Leaders and laggards climate change mitigation policy in the European Union and the United States

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LEADERS AND LAGGARDS: CLIMATE CHANGE MITIGATION POLICY IN
THE EUROPEAN UNION AND THE UNITED STATES

by

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ABSTRACT

In 1997, both the United States (U.S.) and the European Union (EU) signed the Kyoto

Protocol, the first legally binding international treaty with targets for greenhouse gas emissions

reductions. However, in 2001, the United States withdrew from the Protocol. This thesis seeks to

understand some of the reasons why the European Union embraced the Kyoto Protocol while the

United States did not. Using an overall framework of comparative politics, research is

undertaken through three lenses. First, an overview of public opinion toward global warming and

climate change in the U.S. and the EU analyzes potential differences or similarities from surveys

carried out in each area. Second, I examine the prevailing political ideology in each polity, with

emphasis on the period when climate change arose as a major global challenge. Finally, two case

studies examine the theory of environmental federalism and how it might affect climate change

policy action. I obtained the following results. Public opinion research has revealed that, on

average, the American public is nearly as concerned with climate change as the European public.

However, the overarching political ideology in the U.S. was one of conservatism, while that in

Europe was one of social democracy, with left and center-left governments, contributing to a

greater or lesser degree, and through indirect mechanisms, to the political stances adopted.

Finally, the case of Germany shows that member state actions, such as the implementation of

ambitious reductions targets, can still play a crucial role in leadership even in the presence of

action at the central government level (EU). The California case study shows that state-level

efforts can rise to fill a vacuum created by the absence of central government action. In the end,

behavior of each polity regarding international climate agreements, particularly the Kyoto

Protocol, cannot be explained in simple terms. The complexity of the issues revolving climate

change require further interdisciplinary research and collaboration among multiple actors

including scientists, policymakers, nongovernmental organizations, and other stakeholders.

To Mami and Papi

And to Puyi

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CDU	Christian Democratic Union
EAP	Environmental Action Program
EC	European Community
ECCP	European Climate Change Program
EEC	European Economic Community
EPA	Environmental Protection Agency
ETS	Emissions Trading Scheme
EU	European Union
GHG	Greenhouse Gases
IPCC	Intergovernmental Panel on Climate Change
SEA	Single European Act
SPD	Group of the Progressive Alliance of Socialists and Democrats in the European Parliament
TEU	Treaty on European Union
UNEP	United Nations Environment Programme

WMO   World Meteorological Organization

INTRODUCTION

For some time now, the European Union has stood out as the "forerunner," or "leader" in the international arena due to research and the adoption of creative policy instruments and ambitious greenhouse gas (GHG) emissions reduction targets (Mehling 294; McCormick, *Superpower* 159; Rey et al. 440). Berkhout et al. (428) claim that aside from being a high political priority, preventive and adaptive climate policy have indeed become a *raison d'être* for the EU. This is in sharp contrast to the United States, which has been referred to as a "laggard," whose "foot-dragging" actions have made it fall behind in the fight against climate change (Hall and Taplin 62).

Historically, however, the roles were reversed. McCormick points out that, ironically, Europe was the birthplace of the industrial revolution, and reminds us that Americans were at the forefront of environmental legal and institutional action (*Superpower* 157). In fact, public environmental concern was so high in the United States in the late 1970s and 1980s that environmental issues became a bipartisan endeavor in Washington. Several aggressive bills were passed, such as the 1963 Clean Air Act and the 1970 Clean Water Act, showing American leadership in environmental legislative action. Even in the 1980s, the United States showed considerable involvement in international discussions leading up to the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (Harris 967).

It was not until Reagan's presidency that a "bipartisan breach" arose in environmental politics in the United States (Bryner 321). Ever since this initial breach, progress on

environmental, and later, climate change policy, has become difficult—if not stalled—in the United States, as the topic has become a highly ideological issue.

The Kyoto Protocol, signed by both the EU and U.S. in 1997, was the first international treaty aimed at legally binding industrialized nations to a package of six GHG emissions reductions by the period 2008-2012 (McCormick, *Politics and Policies* 285). Politicians recognized that climate change presents a collective action challenge, and as such, it requires a global solution in the form of an international policy regime (Steurer 344). The EU-15 specifically committed themselves to reducing carbon dioxide emissions by 8%, based on 1990 levels, by 2008-2012 (McCormick, *Politics and Policies* 285). However, in 2001 the United States, under the leadership of President George W. Bush, withdrew from the Protocol due to "perceived flaws," in spite of overwhelming approval from the American public to ratify the treaty (Hillstrom and Hillstrom, *North America* 231; McCright and Dunlap, *Defeating Kyoto* 348-9; Pielke 39; Steurer 349). The U.S. Senate rejected the ratification of the Kyoto Protocol due to fear across party lines of economic costs of emissions reductions in industrialized countries, and because developing countries like China and India were not obliged to cut emissions (Steurer 346; Lipschutz 212). The United States' retreat from the treaty signaled its move away from international cooperation on climate change, prompting international as well as domestic concern—U.S. participation is "crucial" to the global effort to moderate anthropogenic climate change because it contributes 20% of the world's GHG emissions (Harris 966; Yarnal et al. 486).

In withdrawing from the Kyoto Protocol, the United States essentially demonstrated that it would not participate in multilateral and international initiatives that "are not organized and pursued in a way that is acceptable to Washington" (Lipschutz 212). This position adopted by the United States indicates a stronger commitment towards mitigating climate change on the part of Europeans. Differences in problem perceptions, visions and interests of the two parties account for the stances taken by the EU and U.S. on the Kyoto Protocol, issues that this thesis investigates (Steurer 354).

Current projections from climate scientists based on modeling future climate scenarios indicate an uncertain future with potential dire consequences for human and natural systems. Although a large range of probable futures exist, it seems clear that rising temperatures will likely cause more unpredictable and stronger or longer extreme events such as droughts, continued melting of frozen fresh water with concomitant sea-level rise, perturbations of natural ecosystems functions, loss of biodiversity, agricultural impacts, fresh water scarcity, and increased likelihood of social unrest, especially in developing countries (Finel and Bartolf 5-6).

With such potentially calamitous outcomes, an imperative exists for political action at the global scale. This is especially true given the fact that according to the Intergovernmental Panel on Climate Change (IPCC), "evidence makes a strong case for a significant human influence on observed warming," mostly due to the burning of fossil fuels. In other words, anthropogenic climate change is exacerbating natural climactic fluctuations. The IPCC concurs with this statement. Because of the human influence on climate change, a conflict arises between the intrinsic capitalistic and free enterprise notion of continuous growth as provider of human

welfare, and a sometimes opposing force of limiting growth to reduce emissions as a pathway to a sustainable future.

While Europe is no stranger to capitalism, free enterprise and growth—the European Economic Community (EEC), later EU, was founded precisely to foster economic growth, trade, and a higher standard of living—member nations have found a mechanism for self-imposing limits to growth without seeing it as an impediment to longer term well-being and economic stability. In Germany, for example, the renewable/alternative energy sector is a major engine of economic growth, and thus compatible with economic interest, even in the short term. Weidner and Mez (374) indicate that efforts to move to clean technologies in Germany has produced economic 'winners,' so that climate change action is not necessarily considered to be an economic burden, in contrast with many other places. In the United States, however, the renewable/alternative energy sector is perceived as a brake for economic growth.

In addition, a mélange of opposing and often confusing discourses regarding climate change policy have led to political stagnation or sclerosis regarding the climate question. As a result, local and regional actors in the U.S. have increasingly stepped forward to "fill the policy void created by federal inaction" (Yarnal et al. 486).

The purpose of this thesis is to look at certain aspects of climate politics in the EU and the U.S. to see what might explain their different positions toward the Kyoto Protocol. Further, a secondary objective is to find lessons from both polities that might be useful for each other and for other nations currently embarking on building their own climate policy. While a plethora of factors likely contribute to this disparate picture, disentangling them is a project so vast and

complex that it might require a new field of study in and of itself. Therefore, this thesis will examine overall public opinion regarding climate change in both polities and then focus on the political tendencies in Europe and the U.S., with particular attention to the period when climate change became a headline issue. A case study of Germany and California will examine environmental federalism and how climate change policy is garnering strength at the sub-federal, or state-level.

