

The reality of consumer choices, however, lie not necessarily in their duties and interests but in a complex algorithm of decision influences that includes nonmoral factors as well. These conflicting influences explain the 'values-action gap,' where consumers may report a concern about climate issues, yet they do not fulfill this concern when it comes to making green purchases.[44]

---

[43] Auger, Pat, and Timothy M. Devinney. "Do What Consumers Say Matter? The Misalignment of Preferences with Unconstrained Ethical Intentions." *Journal of Business Ethics* 76, no. 4 (2007): 363.

[44] Young, William, Kumju Hwang, Seonaidh McDonald, and Caroline J. Oates. "Sustainable Consumption: Green Consumer Behaviour When Purchasing Products." *Sustainable Development* 18, no. 1 (January 1, 2010): 20. doi:10.1002/sd.394. http://onlinelibrary.wiley.com/doi/10.1002/sd.394/epdf

Even if a consumer advocates adamantly about living sustainably and remaining cognizant about the climate, he may drive a highly carbon-emitting car and will purchase disposable water bottles rather than reusable bottles. For example, despite favorable attitudes towards organic food of between 46 and 67% of all consumers, only 4-10% of purchasing behavior matches this attitude.[45] This gap between interest and behavior is explained by the values-action gap in which consumers face conflicting availability of purchasing choices, which leads to a disparity between what they say they believe and how they carry out those values.

The consumer's attitudes towards green products are swayed by a variety of external influences. One prominent factor leading to sustainable purchasing is financial incentives. These short term incentives often come in the form of a small tax on a wasteful or environmentally damaging item, such as plastic bags. These financial incentives work for a short time, yet it is the deep-level attitudes that make a lasting impression on the consumer for his behavior in the long term. When financial incentives are taken away and the consumer is yet again left to make decisions with no external influences, those with a strong ethical weight in sustainability values will be those who consistently make "green purchases" and who behave in line with his beliefs.[46] Those who maintained sustainability values only for external self-benefits are more likely to continually purchase the wasteful and environmentally dangerous products while never forming deeply-rooted habits of sustainable behaviors. It is the attitude of the consumer that sets the stage for long term behavior patterns.[47] These principles support the idea of an ecological citizen, as the ideals held by ecological citizens are internally rooted in the belief of doing well for the climate, regardless of self-cost.

---

[45] Young, McDonald and Oates, "Sustainable Consumption," 22.
[46] Dobson, Andrew. 2007. "Environmental Citizenship: Towards Sustainable Development." *Sustainable Development*, no. 15: 276–85. doi:10.1002/sd.344.
[47] Bettman, James, Mary Frances Luce, and John W. Payne. "Constructive Consumer Choice Processes." *Journal of Consumer Research* 25, no. 3 (December 1998): 188. http://www.jstor.org/stable/10.1086/209535

A second prominent factor influencing sustainable purchasing and lifestyles often comes from the rhetoric of large companies' marketing and branding. Studies of ethical consumerism promote the idea that consumers have a willingness to help ethical causes, whether through monetary donations to charity or lifestyle changes for the climate.[48] Often this motivation or willingness to help comes from the message on a product before it is purchased. "People who care about ethical issues such as child labor, strangely enough, avoid finding out whether their products are made using child labor. But then if you give them the information they will incorporate it into their purchasing."[49] Thus, the more a brand can create a rhetoric of positive social responsibility (i.e. no child labor or sustainably made), the more people can be ethical in the short term.

One problem with using ethics as a brand strategy leading to positive revenue for a company is that this branding strategy is more of a scheme for commercial success than for actual positive social and environmental responsibility. Using ethics or corporate social responsibility (CSR) to help the profits of a product is potentially unethical because it will not lead to long-term environmental attention from the consumer.[50] Furthermore, these short-term CSR branding schemes often find ways to circumvent certain truths about their product. For example, a brand of paper towels may promote less paper use, while still being sold in wasteful plastic wrapping. Ethical considerations are perceived benefits that augment the value of the product. If a product is made in a socially or environmentally responsible way only for a marketing and retail purpose, the value of this responsibility is undermined. The perceived

[48] Irwin, Julie. 2015. "Ethical Consumerism Isn't Dead, It Just Needs Better Marketing." *Harvard Business Review*. Accessed November 18. https://hbr.org/2015/01/ethical-consumerism-isnt-dead-it-just-needs-better-marketing.
[49] Irwin, "Ethical Consumerism."
[50] Crane, Andrew. "Unpacking the Ethical Product." *Journal of Business Ethics* 30, no. 4 (2001): 361.

purpose of the product thus becomes an illusion, and simply a ploy to engage consumers on a new level.[51]

I argue, however, that this use of social responsibility to sell a product is not entirely unethical because it still promotes an effort for purchasing in a climate-conscious mode. Ideally, this short-term climate consciousness will eventually lead to a fully developed recognition of one's duty to purchase environmentally conscious products and thereby promote ethical consumer behavior. Returning to the principle of mitigating harm and improving the lives of the worse-off that I defended in Chapter 1, if a branding scheme can at least begin the conversation of increasing climate-conscious products, then this is acceptable. The conditions against marketing schemes apply to the use of false advertising for a product's climate benefit as well as the lack of draw to continue to purchase other climate-conscious products. The long-term benefit in these calculated or scheming brands will ideally be when all consumers have a purchasing focus solely on products that produce little to no waste and used minimal energy to produce.

These psychological traps, as we may call them, relate to Parfit's five mistakes of moral mathematics, as described in Chapter 1. Consumers are constantly torn back and forth between products advertising certain beneficial aspects, which only makes the ethical choice harder. For example, paper towel advertisements proclaim the simplicity that the product will bring to cleaning a household, thus making the consumer forget the climate impact of the paper and its waste. The consumer's attention is directed elsewhere and the ethical impacts of the choice seem less important. They might fall into the mistake of thinking that if all fellow consumers are buying this product, then it will not be so bad to purchase one more. We see how easily the

[51] Karnani, Aneel. 2010. "The Case Against Corporate Social Responsibility." *Wall Street Journal*, August 23, sec. Special. http://www.wsj.com/articles/SB10001424052748703338004575230112664504890.

mistakes of moral mathematics are augmented by the psychological shifts in consumer choices and how the branding of a product only further leads to the likelihood of such mistakes.

C. Empirical Aspects of Consumer Choices

We turn now to the empirical evidence that consumer choices impact the climate. In order to address this idea, I will use Bostrom and Ord's reversal test.[52] As previously discussed, consumer's values have a profound impact on the purchasing decisions they make. When consumers fail to consume in accordance with their values they can have a worse impact. The way that they purchase goods can be indefinitely changed and reformulated based on the influences around them. One of the largest impacts can be a status quo bias, which indicates that the way things currently stand is the best and should not be changed. Thus, consumers believe that they may continue to purchase goods in such a fashion that will not disturb the status quo and will not change current societal norms. This status quo bias falls largely under the category of a subjective or intuitive judgment, rather than based on a statistical analysis of what might actually be the best decision.[53] These status quo biases impair our judgments and narrow them to focus on not changing the state of being.

For example, Bostrom and Ord discuss the idea of avoiding human cognitive enhancement for the sake that its consequences are unknown and that the perceived benefits are too risky to consider plausible. They apply their Reversal Test to this case by considering if the opposite were to happen. "When a proposal to change a certain parameter is thought to have bad overall consequences, consider a change to the same parameter in the opposite direction. If this is also thought to have bad overall consequences, then the onus is on those who reach these

---

[52] Bostrom, Nick, and Toby Ord. 2006. "The Reversal Test: Eliminating Status Quo Bias in Applied Ethics." *Ethics*, no. 116 (July): 656.
[53] Bostrom and Ord, "The Reversal Test," 657.

conclusions to explain why our position cannot be improved through changes to this parameter. If they are unable to do so, then we have reason to suspect that they suffer from status quo bias.[54] Those who believe that intelligence increases would be worse than the status quo would also believe that decreases to intelligence would be worse to the status quo, thus this objector must decide whether or not she must reevaluate the first premise of increasing intelligence. Furthermore, those in objection would also need to reevaluate the status quo and decide if any change is needed to improve the overall status quo.

I will apply this reversal test to my argument that if people consumed differently, they would harm the climate less. According to Bostrom and Ord's definition of a status quo bias that impairs judgment, I argue that climate change as it is needs to be addressed and that the status quo of consumer behavior needs to change. This change goes against the status quo and implies a cognitive error in judgment after one applies the Reversal Test. In this case, reversing the argument to prevent climate change through consumer behavior would imply asking if it would be better if consumers were to change their behavior in the opposite direction and consume more products, waste more, transport more, use more natural resources, and put more carbon dioxide in the air? Asking this question of whether pushing judgments in the opposite direction brings up a dilemma for the consumer.

To put this test into use for climate change, we must look backwards and ask ourselves if the status quo of today is better or worse than the reverse or the past. Was coal power morally better than a world in the future that is powered equally as strong but with renewable energy instead of oil? Would the status quo of today be better if we went backwards in time and took electricity out of our homes? Or would the reverse be better and it would be acceptable to power

[54] Bostrom and Ord, "The Reversal Test," 664.

our homes with renewable energy? These types of questions help to prove the objection to the status quo bias and instigate the conversation towards making changes in our consumer choices.

Given that I argue that the status quo (currently of decreasing climate health caused by human behavior) is not sustainable, the Reversal Test helps to shape our understanding of the status quo in that the behavior of consumers must be varied in a direction of less overall consumption, waste, and pollution for the improvement of the climate. This argument is supported by the idea that the counter argument- against changing consumer behavior and increasing production of climate-harming products- should not be encouraged. Furthermore, the status quo of the past was more harmful than it is today. We would not want to revert to a status quo of no electricity and no running water, yet we would also not want the reverse of a future where we have depleted all of our sources and are left with nothing. In light of the harm theory as described in Chapter 1, the status quo of present day creates harm for the future by actively removing its resources and thus causing injury to nature and to people.

I will now apply these arguments in favor of ethical consumerism to three specific areas of consumer behavior. Each of these areas will be argued within the context that the opposite behavior or the consumer would be worse and therefore the positive consumer change is ideal. Also within this argument comes the idea that the tradeoffs and sacrifices made in the name of this new consumer behavior trend are also more favorable within the context of comparing it to an opposite behavior or reaction.

9. The Effects of Consumer Choices in Housing

The cost of living in a sustainable world goes beyond buying goods that produce carbon and create waste. The effects of climate change extend to the daily habits involved in housing,

food, and transportation. These three areas shift the attention to a focused view of the consumer choices with the most impact on the climate.

The way we choose to shelter ourselves proves to be one of the largest strains on the climate, as housing production and maintenance prove to be some of the largest productions of waste, and uses of water, energy, and resources. In this section I will discuss housing as a problem for the climate, suggestions for living and building more sustainably, and the ethical considerations behind housing as an environmental problem. There are four primary areas of environmental concern within housing as an industry with consumer impact. These four include waste, water use, natural resources and toxic chemicals, and energy use.

A. Waste

Houses are a natural human adaptation for shelter that provide happier and healthier lives, while also putting a strain on the climate through their construction, heating and cooling, human activity, and water usage. The first environmental hazard associated with housing is the waste that is accumulated in housing, which begins at the construction point when materials are brought to a site, often from a far distance. Often a large portion of these materials is not used in the making of the house and goes to waste. The United States alone uses about 160 million tons of building-related construction and demolition debris, which is two-thirds of all non-industrial solid waste generation in the country.[55] When these waste materials are not recycled, they go to landfill space and require energy in their transportation and handling.

The waste production of a household does not stop after its construction is completed. Each individual American wastes four or more pounds of trash per day. Most of this waste is

[55] "Home-Building and the Environmental Effects." Accessed March 15, 2016. http://homeguides.sfgate.com/homebuilding-environmental-effects-65999.html.

made up of packaging and disposable products that could have been recycled.[56] 3,460,000 tons of tissues and paper towels, 300,000,000 pounds of single use dry-cleaning plastic bags, 40 billion plastic utensils, and 6,550,000 tons of paper and paperboard products all end up in landfills each year. This degree of waste is astonishing and can be largely contributed to the fact that houses are conducive for products of one time use. Often, if a workplace is far from home, an employee will choose to eat at a local take-out restaurant for lunch, rather than packing lunch or returning home to cook with reusable products. The cleaning industry is a large contributor to these wasted products, as paper towels and plastic garbage bags are some of the highest percentage of items in a landfill. Their single-use convenience leads consumers to a habit of keeping their home clean with simple disposable products.

In light of the moral theory I defended in Chapter 1, wasteful housing choices are unethical because they make life comparatively worse off for those in distant locations and those in the future. The waste of American households ends up in landfills which make life worse off for those already in a disadvantaged position. People who live near landfills are susceptible to health issues such as dirty drinking water and unsanitary conditions. Without these massive waste sites caused by American individual consumers, the overall conditions and well-being of people who live near landfills would be comparatively better off. Thus, American households that contribute to landfills cause harm to the climate and to other human beings. Landfills are just one example of the many ways that Americans create harm both for the disadvantaged and for the environment.

There are certainly ways for Americans to change their in-home waste behavior, as it is their individual choice whether to use a disposable product or whether to buy a long-lasting and

---

[56] Parrott, Kathleen. "Environmental Concerns and Housing." *Housing and Society* 24, no. 3 (1997). http://www.housingeducators.org/Journals/H%26S_Vol_24_No_3_Environmental_Concerns_and_Housing.pdf.

reusable product that will decrease their overall waste. Returning to the idea of the ecological citizen, the act of using single-use paper or plastic products is a blatantly self-interested action. There is direct harm seen in wasting a single paper towel one time, as its creating and later its waste will produce harm for the environment. The ecological citizen, however, may recognize the self-interest in the one-time use of a wasted paper towel. He will then, however, recognize the beneficial action of not consistently wasting non-reusable products. He will understand how his behavior fits into the larger spectrum of environmental waste and product use.

B. Water Use

The water usage of most American households points to not only an excessive use and waste but a dangerously unsustainable disregard for water conservation. In terms of water usage, household toilets and clothes washers account for 26.7% and 21.7% of total household water usage. Following these two appliances, the shower accounts for 16.8%, faucet 15.7%, leaks 13.7% and other items 5.3%.[57] On average, this accounts for 50 gallons of water per person per day, meaning 300 gallons per day or more than 6,000 gallons of water per month in a 4-person household. These gallons accumulate quickly when a person showers for more than 5 minutes-using typically more than 12.5 gallons in that period, flushes the toilet often, with most toilets using close to 2 gallons per flush, and uses a laundry machine that uses 40-45 gallons of water per load.[58] These typical household behaviors can be drastically changed with individual attention to water use in daily life as well as through long-term planning for more water-efficient appliances and plumbing.

---

[57] "EPA WaterSense | Water Education & Our Water Cycle | Water Use Today," USEPA, Accessed March 15, 2016. http://www3.epa.gov/watersense/our_water/water_use_today.html.

[58] "City Utilities: Water Tips." Accessed March 15, 2016. http://www.cityutilities.net/resident/pgms/watertips.htm.