PUBLIC ATTITUDES TOWARD CLIMATE CHANGE

After a brief overview of the different factors that shape public views on climate change, this chapter analyzes public attitudes on climate change in Europe and the United States, based on previous poll surveys and studies. It is generally believed that public opinion in the United States does not widely support climate change action and that EU public opinion is much more highly evolved than U.S. public opinion, but neither of these assumptions is necessarily the case.

Researchers and policy makers have been interested in public views on climate change for some years now, and rightly so—public attitudes are an essential element in the policymaking process (Lorenzoni and Pidgeon 74), a theme I demonstrate and reinforce in this chapter. Public opinion is crucial for climate change action as governments seek viable energy alternatives—indeed, voters choose policymakers who in turn choose courses of action (Finel and Bartolf 22). Dietz et al. (479) indicate that public values are integrated into the development and selection of policy options through public discourse, which also provides "an atmosphere conducive to the construction or change of participants' policy preferences" when it comes to choosing climate change mitigation policies. Public concern, understanding, and sense of urgency regarding an issue are therefore useful tools that policymakers take into account when constructing a response. A potential issue that might negatively affect the analysis of public attitude studies is that one must sift through an abundance of surveys and differentiate which ones were conducted in a scientific, non-biased manner, and which ones are designed and implemented to further the agendas of particular societal groups. The studies chosen to serve as examples in this chapter, therefore, are from reputable researchers and polling firms that use

scientific methodologies and provide their outcomes openly for public scrutiny via various media including the World Wide Web.

One type of poll seeks to gauge public levels of awareness and knowledge about climate. Although there has been an increasing number of papers on perceptions of or attitudes about climate risks, fewer studies provide a robust climate literacy or knowledge measure appropriate for an audience of resource managers and policy makers. Investigations of climate literacy or knowledge still seem fairly nascent. It stands to reason that the public can only have opinions and attitudes on climate if they are at least somewhat familiar with the available science. Yet, the dearth of studies on climate literacy and the abundance of papers on climate opinions may be an indication of just how politicized climate change has become.

Robert O'Connor and colleagues have used a brief measure to identify knowledge of causes (emissions from business and industry, people driving their cars, the use of coal and oil by utilities or electric companies, people heating and cooling their homes, and the destruction of tropical forests) and non-causes (use of aerosol spray cans, use of chemicals to destroy insect pests, depletion of ozone in the upper atmosphere, nuclear power generation) of climate change in the United States. They suggest that knowing the causes (and non-causes) of climate change is the "most powerful predictor" of voluntary action and voting on government policies to reduce greenhouse gas emissions (205). Also, Daniel Read and colleagues surveyed educated laypeople in the United States in 1992 and again in 2009 about basic facts and definitions, causes, effects, and response effectiveness. They found that, compared to 1992 results, respondents in 2009 (using a sample of similarly educated laypeople responding to the same survey instrument as

those in 1992) showed "higher awareness and comprehension of some climate change causes"—though results showed that educated people still did not "fully appreciate" that the burning of fossil fuels is a major source for the increased levels of carbon dioxide in the atmosphere, the main cause for global warming (1520). Although it is outside the scope of this thesis, public education on the issue of climate change continues to pose a challenge and one that requires further research.

Berkhout et al. suggest that both government *and* public perception of a problem largely determine whether or not policy is developed at all; and if so, what instruments are employed, when the action will be taken, the administrative level at which the action is focused, and the financial as well as human resources devoted to the policy (431). The public (in theory) votes for leaders and policymakers whose views are as closely aligned to theirs, with the hopes that these will, in turn, choose favorable courses of action. As such, public perception plays a large role in guiding these courses of action and deliberation on climate change policies (Dietz et al. 472). In theory, this is a neat and tidy premise, but as we shall explore further, public opinion does not always translate into policy, at least where climate change mitigation is concerned.

So, if public perception is a key factor in how the government leaders and policymakers formulate a response, how does the public view climate change? Lorenzoni and Pidgeon (87), in their study of European and American public views on climate change, noted that "perceived frustration and disempowerment relating to effective individual mitigation action, contributes to retaining climate change as a 'back burner' issue." Put another way, many individuals believe that their individual contributions are meaningless. They think that one person's actions could

not possibly make a difference in the overall battle against climate change. This apathetic feeling is present in other areas, such as voting, where many people refrain from voting because they do not believe their vote is capable of changing the tide one way or the other. It is exactly this kind of mentality that is so detrimental to collective action problems such as climate change.

Because public views on climate change are theoretically central in the policymaking process, it is important to understand what factors shape these views. A growing number of studies from the field of cognitive psychology attempt to understand how people come to view issues in certain ways. For example, Weber (332) points out that individual, social, and cultural forces, as well as external, physical and environmental forces all help shape humans' perception of climate change. Lorenzoni and Pidgeon (73) add that personal experience, knowledge, balance of benefits and costs, and trust in other societal actors also help most individuals relate to climate change. The sheer number of forces working together to mold how individuals perceive and understand climate change is a testament to just how multifaceted an issue it really is.

Indeed, climate change is a complex and sometimes misunderstood issue for most individuals in the United States and Europe. Here we are speaking of two of the most powerful, economically prosperous and best educated regions of the world. Opinions emerging from the developing world, often from places with less general education are an almost contentious issue, because even though it may be claimed that information and local knowledge are less developed on climate change in those regions, some of them will be more affected than others, and all have—at least nominally—a say in the matter in the international policy arena.

The complexity surrounding the concept of climate change is partly to blame for the slow progress in addressing the issue. In fact, Bryner (329) states that the numerous uncertainties about climate change such as "when, how fast, and in what ways disruptive climate changes might occur" might partly explain the climate policy deadlock. It is hard enough to get decision makers to consider the possible uncertainties, let alone the public at large, whose concerns ideally influence what takes place at the government level. The scientific debates about the "pervasive" phenomenon of climate change are difficult for people to understand, conceptualize and relate to their daily activities (Lorenzoni and Pidgeon 74; Bryner 329). This is partly because, although it is generally accepted that global warming is occurring, people do not sense an immediate threat from climate change. Climate change is a shift in long-term averages. Sentient temperature or precipitation account for a very tiny fraction of global warming, and can be experienced on a personal level only at the extremes of their ranges. As Bryner (329) stated, "Some of the consequences of climate change lie well into the future or have an indirect impact and, as a result, do not appear to generate the kinds of demands for political action that environmental problems posing immediate health threats and risks typically do." In other words, humans are creatures of preemption, not prevention—we respond to crises that pose an immediate threat. Risk perception is therefore an integral area of study under the climate change umbrella, particularly as it affects policymaking, as people are more apt to respond to imminent (or at least seemingly imminent) danger.

Risk perception studies are helpful in the policymaking process in that they can reveal the public's concerns with particular risks, as well as its preferences for management options (Lorenzoni and Pidgeon 90). According to Weber, uncertainties stemming from geographic and

temporal distance are part of the reason why people discount the possible consequences of climate change (337). How people perceive risks is associated to how they believe the risk will impact them personally. Indeed, Weber asserts that climate change poses a problem in that it is not easily detected by personal experience, which is more likely to capture a person's attention (333). By definition, a personal experience would imply a direct threat. In Alaska and Florida, where residents have been exposed to some physical effects of climate change, surveys showed that this personal exposure "greatly increases their concern and willingness to take action" (Weber 334). This finding is not surprising, yet it is somewhat problematic in that, as stated earlier, although some of the consequences of climate change lie well in the future and may not be experienced in our lifetime, the actions we take today *do* have an effect on climate change. In other words, if enough people wait to be personally affected by climate change in order to be spurred into action, it might be too late.

One final point when considering the public's attitude toward an issue is the level at which the public at large wants the problem to be addressed. Although the public tends to be weary of government, businesses, industry and sometimes even experts themselves, Lorenzoni and Pidgeon found that governments are still "conferred a high degree of responsibility" for solving environmental issues and risks (85). This finding suggests that not only do people acknowledge the risks and consequences of environmental problems but they also want and maybe even expect the government to address and find ways to solve environmental issues.

European and American views on climate change

The following are a few examples of recent studies and poll results of public opinion on climate change in the European Union and the United States.

A well-known researcher on public attitudes, Anthony Leiserowitz, of the Yale School of Forestry, used a mix of attitude and knowledge questions in his report on America's climate knowledge in 2009 to divide the American public into six different audience profiles: the alarmed, the concerned, the cautious, the disengaged, the doubtful, and the dismissive (1). Leiserowitz and colleagues found that:

> The Alarmed (18%) are fully convinced of the reality and seriousness of climate change and are already taking individual, consumer, and political action to address it. The Concerned (33%)—the largest of the six Americas—are also convinced that global warming is happening and a serious problem, but have not yet engaged the issue personally. Three other Americas—the Cautious (19%), the Disengaged (12%) and the Doubtful (11%)—represent different stages of understanding and acceptance of the problem, and none are actively involved. The final America—the Dismissive (7%)—are very sure it is not happening and are actively involved as opponents of a national effort to reduce greenhouse gas emissions. (1).

Together, the 'Alarmed' and 'Concerned' make up 51% percent of the respondents—a majority is clearly convinced of the occurrence and gravity of global warming and climate change. Still, 42% of Leiserowitz' sample are not actively engaged in fighting climate change,

while 7% are actively countering the efforts made in the fight against climate change. The findings of this report show that Americans are more or less equally divided down the middle in their views toward climate change. The 'believers' make up the majority, but there is clearly a long way to go in the mainstreaming of climate change in the United States.

Although the following charts for European and American opinion polls are not directly commensurable due to different methodologies and question formulations, those used here are nonetheless useful as examples of the type of questions that have been used to assess overall public opinion. Figure 1 is taken from the 2008 Eurobarometer survey on Europeans' attitudes towards various aspects concerning climate change. It clearly shows that across the board, Europeans do not feel enough action is being taken regarding climate change. Over three-quarters of respondents (76%) felt corporations and industry were not doing enough. More than two-thirds (67%) of respondents felt citizens themselves were not doing enough to fight climate change. A slightly smaller percentage, 64%, felt their own national governments were not doing enough, and over half of respondents (58%) felt that the European Union was not taking enough action on climate change.

However, a quarter of respondents (25%) do feel that the European Union is taking an adequate amount of action concerning climate change, while a little smaller amount (24%) believe their national governments are doing the right amount to fight climate change. About 23% percent of respondents feel the citizens themselves are doing the right amount and 14% feel that corporations and industries are doing so. Still, these numbers suggest that the clear majority of respondents do not feel these actors are doing the right amount to fight climate change.

It is important to note that an almost insignificant amount of respondents believed any of the actors are doing too much to fight climate change. A small amount of respondents gave "don't know" replies to national government, citizens, and corporations and industries (8% for each) while 14% said the same for the European Union.
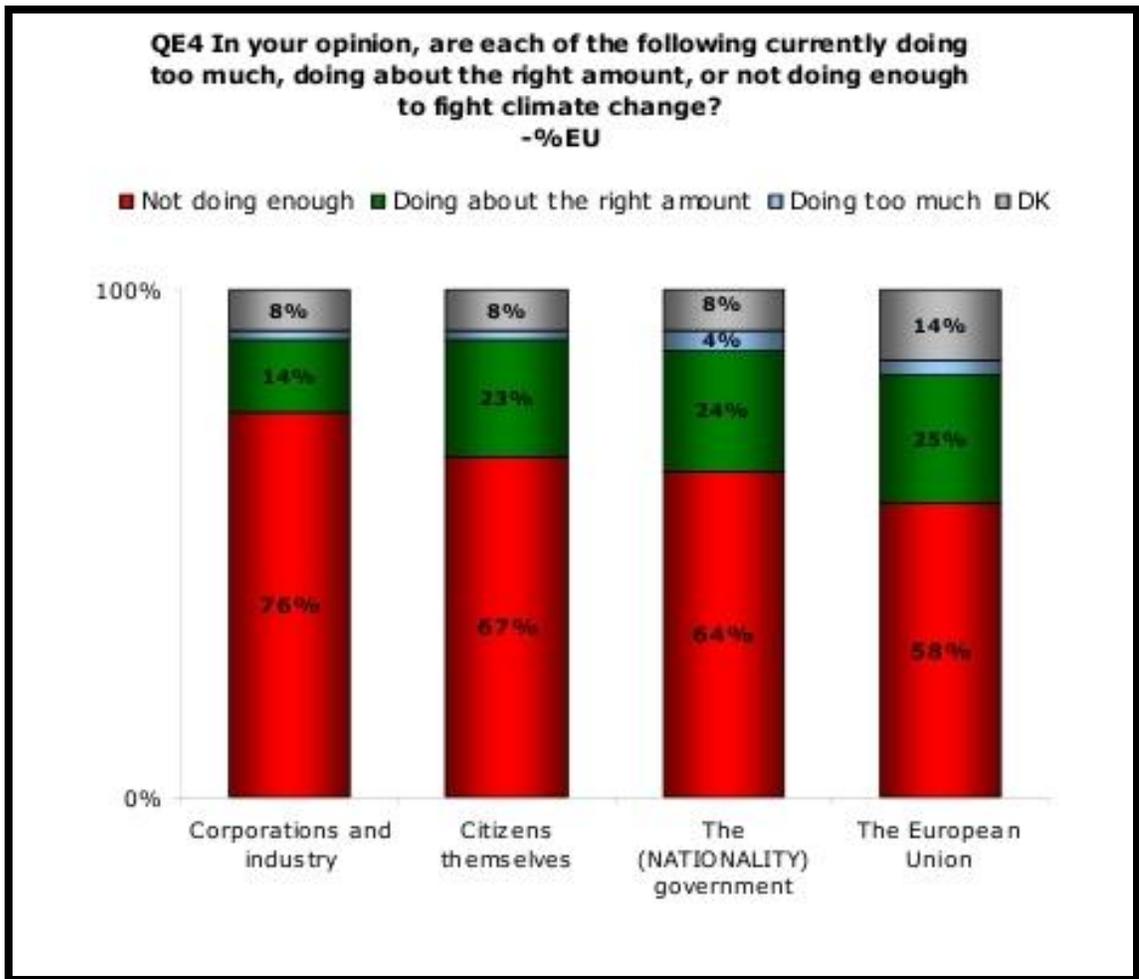

Figure 1.Opinions of respondents regarding perceptions of amount of climate action by different actor groups in the European Union. Source: Eurobarometer, 2008

Figure 1 tells us that at least in the European Union, citizens feel that not enough is being done to respond to climate change. This reality exists even though the EU has long ago committed to lowering emissions and has taken many other generally positive steps toward addressing climate change issues.

Lorenzoni and Pidgeon found that despite there being widespread concern about climate change in both Europe and the United States, it is still not of primary importance when compared to other issues in people's daily lives (73). They added that public opinion polls showed climate change is not necessarily considered a "domestic" issue, although results did show a sense of importance, urgency and negativity associated with climate change (80). These findings would lead one to wonder what it would take for this "widespread concern" to catapult the climate change issue from a place of secondary importance, to one of primary importance.

The following Gallup poll (Figure 2) shows the timeline of evolving percentages of American respondents who personally worry a great deal or fair amount about global warming over the span of 22 years, from 1989 to 2011. It is important to point out that interestingly enough, the year with the lowest percentage of people (50%) personally worried about global warming was 1997—the year President Clinton signed the Kyoto Protocol. It is equally curious then, that the percentage of people personally worried about global warming peaked (72%), between 1999 and 2001—the year that President Bush withdrew the United States from the Kyoto Protocol.