An ethical consumer will pay attention to his water use and will diligently keep track of his household's water use because he will understand how his water use creates harm. We see a claim for this harm to others in Mathias Risse's claim that people's common ownership of the earth means that by taking water from the natural commons, those in rich countries are harming their fellow global citizens.[59] He argues that countries with thriving economies are constantly able to move forward with innovation, and with such innovation often comes resource use. These countries take away from the epidemics that were already happening in poorer countries who lacked resources to begin with. Thus, affluent economies are causing harm to disadvantaged citizens as they are taking an unfair share of resources that causes further worsening of well-being. The psychology behind an ethical consumer is aware enough of his water use to physically see wasted water pouring down the drain and to recognize his affluence and position in the world comparatively. Once the consumer is able to get the correct statistics of how many gallons are used per minute in his shower or per load of laundry, he has a duty to maintain a conscious effort to use less water and to thus decrease his harm done to others.

C. Natural Resources and Peak Oil

The natural resources used in home creation and home maintenance is a large drain on the environment. First, deforestation is a critical issue for tropical rainforests which absorb carbon dioxide and release oxygen, helping to maintain a balance of atmospheric greenhouse gasses. Furthermore, they are a natural habitat for many animal and plant species which can lead to a loss of biodiversity with drastic deforestation.[60] Construction materials are made up of not only the wood found in tropical rainforests, they include asphalt, concrete, and metals, which all

[59] Risse, Mathias. "What We Owe to the Global Poor." *The Journal of Ethics* 9, (2005): 86. http://www.jstor.org/stable/25115816.
[60] Parrott, "Environmental Concerns and Housing."

contribute to the 160 million tons of building-related construction and demolition debris. The use of resources, both natural and synthetic, in housing development and maintenance contribute to this incredible climate strain as natural resources play a large part in maintaining a homeostatic climate.

There is also the argument of rights to natural resources and how using them can violate a human right. Each of these toxic chemicals alongside non harmful natural resources are brought to affluent countries through a harmful system of oppression. Lief Wenar's book, *Blood Oil*, describes the dangerous regimes of oil and other resources that Americans feed with their purchases.[61] This system describes the non-consequentialist and capabilities approach in the pluralistic theory of harm that was described in Chapter 1. The people living in already poor conditions are further suppressed due to the economic weight of wealthy countries living off of their resources. Their rights and freedoms are further removed by this system of oppression and slave-like work. Thus, they are harmed with the absence of freedom to move out of their condition and improve their well-being.

An objection to refraining from using natural resources comes from the research that we have not, and will not in the near future, fully run out of oil. Meaning, it is still acceptable to extract such high amounts of petroleum. There are current disputes over whether or not this peak oil will be reached and will affect our fossil fuel use capabilities, yet recent research is pointing towards the conclusion that we will have these sources for many years to come.[62] In terms of natural resources, this means that the natural resources we depend on for housing, food, and transportation are actually in a stable position and they are not of great concern. In terms of

---

[61] "Corrupted Bounty." 2015. *The Economist*. December 12. http://www.economist.com/news/books-and-arts/21679778-unhappy-rules-free-trade-natural-resources-corrupted-bounty.

[62] Sorrell, Steve, Jamie Speirs, Roger Bentley, Richard Miller, and Erica Thompson. "Shaping the global oil peak: A review of the evidence on field sizes, reserve growth, decline rates and depletion rates." *Energy* 37 (2012): 709. DOI: 10.1016/j.energy.2011.10.010

climate change, however, the continued use—and over-use—of such resources will only further the harmful effects of climate change. Just because one resource will continue to be available does not mean that they will not harm the environment. The negative effects of such resources—mainly the continued pollution leading to increased harmful greenhouse gasses—should not be nullified only on the argument that peak oil will not be reached and they will not deplete.

D. Energy Use

Lastly, the energy used in running homes, supplying water, constructing homes, and in the production of the wasteful disposable products contributes to some of the largest energy usages in the country. The housing industry accounted for 21% of total primary energy consumption and 20% of total carbon dioxide emissions in the United States.[63] With homes growing increasingly larger and being made at an increasingly fast pace, more energy will be needed to run these homes. U.S. residential customers on average use 10,932 kilowatt-hours annually, and 412 billion kilowatt-hours were used for lighting homes and commercial buildings in 2014.[64] While it is important to light and heat our homes, this is a staggering amount of energy that requires an incredible amount of transportation of coal and fuel to produce this electricity.

This excessive use of electricity is one example in which we can apply the harm principle. By reducing our electricity consumption, we would not be harming ourselves at all. It would be a duty to consume less electricity as our quality of life would remain the same in doing so. Reducing electricity consumption would also serve as a mitigation of harm to others, as electricity not only requires the hard work of many people, but it will harm those in the future.

---

[63] "Drivers of U.S. Household Energy Consumption, 1980-2009 - Energy Information Administration." Accessed March 15, 2016. https://www.eia.gov/analysis/studies/buildings/households/.

[64] "How Much Electricity Is Used for Lighting in the United States? - FAQ - U.S. Energy Information Administration (EIA)." Accessed March 15, 2016. https://www.eia.gov/tools/faqs/faq.cfm?id=99&t=3.

The more electricity we consume now, the worse off the planet will be for future people. Therefore, by reducing current electricity use, we would reduce suffering and pain for future people. The consideration for future people also contributes to the argument of the nonidentity problem. If electricity consumption is to continue as it is today, people in the future would have to accept the massive consequences of depleted resources and pollution. They would argue that their lives are worse off because of present day actions. The nonidentity problem, however, would argue that the state of the future is too fragile and susceptible to change, and that being alive in bad conditions is better still than not existing. Consumers, however, cannot escape liability in this argument. They are still causing harm to current and future people with excessive electricity use and should be held accountable for their choices.

Furthermore, building related energy use for creating homes can increase carbon dioxide emissions from creating the materials, transporting the raw materials, and finally from installing all pieces into a new home. There are much more efficient ways to build and run homes, such as by using only sustainable building materials, using low-emissivity glass, using better insulation to prevent energy leaks through the walls and windows, using solar panels or geothermal heat for alternative energy consumption, and finally by only purchasing energy efficient appliances. There are many possibilities for creating more environmentally sound homes, and the consumer has a say in every part of this process.

An important aspect of sustainable housing are the ethical considerations surrounding creating homes. The homeless population of the United States in the past year has reached 610,042 people, of whom 394,698 in a sheltered location and 215,344 in an unsheltered

location.[65] This population of our country needs attention and needs to be provided with a safe and healthy home. To place mandatory sustainability restrictions on housing development could impair the ability of these individuals to reach successful housing without issue. Urban locations also face this issue where temporary housing needs to be created and passed along to individuals in unstable conditions. If these temporary housing projects were to be taken away for sustainability purposes, the well-being of this population would be put in danger. Within each of these considerations, however, the long-term climate outcomes takes precedence. If housing were to be ignored in the discussion of repercussions for unsustainable energy and resource uses, all further efforts would become nullified.

The incredible impact of the housing industry on energy consumption around the world makes it an unignorable aspect of climate change resolutions. At the present moment, action needs to be taken by individuals, both those who already own a house, and those in the process of building a house. There are companies that homeowners can contact who will help them evaluate the current energy usage of their home and evaluate what can be replaced or fixed by more energy-efficient and waste-reducing appliances and materials. For those who are beginning the home-building process, they must consult with a contractor who understands sustainable practices and can help to construct their home sustainably and who can ensure that all materials and energy-using products are of high-sustainability standards. This is entirely on the shoulders of individuals, as they are in charge of their house and are the only ones who can take direct action to help reduce their energy and waste. This responsibility is one way to apply the duty to mitigate harm done to disadvantaged people. As previously discussed, there are certain

[65] Henry, Meghan, Alvaro Cortes, and Sean Morris. "The 2013 Annual Homeless Assessment Report (AHAR) to Congress." The U.S. Department of Housing and Urban Development: Office of Community Planning and Development, 2013. https://www.hudexchange.info/resources/documents/ahar-2013-part1.pdf.

individual responsibilities that are necessary to be not only an altruist, but to be an ethical consumer.

The discussed ethical considerations prove that these housing choices are critical in the development of an ecological citizen. The housing industry represents the individualistic focus of American consumers today. The American dream promotes the idea of working hard for oneself, providing for a family, and owning property to prove success. This system creates immense positive well-being for American individuals, and comparatively immense worse well-being for those who do not receive such success or who are harmed in the making of such success. In other words, the American dream promotes individualism to the point of harming others in other countries to get there. We have seen how the resources to create the American dream come at the cost of well-being and liberties for people in distant countries and in the distant future. Thus, the American housing system, though more specifically individual consumers, create harm for the environment and for other people.

10. The Effects of Consumer Choices in Food

We now turn to address how the world's food supply is one of the largest contributors to climate change and unsustainable consumer practices. There are three main areas within food production and consumption that lead it to be classified as a climate change issue. First, the water and energy use to grow food has reached incredible levels that are not sustainable. Secondly, the climate costs of transporting this food across the globe prove to be unsustainable. Lastly, I will offer an example of a diet that follows the prescribed ethical considerations regarding mitigating harm to others through consumer attention and conservation.

A. Water use in food production

When observing water footprints around the world, food is one of the most important measures. While it may seem as though food is unrelated to direct food use, it is referred to as a "hidden" water use, as it is used in copious quantities to grow, harvest, produce, and transport food. In the U.S. alone, agricultural practices make up 80% of all water consumed.[66] And, worldwide, two thirds of our total water footprint comes from food. There are varying degrees to which different types of food require more or less water, all depending on the different growth needs for a piece of produce or for the feeding needs of livestock. Some of the least water-heavy foods include milk products which use about 7% of the world's water footprint, while meat uses 22% and cereals use 27%.[67] A good example to break down these percentages lies in a sandwich. It takes 240 gallons of water to make a loaf of bread, 382 gallons to make a pound of cheese- meaning a sandwich with only bread and cheese uses 56 gallons of water to create.

Meat, however, is such a dangerous food because it takes so much to grow the food to feed the livestock (to create one pound of corn uses 147 gallons of water and one cow can eat 1,000 pounds of this corn feed within a few months), then to create the cut of meat, then to transport the meat, and finally to prepare the meat. A single pound of beef, on average, uses 1,800 gallons of water.[68] The American use of beef is an example of an area in which the Reversal Test may be applied to condemn the high rate of production and consumption. In accordance with Bostrom and Ord's test, one can prove the need to reduce this high rate of consumption by suggesting the opposite, and instead trying to prove the need to increase

---

[66] "The Water Footprint of Food." *GRACE Communications Foundation.* http://www.gracelinks.org/1361/the-water-footprint-of-food.

[67] Hoekstra, Arjen, and Mesfin Mekonnen. "The Water Footprint of Humanity." *PNAS* 109, no. 9 (February 28, 2012): 3232. doi:10.1073/pnas.1109936109.

[68] "The Water Footprint of Food."

production of beef. If the world were to suddenly double or triple its use of cows for food, what might the world then look like? Would we agree that all humans are better off eating only highly-processed red meat from distant farms that practice mass production and animal cruelty? Would we accept the sudden increase in atmospheric methane gas due to increased cow excrement? Each of these questions demands that we reevaluate the values we hold within animal production and how important we feel that animal products are to our daily life. If we feel that increasing the use of animal products would be bad, then we could denote that decreasing the use of their products would actually be beneficial.

There are many food items that we might not even think about how much water it takes to produce. For example, one gallon of beer needs 296 gallons of water to create. And it takes 872 gallons of water to product 1 gallon of wine.[69] Another aspect of water use in food production includes the fact that it takes 3/4 of a gallon of water to produce enough gasoline to drive one mile.[70] When the number of miles to transport an item of food increases, the food item's total water usage also increases. A breakdown of a piece of chicken can include the 518 gallons of water per pound for its creation, plus 750 gallons of water for every 1,000 miles it has to travel, plus any water used in its preparation.

While this water use in food preparation may seem inevitable, there are practices of food production that can ensure that less water is used. For example, a farm might need to implement practices so that less cattle feed is wasted during each feeding, or change their machinery to use less water to clean after its use. Simple consumer behaviors such as considering location of the food's origin in purchasing will also help decrease an individual's water footprint. When looking at two kinds of beef in the supermarket, if one is considered locally grown, this will help reduce

---

[69] Boehrer, Katherine. "Which Of Your Favorite Foods Are Hiding A Massive Water Footprint?" *The Huffington Post*. Accessed March 15, 2016. http://www.huffingtonpost.com/2014/10/13/food-water-footprint_n_5952862.html.
[70] "The Water Footprint of Food."

water usage overall. While it is true that food will always require water, there are certainly changes that can be made to the way it is grown, handled, and transported and the consumer has a large say in the distribution and purchasing of all food. These are examples of the power of psychology in consumer behavior. While this consumer may decide to only purchase products that have been "locally" or "sustainably" grown, he perhaps may become dissuaded from purchasing such products because they come at a higher cost. On the other hand, he may only purchase these products for some financial incentive brought about from purchasing sustainably. Once these positive financial incentives have been removed, he will feel less desire to purchase such products. Furthermore, his desire to purchase such products may be negatively offset by other harmful consumer behaviors in which he engages, such as driving a high-emission vehicle or powering his house with non-alternative energy. These psychological discourses may lead to a decrease in desire to continually purchase sustainable food, as he may feel as though he already does enough irreversible damage. Lastly, the dominant psychological factor behind his decision to purchase a locally grown or sustainably produced food product may come from the branding and rhetoric used by the food company. Often, the packaging of a food product is the leading factor in the decision to purchase a product. If a product boasts its environmental-initiatives and sustainable practices, an environmentally-focused consumer is likely to purchase this product. Without such branding, however, consumers would lose such environmental focus and would be unlikely to purchase products that do not explicitly promote sustainability.

B. Energy use in food production

Now that we have an understanding of how much water we use simply in feeding ourselves, we will look at how much overall energy goes into the food industry, and how climate change can be dramatically improved by conscious consumer choices in regards to food.

Similarly to the amount of water used to create food, each type of food requires a different amount of energy used to make it, and will also depend on where it needs to go. Each piece of the supply chain of food production contributes a large portion to the total footprint of the food item. Currently, production, processing, and transportation of foods uses 9% of America's energy.[71] This number also corresponds to the 83% of greenhouse gas emissions that are created from the growing and harvesting of food. Much of this comes from the agricultural processes of the food production, which is 21%. An example of how much energy it takes to produce a simple food item is that a two-pound box of cereal requires a half-gallon of gasoline worth of energy. The energy saved to avoid red meat and dairy can be the same as driving 760 miles less per year.[72]

The food industry has large impacts on total climate change data, with fertilizer production and distribution contributing to up to 2% of the total global warming, the methane and nitrous oxide emissions from livestock accounting for 12%, and deforestation and other land uses changes accounting for 18% of global warming effects.[73] Food processing has many steps and pieces involved, from harvesting seeds and the planting mechanisms using gasoline, to electric-powered irrigation equipment in the growing period, to high-energy machines creating paper and plastic to package the item, and finally to the transportation costs of shipping the item to a grocery store and then to the consumer.[74] It is not always food shipping, however, that causes great harm to the environment. While eating locally has been toted as the solution to climate change issues by reducing food transportation costs, it does not reduce overall energy

---

[71] "How School Food Affects the Environment." *Center for Environmental Education.* Accessed March 15, 2016. http://www.ceeonline.org/greenguide/food/upload/environmenthealth.aspx.