From 1989, when Gallup began polling this question, to 2011, there was a decrease of 12 percentage points, demonstrating that respondents feel less personally threatened by global

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warming now than they did 22 years ago. The reasons for these changes are multi-faceted and complex, but in association may exist with a few salient issues of the first decade of the 21[st]century. Among them, principally, are the terrorist attacks of September 11, 2001; eight years of a conservative, Republican-dominated administration, and the economic downturn and later recession toward the end of this period.
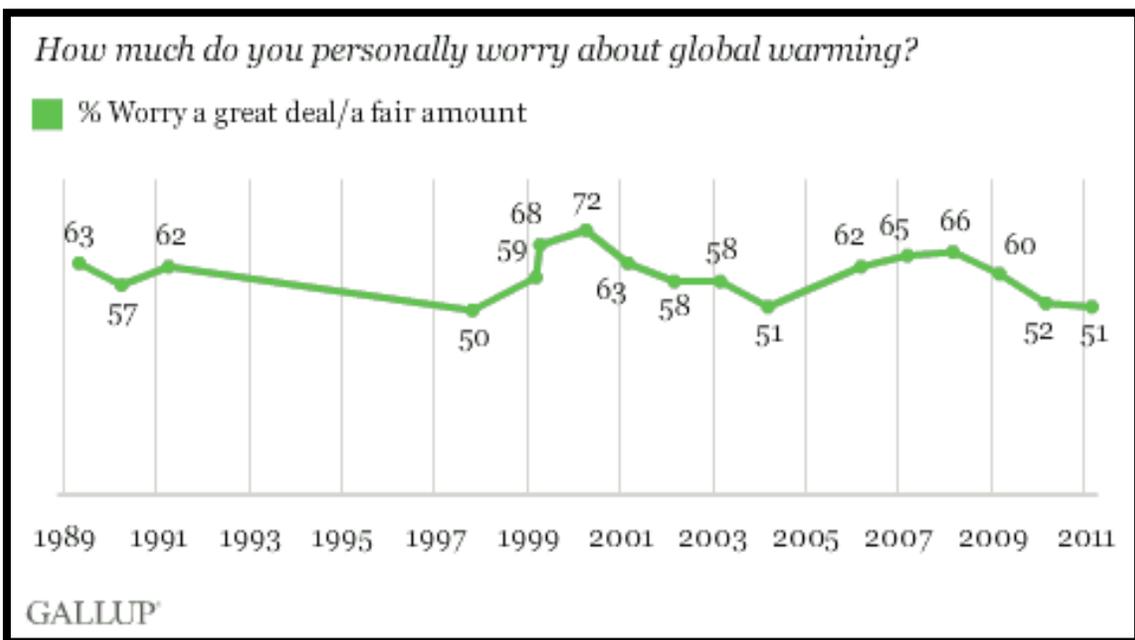
Figure 2.Percentage of American respondents who personally worry a great deal/fair amount about global warming. Source: Jones, 2011.

European and American perspectives differ in this regard. While in the United States global warming is not generally perceived to be personally threatening, most Europeans feel more threatened by climate change (Lorenzoni and Pidgeon 80, 82). This heightened perception of personal threat on the part of Europeans might partly explain their "leadership" in climate

change action, since, as stated earlier, a sense of personal risk spurs humans into preemptive action.

Public perceptions of the gravity of climate change (global warming) impacts have also evolved over time both in the United States and in Europe. For example, as Figure 3 illustrates that Europeans surveyed in the 2009 Eurobarometer showed an increase in respondents who considered climate change a very serious problem, from 67% in 2008 to 74% in 2009. In sharp contrast, Figure 4 shows that in the United states, the percentage of respondents who *did* think that global warming posed a serious threat to them or their way of life decreased slightly from its highest pointin 2008 (40 percent) to just 38% in 2009.

At simple glance, the juxtaposition of these two quasi-commensurable data shows a marked disparity between Europeans and Americans on the issue of the gravity of climate change. However, perhaps another analysis can be gleaned. Public perceptions are not static. Rather, they evolve over time and display both upward and downward spikes around the overall trends. These fluctuations are likely due to the constantly shifting environment of political and economic circumstances which may be quite different in each one of the polities. Furthermore, opinions may be sharply punctuated following major identifiable news events such as a terrorist event, a housing bubble, or an extremely hot year with news reports of melting polar ice (along with the sad but cliché image of a polar bear struggling to keep a footing on a disappearing ice flow), floods, and severe storm events. The specifics of these event-driven peaks and troughs are beyond the scope of analysis of the present study.
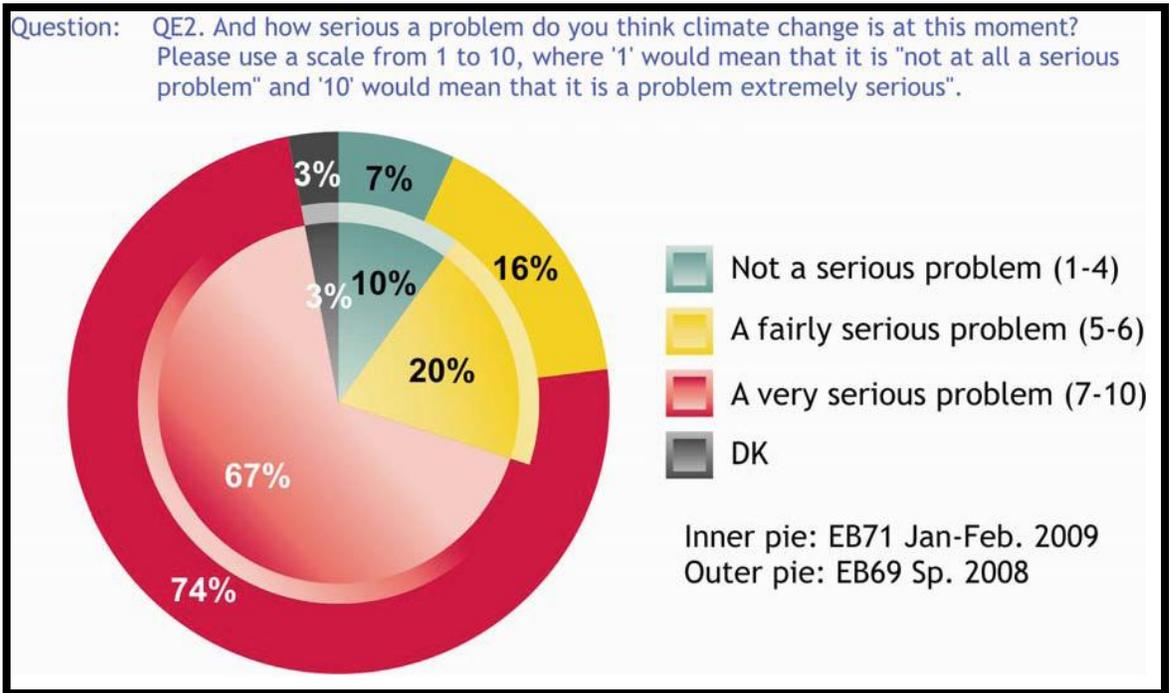
Figure 3.Opinions of European respondents regarding how serious a problem they perceive climate change to be at this moment. Source: Eurobarometer, 2009.

Do you think that global warming will pose a serious threat to you or your way of life in your lifetime?

■ % Yes   ■ % No

69 · 66 · 65 · 62 · 58 · 60 · 67

25 · 31 · 33 · 35 · 40 · 38 · 32

1998 · 2000 · 2002 · 2004 · 2006 · 2008 · 2010

GALLUP
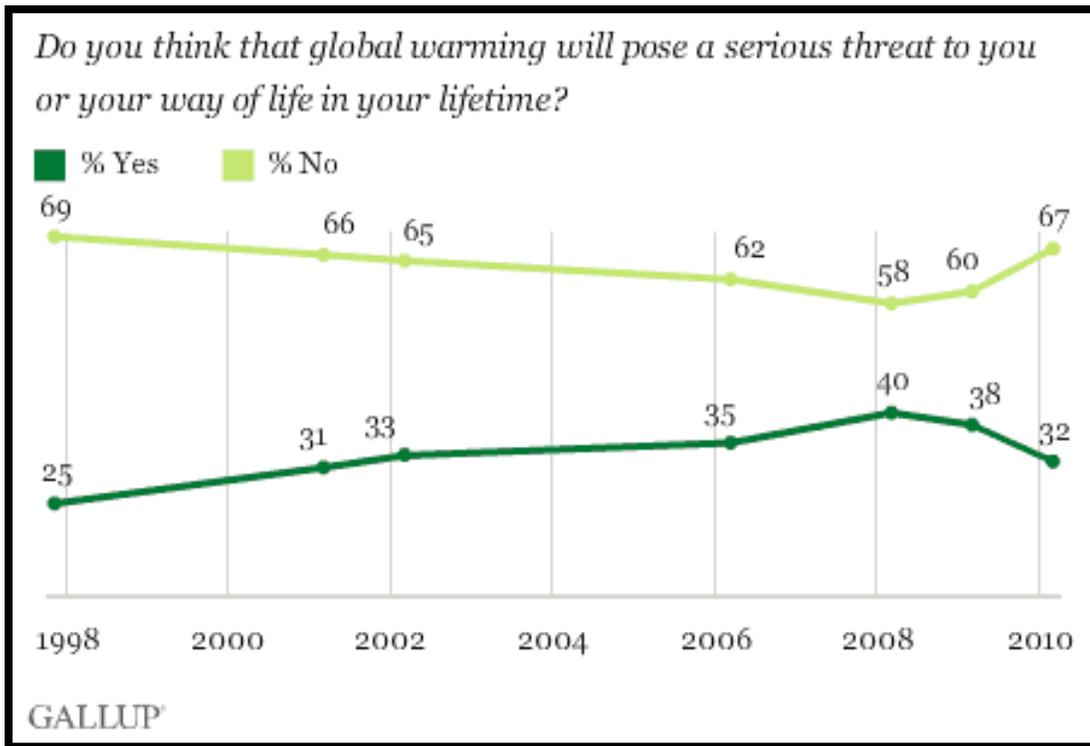
Figure 4.Percentage of American respondents who think global warming will pose a serious personal threat to them or their way of life during their lifetime. Source: Newport, 2008.

Despite the difference in American and European general public' perception of climate change risk at the personal level, the two do actually reflect some similarities. The following are some of Lorenzoni and Pidgeon's general findings of shared perspectives between the European and American public, based on major studies on public views of climate change supported by fifteen years of climate change perceptions research:

1) Widespread awareness and concern about environmental issues and climate change. However, climate change is generally considered less important than other personal or social issues.

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2) Limited understanding of the causes of, and solutions to, climate change.

3) Perceived negativity and threat of climate change, although it remains a psychologically, temporally and spatially distant risk.

4) Risks of climate change acknowledged at the same time as benefits. Some benefits are linked to climate change itself; others are felt to derive directly from the technologies and actions that cause climate change.

5) Some evidence of willingness to address the perceived threats of climate change, mainly through contextually circumscribed and defined measures.

6) Ascription of responsibility to take forward feasible measures to address climate change mainly to government, although this may be mediated by the degree of trust people have within any particular country. (86-87).

Given these findings, it would seem that transatlantic views on climate change are more alike than not. If that is the case, why has the government response (to international climate agreements like the Kyoto Protocol) been so different? Some authors have broached the subject with differences in policy action being attributed to various causes.

One explanation might reside in the fact that in Europe, public opinion on climate change seems to have held steady since 1990. In the Unites States, however, the public has evolved as a result or a multiplicity of factors—from greater awareness, to religions embracing climate change action (such as the Evangelicals' "Call to Action" regarding climate change, due to its impacts on the poor), to the view that climate change is happening and the poor in developing nations are the most likely to suffer (Wardekker et al. 512).

In spite of growth toward climate action consciousness on the part of the American public, elected government officials have not responded in ways that represent their constituencies. Many factors may be contributing to this. One may be that climate, although perceived as important, is less so than other issues. According to Wardekker et al., the environment ranks "well below" the economy and terrorism in terms of voting priority, but "for all but white evangelicals, higher than abortion and much higher than gay marriage" (518). Another factor may have more to do with the conservative political movements, and more specifically, the Tea Party movement's current downplay of climate science and potential impacts.

Surely, there is far from any consensus on the reasons and potential causes of differential public action on climate change. Because this study is being conducted from the point of view of comparative politics, the following chapter discusses political tendencies in Europe and the United States in order to assess their potential effect on government's general behavior toward climate change policies and negotiations, and, more specifically, their positions toward the Kyoto Protocol.

POLITICAL IDEOLOGY AND CLIMATE CHANGE

If surveys on public opinion regarding climate change show somewhat similar results for Europe and the United States, why have these two polities behaved differently toward international climate treaties such as the Kyoto Protocol? In this chapter, I analyze the possibility that trends in political ideology might be a major explanatory factor for the dichotomy between EU and U.S. policy development and implementation. I will discuss the preponderance of social democracy in the Europe and conservatism in the United States to provide the background for the most relevant political ideology in each polity in an attempt to understand how the predominant ideology in recent history influenced differential action on the climate change issue, and more specifically, toward the Kyoto Protocol.

Social Democracy in Europe

As we will see with conservatism in the United States in the next section, social democracy picked up in Europe after the Second World War. Although social democracy originated in debates in the international socialist community as a critique of orthodox Marxism over a century ago, it was not until after WWII that social democracy gained ground in the European political sphere (Berman 113, 140). Indeed, as Berman states, in Europe:

> …when the dust settled in 1945, the Left found itself stronger than ever before and (for the most part) was accepted as a crucial component of the postwar era. In fact, it rapidly became clear that the Left—particularly the democratic left— would play a key role in the governance and reconstruction of West European society…After 1945, therefore, the policies and appeals formulated by the

pioneering social democrats before and during the interwar years became standard

fare for the mainstream democratic Left across the continent (137-8).

Taylor attributes the post-WWII popularity of the democratic center-left parties in Europe

to their electoral appeal as "broad-based 'people's parties' that were also rooted on the once

important core of the organized manual working class" (7). Social democracy was somewhat a

party for the underdogs—it appealed to the ordinary or 'little' people, the 'community,' and the

collective good (Berman 137). In essence, center-left parties became "catch-all" parties, which

help to explain the incredible amount of support they were able to garner during this time.

The basic tenets of social democracy are a belief in the primacy of politics over

economics—in other words, the ability of the state to control or at least direct market forces—

and "a vision of how collective political action can shape history and serve the common good"

(Berman 114, 137). Taylor highlights that the social democrats' emphasis and practice of social

cohesion, solidarity and collectivism is behind their dominant intellectual force in European

democratic societies (7). It is this very sense of community, of collective work for the common

good, a feeling that is so entrenched in European mentality as a result of the two world wars that

ravaged not only its land but its people, that I argue is a main reason for the Europeans'

willingness to aggressively seek ways to preempt or limit global climate change.

The period of 1945-1975 is referred to as the 'golden age' of social democracy in

Europe—its system of balancing economic and social forces brought stability, growth, progress

and ameliorated the living standards of working people in Western Europe to an unprecedented

degree (Berman 139; Berger 29; Taylor 7). Despite the threat of the Cold War, the reconstruction

of Europe successfully forged ahead. This time period more or less corresponds with the time period in which environmental issues became salient in Europe.

Much like in the United States, the 1960s and 1970s marked the beginning of public awareness of environmental problems in Europe. Advances in technological development, rising education levels and the damaging effects of acid rain on buildings, forests and crops resulted in changes in public and political opinion regarding the status of the environment, which culminated in the landmark 1972 United Nations Conference on the Human Environment held in Stockholm (Hillstrom and Hillstrom, *Europe* 234-235). The conference attracted additional political and public attention to the issue of environmental protection, and catalyzed the creation of national environmental agencies in Europe, as well as an increase in the volume of national environmental law (McCormick, *Politics and Policies* 307). The 1970s was indeed a significant decade for social democracy and the environmental movement alike, but for very different reasons.

The latter half of the 1970s would bring major challenges to social democracy. The movement's failure to respond "actively or creatively" to the economic crises of the 1970s and 1980s resulted in claims that social democracy was essentially dead, as neoliberal and conservative forces emerged with "bolder, more innovative responses" (Berman 114, 139). Many of the social democrats' policies came under attack; neo-liberals in particular blamed three central components of social democratic policies for the economic woes: nationalization, economic planning, and the welfare state (Berman 141; Berger 29). The economic downturns

and the current impacts of globalization have indeed dealt a blow to social democracy. Even now, the future of social democracy in Europe is uncertain.