[72] "How School Food Affects the Environment."

[73] "Agriculture, Energy & Climate Change." *GRACE Communications Foundation.* Accessed March 15, 2016. http://www.sustainabletable.org/982/agriculture-energy-climate-change.

[74] Canning, Patrick, Ainsley Charles, Sonya Huang, Karen Polenske, and Arnold Waters. "Energy Use in the U.S. Food System." Economic Research Report. United States Department of Agriculture, March 2010. http://www.ers.usda.gov/media/136418/err94_1_.pdf.

use, it is in fact much more energy-heavy than shipping food from distant locations. Harvesting produce locally in a greenhouse can be a drain on energy for its need to sustain a certain temperature and light degree. Also, once the food has been harvested in this greenhouse, it might need storage to last until it can be bought, which requires a large energy use for refrigeration or freezing capacities. Production of food accounts for 83% of its emissions, while only 11% of its emissions come from transport (both in the supply-chain and in its final delivery). To put this in perspective of what it means to transport versus grow locally, a tomato grown in Spain and brought to Sweden uses a total of 0.8 kg CO2e/kg, distributed almost equally among the emissions costs of transportation, storage, production, and fertilizers. A tomato grown in Sweden, however, uses 5.3 kg CO2e/kg, and almost all of that energy emission comes from the production, because it is much more difficult to grow a tomato in Sweden than in Spain.[75]

This disparity between different levels of harm can be considered one of Parfit's mistakes of moral mathematics. By trying to calculate the certain harm of one type of food over another, the consumer may begin to think that while all food requires energy in its production, it matters less how much energy it takes. He may follow the fourth mistake and decide that the difference in energy use between the two types of production is so small that it is imperceptible and thus he is not required to pay attention to such differences. These are moral mistakes because any harm to the environment, no matter how big or small, becomes a duty for the consumer to mitigate. The consumer voice in food choices in relation to energy use can be expressed by changing lifestyle choices to reflect an education on where the food comes from, and weigh the costs of its energy and water use in its production.

---

[75] Wilson, Lindsay. "The Tricky Truth about Food Miles." *Shrink That Footprint.* Accessed March 15, 2016. http://shrinkthatfootprint.com/food-miles.

Furthermore, there are considerations to be made regarding the global market in food production and the impacts of locally grown versus transported food products on disadvantaged people and those working in the food industry. As developing countries grow through successful food production (mainly food that must be shipped long distances to developed countries), it would seem unethical to take this positive market from them for the sake of a questionable food-production practice. There is a decision to be made in the balance between preventing harm to disadvantaged people by purchasing their products that must be shipped worldwide versus preventing harm to them by not allowing further climate damage through worldwide food transport. While the climate consideration for food travel is strong, the considerations for helping those in a disadvantaged position by aiding their market of food production has more weight. The direct impact for these people by helping to develop their food market is more important than the cost to the environment of shipping their food. This argument is especially strong after we have just considered the environmental cost of growing food in local industries.

C. Transportation of food production

Food products have some of the most frequent flier miles, with 817 million tons of food being shipped around the world each year and processed food items traveling an average of 1,300 miles.[76] The typical American eats food every day that comes from at least 5 other countries. Food products are some of the most commonly exported and imported goods, which causes food diesel fuel use too add up to 25% of the total energy consumed within the U.S. food system. While we previously discussed the differences between the use of greenhouses as high-emissions producer and transportation as a high contributor to greenhouse gasses, transportation cannot be ignored within the conversation of food and climate change. There are some modes of

[76] "How School Food Affects the Environment."

food transportation that actually emit a low amount of carbon dioxide into the air and can be considered acceptable, especially when compared to the energy costs of creating that same product in a local location in an energy-sucking greenhouse. International water-containers emit 0.14 kg CO2 per ton-km, inland water emitted 0.21 kg CO2, rail transport emitting 0.18, trucks emitting 1.8, and air travel emitting 6.8 kg CO2. This incredible difference between air and the other forms denotes that the items which have been brought by plane should be avoided. The import of fruits, nuts, and vegetables into California by airplane in 2005 released more than 70,000 tons of CO2 into the air. These 70,000 tons are the same as 12,000 cars on the road.[77] In addition, the total amount of carbon dioxide released into the atmosphere because of food transportation was 250,000 tons. Let's break down the commodity information of a common product such as fresh tomatoes that are grown in Netherlands. These items are usually exported using air travel and in 2005, 830 tons were imported, corresponding to 6,482 tons per year of greenhouse gasses, and 0.2 tons of smog forming pollutants per year. To begin with, this is a low number of tons imported for any item. It is not, however, a lot number of greenhouse gasses. This number is almost the same amount of greenhouse gas emissions as the 129,721 tons of table grapes imported from Chile.

In the case of food transportation, harm is created by committing those who did not consent to a worse-off well-being by higher levels of pollution and depletion of natural resources. The combination of unethically grown food and the climate costs of transporting such food lead to the inevitable imposition of harm on distant and future people. Consumers purchasing Chilean grapes are capable of the full knowledge of how the grapes were produced and the impact that the grapes' journey has on the environment. As they continue to purchase the

[77] "Food Miles: How Far Your Food Travels Has Serious Consequences for Your Health and the Climate." National Resources Defense Council, November 2007. https://food-hub.org/files/resources/Food%20Miles.pdf.

grapes, however, they are continuing to submit Chilean farmers to produce these grapes and submitting all people to environmental harms of pollution.

D. Ethical Eating

One easy solution for consumers includes the decision to cut out certain harmful foods from their diet. The average American eats up to 167 pounds of meat per year, which is three times the global average.[78] Individuals will save 20,000 pounds of water for every pound of beef not eaten if they choose other lifestyles such as veganism and vegetarianism. [79] Besides the proven health benefits from these diets, the consumer will make an immediate and tangible impact on the environment. It will be the significant decrease in red meat consumption that will help reduce climate harms. This is perhaps most important for this argument because the choice to eat red meat is so close to the individual and is a choice so easily avoided. I call for red meat reduction to be the primary change in individuals' diets.

In an ideal world, every individual would have access to equally nutritious and sustainable food choices. Until this is possible, however, it will be necessary for those with adequate food resources to reevaluate their diet and choices in order to conserve energy and water for the good of fellow citizens and the planet. Such a diet might look as such: limiting meat consumption to sustainably raised beef or chicken, likely 1-2 times per week. Increase in grain and vegetable consumption, as they require the least amount of energy and waste to produce. Furthermore, a decrease in dairy consumption will further decrease energy use in individuals' diets. Lastly, an argument for an increase in protein could be solved by an increase in energy-saving beans and nuts. This diet will answer any ethical regard for minimizing harm to

---

[78] "How School Food Affects the Environment."

[79] Vidal, John. "10 Ways Vegetarianism Can Help Save the Planet." *The Guardian*, July 17, 2010, sec. Life and style. http://www.theguardian.com/lifeandstyle/2010/jul/18/vegetarianism-save-planet-environment.

others. Such a diet will help those in disadvantaged countries to increase their health-and well-being by continuing to produce food and grow their economic potential.

There are a few questions of ethics to consider before forcing all Americans to accept veganism. The questions of nutritional differences in meat and meatless diets are still widely debated, and diet choices should be left strictly to the consumer. A (far fetched, yet viable) option for continuing to consume a large quantity of meat while remaining environmentally conscious would be to either keep personal livestock or to hunt for wild meat. These two practices could significantly reduce the carbon footprint of meat eating by reducing manufacturing and transportation emissions. They also answer the question of animal rights. While this practice still violates an animal's right to live freely, it reduces the questions surrounding the meat industry of fair treatment and animal torture. Given that this is an extreme version of consumer behavior and is indeed a lifestyle change, it is understandable that not all consumers would choose to act in this way. There is, however, a very real spectrum of food options that range from very low emissions to extremely high. By recognizing the items which contain less overall emissions (whether in water, energy, or transportation costs), the consumer can begin to make a real positive impact on climate change.

11. The Effects of Consumer Choices in Transportation

When it comes to carbon emissions and climate change issues caused by citizens, cars, planes, and individual modes of transportation are some of the first that come to mind. The literature, both in environmental news sources and large-scale media, has a focus on the harms to the environment produced by driving gasoline-powered cars. In this section, however, I will

focus on both aviation travel and passenger car travel as the worst forms of transportation in terms of greenhouse gas emissions. The transportation sector as a whole accounts for about a third of the total greenhouse gas emissions in the U.S., a close second only to electricity use.[80] The most common forms of transportation commonly frequented by the individual consumer include light-duty vehicles, medium- and heavy-duty trucks, aircrafts, rail, and ships and boats. The total greenhouse gas emissions for cars (light-duty vehicles) is 60%, trucks are 23%, and air travel is 8%.[81] The reason for counting air travel as one of the most dangerous forms of travel is because despite the steep percentage drop of greenhouse gas emissions, the proportion of gas emitted per person per use is exponentially higher compared to passenger cars and trucks.

A. Cars

The most commonly used form of transportation is passenger car travel. Almost every car on the road is responsible for emitting dangerous greenhouse gasses. Cars and trucks account for nearly one-fifth of all U.S. emissions, which can mean about 24 pounds of carbon dioxide for every gallon of gas.[82] In addition to carbon dioxide, cars emit many other harmful substances such as nitrogen oxides, carbon monoxide, particulate matter, volatile organic compounds, sulphur dioxide, and ammonia.[83] It is this incredible cocktail of gas coming from each car that accounts for why individual consumers do make such a large impact on climate change. While each driving trip may seem harmless and as though the effects of driving one mile will have no impact on the environment, this is not true. Each time a fuel-emitting car starts, more harmful

[80] "Greenhouse Gas Emissions: Transportation Sector Emissions," US EPA, Climate Change Division. Accessed March 15, 2016. http://www3.epa.gov/climatechange/ghgemissions/sources/transportation.html.
[81] "Fast Facts | Green Vehicle Guide." US EPA, OAR. Accessed March 15, 2016. http://www3.epa.gov/greenvehicles/we/facts.htm.
[82] "Car Emissions and Global Warming." *Union of Concerned Scientists*. Accessed March 15, 2016. http://www.ucsusa.org/clean-vehicles/car-emissions-and-global-warming.
[83] "Vehicle Emissions FAQs." Accessed March 15, 2016. http://www.bcairquality.ca/topics/vehicle-emissions-faqs.html.

gasses enter the atmosphere. This lack of accountability supports Parfit's five mistakes of moral mathematics, in that any and all carbon emissions produced by an individual is part of the larger issue. Individuals cannot discount their energy use when they feel it is insignificant or too small to matter.

Beyond the issue of each car as an individual issue, the global addiction, so to speak, to cars is one of the largest contributors to the issue of transportation. Currently, there are over 1 billion cars on the road and this number is growing each year.[84] In the United States alone there are 239.8 million cars, and China holds the record for the second most cars, with 78 million vehicles.[85] Since 1990, greenhouse gas emissions have increased 16% due to transportation.[86] This increase in gas emissions comes primarily from the sheer increase in production of cars. Specific developing countries, such as China, show significant projected increases in car production at rates that would put China's own car fleet at one billion cars, which means that by 2050, the number of cars worldwide could reach 2.5 billion.[87] The impact on oil dependency from this number of cars on the road would require 120 million barrels of gasoline per day, whereas currently we use 87 million barrels of oil per day.[88] It is within the ethical realm of the consumer to consider his or her contribution to such massive production. By purchasing cars that emit a high level of carbon, he or she is telling the brand that this type of car is acceptable to produce, and thus production will only increase. This is an example of a place where the voice of the consumer is perhaps the loudest. By using purchasing power to fuel the production of

---

[84] Tencer, Daniel. "Number Of Cars Worldwide Surpasses 1 Billion; Can The World Handle This Many Wheels?" *Huffpost Business: Canada*, August 23, 2011. http://www.huffingtonpost.ca/2011/08/23/car-population_n_934291.html.

[85] Tencer, "Number of Cars."

[86] "Fast Facts | Green Vehicle Guide."

[87] Tencer, "Number Of Cars."

[88] Pulmer, Brad. "One Billion Vehicles Hit the Road. Are We Ready for Two Billion? - The Washington Post." *The Washington Post*, August 22, 2011. https://www.washingtonpost.com/blogs/ezra-klein/post/one-billion-vehicles-hit-the-road-are-we-ready-for-two-billion/2011/08/22/gIQA1am4WJ_blog.html.

alternative energy cars, the eventual decrease in dangerous carbon emissions will be significant and impactful.

This previously mentioned 87 million barrels of oil per day is a very unsustainable amount of oil to use, as consumers are already facing difficulties finding enough oil to support our current usage. Aside from the sheer amount of oil that will be needed as more cars are made, the amount of greenhouse gasses will increase significantly as well. Currently, 1.7 billion tons of greenhouse gases are released into the atmosphere from highway vehicles alone.[89] This translates to each vehicle emitting 7 to 10 tons of greenhouse gases per year.

In this light, the individual driving his car even only a few miles has a huge impact on the global carbon dioxide emissions and thereby contributes to the continuing harms of climate change. His contributions to the dangerous greenhouse gases in the air can be significantly decreased by more responsible driving, driving less, and choosing more environmentally-responsible forms of transportation. Again, we see here an example of Parfit's mistakes in moral mathematics as the individual underestimates his contribution or ignores the imperceptible effects of his car. For every day that he gets in his car and drives to work rather than using public transportation, he is ignoring the constant contribution. While it may be small for one day, overtime this individual contribution adds up.

B. Planes

Air travel has revolutionized the way the world functions and allows for the world to become immediately more connected. It does, however, have such a significant impact on the environment's carbon dioxide release that it needs to be considered negative in terms of climate

[89] "Reduce Climate Change." U.S. Department of Energy source for fuel economy information. *Fueleconomy.gov*. Accessed March 15, 2016. https://www.fueleconomy.gov/feg/climate.shtml.

change. It has recently come to many people's attention that air travel is an environmental sin. Every flight from New York to San Francisco can emit as much as 2 to 3 tons of carbon dioxide per passenger.[90] When brought to a total, air travel can take up a significant portion of an individual's carbon footprint. Even as much as three quarters of all emissions for a person who takes five long distance flights per year. This means that every kilometer an individual flies on a plane is up to ten times more climate-intensive than any other form of travel he uses.[91] The large issue within considering air travel as such a significant piece of the environmental debate is that it only accounts for five percent of climate change factors. Such as small number might be easily overlooked and considered negligible until other aspects of climate change and carbon emissions have first been taken care of. The issue, however, lies within the responsibility of such a small portion of the population for such a number.

Because flight travel is limited to only those with financial resources, it is difficult to make the entire world population responsible for such an environmental drain. This blameworthy lack in liability allows airlines the ability to get away with irresponsible behaviors, such as not making any significant efforts to increase fuel efficiency. We see here, however, an unequal and harmful use of resources and contributes to climate change and creates injustice for those who did not consent to the consequences. Furthermore, the aviation sector continues to maintain governmental financial support and tax exemptions. It is not yet fully considered a CO2-costly industry, and therefore, is able to get away with keeping its fuel-inefficient planes and practices without repercussion. In the 1980s, fuel efficiency improved by 2.6%, while 1995 and 2005, fuel

---

[90] Rosenthal, Elisabeth. "The Biggest Carbon Sin: Air Travel." *The New York Times*, January 26, 2013. http://www.nytimes.com/2013/01/27/sunday-review/the-biggest-carbon-sin-air-travel.html.

[91] "Clearing the Air: The Myth and Reality of Aviation and Climate Change." *Climate Action Network Europe*, 2006. http://www.transportenvironment.org/sites/te/files/media/2006-06_aviation_clearing_the_air_myths_reality_0.pdf.

efficiency of aircrafts did not improve at all.[92] This lack of progress puts the aviation industry about 12 years behind fuel efficiency goals that have been established by the UN for the next two decades. It is the lack of global population responsibility that is partially to blame for this stagnation in efficiency and responsibility, as well as governmental involvement.

In this context, we begin to see the importance of citizen involvement for global responsibility. Through the power of consumer decisions, the aviation industry and all other harmful transportation agencies will not be able to continue with such harmful practices. The individual consumers must recognize the volume of their purchases and the effects they can have on the industry. By maintaining an ethical perspective on their traveling choices, individuals will begin to make alternative travel plans and eventually the travel industry will have to respond accordingly. The ecological consumer, for example, will recognize the impact he has on the environment every time he purchases a plane ticket for a business meeting, even if just for a short-distance journey. He will instead look into train options or the broad use of technology to hold such a meeting. He has the deep knowledge that his ticket costs more than how much money he will pay, and sacrifices the convenience of a plane flight for the long-term benefit for the environment and for others.

12. Offsets

The final discussion of consumer behaviors that I will address is offsets. Recently, offsets have been shown as a promising alternative route to carbon neutrality. Its basic premise states that climate-endangering practices, such as high levels of pollution, are permissible in exchange

[92] Kharina, Anastasia, and Daniel Rutherford. "Fuel Economy Trends for New Commercial Jet Aircraft: 1960 to 2014." International Council on Clean Transportation, August 2015. http://www.theicct.org/sites/default/files/publications/ICCT_Aircraft-FE-Trends_20150902.pdf.

for the purchase of a contrasting climate-positive practice, such as paying to plant a large amount of oxygen-producing trees.[93] In terms of ethical consumerism for the individual, offsets present a dilemma. On the one hand, offsets can be seen as harmful and negative because they allow for the continued existence of harmful climate-related behaviors. An individual who chooses to drive cars with low fuel-economy, heat his house with oil, and eat only red meat will be continually contributing to that which creates climate change in the first place. While he might also donate 10% of his annual salary to developing wind turbines or to rebuilding rainforests, his harmful actions still exist and still create harm. A further argument against offsets would state that his use of offsets is only further harmful to himself as he will see harm in the future (in the state of the environment and his health) and will see harm from how much money he spent. Offsets present an incredibly high cost to the individual that they can be seen as equally, if not, more harmful than they are beneficial.

On the other hand, the positive argument for offsets chooses to ignore the cost to the individual and the harm done to others by the individual's climate-harming actions. It looks more at the positivity brought by his later actions. His contributions to environmental beneficiaries that counterbalance his negative actions are helpful for the push into a more environmentally-conscious world and to a healthier environment overall. Without this individual's offsets, the research and development of wind turbines might not be as powerful and alternative energies might not be as readily available in the future. Furthermore without his offsets, a large section of the rainforest would not be replanted. The strongest argument in favor of offsets seems to be its temporary versus long-term cost-benefit analysis. Offsets will help to provide research, funding, and use of renewable energy sources, they will help mitigate the greenhouse gas issues caused by

[93] Hayes, Nicole, and Angus Morrison-Saunders. 2007. "Effectiveness of environmental offsets in environmental impact assessment: practitioner perspectives from Western Australia," *Impact Assessment and Project Appraisal* 25: 209. doi: 10.3152/146155107X227126.

current climate change behaviors, and many more. This argument only stands morally if one is willing to accept a temporary harm and climate sacrifice for the good of the future. It also only stands if it can be guaranteed that a person who buys offsets will indeed create more benefit despite his continued harm. Once these moral principles have been fulfilled, then offsets can be morally permissible. I argue, however, that while offsets do bring many benefits and help to mitigate harm, they should not replace any attempt to mitigate climate change by removing the harmful climate change behaviors of everyone. Harm is still done to the environment and to others when offsets are put in place.

I conclude this discussion of ethical consumerism by considering the weight of behaviors that contribute to other positive effects unrelated to climate change. While I have discussed the importance for consumers to be ethical in their decision making despite common psychological barriers, perhaps some of their behaviors have positive outcomes in other respects than climate change. For example, while consistently traveling to tour other countries contributes to huge amount of energy use and pollution through air and land travel, the tourism industry has huge economic benefits for developing countries. There is a definite payoff in terms of harms for individuals right now compared to the environment in the future. Tourism brings immediate economic gain to individuals who otherwise might not be able to buy food. The payoff won't be seen for some time when the negative effects of pollution and rising global temperatures interfere with the well-being of the individual. To conclude, there are so many factors that go into individual purchasing and it is impossible for one person to make the "correct" choices at all times for all causes. There will always be a beneficiary and a recipient of harm as long as there is an economy on the global scale. I argue, however, that climate importance takes precedence now as it is already harming people, and will only continue to do so for the generations to come. In

the next chapter, I will discuss the abilities to enforce climate-related laws and how democracy has the ability to step in to direct individuals towards ethical choices.

Chapter 3

In this chapter, I will argue that consumer duties are enforceable and that they should be enforced in specific ways. I will then argue that public officials have the authority to enforce these obligations despite disagreements with climate policy and even in anti-democratic manners. Lastly, I will describe specific strategies that can help leaders effectively enforce individual obligations to shape ethical consumer choices.

13. Enforceable Duties

As discussed in previous chapters, there is a duty to not harm other people. This duty resides on the idea of harm as an event in which one person's actions create a comparatively worse state of being for another person. Specifically, harm is done through individual behaviors as a consumer as related to climate change. I argue that individual consumers in fact have a duty to not harm people by not making choices which would make others' lives worse off. This definition of harm also addresses the idea of a non-consequentialist account of harm in which lives are not made comparatively worse off than a previous point in time, rather they are made worse through a deprivation of rights or the deprivation of the ability to express certain innate human rights. In this section, I plan to further address these arguments of harm through the ability to enforce these duties to not create harm. I will first discuss the definition of an enforceable duty and will create an account for the duty to enforce actions which will not create harm.

It rests upon individual consumers to take their actions into ethically conscious accounts when making behavioral decisions that impact the environment. I have presented the idea that it

is indeed the individuals who make consumer choices that have the largest impact on the climate. Furthermore, climate change is a preventable and humanly-caused phenomenon that harms other people, as it makes their lives worse off (denied access to food, water, clean air). Climate change thus rests in the hands of the individuals to prevent not only for their own sake but for the argument that it prevents harm and makes the well-being of others comparatively worse-off. Individuals therefore have a duty to change their behavior (specifically in their choices of housing, food, and transportation) in order to not harm others.

In order to further promote this duty not to harm, I will first describe what kinds of duties are enforceable and how a governing body (whether this means a large government, a large corporation, or otherwise effective efforts) may have an impact on the types of choices consumers make. I will argue that an enforceable duty is that which a person becomes accountable or liable for her actions if she has failed to carry out said duty. This enforceable duty is different from other types of internal duties that align with a code of morals in the sense that it is not a subjective good or bad action which is defined through personal opinion. A duty that is enforceable is that which creates an objectively negative consequence, and thus the perpetrator must be held accountable for his actions. There are varied definitions of being held to one's actions, yet they all contain some sort of interference with his personal liberties following his creation of harm unto others. In this argument, I will discuss the limits to which a person may be accountable for his actions and to what extent he may be punished or interfered with.

A. Enforcement and Wrongful Harm

The first argument for enforceable duties embodies the idea that a person is liable to be interfered with if he fails that duty. This argument, presented by Jeff McMahan, asserts the

legality of killing a person if he is imposing a lethal or serious but not-lethal threat.[94] Meaning, there are restrictions to which it is acceptable for killing a person as punishment for their actions, and there are a range of actions within which we see acceptability for penalty. The key component to this argument is the presentation of threat and the responsibility of the creation of this threat. McMahan describes four conditions under which a person is liable to be killed to avoid a threat. One: "the threat, if realized, will wrongfully harm another." Two: "the person is responsible for creating the threat." Three: "killing the person is necessary to avert the threat." Four: "killing the person is a proportionate response to the threat." These conditions imply that a threat is that which will create harm to others and can be possibly lethal to others.

In the case of climate change, the duty to be enforced would be the duty to make consumer choices which promote positive effects for climate change or that do not create further climate harm, as pollution and consumption create wrongful harm. These may be the duties to recycle all goods which can be recycled. Failure to comply with recycling restrictions could be seen as a threat to humanity—as recycling helps reduce use of energy in producing recyclable materials (glass, plastic, etc), as well as helps to prevent harm to the environment (in the cases which plastic poses a threat to animal habitats and creates harmful chemicals in the air). This case for recycling follows McMahan's conditions for threat as failure to recycle causes wrongful harm to another, there are individuals who take direct responsibility for this action, and there are appropriate responses to be taken against those who fail to comply with this duty. The man who does not properly recycle his soda can may be liable for appropriate punishments if he fails to comply with the duty to recycle, thus, climate change is an area in which enforceable duties apply.

---

[94] Tadros, Victor. 2011. "Duty and Liability." *Warwick Law School Legal Studies Research Paper.* doi:http://dx.doi.org/10.2139/ssrn.1949030.

To respond to the fourth condition of McMahan's claim to liability, appropriate proportional responses must be made to each threat. While there are enforceable duties within the realm of climate change harms, the argument against death penalty for failure to recycle is certainly a valid argument. The reason for understanding an outline of enforceable duties is to promote the idea of climate change as a harming action with large responsibility lying on the individual consumers. While I do not call for death penalty for failure to be a vegan, there are still appropriate punishments for actions that pose such valid threats such as climate change. I maintain that there is a range of threat and a range of appropriate corresponding response. For example, those who practice illegal waste dumping into water sites, would be subjected to higher levels of punishment, as their actions create more immediate and intense health and climate threat issues to those around them. While, on the other hand, a man who drives his car twenty miles per day is not causing direct pain or life inflictions to the surrounding people, yet he is, overtime, creating significant air and climate-related damages which will have long-term negative impacts for those in the near future. His appropriate corresponding punishment would be more suited to a significant monetary fine or requirement of community service in the form of positive environmental actions. Each of these environmental cases represents the implementation of McMahan's claims to liability within the appropriate restrictions and conditions for threat and response.

We can also make the argument that even small wrongful harms make you liable to interference. This idea comes from Jessica Flanigan's article, "A Defense of Compulsory Vaccination."[95] She argues that vaccine refusal "harms and risks harming innocent bystanders" and goes on to justify this argument that those who refuse vaccination submit others to the risk of

[95] Flanigan, Jessica. "A Defense of Compulsory Vaccination." *HEC Forum* 26, no. 1 (August 13, 2013): 5–25. doi:10.1007/s10730-013-9221-5. https://link.springer.com/article/10.1007/s10730-013-9221-5/fulltext.html.

disease that they did not consent to. She uses the analogy of gunfire to illustrate the idea that refusal to vaccinate causes harm to others and that compulsory immunization is justified. She demonstrates how the harm of bringing an unvaccinated child to a group setting might not be as large or direct as shooting a gun in the air, yet it is still committing a harm and thus is liable to enforcement to prevent. This argument aligns with the point of climate change harms, which may initially seem like small harms. The odds of being harmed by either gunshot or disease (similarly to being directly harmed by, for example, car pollution) seem very slim in each case, but bringing unvaccinated children to a party is not illegal and the harms that are brought to other people through their contagious diseases are not punishable. She argues for the enforcement of vaccination for the same reasons to enforce gun control. Another important note in this argument is the fact that in both cases—random gun fire and unvaccinated children—those contributing to harm "may never see the harm they cause to others" and "they do not intend to harm their victims."[96] This note is important for climate change, as the perpetrators of harm most often are unaware of the harm they cause and do not create the harm intentionally.

In the case of climate change, those most guilty of causing harm are often unaware of the harm they are causing and do not intend to cause this harm. By eating three pounds of red meat every day, they are not intentionally firing a gun at another person, yet the chances of another person feeling negative effects from their actions are equal to shooting a gun in the air. Following the previous accounts for enforceable duties, climate change falls into the category of a need to be enforced because while its harms may not be immediately apparent or have the intent of harm, they still are caused by individuals making an active choice to engage in a behavior which causes significant harm to others. If the claims for compulsory vaccination and gun control are justified, then so is the claim to enforce healthy climate behaviors. These

[96] Flanigan, Jessica, "A Defense of Compulsory Vaccination."

enforceable duties include the ability to restrict production of certain harmful materials, the ability to create punishment for poor waste management or excess waste, the ability to place taxes on especially harmful products, and promoting good environmental behavior with rewards. These are all enforceable practices as they follow the same claim as made by Flanigan, harmful behaviors may have a small chance of harming someone and may not have harmful intentions, yet they still cause significant damage if not controlled properly.

One might object that people who pollute should not be considered liable on McMahan's account because their actions are blameless or because they are forced to pollute or because they are innocent. But even if we concede this point, in some circumstances innocent threats or even people who pose no threat at all are liable to be interfered with on behalf of other people or for the sake of the greater good. In the next few sections, I will go on to address each of these objections.

B. Enforcement and Defensive Rights

The next argument for enforcing duties comes from Quong's argument for liability for those even if they innocently create a threat or harm.[97] He outlines the differences between an Innocent Aggressor, an Innocent Threat, and a Bystander. An Innocent Aggressor means someone who commits an act that they are not morally responsible for (they were under other influences), an Innocent Threat is someone who threatens a life without moral intention to harm, and Bystander is someone who are not involved in the situation yet do nothing to help prevent harm to another. His conclusion, which is called the *Moral Responsibility Argument*, claims that "if we accept the premise that it is impermissible to kill Bystanders, we must therefore conclude

[97] Quong, Jonathan. "Killing in Self-Defense." *Ethics*, no. 119 (April 2009): 507. doi:10.1086/597595. http://www.journals.uchicago.edu/doi/pdfplus/10.1086/597595.

that it is similarly impermissible to kill Innocent Aggressors or Innocent Threats."[98] I agree with this argument, for in the case of climate change responsibility, more often than not, the highest population of perpetrators are those who commit harmful acts without harmful intentions (Innocent Aggressors), and Bystanders. I agree with his argument for the sake that when threat or harm is created against others, in any capacity, (by a Bystander, Innocent Aggressor, or Innocent Threats included) then the enforcement of penalties is justified. Even if those who commit climate change harms (for example, those who create pollution, waste, and energy consumption), were innocent, they would still be liable to coercion and regulation.