These days, the Left is challenged by an increase in the diversity and fragmentation of its parties in European societies due to the dynamic forces of globalization, threatening social democracy's historic dominance on the continent's center-left (Taylor 6). The fragmentation of the Left undermines efforts to uphold or create "any sense of social or political unity across the internal divisions and it also weakens center-left appeals to internationalist solidarity around shared values" (Taylor 8). The impacts of globalization on social democracy have scholars speculating on the future of social democracy in Europe.

Even so, as of 2000, eleven out of fifteen European member states had social democratic or center-left majorities in their legislatures and thus, Prime Ministers (Taylor 5-6). Indeed, the ascendancy of Gerhard Schröder's Red-Green coalition in Germany saw the majority of EU member states shift to left of center-left governments after years of center-right dominance (Lees 71). This fact represents a beam of hope for social democracy in Europe, even though it will have to go through major efforts to renew itself in such a way as to appeal to the modernizing support base.

Despite the current political situation of the social democrats in Europe, their heavy and lasting presence might be part of the explanation for the European mindset regarding environmental protection and environmental issues in general. In Europe, environmental protection is considered part of the foundation of any society, along with social rights, gender equality, and human rights (Kramer in Vig and Faure 69). These beliefs are congruent with those

of Green parties in Europe. In fact, Gallagher, Laver and Mair (241) point out that Green parties, in addition to calling for the need of international peace and disarmament and increased aid to developing nations, also stress social justice, "particularly the need for equal treatment of women, as well as of ethnic and racial minorities." In other words, the environment is not so much seen as an issue of "low politics" in Europe—it is actually considered to be one of the most pressing issues today, along with other issues relating to social justice, and one that requires immediate attention and action.

Although the Treaty of Rome did not grant the EU authority over environmental policy, it naturally took on this role as studies showed that over three-quarters of citizens in each EU member state preferred a common European environmental policy (Hillstrom and Hillstrom, *Europe* 235; McCormick, *Politics and Policies* 305). The 1992 Eurobarometer surveys conducted by the Commission of the European Communities showed that 85% of EU citizens regarded reducing pollution and environmental protection as matters requiring immediate attention (Hillstrom and Hillstrom, *Europe* 235; McCormick, *Politics and Policies* 308).

The 1973 Environmental Action Programme (EAP), whose objectives were to improve environmental quality, reduce pollution, and encourage the EU to work with international bodies toward environmental protection, is generally held to be the EU's first incursion into environmental policy (Hillstrom and Hillstrom, *Europe* 235). In 1987, the Single European Act (SEA) made environmental protection a "required component" of all European Community (EC) policies and made "sustainable and non-inflationary growth respecting the environment" a fundamental goal of the EU (McCormick, *Politics and Policies* 308). In addition, the Treaty on

European Union (TEU) signed in 1992 in Maastricht granted the EU additional powers, making it the main source of environmental policy in Western Europe (Hillstrom and Hillstrom, *Europe* 236).

One additional and significant factor that encouraged the promotion of environmental issues was the evolution of the Green parties in Europe beginning in the late 1970s. Gallagher, Laver and Mair point out that Green parties added to the left-wing of European political spectrum in the 1970s and 1980s, following the social democratic parties of the late nineteenth century, the communist alternative after the Russian Revolution, and the new left of the 1960s and 1970s (239). Although Green parties seldom represent more than 10 percent of the electorate, they were highly visible in European and member states' parliaments the 1990s, when important parts of EU environmental politics were taking shape, thereby contributing to the current prominence of environmental politics in the EU (Van der Heijden 59; Kramer in Vig and Faure 69-70).

Green parties have a strong presence across Europe. Lipschutz points out that by 2002, Green parties held "more than 150 national legislative seats in 19 European countries and more than 30 seats in the European Parliament from eight member states" (158). Even though Greens had not achieved a "major electoral breakthrough" as of 2006, they have contributed to the formation of center-left governments, having notable political successes entering coalitions in Belgium, Finland, France, Germany, and Italy (Gallagher, Laver and Mair 240).

Green parties' main emphasis is on environmental protection—as such, they promote policies that would seemingly hinder economic growth, and require industrial and commercial

activity regulation (Gallagher, Laver and Mair 241). However, Green political parties also stress the need for international peace, social justice, and participatory democracy, and structure their organizations in such a way as to allow maximum grassroots involvement (Gallagher, Laver and Mair 241). It is evident that Greens share many values with social democrats, and although they have contributed in the formation of center-left governments, their emergence has, ironically enough, also contributed to the weakening of social democracy in Europe.

Climate change first surfaced as a political topic in Europe in the 1980s, when scientists began to understand the mechanics of the problem and attempted to draw the attention of political leaders along with environmental groups (McCormick, *Politics and Policies* 305). It only became a "headline issue" in Europe in the 21st century, with the EU championing the signing of the 1992 UN Framework Convention on Climate Change and the Kyoto Protocol in 1997 (McCormick, *Politics and Policies* 305-6).

In 2000, the European Commission launched the European Climate Change Program (ECCP) with the aim to identify mechanisms to reduce GHG emissions (McCormick, *Politics and Policies* 306). The Emissions Trading Scheme (ETS), considered by many to be the heart of EU climate-policy instruments, was launched in 2005 (McCormick, *Politics and Policies* 306; Weidner and Mez 366). The ETS is essentially a rewards and punishment mechanism for emissions reductions, under which member states set national caps on carbon dioxide emissions from energy-intensive industries—if industries use more than their allotted number of allowances, they must purchase permits from more efficient companies (McCormick, *Politics and Policies* 306; Europa website). In March 2007, the EU adopted its 20-20-20 long-term goal

(largely a result of German government persistence) of cutting EU GHG emissions 20% below 1990 levels by 2020, increasing energy efficiency by 20%, and making sure at least 20% of its energy comes from renewable sources by 2020 (McCormick, (McCormick, *Politics and Policies* 306; Weidner and Mez 364, 374).

Conservatism in the United States

The conservative intellectual movement in the United States traces its beginnings to the post-World War II period of the 1950s (Gottfried ix). The movement was anything but united at its inception. Indeed, "the very quest for self-definition has been one of the most notable motifs of their [conservatives'] thought since World War II (Nash xv). Nash organizes these "scattered voices of protest" into three waves of thought: (1) the 'classical liberals' or 'libertarians' who resisted the "threat of the ever expanding State to liberty, private enterprise, and individualism"; (2) the 'new conservatism' or 'traditionalism' school of thought, who called for a return to traditional religious and ethical absolutes in light of the relativism which had "allegedly corroded Western values"; and (3) the emergence of a "militant, evangelistic anti-Communism"—ever fearful of the West's battle against [atheist] Communism's aspirations of world conquest (xv-xvi). By the 1950s, these different camps acknowledged the need for a consolidation of the Right; by the 1970s, they had established a "hard-won presence in the American public square and an opportunity to shape their nation's destiny" (Nash xvi, 329).

It was not until the 1980s, however, that the conservative movement began to be associated with the Republican Party (Gottfried x). Two trends helped catapult conservative intellectual activity in the 1980s: a "cascade" of conservative publications ranging from books,

essays, articles and syndicated columns, and the development of a network of conservative

media, foundations, think tanks, and intellectual advocacy groups (Nash 332-333). As we will

see later, these networks would eventually turn out to be instrumental in the diffusion of

skepticism of climate science. Nash, in the preface to the 1996 edition of his book *The*

Conservative Intellectual Movement in America Since 1945, said of the conservative movement,

"…in the years since 1976 it has *made* history and is still making history—to the point that, for

adherents and detractors alike, it is more relevant to our nation's life than ever before (ix).

Gottfried adds that the movement's survival is also partly due to "the accumulation of other

strategic assets, including funding, access to the media and to politicians and an unfailing

cooperative army of workers" (xvi). The environmental movement is particularly helpful in

illustrating the flourishing and accelerating conservative movement in the United States, as they

both took off around the same time period.

As in Europe, the 1960s marked the explosion of the environmental movement in the

United States. The publication of Rachel Carson's *Silent Spring* in 1962 and environmental

disasters such as the burning of the Cuyahoga River near Cleveland, an oil spill off the coast of

Santa Barbara, and the use of napalm and "other toxic agents" by the military in Vietnam helped

intensify the energy of the environmental movement at home (Hillstrom and Hillstrom, *North*

America, 269; Lipschutz 133). Growing national and public concern about the environment

culminated in the first Earth Day, held in April 1970. The event was a bipartisan celebration

organized by Gaylord Nelson, a Democratic U.S. congressman from Wisconsin, and Pete

McCloskey, a Republican congressman from California—with the goal of informing and

inspiring the nation (Hillstrom and Hillstrom, *North America*, 275). The federal government's

decisive response to public concern marked a high point for environmental lawmaking in the United States. The environmental community of the late 1960s and early 1970s, which included environmental movement actors, sympathetic scientists and environmental policymakers, assisted in the formation of the current environmental policy infrastructure of the United States (McCright and Dunlap, *Anti-reflexivity* 107).

It is during this time period that the United States showed unparalleled leadership in the environmental front. Some of the United States' most important pieces of environmental legislation, such as the 1970 Clean Air Act (which created national air quality standards) and the 1972 Clean Water Act (which aimed to eliminate all pollutant discharges from the nation's waterways by 1985), were a collaborative effort between President Richard Nixon and a Democratic Congress (Dunlap and McCright, *Widening Gap* 26). Much like with the creation of Earth Day, the early days of environmental policymaking in the United States were, surprisingly, bipartisan efforts. The ambitious early policies like the Clean Air and Clean Water Acts reflected competition between Democrats and Republicans in the House, Senate, and White House to see who could be the most environmentally friendly (Bryner 321; Kelemen in Vig and Faure 115).

The bipartisan support, interest and concern with environmental issues of the 1970s, however, dissipated with the election of Reagan in the 1980s. Gone were the days of competition between political rivals to claim credit as staunch advocates of environmental protection. Instead, Republican strategists managed to successfully transform the environmentally friendly competition between parties into a "wedge issue" in which 'pro-business' Republicans and 'regulation-loving' Democrats would become deeply differentiated, ultimately weakening

environmental groups' influence in the lobby (Bryner 320). This initial split on the environmental issue in the 1980s is the base for the growing gap between Republicans and Democrats over the issue of climate change today, which will be discussed further below.

The divide that came with Reagan's presidency successfully weakened the progress made in regards to environmental legislation in the 1960s and 1970s. With the advent of Reaganomics, or supply side economics, it was theorized that a decrease in government spending would lead to economic growth; as such, environmental legislation became a burden for the administration. Democrats in Congress were able to block major legislative rollbacks despite strong efforts from conservative movement activists in Reagan's administration to repeal environmental regulations and to reduce the enforcement capability of the Environmental Protection Agency (EPA) (McCright and Dunlap, *Anti-reflexivity* 107; Dunlap and McCright, *Widening Gap* 26; Kelemen in Vig and Faure 116). Despite that [Democratic] victory, several forces worked against the environmental agenda. Three factors further weakened the bipartisan approach to environmental policy: a clash between industry and environmental interest groups, Reagan's hostility toward the federal government, and Republicans' commitment to tax cuts and reduced regulation (Bryner 322).

The conservative movement's momentum continued well into the 1990s, and even gathered additional strength. Global warming emerged as the central topic in environmental issues, and was made more prominent with the Intergovernmental Panel on Climate Change (IPCC)— the leading international body in charge of assessing climate change, established jointly by the United Nations Environment Programme (UNEP) and the World Meteorological

Organization (WMO) in 1988 (IPCC website). IPCC reports reflected consensus in the scientific

community about the occurrence of global warming and asserted that human activities such as

the burning of fossil fuels, were part of the cause for climate change (Dunlap and McCright,

Widening Gap 28). Dietz et al. explain that the politicization of climate change is partly due to

the fact that fossil fuel energy consumption—"a critical foundation of the U.S. economy" and a

centerpiece in most Americans' daily lives—is one of the main causes for anthropogenic climate

change (473). Conservatives almost immediately rejected the notion of anthropogenic climate

change, as it represented a direct attack on their core beliefs. Indeed, conservatives felt their

material interests and overall ideology threatened by the growing concern over global warming

(McCright and Dunlap, *Defeating Kyoto* 353). To them, reduction of greenhouse gas emissions

equaled a brake to economic growth. Bryner notes that this opposition to emissions reductions

was politically aimed to maintain Republicans' electoral base of support (330).

Climate change thus became a highly ideological issue—a person's 'belief' in climate

change as a problem could be used as a "litmus test" for their conservative or liberal inclinations

(Dietz et al. 473; McCright and Dunlap, *Anti-reflexivity* 111). One could say that climate change

almost took on religious sense, based on faith in the science or evidence, and conservatives took

advantage of this angle. Indeed, Leiserowitz' studies also found that it is a "predominantly white,

male, politically conservative, and highly religious group" that regards climate change as a very

low or non-existent danger (qtd. in Dietz et al. 473). Industry groups, conservatives, and

libertarians launched an assault on the notion that climate change was a grave and possibly

calamitous threat (Stevens 243).

However, because public opinion surveys and studies show that the American public did (and does) recognize global warming as a serious problem and wants to see governmental action, conservatives could no longer directly attack environmental protection—they had to change tactics in their approach to climate change (McCright and Dunlap, *Anti-reflexivity* 108). Republican spokespersons and conservative commentators did this, in the face of growing scientific consensus and public concern, by endorsing and promoting the views of a modest number of skeptic or "contrarian" scientists who challenged the IPCC's conclusions (Dunlap and McCright, *Widening Gap* 28).

It is important to add here that, according to Dunlap and McCright, the American media have given "disproportionate attention" to these skeptics, giving the impression that there is less scientific consensus on global warming than there actually is; this is especially alarming when one considers that news media are the main source of information on global warming for the average person (*Widening Gap* 28). Indeed, Gottfried highlights that the conservative movement has not only helped frame policies for the Republican party and provide staff for Republican administrations, but its extensive network of newspapers, media channels (such as Fox news) and think tanks (like the Cato Institute) disseminate "a certain kind of discourse" (xiv). It is no surprise then, that conservatives' use of the media to cover and promote the contrarians' message may very well have played an instrumental role in influencing the public to rally behind their position. McCright and Dunlap assert that U.S. public opinion analyses showed that the media's "idiosyncratic portrayal" of climate science resulted in a significant proportion of the American public believing that climate science is characterized by high degrees of uncertainty (*Anti-reflexivity*, 124). Conservative think tanks in particular played an instrumental role in

downplaying the importance of climate change. According to McCright and Dunlap, think tanks are "the most influential, anti-environmental countermovement organization at the national level," and constituted a significant driving force in the promotion of prominent climate change skeptics who discredited the claims of mainstream climate science (*Defeating Kyoto* 353, 368).

The 1994 Republican takeover of Congress was a major 'win' for industry and the conservative movement, as they could now use Congressional hearings to present their counter-claims (McCright and Dunlap, *Defeating Kyoto* 364). These hearings provided contrarians with additional platforms in which to address their views to the entire nation. The 1994 election manifesto known as the Contract with America marked another link between the Republican Party and conservative ideas (Nash 336). The 'Republican Revolution' led by Newt Gingrich highlighted the Republicans' anti-environmental stance—it aimed to "repeal existing environmental legislation, underfund the environmental science programs at government agencies, and generally cripple the functioning of environmental regulatory agencies"—but received a slightly negative public reaction (McCright and Dunlap, *Anti-reflexivity* 108). Conservatives continued to question and critique the scientific knowledge behind climate change in the years leading to the signing of the Kyoto Protocol (Dunlap and McCright, *Widening Gap* 27).

It is of no small importance that the Kyoto Protocol was actually signed by President Clinton in 1997—in other words, it was signed during a period of center-left governance in the United States. Indeed, it was the Clinton Administration that initiated the 1997 campaign to build support for the Kyoto Protocol (Dietz et al. 473).

Progress on climate change action and legislation was further stalled during the Presidency of George W. Bush. Despite campaign promises to tackle the issue of climate change, Bush reversed his position on carbon dioxide controls shortly after taking office and promised his own plan to reduce the threat of climate change (Bryner 325). He surprised the public at national and international levels by withdrawing from the Kyoto Protocol in 2001. Not only did Bush stress the uncertainty of the science, but he echoed the conservatives' belief that GHG emissions reductions could have a possible negative impact on economic growth; he accentuated how this would ultimately jeopardize the competitiveness of U.S. companies abroad, and emphasized the importance of ensuring a secure supply of energy (Bryner 328).