In the case of climate change, an innocent aggressor may be any individual consumer who chooses to buy only disposable products for her family because they shorten her time doing household chores. She also drives a minivan because she has three children who need to be driven to activities in a vehicle of convenience. She actively chooses not to use more climate-change appropriate products or vehicles for her own sake. She does not intend to hurt anybody else with her actions. One could also argue that her behavior is innocent because she is driven by the products made widely available by large business and is thus under their control for consumer choices. She is, however, accountable for her actions, as they present significant harm to others. In a sense, one might argue that she is a Bystander, for the harms from her vehicle emissions and household waste do not come directly from her hands, and for the argument of market control by large corporations. Her actions' effects are down the road and thus she is a Bystander to later threats. As Quong argues, the effect that someone who seems to be a Bystander has on climate change is in fact an act of culpable aggression, and therefore equally as punishable as that of a direct Aggressor. This woman deserves equal punishment to an Aggressor with intention, as her actions do create harm and threaten the lives of other people. While her

[98] Quong "Killing in Self-Defense," 508.

choices make her life easier and help herself, they cannot be considered wholly innocent and unharming, as other consumer choices that would be more beneficial for the environment do not harm her in any way and she does not need to defend herself against them.

C. Enforcement and Collective Goods

We turn now to Victor Tadros' argument for the liability to be punished following harm. I will focus on his definition of collective responsibility, and agree with his argument that citizens on the unjust side of a war "can be expected to bear some of the costs of the war even if they are not morally responsible for war."[99] I use this idea in my case of climate change to defend my argument that it is the citizens of countries with the greatest contributions to climate change—the unjust citizens in Tadros' case—who are most responsible and who must bear the costs of this particular war. These citizens are liable for the actions not only of themselves, but also of their country. As they live in a country that continually creates harms for other people, these citizens share the responsibility. Furthermore, they reap the benefits from living in such an unjust country. They are the ones continually creating threat for others' lives by profiting from a system which continually creates polluted air and water, waste, and destroys natural habitats. To agree with Tadros' argument, these citizens must be held liable for not only their individual actions but for those of their country, thus they must be willing to make some sacrifice in order to accept responsibility. They must be willing to accept the punishment that comes from acting unjustly and creating harm to others. The reason to consider just and unjust sides of a war in accountability come from the duty to protect the greater good. According to Tadros' argument, it is in the best interest of everyone to protect the greater good. It is acceptable to punish or to interfere with those who harm the greater good. While the citizens on the unjust side of a war are

[99] Tadros, "Duty and Liability," 21.

not necessarily creating intentional and direct threat, they are contributing to a worse greater good, and thus may be liable to punishment and enforceable.

In the case of climate change, it is permissible to interfere with the rights of citizens in the countries who commit hazardous acts against the environment, and thus harming others. Tadros discusses the idea of voluntariness in terms of citizens on the unjust side of a war. He discusses the duty that civilians on the unjust side have to "avert the unjust threat that the innocent civilians on the just side lack simply through their causal contribution to the threat."[100] This furthers the previously stated idea of bearing costs of a war even on the unjust side, because civilians on each side of a war are affected in certain ways and contribute in certain ways. The factor of a side being "just" or "unjust" does not change the fact that harms are created and harms are received.

To put these just and unjust sides into duties and costs, the citizens of countries who benefit from harmful environmental practices have a duty to first avert this unjust threat that the harmful environmental practices create, and second to bear the costs of these practices. Take, for example, deforestation. This harmful environmental practice ruins certain habitats, kills many natural living species, and harms civilians in those areas by destroying their homes. The unjust side of this war—those who benefit from the wood from these forests—first have a responsibility to avert this threat away from the citizens on the just side of the argument. The citizens of the unjust side have a duty to do whatever is in their power as consumers to stop deforestation or to reduce it to a non-harmful level. Examples of fulfilling this duty may include boycotting, lawsuits, or physical protests at the site of deforestation. Next, the citizens of the unjust side must bear the costs of the harm they have benefitted from. Examples of these costs may include a reduced amount of timber, paying monetary reparations for the homes lost by the just citizens, or

[100] Tadros, "Duty and Liability," 17.

costs to rebuild these forests. While deforestation is just one example of a harmful practice for people and for the environment, these duties and costs may be applied in many more cases. These examples provide reason to help the greater good and to accept collective liability as a just cause for enforcement of protection against harm. I will now move on to address an objection to collective responsibility that defends individual autonomy.

D. Objection: Collective Liability without Individual Liability

One argument against placing restrictions and just enforcement for the reasons of collective liability states that individuals do not contribute enough wrongful harm to be given any blame. Walter Sinnott-Armstrong argues that individual moral obligations are separate from collective moral obligations and that it is the responsibility of the government to handle the issues of climate change and improving the lives of the greater good.[101] He compares the collective responsibility of global warming to that of fixing a dangerous bridge that could break soon from too much traffic. He concludes that it is not the moral obligation of individual citizens to go out and fix this bridge, rather it is the responsibility of the government, and that they should not be subjected to punishments or enforced protections to fix the bridge. Furthermore, he argues that the state of the collective good is not dependent on the behavior of individuals. While he recognizes the existence of moral harms of individual behaviors such as wasteful driving, he believes that the individual contributions are not sufficient to allow for enforcement of laws against individuals. He also differentiates between the causation of harm and the act that creates harm. He says that not all acts that are harmful are the actual cause of harm. Furthermore, he

[101] Sinnott-Armstrong, Walter. "It's Not My Fault: Global Warming and Individual Moral Obligations." In *Perspectives on Climate Change: Science, Economics, Politics Ethics*, 5:294, 2005. http://sites.duke.edu/wsa/papers/files/2011/05/wsa-itsnotmyfault2005.pdf.

says that this harm that was not caused by only one act also did not have the intention of harm, thus individuals are not liable.

This argument is unsound for the reason that individuals actually do make a significant contribution to climate change. It is the individuals who buy the harmful products that contribute to energy, consumption, waste, and pollution. Every product that harms the environment has some connection to individuals, and his argument that climate change would exist even if some individual acts (such as one person driving his car) were to stop. The acts of individuals may not have intention to harm and may not be the most direct form of harm to others, they are still liable to regulation. The individuals who partake in any consumer behavior, no matter how large, are contributing to a larger cause of harm. They know the harm that they are causing and are fully responsible for their actions. Buying red meat is a direct intention with known negative effects. Flying on a plane every week is an intended and preventable action that leads to harm to the climate. Every example discussed in chapter two exhibits an individual action with direct consequences for the climate. Therefore, individuals contribute to harm to the greater good and must be held liable.

Sinnott-Armstrong's argument is further unsound because while he argues that individual choices don't matter thus there is not a duty to change, he also argues that policy reform is acceptable, thus he is implicitly committed to the view that there is a duty to change. We see this argument as he describes the existence of climate change, its causation from human activities and fossil fuels, and the need for governments to restrict carbon emitting behaviors. By admitting that there is a need to create policy to stop global warming, he is indeed committing to the idea that there is a duty to change. In my argument, I see this as an inherent support for the idea that individual choices do matter if there are policies that should be created to change their behavior.

He admits that individuals contribute to climate change, thus, if he admits to the need for policy against climate change, he is accepting the fact that individuals must accept blame for climate change and that thus individual choices do matter.

14. Propositions for Enforcement

I will now turn to discuss the specific duties that may be enforced and the liabilities that may be created for those who fail to comply. I will suggest the specific areas in which leadership structures should work to create a positive difference for climate change. These three policies will align with the discussion of housing, food, and transportation in my second chapter. These suggestions include banning wasteful plastics, creating stricter tax hikes and tax incentives for common consumer emissions such as cars and household energy, and lastly, tougher restrictions on food production to decrease energy use.

A. Banning Plastics

I will now address three specific enforceable laws that will help ensure that consumers make appropriate decisions that begin to help the environment and reverse the damage we have done so far. The first plausible enforceable law to reduce waste and reduce production of harmful plastics comes from banning certain items. For example, complete ban of the use and distribution of plastic bags, plastic disposable water bottles, and plastic disposable food containers would greatly decrease the amount of harmful plastic produced. There are more than 1 trillion plastic bags used every year worldwide, which means 32 million tons of plastic waste is generated each

year.[102] This is an issue because plastic bags take up to 500 years or more to degrade, and it is estimated that each square mile of ocean may have up to 46,000 pieces of harmful plastic.[103] Some towns in the United States already have laws banning the distribution of plastic bags in stores, and if this were to become a national law, all of the harms and risks associated with plastic bags would be eliminated. Even a high tax on plastic bags would allow for a significant reduction in their production, use, and waste. It is harmful to have plastic bags floating in the water and sitting in landfills because that leads to dangerous habitats for the living creatures in the oceans and can lead to higher rates of soil pollution during their decomposition.

One might argue for the simple enforcement of recycling these plastic materials instead of a complete ban. While this would be a positive step and would have a degree of positive change for the environment, it is not enough only to enforce the recycling of plastic bags. Even if the law for recycling was enforced effectively, the plastic would still be produced, requiring huge amounts of natural gas, non-renewable energy, and toxic chemical ingredients, all leading to higher pollution. Plastics production alone contributes to 14% of national toxic releases.[104] A strictly enforced ban on this harmful product would significantly decrease the energy and chemicals created in the production and would significantly decrease the waste from these bags that is harming the soil and oceans. More importantly, it would help promote the correct mindset for consumers to begin making more ethical choices for the environment. I have used plastic bags as one example of a harmful plastic, but there are many other widely-used and equally as dangerous plastic products that would fall under the same necessary bans in order to help change consumers behavior.

---

[102] "Facts About the Plastic Bag Pandemic" *www.reuseit.com/*. Accessed March 17, 2016. http://www.reuseit.com/facts-and-myths/learn-more-facts-about-the-plastic-bag-pandemic.htm.
[103] "Facts About the Plastic Bag Pandemic."
[104] "Plastics Task Force: Environmental Impacts." *Ecology Center*. Accessed March 17, 2016. http://ecologycenter.org/plastics/ptf/report3/.

B. Tax Incentives and Punishments for Cars and Residential Energy Sources

The second proposition for enforceable climate-related behavior comes in the form of tax breaks for positive consumer choices and equal tax increases for harmful consumer choices. These choices, would all fall into the category of larger purchases and more impactful lifestyle behavior, such as car choice. For example, there are already tax credits up to $7,500 for purchasing a fully electric or hybrid vehicle.[105] I propose that all vehicles with hybrid or electric options should come with a significant tax break, but in order to make this tax break more incentivized, I propose an extensive tax hike on regular gas or diesel cars. Take, for example, Denmark's registration tax for new vehicle purchases is about 150%.[106] Such a drastic cost would significantly steer individual consumers away from purchasing their own car and would lead to an increase in the use of public transportation, carpooling, and a decrease in car production.

Another example of effective tax breaks comes from the choice of heat for citizens houses. Today, installing a geothermal heat pump, a small residential wind turbine, or a solar energy system on a new or existing home can receive a tax credit of 30% of the cost of the equipment.[107] This is a significant amount of tax credit, yet if it were to be closer to 50% or 75% of the cost instead, many more individuals would invest in alternative energy for their home. Energy efficiency for homes not only would be a cheaper alternative for installation, but would save money over time as the cost of the energy itself would pay off the installation cost. For

---

[105] "Federal Tax Credits for All-Electric and Plug-in Hybrid Vehicles." Accessed March 17, 2016. https://www.fueleconomy.gov/feg/taxevb.shtml.
[106] "Explained: Denmark's Crazy Car Registration Tax," November 20, 2015. http://www.thelocal.dk/20151120/whats-the-deal-with-denmarks-car-registration-tax.
[107] "Federal Income Tax Credits for Energy Efficiency." https://www.energystar.gov/about/federal_tax_credits.

example, while payback time is different for each energy source, solar panels may receive full financial payback within 7-9 years.[108] This is truly financially and energy efficient because non-renewable energy sources will only continue to increase in price as they become more scarce, and the installation costs of these renewable energy sources will only continue to decrease as they grow in the market. Lawmakers have a duty to implement policy that moves to significantly increase the tax credits and decrease the costs of these renewable energy sources. With this policy in place, citizens will feel more inclined to invest in these sources, it will become the norm, and our national non-renewable energy dependency will quickly disappear.

A policy to go hand in hand with tax breaks for energy-efficient homes could be similar to the tax increase on non-hybrid or electric cars. If homes using non-renewable energy were to incur a significant tax increase, they would be even more likely to use renewable energy sources than if the renewable energy sources came with a tax break. A policy that placed up to 150% taxes on using non-renewable energy in residential homes, as Denmark has done with gasoline cars, would make consumers think twice about using non-renewable energy in their homes. The current energy grid, however, locks many homes into the use of natural gas or oil to heat their homes. Placing huge restrictions on this energy would quickly change the way consumers look at energy.

Each of these proposed tax changes demonstrate how there should be little distinction between tax incentives for good behavior and tax penalties for bad behavior. Each direction will promote the use of sustainable energy and renewable sources. Consumers, in both cases, will be led to make the correct choice, whether by fear of punishment or prospect for reward. In this argument, it would be justified to create tax penalties on certain individual consumption

---

[108] Brentley, Austin. "What Is the Average Payback Period of a Solar Installation?" *Direct Energy Solar*, August 11, 2014. http://www.directenergysolar.com/blog/post/what-is-the-average-payback-period-of-a-solar-installation/.

behaviors. For example, looking at individual consumers' behavior of energy consumption and purchasing habits would allow governmental bodies to create higher taxes on specific items. By placing the penalties on the individuals, they will be more inclined to make better choices for their own good and thus all consumers will start to behave more ethically towards the environment. Furthermore, there is no relevant distinction between tax incentives and tax punishments. They both create positive behaviors against climate change and they both affect the consumer.

Therefore, just as tax incentives exist at the individual level, it would be justified to create tax punishments at the individual level. If individual consumers were to see tax penalties on their annual tax forms for negative climate change behavior, they would be equally as likely to change their behavior as they would for individual tax rewards. If, for example, individuals were asked to track and report the number of plastic bags used per month or the number of flights on an airplane per year, they would begin to feel a higher level of responsibility for their actions. Furthermore, if they were to be held financially responsible for these actions and saw tax penalties for certain levels of negative climate behaviors, they would be even more likely to change their behavior.

C. Food Production Proposals

The third proposition for a specific policy to change individual consumer's behavior is in their food choices. As discussed in Chapter 2, food choices play a large role in individual consumers carbon footprint, and personal changes in diet can help not only individuals' health but will help significantly decrease energy use. There are policies that would help to shape the decisions of consumers so that they are led to make health- and environmentally-conscious choices. These policies could follow the previously mentioned tax increases and credits as

described for cars and housing energy. For example, red meat and any other food product that requires above a certain amount of energy to produce could come at a higher price or with a large tax. At the same time, foods which require less energy to produce, such as fresh vegetables, would receive significant price breaks and consumers could receive tax credit for purchasing a certain annual amount of these foods. Enforcing these policies would take the cooperation of the large food manufacturers who benefit from our nation's red meat and processed food addiction. If they were to see some benefit as well, these policies would be even more effective. An example of the benefit for red meat farmers could be a tax break for using alternative energy to power their plants or for feeding their livestock only fresh and sustainably grown food. The offsets for their decrease in profit would come from decreased energy and production costs.

These policies would bring long-term impacts not only to the environment but to our economy and health care system. If policies were to regulate the types of food Americans consume, the benefits would include an elimination or significant decrease in harm done to the environment and benefits to the economic dependence on nonrenewable energy sources to produce enough food. Placing governmental policies on the choices of individual consumers will also help to direct their choices to be more sustainable. Government involvement in food options will lead consumers to think more about what food they are purchasing and what that food means. It will steer them towards ethical choices for the environment because they will be more aware of what it takes to produce their food and will have a higher regard for the ethics surrounding food choice, energy production, and harm to the environment.

15. Democratic Legitimacy

In this section, I will discuss the relationship between democracy and climate policy. One of the main issues with democratic control comes from the idea that people may not have voted for every specific policy and may not like it. They also may object to the fact that many regulatory agencies are not elected by the people, rather they are appointed by incumbent politicians. This lack of election creates flaws in democracy and its ability to rule, specifically when the purpose of democracy is to look after all with an affected interest. The issue of climate change and the need for new climate policy, however, out rules the arguments about the limits of democracy. At a time when new policy is so critical for the whole world, democracy must expand its reach and look after the best interest of the entire world, whether not it was elected by the entire world. In the subsequent sections, I will discuss the need for democratic rule as justified through democratic enfranchisement, international law needs, and focusing on the collective well-being.

A. Democratic Enfranchisement

As briefly discussed earlier, democracy often has issues of limitations in which people feel that unelected policies and lawmakers reach beyond their proper boundaries and inflict upon those who did not vote for the changes. Arguments for democracy state that it gives everyone a say. The constituents of a democratic state are able to voice their opinions on who should lead and what the leaders should do. Furthermore, democracy also helps to promote and maintain the well-being of everyone, both within and outside of its rule. Its purpose is to serve all people with affected interests and to create well-being across all citizens. In the case of climate change, every

citizen in the world would need a say because the interests of all citizens are affected. Democracy will help mitigate the harmful effects of climate change by taking into account the best interests of all citizens and ensuring that their well-being is prioritized over the interests of one individual country.

Goodin's argument for democratic enfranchisement discusses the boundaries faced by democratic rule and how democratic bodies are often faced with the question of who embodies their true constituents versus possible constituents.[109] The most important purpose of a democratic body is to make decisions for the common interests and well-being of those with affected interests, not necessarily just voters. The dispute over the enfranchisement of democracy comes within giving the right to vote to those who are actually affected by the law versus those who are possibly or probably affected by the government. According to Goodin, those who are actually or directly impacted by government decisions should be subject to government enfranchisement. He then expands this argument to be interpreted by those who are possibly impacted by the government should be included in this right to vote. I accept this conclusion under the conditions that everyone in democracy actually has a say in its decisions, yet that by simply accepting the democratic rule, the constituent is accepting and consenting to all decisions of the government. Therefore, all citizens may fall under a large enough democratic rule and they should consent because democratic governments will have the best interests of the citizens in mind.

[109] Goodin, Robert. 2007. "Enfranchising All Affected Interests, and Its Alternatives." *Philosophy & Public Affairs* 35 (1): 41. doi:10.1111/j.1088-4963.2007.00098.x. http://onlinelibrary.wiley.com/enhanced/doi/10.1111/j.1088-4963.2007.00098.x

The argument made by Arash Abizedeh furthers this argument for democratic enfranchisement by including the discussion of global solidarity.[110] He describes two arguments for recognizing the self. The first sees oneself as a self or as an individual through the recognition of others who also have a self. The second sees the self through others, or dialogically. These two recognitions are wrongly applied to collective identity, as it is not possible to combine internal and external sovereignty. According to this theory, nationality is inherently linked to the recognition of other or external states, so nationality cannot exist alone, thus collective liability and collective well-being apply to all countries.[111] A country may act in its own interests, yet it has to recognize how it can either benefit or harm other countries. In this light, we can see how democratic enfranchisement is important because a democracy has the ability to bring together many states and can enforce positive policies.

In the context of climate change, the government must concern itself for the well-being of all citizens, and a properly functioning democracy will do just that. Once this has been established, it is acceptable for the government to go beyond these limits—such as those proposed by Goodin—and take larger global matters into its own hands. A democratic government has the proper authority to enact climate policy laws which will affect the interests of the entire globe. It is in order to protect the best interests of those around the world that the democratic government is permitted to create global climate policies. One way of creating fair global policies would be to give every citizen a vote on the matters of climate change. This would satisfy the necessary enfranchisement requirements because all citizens are of affected or possibly affected interest when it comes to a changing environment. In the future, once climate stability has been restored, then limits on who the government can reasonably inflict law, can go

[110] Abizadeh, Arash. 2005. "Does Collective Identity Presuppose an Other? On the Alleged Incoherence of Global Solidarity."*American Political Science Review* 99 (1): 45-60. http://dx.doi.org/10.1017.S0003055405051488.
[111] Abizadeh, "Global Solidarity," 45.

back to normal restrictions, such as territorial or national enfranchisement only. Climate change has become an issue of such global proportion that it will require the involvement of all people in order to create effective policy.

B. International Law

Democracy does not live in a vacuum. There are so many external factors that influence the scope of democratic rule and that promote the idea of a global democracy. Globalization has led to such high levels of economic, social, and technological relationships between countries and states that as global relations increase, so does the need for a global governing body. Global affairs, due to the intensity of global trade and relations, should be subjected to a higher level of governing, especially in order to fulfill the enfranchisement of all affected interests, as seen in Goodin's argument for democracy. One idea for global democracy is seen in cosmopolitan democracy, where "the core idea is to lift statist institutions to the global level in an on-going effort for democratization. The model rests on a foundation of autonomy: creating global political conditions that allow individuals to shape and direct their own lives."[112] This proposition does not call for a world government, rather it seeks to bring all global governments up to a functioning level together. While governments work together today in different capacities, there is not one sole governing body that allows for voting rights of all individual citizens. Until this is created, global democratic enfranchisement in order to control climate change at a higher level will be unattainable. It is imperative to have global enfranchisement for

[112] Kuyper, Jonathan. 2016. "Global Democracy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2016. http://plato.stanford.edu/archives/spr2016/entries/global-democracy/.

climate decisions as all citizens have affected interests, and therefore all citizens should have a say in climate decisions.

Currently, without such a global governing body, countries are working against each other to create climate decisions, For example, tariffs are placed on foreign products in order to gain climate control. In theory, placing tariffs and restrictions on imports will decrease the global use of energy through transportation while simultaneously increasing domestic economy through production. There are, however, many issues with imposing tariffs on foreign products. By restricting products from other countries or making it harder to obtain these products, the United States would be greatly impacting the economies of our trade partners. This would be a direct decision to favor climate related-issues over economic aid for other countries. There are harmful effects of tariffs, however, on the global economy. They cause domestic prices to rise and can lead to a decrease in product quality as businesses must find cheaper ways to produce them.[113] Tariffs benefit the producers and the governments than they benefit the consumer, and some argue that tariffs do more harm than good. They are a short term solution to a problem that could be solved by a global governing body. They will, however, without such a global body, pay off in the long run as they will help reduce the negative effects of climate change. Global policy will affect many people but as long as it is done with the best interests of the long-term greater good, then it is justified.

C. Democracy and Collective Well-Being

Alternatively, if the purpose of democracy is to heighten the well-being of all *citizens* and to look out for *their* welfare, then it can be argued that democracy exists for the collective well-

[113] Sanders, Monica. n.d. "The Disadvantages of Tarrifs & Quotas." *Small Business*. http://smallbusiness.chron.com/disadvantages-tarrifs-quotas-20726.html.

being. But even on this account, some anti-democratic policies for the sake of the climate can be justified for the sake of citizen's well-being. One of the main advantages of democracy is that it creates more positive outcomes for citizens as compared to other forms of governance, and a quality of fairness in the decision making- also not present in other forms of governance. It is the best way for law-makers to focus on the interests and understand the needs of the constituents and attempts to distribute political power and decisions as equally as possible. It can be understood, therefore, that democracy seeks to promote the collective well-being and that its higher purpose is to increase the welfare of all possible people. One of the strongest arguments for democratic instrumentalism in terms of making decisions for the collective well-being argues that "the exercise of power of one person over another can only be justified by reference to the protection of the interests or rights of the person over whom power is exercised. Thus no distribution of political power could ever be justified except by reference to the quality of outcomes of the decision making process."[114] In a sense, no political power is warranted unless it is clear how beneficial the decisions of the political process will be for those with affected interests.

Some might argue that there is inherent inequality in the relationship between a politician (a decision maker) and a citizen (who receives the effects of the decisions). In this argument, democracy never creates absolute equality as long as there are some people in charge or with power over others. In this sense, democratic instrumentalism, even when its goal is the collective well-being of all affected interests, is unjustified. Another objection to democratic instrumentalism states that even though democracy can be a collective decision making process—as all people are given the opportunity to an equal vote—is still not possible to

[114] Christiano, Tom. 2015. "Democracy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2015. http://plato.stanford.edu/archives/spr2015/entries/democracy/.

transition individual preferences into one collective set of priorities. I argue, however, that political structure is necessary and justified in a case such as climate change. The collective well-being is at such a high risk that decision making needs to be taken into the hands of authority. Even an anarchist would agree that climate change calls for such drastic and immediate measures that a lack of government cannot provide. Without such a structure, the well-being of all citizens will significantly decrease and there is a higher chance of remarkable negative consequences for all people.

D. Regulatory Agencies (and Constitutions)

Perhaps the strongest argument against democratic instrumentalism lies in the fact that many aspects of our current democratic decision making process come from unelected regulatory agencies. Questions of democratic law include whether or not unelected leaders should be able to impose policies on people who did not vote for those who make up the agency and who did not vote on the specific policies. In a sense, these regulatory agencies can be seen as just another piece of the democratic structure and that under true democratic law, even those who were unelected will behave with the intention of serving the collective well-being. Under the argument for democratic instrumentalism, these unelected leaders are experts in their field, and are thus less biased than the general public and will seek the best results for the collective well-being. Examples of these regulatory agencies include the FDA, the USDA, and the EPA. Each of these agencies has the duty to serve the American people and their interests in order to help maintain or improve the collective well-being. These regulatory agencies exist at the appointment of elected leaders, and thus if constituents have faith and trust in the decisions of elected leaders,

then they must therefore trust those of the regulatory agencies. It is an exercise in political accountability to trust a sub-branch of the elected legislative body.

In the case of climate change, these democratic regulatory agencies can play a large role in helping to benefit the collective well-being and to reverse the negative effects of climate change. These regulatory agencies were created out of necessity to relieve certain decisions of Congress's partiality and biases. Those who are appointed to regulatory agencies—according to their foundations—serve to administer regulations that are unbiased, have continuity, and only exist to benefit the public interest.[115] These agencies also, however, do not exist entirely on their own or separate from any true authority. The President and Congress can still impart influence on and affect the decisions of the regulatory agencies. In this sense, these agencies are justified in their authority because they are still under control of citizen-elected bodies. Common issues for these agencies come not necessarily from their workers, but from outside factors. These include insufficient resources, inconsistent leadership, unclear mandates, and ambiguous or overly ambitious priorities.[116]

One regulatory agency of note is the Food and Drug Administration. This administration has the ability to effectively help create climate regulations. In its mission statement it states that it is "responsible for protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation."[117] It is an inherent duty of the nation's food regulator to understand the country's food needs and how they will be impacted by a changing climate. The FDA has the legitimate power to reduce the amount of energy allowed to create

---

[115] Freedman, James. 1981. "Legislative Delegation to Regulatory Agencies." *The Proceedings of the Academy of Political Science* 34 (2): 76–89. doi:10.2307/1173792.
[116] "What We Do." *US Food and Drug Administration.* http://www.fda.gov/AboutFDA/WhatWeDo/default.htm.
[117] "What We Do."

certain foods, to regulate how food is transported, and to control how much food is wasted. It should focus on these three areas in order to be most effective for mitigating climate change because food transportation and production are the areas which use the most energy and can be easily regulated by such an agency.

There are strong democratic objections to constitutional and administrative law which question political authority that seeks to interpret laws to an extreme degree. There are questions of who has the authority to create the specific interpretations of laws and how to particularly enforce laws.[118] According to Waldron's democratic response to authority, "a conception of legitimate authority must give pride of place to respect for the judgments of citizens at the same time as accommodate the reality of pervasive disagreement in politics."[119] In this sense, the FDA and democracy—specifically in its regulatory agencies—has the ability to create laws and enforce them at lower levels in order to protect the interests of the citizens. In the case of climate change, this could mean the FDA interpreting a law of energy usage by creating strict regulations on food production. The FDA's job and the legitimate authority of these regulatory agencies is to surpass the political stratification so commonly found among political bodies in order to fully recognize the need for climate change control.

As we have seen, regulatory agencies play a large role in creating impactful policy for our nation. They were born as a source of expertise and information and today serve to implement the smaller details of larger governmental laws. They are justified in creating and enforcing policy because they seek to carry out the purpose of democracy—of bringing well-being and improving the lives of all affected interests.

---

[118] Christiano, Thomas. 2000. "Waldron on Law and Disagreement." *Law and Philosophy* 19: 513.
[119] Christiano, "Waldron on Law and Disagreement," 516.

16. Strategy and Enforcement

Leaders may enforce each of these proposed new policies because without them, consumers will continue to create harm for the environment and for other people. We have looked at plastic bags, which, without significant bans or restrictions, will continue to put harmful chemicals in in the air and soil, will ruin the habitats of living creatures, and will continually create millions of tons of waste. A policy banning the use of non-reusable plastics will ensure that consumers are making the correct choice for the environment and will fulfill the duty to stop the harm that consumers create for others. A policy for exponentially increasing the taxes on harmful energy sources while increasing the tax breaks and tax credits on renewable energy sources would lead to a simple transition of energy sources by consumers. Without these rewards and punishments, the majority of consumers will fail to make the switch.

Yet in order to enforce these policies, governmental bodies such as the IRS, FDA, law enforcement, among others, must step up and play a role. In this section, I will discuss how leaders should exercise their moral mandate to enforce these policies, the implications for authority and how leadership affects these proposed policies. This includes a discussion of leadership capabilities and restrictions and a discussion of regulatory agencies that have legitimacy to implement policies of climate change enforcement.

A. Leadership Strategy

There are many different theories regarding the most effective leadership strategies and how leaders can best direct their followers towards a better life. In this case, I propose that leadership styles cannot focus on building relationships and gaining likeability from their followers. Climate change cannot wait for emotional relationships and charismatic influence to

form before leaders begin to implement direct policies and laws. Leaders must be task oriented and must have a very clear plan for how they will bring the status of the environment away from the danger it is in now.[120] With that, transparency and clarity are so important in order to gain the trust of the followers moving forward. Leaders must be extremely focused on telling the followers how the near future is going to work in order for the followers to be able to effectively and according change their individual behavior. The leader does not need to legitimize her authority to gain cooperation. As discussed, the legitimacy of the democratic body allows her to create and enforce laws as she sees fit because she will be working towards the greatest interest of her followers. We also see this need for task orientation in Fielder's Contingency Theory of Leadership. According to this theory, in times such as natural disasters where the needs of the population are dire and very clear, the leader must simply set out a plan for next steps and structure the behavior of the followers.[121] This task-orientation, according to Fielder, is created by situational needs. A leader may be more relationship-oriented in times of unclear follower needs where a high level of control is not necessary. I suggest, however, that this task-oriented leadership style will be most effective for creating climate change policies.

A second theory for leadership and the best way to gain follower trust perhaps comes from the theory of terror management and how the realization of death for followers brings a need for leadership and an understanding between the leader and follower. This theory of utilizing terror management is more than gaining the trust of the follower, it is an effective theory for follower cooperation and creating real change.[122] By using climate change to induce a basic psychological fear and desire to live, leaders will prove to followers the importance of

---

[120] Bales, Robert. n.d. *Personality and Interpersonal Behavior*. New York, Holt, Rinehart.
[121] Fiedler, Fred. 1964. "A Contingency Model of Leadership Effectiveness." *Advances in Experimental Social Psychology* 1: 149.
[122] Greenberg, Jeff, and Jamie Arndt. 2011. "Terror Management Theory." *Handbook of Theories of Social Psychology* 1.

taking drastic measures to reduce climate change. Fear will serve as the driving motivation behind climate change activism and behavioral adjustments. Leaders must simply utilize this psychological tool to initiate follower cooperation.

Lastly, leaders may find it necessary to gather their followers around the cause by using more social tactics of leadership. This may include utilizing her existing social role to develop trust among a group of followers. For example, a conservative woman leader with a strong following might direct her followers towards climate change action by appealing to the social role with which they associate, for example, housewife or mother.[123] By understanding the needs of a certain associated social group, the leader will be able to most effectively change their behaviors as individual consumers. It is within these social roles that leaders will be able to create individual consumer change. While these groups may look different and may value climate change actions for different reasons, as long as they are all working towards the same goal of reducing negative climate change, leadership divisions according to social roles is justified and acceptable.

B. Nudging

There are also a few psychological tactics that a leader may use in order to influence followers or to affect the choices they make. Literature on leaders acting as choice architects, those who strategically place follower choices so that they will behave according to the leader's desire, states that these small details actually have major impact on follower behavior. By shaping even the small choices of followers, leaders or "choice architects" are able to slowly create the large change they seek. In the case of climate change, leaders may use the tactic of

[123] Eagly, Alice. 1997. "Sex Differences in Social Behavior: Comparing Social Role Theory and Evolutionary Psychology." *The American Psychologist* 52 (12): doi:10.1037/0003-066X.52.12.1380.b.

"padding the path of least resistance" towards consumers making ethical and sustainable choices.[124] In this scenario, the leader would remove all small psychological barriers that lie in the way of consumers acting more climate aware. These may include the decreasing the availability of harmful products and thus decreasing the psychological strain of a choice between a good and a pad product. For example, removing plastic bags in the grocery store, would remove the choice of paper versus plastic and would aid the decision making process.

This leadership technique of acting as a choice architect and shaping consumer's decisions through availability is just one psychological theory of behavioral economics used by leaders. According to Thaler's theory of *Nudge*, individuals need to be guided through their choices for their best interest. While this theory promotes a sense of paternalism and lack of confidence in the choices of individuals, this style of leadership is necessary for climate change mitigation.[125] So far, individuals have continually made the wrong choices that only create harm for themselves and for others. Similar to other ongoing epidemics such as obesity, it will be the duty of the leader to "nudge" the individuals towards the right choice—and again we see the need for a choice architect. Government programs can regulate the available choices in a way that consumers do not have to actively think about what they are doing and why they are choosing one product over another. Leaders have the ability to shape the norm for consumer for their welfare. An important note on this form of choice architecture is that it seeks to not infringe on the liberty of the individuals. It is a form of paternalism that values freedom and seeks to change behavior without "forbidding any options or significantly changing their economic

[124] Thaler, Richard, Cass Sunstein, and John Balz. 2012. "Choice Architecture." *Behavioral Foundations of Public Policy*. doi:http://dx.doi.org/10.2139/ssrn.2536504.
[125] Schlag, Pierre. 2010. "Review: Nudge, Choice Architecture, and Libertarian Paternalism." Edited by Richard H. Thaler and Cass R. Sunstein. *Michigan Law Review* 108 (6): 913.

incentives."[126] I suggest this form of leadership influence because consumer behavior is so relevant for climate change and their choices will either continue to harm the environment or they will be able to mitigate past climate harms and begin to improve the health of the environment. This is an acceptable form of paternalism as it will prevent further harmful decisions by individuals. Furthermore, this paternalism will improve the lives of not only the direct constituents, as their decisions impact people around the world. By creating choice control, leaders will also be helping the welfare of distant and future people.

C. Specific Recommendations

I will end my argument for ethical consumerism with suggestions for leadership based on this chapter's discussion of the need and justification for enforceable leadership actions. I believe the most effective way for leadership to begin making climate change policy will be at the highest level possible. This means one democratic government making decisions for the rest of the world, as discussed. I do not believe in creating a global government or one that creates all laws for all countries. I do believe, however, that one country should take the responsibility to take charge and step forward to implement restrictions and policies for the rest of the world. This may be a temporary situation that can be removed once climate harms are no longer a threat to the whole world. This global rule, furthermore, applies only to climate change. This one country cannot begin to make worldwide laws governing other political decisions. It is due to the extreme and immediate threat of climate change that this global rule is justified.

---

[126] Hausman, Daniel, and Brynn Welch. 2010. "Debate: To Nudge or Not to Nudge." *Journal of Political Philosophy* 18 (1): doi:10.1111/j.1467-9760.2009.00351.x.

The next step, once this country's rules have been established over the rest of the world, will be to delegate certain responsibilities down to individual governments and then to regional powers. The decisions of the larger global rule will be futile unless they can be properly implemented at a smaller level. All individual governments must be in compliance with the government spearheading the climate change movement. Without full cooperation, the global rule will be worthless. These governments must also understand how to interpret the global rule's laws for the specific needs of their country, similar to the way regulatory agencies must interpret laws for their specific purposes. It is important for the lower level governments be able to fit the new regulations into the specific needs of their constituents.

It will then be up to the individuals to accept these regulations and to ensure that they are behaving accordingly. They must be educated on the scientific evidence of climate change and must have a deep understanding of how their behavior truly affects climate change. If the individuals do not internalize why they must change their behavior, they will not effectively do so, and all efforts from governments will then also become ineffective. According to Richard Dagger's argument for civic virtue, the government should educate people who want to comply with their duties. In his view, republicanism is "a form of legal moralism resting on a distinctively *civic* morality that lays particular stress on such virtues as fair play and tolerance."[127] In terms of climate change policy, individuals will have to work with the government's policies in order to promote effective communication and understanding of the laws. Only then will the lawmakers be able to have effective policy and then will the individuals begin to make their choices as consumers in accordance with the governmental policies.

[127] Dagger, Richard, "Crime, Morality, and Republicanism." *Prepared for the Routledge Handbook of Criminal Justice Ethics.*

In this chapter we have discussed the next steps for reducing climate change. We have come to understand the importance of enforcing the duty to limit climate change harms. Governments and other law-enforcing bodies have different abilities to prevent harm for different causes. We saw justifications for preventing wrongful harm, such as killing others, enforcing liabilities for innocent threats, and how creating liability for the masses can lead to increased well-being for the greater good. I responded to objections against accepting liability for the behavior of the greater good, and argued that every individual citizen does indeed contribute a great amount to climate change and therefore can be liable on the level responsibility for the greater good. I then turned to the specific modes of enforcement that would make some of the greatest impact in terms of individual consumer change. I see plastics, tax hikes or incentives, and food behavior of three areas in which governments can step in to change individuals' behaviors for the sake of climate change. I chose these three areas because they are the most prevalent to individuals and can be most easily influenced by governing bodies. Banning plastics in all respects will be the most important first step towards reducing consumer energy use as well as waste. The benefits of reducing plastics will lead us to similar climate-related changes, such as increased use of alternative energies for transportation. Thus, I saw tax hikes and incentives as a way to decrease the use of harmful energy sources and increase the incentive to use alternative energy sources. Consumers are cautious of their money and would be more willing to change their behavior with a monetary reward or punishment. Lastly, the food industry has such an impact on climate change as well as the everyday lives of consumers, thus it should be included in plans to change consumer behavior. By adjusting available foods and restricting certain food productions, there will be no choice but for consumers to choose different foods and thus will be using their individual power to make positive climate change decisions. Finally, I suggested that

democracy has the capability to enforce all of these new policies and behaviors. Democratic institutions are responsible for the well-being of all those they affect, and they can use their power to make decisions and influence even those outside of their enfranchised areas.

17. Conclusion

In this essay I have sought to bring about an understanding of how individuals contribute to climate change, why their decisions matter, and what they can do about it. I have argued that individuals are the root of the causes of climate change as they behave in ways that impact themselves, other people, distant people, future people, and nature. I created a pluralistic account of harm in order to include the many different scenarios for consumer behavior. Harm can be understood as an event that makes well-being comparatively worse off, or by a non-consequentialist event that simply removes freedoms and liberties granted to all humans. Harm is important for my argument because it implies that there is a way to prevent it and there is a way to enforce restrictions of it. I discussed what it means to make personal sacrifices to help another person and what the costs are to the self in order to stop harm or to benefit another person.
In the second chapter, I discussed how consumers are subject to many different influences on their purchasing behavior, and they are not always consistent. I saw, however, that there are in fact principles for ethical consumerism and that being an ethical consumer does not have to create an entirely new life full of sacrifices for the environment. There is a scale of harmful behaviors, and as I discussed, some are more harmful than others. It is the job of the individual to judge his own behavior and to understand where his decisions lie on the scale of harmful to others.

In my final chapter, I discussed the reasons why climate change policies—or policies against harm—are enforceable. I argued that individuals should be subjected to punishments and rewards according to changes in climate-related behavior. I saw how it is the job of democracy to enfranchise itself upon this global economy in order to benefit as many people as possible. In the end, however, I argue that it will be the job of the individuals to make changes, and only then will we see a climate change in the positive direction.

References

Abizadeh, Arash. 2005. "Does Collective Identity Presuppose an Other? On the Alleged Incoherence of Global Solidarity." American Political Science Review 99 (1): 45-60. http://dx.doi.org/10.1017.S0003055405051488.

"Agriculture, Energy & Climate Change." *GRACE Communications Foundation*. Accessed March 15, 2016. http://www.sustainabletable.org/982/agriculture-energy-climate-change.

Auger, Pat, and Timothy M. Devinney. "Do What Consumers Say Matter? The Misalignment of Preferences with Unconstrained Ethical Intentions." *Journal of Business Ethics* 76, no. 4 (2007): 361–83.

Bales, Robert. n.d. *Personality and Interpersonal Behavior*. New York, Holt, Rinehart.

Barry, Christian, and Gerhard Overland. 2013. "How Much for the Child?" *Ethic Theory Moral Practice* 16 (1): 189–204.

Bettman, James, Mary Frances Luce, and John W. Payne. "Constructive Consumer Choice Processes." *Journal of Consumer Research* 25, no. 3 (December 1998): 187–217. http://www.jstor.org/stable/10.1086/209535

Boehrer, Katherine. "Which Of Your Favorite Foods Are Hiding A Massive Water Footprint?" *The Huffington Post*. Accessed March 15, 2016. http://www.huffingtonpost.com/2014/10/13/food-water-footprint_n_5952862.html.

Bostrom, Nick, and Toby Ord. 2006. "The Reversal Test: Eliminating Status Quo Bias in Applied Ethics." *Ethics*, no. 116 (July): 656–79.

Bostrom, Nick. 2013. "Existential Risk Prevention as Global Priority." *Global Policy* 4 (1): 15–31.

Bradley, Ben. 2012. "Doing Away with Harm." *Philosophy and Phenomenological Research* 85 (2): 390–412. doi:10.1111/j.1933-1592.2012.00615.x.

Brennan, Andrew, and Yeuk-Sze Lo. "Environmental Ethics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Winter 2015., 2015. http://plato.stanford.edu/archives/win2015/entries/ethics-environmental/.

Brentley, Austin. "What Is the Average Payback Period of a Solar Installation?" *Direct Energy Solar*, August 11, 2014. http://www.directenergysolar.com/blog/post/what-is-the-average-payback-period-of-a-solar-installation/.

Brink, David. 2014. "Mill's Moral and Political Philosophy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Fall 2014. http://plato.stanford.edu/archives/fall2014/entries/mill-moral-political/.

Canning, Patrick, Ainsley Charles, Sonya Huang, Karen Polenske, and Arnold Waters. "Energy Use in the U.S. Food System." Economic Research Report. United States Department of Agriculture, March 2010. http://www.ers.usda.gov/media/136418/err94_1_.pdf.

"Car Emissions and Global Warming." *Union of Concerned Scientists*. Accessed March 15, 2016. http://www.ucsusa.org/clean-vehicles/car-emissions-and-global-warming.

Christiano, Tom. 2015. "Democracy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2015. http://plato.stanford.edu/archives/spr2015/entries/democracy/.

Christiano, Thomas. 2000. "Waldron on Law and Disagreement." *Law and Philosophy* 19: 513–43.

"City Utilities: Water Tips." Accessed March 15, 2016. http://www.cityutilities.net/resident/pgms/watertips.htm.

"Clearing the Air: The Myth and Reality of Aviation and Climate Change." *Climate Action Network Europe*, 2006. http://www.transportenvironment.org/sites/te/files/media/2006-06_aviation_clearing_the_air_myths_reality_0.pdf.

"Corrupted Bounty." 2015. The Economist. December 12. http://www.economist.com/news/books-and-arts/21679778-unhappy-rules-free-tradenatural-resources-corrupted-bounty.

Costello, Anthony, Mark Maslin, Hugh Montgomery, Anne M. Johnson, and Paul Ekins. "Global Health and Climate Change: Moving from Denial and Catastrophic Fatalism to Positive Action." *Philosophical Transactions: Mathematical, Physical and Engineering Sciences* 369, no. 1942 (May 13, 2011): 1866–82.

Crane, Andrew. "Unpacking the Ethical Product." *Journal of Business Ethics* 30, no. 4 (2001): 361–73.

Derek Parfit. 1994. "5 Mistakes of Moral Mathematics." In *Reasons and Persons*. Oxford: Oxford University Press.

Dietz, Thomas, Gerald T. Gardner, Jonathan Gilligan, Paul C. Stern, and Michael P. Vandenbergh. "Household Actions Can Provide a Behavioral Wedge to Rapidly Reduce US Carbon Emissions." *Proceedings of the National Academy of Sciences* 106, no. 44 (November 3, 2009): 18452–56. doi:10.1073/pnas.0908738106.

Dobson, Andrew. 2007. "Environmental Citizenship: Towards Sustainable Development." *Sustainable Development*, no. 15: 276–85. doi:10.1002/sd.344.

"Drivers of U.S. Household Energy Consumption, 1980-2009 - Energy Information Administration." Accessed March 15, 2016. https://www.eia.gov/analysis/studies/buildings/households/.

Eagly, Alice. 1997. "Sex Differences in Social Behavior: Comparing Social Role Theory and Evolutionary Psychology." *The American Psychologist* 52 (12): 1380–83. doi:10.1037/0003-066X.52.12.1380.b.

"EPA WaterSense | Water Education & Our Water Cycle | Water Use Today," USEPA, Accessed March 15, 2016. http://www3.epa.gov/watersense/our_water/water_use_today.html.

"Explained: Denmark's Crazy Car Registration Tax," November 20, 2015. http://www.thelocal.dk/20151120/whats-the-deal-with-denmarks-car-registration-tax.

"Facts About the Plastic Bag Pandemic" *www.reuseit.com/*. Accessed March 17, 2016. http://www.reuseit.com/facts-and-myths/learn-more-facts-about-the-plastic-bag-pandemic.htm.

"Fast Facts | Green Vehicle Guide." US EPA, OAR. Accessed March 15, 2016. http://www3.epa.gov/greenvehicles/we/facts.htm.

"Federal Income Tax Credits for Energy Efficiency." https://www.energystar.gov/about/federal_tax_credits.

"Federal Tax Credits for All-Electric and Plug-in Hybrid Vehicles." Accessed March 17, 2016. https://www.fueleconomy.gov/feg/taxevb.shtml.

Fiedler, Fred. 1964. "A Contingency Model of Leadership Effectiveness." *Advances in Experimental Social Psychology* 1: 149.

Flanigan, Jessica. "A Defense of Compulsory Vaccination." *HEC Forum* 26, no. 1 (August 13, 2013): 5–25. doi:10.1007/s10730-013-9221-5. https://link.springer.com/article/10.1007/s10730-013-9221-5/fulltext.html.

"Food Miles: How Far Your Food Travels Has Serious Consequences for Your Health and the Climate." National Resources Defense Council, November 2007. https://food-hub.org/files/resources/Food%20Miles.pdf.

Freedman, James. 1981. "Legislative Delegation to Regulatory Agencies." *The Proceedings of the Academy of Political Science* 34 (2): 76–89. doi:10.2307/1173792.

Gangolells, Marta, Miquel Casals, Santiago Gassó, Núria Forcada, Xavier Roca, and Alba Fuertes. "A Methodology for Predicting the Severity of Environmental Impacts Related to the Construction Process of Residential Buildings." *Building and Environment* 44, no. 3 (March 2009): 558–71. doi:10.1016/j.buildenv.2008.05.001.

Gardiner, Stephen. 2010. *Climate Ethics*. Oxford University Press.

Goodin, Robert. 2007. "Enfranchising All Affected Interests, and Its Alternatives." *Philosophy & Public Affairs* 35 (1): 40–68. doi:10.1111/j.1088-4963.2007.00098.x. http://onlinelibrary.wiley.com/enhanced/doi/10.1111/j.1088-4963.2007.00098.x

Greenberg, Jeff, and Jamie Arndt. 2011. "Terror Management Theory." *Handbook of Theories of Social Psychology* 1.

"Greenhouse Gas Emissions: Transportation Sector Emissions," US EPA, Climate Change Division. Accessed March 15, 2016. http://www3.epa.gov/climatechange/ghgemissions/sources/transportation.html.

Grossman, Margaret. 2010. "Climate Change and the Law." *The American Journal of Comparative Law* 58 (January): 223–55.

Hausman, Daniel, and Brynn Welch. 2010. "Debate: To Nudge or Not to Nudge." *Journal of Political Philosophy* 18 (1): 123–36. doi:10.1111/j.1467-9760.2009.00351.x.

Hayes, Nicole, and Angus Morrison-Saunders. 2007. "Effectiveness of environmental offsets in environmental impact assessment: practitioner perspectives from Western Australia," Impact Assessment and Project Appraisal 25: 209-218. doi: 10.3152/146155107X227126.

Henry, Meghan, Alvaro Cortes, and Sean Morris. "The 2013 Annual Homeless Assessment Report (AHAR) to Congress." The U.S. Department of Housing and Urban Development: Office of Community Planning and Development, 2013. https://www.hudexchange.info/resources/documents/ahar-2013-part1.pdf.

Hoekstra, Arjen, and Mesfin Mekonnen. "The Water Footprint of Humanity." *PNAS* 109, no. 9 (February 28, 2012): 3232–37. doi:10.1073/pnas.1109936109.

Holthaus, Eric. "Earth's Most Famous Climate Scientist Issues Bombshell Sea Level Warning." *Slate*, July 20, 2015.

"How Can We Make People Care About Climate Change?" By Richard Schiffman: Yale Environment 360." Accessed September 29, 2015. http://e360.yale.edu/feature/how_can_we_make_people_care_about_climate_change/2892/.

"Home-Building and the Environmental Effects." Accessed March 15, 2016. http://homeguides.sfgate.com/homebuilding-environmental-effects-65999.html.

"How Much Electricity Is Used for Lighting in the United States? - FAQ - U.S. Energy Information Administration (EIA)." Accessed March 15, 2016. https://www.eia.gov/tools/faqs/faq.cfm?id=99&t=3.

"How School Food Affects the Environment." *Center for Environmental Education*. Accessed March 15, 2016. http://www.ceeonline.org/greenguide/food/upload/environmenthealth.aspx.

"Impact of Household Waste on the Environment | Reuseit.com." *Www.reuseit.com/*. Accessed March 15, 2016. http://www.reuseit.com/facts-and-myths/learn-more-facts-about-the-impact-of-household-waste-on-the-environment.htm.

"IPCC 4th Assessment Report Working Group." Accessed September 29, 2015. http://www2.epa.gov/sites/production/files/documents/IPCC4thAssessmentReportWorkingGroup2.pdf.

Irwin, Julie. 2015. "Ethical Consumerism Isn't Dead, It Just Needs Better Marketing." *Harvard Business Review*. Accessed November 18. https://hbr.org/2015/01/ethical-consumerism-isnt-dead-it-just-needs-better-marketing.

Karnani, Aneel. 2010. "The Case Against Corporate Social Responsibility." *Wall Street Journal*, August 23, sec. Special. http://www.wsj.com/articles/SB10001424052748703338004575230112664504890.

Kharina, Anastasia, and Daniel Rutherford. "Fuel Economy Trends for New Commercial Jet Aircraft: 1960 to 2014." International Council on Clean Transportation, August 2015. http://www.theicct.org/sites/default/files/publications/ICCT_Aircraft-FE-Trends_20150902.pdf.

Kuyper, Jonathan. 2016. "Global Democracy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2016. http://plato.stanford.edu/archives/spr2016/entries/global-democracy/.

Lichtenberg, Judith. 2010. "Negative Duties, Positive Duties, and the 'New Harms.'" *Ethics* 120 (3): 557–78.

Nolt, John. "How Harmful Are the Average American's Greenhouse Gas Emissions?" *Ethics, Policy & Environment* 14, no. 1 (January 2011): 3–10. doi:10.1080/21550085.2011.561584.

Parrott, Kathleen. "Environmental Concerns and Housing." *Housing and Society* 24, no. 3 (1997).

http://www.housingeducators.org/Journals/H%26S_Vol_24_No_3_Environmental_Concerns_and_Housing.pdf.

"Plastics Task Force: Environmental Impacts." *Ecology Center*. Accessed March 17, 2016. http://ecologycenter.org/plastics/ptf/report3/.

Pulmer, Brad. "One Billion Vehicles Hit the Road. Are We Ready for Two Billion? - The Washington Post." *The Washington Post*, August 22, 2011. https://www.washingtonpost.com/blogs/ezra-klein/post/one-billion-vehicles-hit-the-road-are-we-ready-for-two-billion/2011/08/22/gIQA1am4WJ_blog.html.

Quong, Jonathan. "Killing in Self-Defense." *Ethics*, no. 119 (April 2009): 507–37. doi:10.1086/597595. http://www.journals.uchicago.edu/doi/pdfplus/10.1086/597595.

"Reduce Climate Change." U.S. Department of Energy source for fuel economy information. *Fueleconomy.gov*. Accessed March 15, 2016. https://www.fueleconomy.gov/feg/climate.shtml.

Risse, Mathias. 2005. "What We Owe to the Global Poor." The Journal of Ethics 9: 81-117. http://www.jstor.org/stable/25115816.

Robeyns, Ingrid. 2011. "The Capability Approach." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Summer 2011. http://plato.stanford.edu/archives/sum2011/entries/capability-approach/.

Rosenthal, Elisabeth. "The Biggest Carbon Sin: Air Travel." *The New York Times*, January 26, 2013. http://www.nytimes.com/2013/01/27/sunday-review/the-biggest-carbon-sin-air-travel.html.

Sanders, Monica. n.d. "The Disadvantages of Tarrifs & Quotas." *Small Business*. http://smallbusiness.chron.com/disadvantages-tarrifs-quotas-20726.html.

Seyfang, Gill. "Ecological Citizenship and Sustainable Consumption: Examining Local Organic Food Networks." *Journal of Rural Studies* 22, no. 4 (October 2006): 383–95. doi:10.1016/j.jrurstud.2006.01.003.

Schlag, Pierre. 2010. "Review: Nudge, Choice Architecture, and Libertarian Paternalism." Edited by Richard H. Thaler and Cass R. Sunstein. *Michigan Law Review* 108 (6): 913–24.

Sen, Amartya. n.d. "Rights and Capabilities." *Harvard University Press*, 307–24.

Shiffrin, Seana. "Wrongful Life, Procreative Responsibility, and the Significance of Harm." Legal Theory, 5: 117-148, 1999. http://www.public.iastate.edu/~jwcwolf/Papers/Shiffrin%20Wrongful%20life%20procreative%20responsibility%20and%20the%20significance%20of%20harm.pdf.

Singer, Peter. 1972. "Famine, Affluence, and Morality." *Philosophy & Public Affairs* 1 (3): 229–43.

Singer, Peter. "Choosing Causes and Organizations: Reducing Animal Suffering and Protecting Nature." In *The Most Good You Can Do: How Effective Altruism Is Changing Ideas about Living Ethically*, 144. Yale University Press, 2015.

Sinnott-Armstrong, Walter. "It's Not My Fault: Global Warming and Individual Moral Obligations." In *Perspectives on Climate Change: Science, Economics, Politics Ethics*, 5:293–315, 2005. http://sites.duke.edu/wsa/papers/files/2011/05/wsa-itsnotmyfault2005.pdf.

Snyder, Timothy. "The Next Genocide." *The New York Times*, September 12, 2015. http://www.nytimes.com/2015/09/13/opinion/sunday/the-next-genocide.html.

Sorrell, Steve, Jamie Speirs, Roger Bentley, Richard Miller, and Erica Thompson. "Shaping the global oil peak: A review of the evidence on field sizes, reserve growth, decline rates and depletion rates." *Energy* 37 (2012): 709-724. DOI: 10.1016/j.energy.2011.10.010

Tadros, Victor. 2011. "Duty and Liability." *Warwick Law School Legal Studies Research Paper*. doi:http://dx.doi.org/10.2139/ssrn.1949030.

Tencer, Daniel. "Number Of Cars Worldwide Surpasses 1 Billion; Can The World Handle This Many Wheels?" *Huffpost Business: Canada*, August 23, 2011. http://www.huffingtonpost.ca/2011/08/23/car-population_n_934291.html.

Thaler, Richard, Cass Sunstein, and John Balz. 2012. "Choice Architecture." *Behavioral Foundations of Public Policy*. doi:http://dx.doi.org/10.2139/ssrn.2536504.

"The Point of No Return: Climate Change Nightmares Are Already Here | Rolling Stone." Accessed September 29, 2015. http://www.rollingstone.com/politics/news/the-point-of-no-return-climate-change-nightmares-are-already-here-20150805?utm_source=newsletter&utm_content=daily&utm_campaign=080515_16&utm_medium=email&ea=aXJyZXZAbWFjLmNvbQ%3D%3D.

"The Water Footprint of Food." *GRACE Communications Foundation*. http://www.gracelinks.org/1361/the-water-footprint-of-food.

Valentini, Laura. 2012. "Ideal vs Non-Ideal Theory: A Conceptual Map." *Philosophy Compass* 7 (9): 654-664. DOI: 10.1111/j.1747-9991.2012.00500.x.

"Vehicle Emissions FAQs." Accessed March 15, 2016. http://www.bcairquality.ca/topics/vehicle-emissions-faqs.html.

Vidal, John. "10 Ways Vegetarianism Can Help Save the Planet." *The Guardian*, July 17, 2010, sec. Life and style. http://www.theguardian.com/lifeandstyle/2010/jul/18/vegetarianism-save-planet-environment.

"What Assures Consumers on Climate Change?" Accessed September 29, 2015. http://www.accountability.org/images/content/2/1/211/What%20Assures%20Consumers%20on%20Climate%20Change.pdf.

"What We Do." *US Food and Drug Administration.* http://www.fda.gov/AboutFDA/WhatWeDo/default.htm.

Wenar, Leif. 2010. "Poverty Is No Pond: Challenges for the Affluent." In *Giving Well: The Ethics of Philanthropy*, 104–32. Oxford. http://static1.squarespace.com/static/55abfeaae4b0ba2b92833a23/t/55b54eb5e4b043b826887867/1437945525291/WenarPovertyNoPond8-09.pdf.

Wilson, Lindsay. "The Tricky Truth about Food Miles." *Shrink That Footprint*. Accessed March 15, 2016. http://shrinkthatfootprint.com/food-miles.

Woodward, James. 1986. "The Non-Identity Problem." *Ethics* 96 (July): 804–31.

Young, William, Kumju Hwang, Seonaidh McDonald, and Caroline J. Oates. "Sustainable Consumption: Green Consumer Behaviour When Purchasing Products." *Sustainable Development* 18, no. 1 (January 1, 2010): 20–31. doi:10.1002/sd.394. http://onlinelibrary.wiley.com/doi/10.1002/sd.394/epdf