The retreat from the Kyoto Protocol would not be the only defeat environmentalists would face during Bush's presidency. On several occasions, conservative activists in Bush's administration blatantly misrepresented or ignored results of scientific research and edited in government agency reports prior to their publication (McCright and Dunlap, *Anti-reflexivity* 117). In doing so, Bush's administration, which, according to McCright and Dunlap acted "as an arm of the American conservative movement," successfully blocked meaningful environmental policymaking and increased skepticism on the significance of global warming (*Anti-reflexivity* 126). Building on efforts made by fossil-fuel industries, Republicans effectively used the idea of scientific uncertainty and their control of Congress to promote skepticism about climate change and block support for Democratic climate initiatives (Harris 970; Bryner 328). Industry virtually dictated domestic environmental and energy policies after the U.S.' retreat from the Kyoto Protocol in 2001, and the Bush administration showed extreme hesitancy toward international agreements and institutions requiring domestic environmental regulation (Harris 967).

Gallup regularly conducts surveys on many issues, including climate change. The charts shown throughout this thesis are intended to be illustrative rather than an exhaustive analysis of the types of questions that are asked. These survey results are in the public domain and readily available via the internet on the World Wide Web.
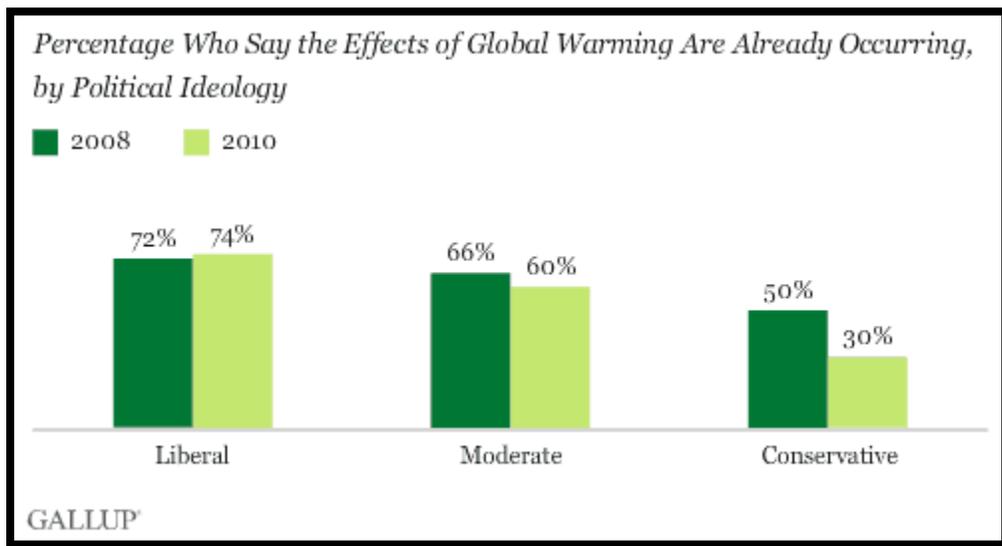
Figure 5.Percentage of Americans who say the effects of global warming are already occurring, by political ideology. Source: Jones, 2010.

Figure 5 shows results from a Gallup poll conducted in 2008 and 2010. The percentage of conservatives who believed the effects of global warming were already taking place dropped from 50% in 2008 to 30% in 2010. On the other hand, the percentage of liberals increased from 72% in 2008 to 74% in 2010. The difference between liberals and conservatives who believe the effects of global warming are already taking place doubled, jumping from 22 percentage points in 2008 to 44 percentage points in 2011. Although liberals' beliefs essentially did not change over this two year period, conservatives' opinions took a sharp nosedive in the same time frame.

These results serve to illustrate not only the sharp contrast between liberals' and conservatives' "beliefs" in the reality of global warming, but also highlight the continued stronghold of political ideology concerning climate change.

According to McCright and Dunlap, when compared to liberals and Democrats, self-identified conservatives and Republicans have become increasingly less supportive of environmental protection (*Anti-reflexivity* 107*).* The Republican-Democrat divide over climate change has been most noticeable among political elites, such as members of Congress, "who tend to be more ideologically polarized than the general public" (Dunlap and McCright, *Widening Gap* 27). A key reason for the gap is that environmental protection policies often involve government action that is seen as threatening economic libertarianism, one of the conservatives' main pillars, even though most environmental protection up to the present has not posed a major threat to industrial capitalism (McCright and Dunlap, *Defeating Kyoto* 353). This gap began to widen in the late 1990s, "likely a result of voters' tendency to follow cues from party leaders and political pundits" (Dunlap and McCright, *Widening Gap* 27).

In sum, the United States' failure to enact significant climate change policy might be explained in large part by the conservatives' successful campaign to de-legitimize global warming as a social problem (McCright and Dunlap, *Defeating Kyoto* 367). Professors McCright and Dunlap's study of the conservative movement's effort to undermine climate studies show that it has effectively:

> (1) obfuscated, misrepresented, manipulated and suppressed the results of
>
> scientific research; (2) intimidated or threatened to sanction individual scientists;

(3) invoked existing rules or created new procedures in the political system; and

(4) invoked an existing bias of the media. (*Anti-reflexivity* 111) .

These findings would lead one to believe that the conservatives did in fact have a heavy hand in influencing the American public's perception of climate change and also in governmental decisions regarding climate change policy.

Although it has been shown that political leaning may be a great contributor to climate change policy action, many other factors likely exist. Of potential interest here are a few additional comments relevant to the issue that can be viewed from a perspective of comparative politics studies. For example, one further explanation for the two regions' opposing behavior regarding climate change policy could be the historic political background in Europe and the United States.

According to Kramer, the main differences between the EU and American approaches to environmental policy is how each polity approaches globalization and the issue of sovereignty (in Vig and Faure 66-67). Whereas the EU considers environmental concerns to be on the same level of importance as social questions, and trade issues in regards to globalization, the United States seeks institutions and instruments that emphasize the importance of economics of free trade over environmental protection (Kramer in Vig and Faure 66). As far as sovereignty, European states knowingly and willingly gave up aspects of their sovereignty when they became members of the EU—as such, they have few problems with global solutions that may not conform to their specific interests—but they are also willing to accept compliance mechanisms that may further encroach on their sovereignty, such as treaties calling for legally binding

emissions reductions (Kramer in Vig and Faure 67). The United States however, seems to only want to sign on to binding international commitments if doing so might benefit the national economy, but does not accept the notion that compliance mechanisms in international environmental law might impinge on national sovereignty (Kramer in Vig and Faure 67). From these differences we can conclude that approaches based on economic theory have not had the influence in Europe that it has had in the United States (Kramer in Vig and Faure 68).

A commonly held association, especially among the American conservative population, is that countries with stronger environmental regulatory policies are less likely to experience robust economic growth. The European experience overall has shown that this is not the case (Kramer in Vig and Faure 70). EU member states believe that clean technologies, alternative energy sources, and new environmental techniques present exciting opportunities and consider the environmental challenge a "powerful stimulus to innovation and modernization" (Kramer in Vig and Faure 70).

In the next chapter, I will present two case studies that shine as examples on how historical and political trends, and broken links between public opinion and government action can be overcome. The cases of California and Germany will be explored not only as success stories, but as lessons on the constantly evolving and complex world that political science and international relations studies must continue to address as we seek a more sustainable future.

CASE STUDIES

This chapter looks at the leadership roles that Germany and California have taken with regard to climate change. In these case studies, I will illustrate how climate change action is garnering strength at the state level. The cases have been chosen to demonstrate that in national or supranational polities[1] that are organized as federal systems, the possibility exists for one member state to take on the role as leader—as in the case of Germany (itself a federal state)—or to strike out on its own in the absence of action by the central authority, as in the case of California.

The way that governments address environmental issues has been described as "Environmental Federalism" both in the case of the United States and the European Union[2] (Kelemen in Vig and Faure 113). Federalism is a type of governing system in which power is divided between central and subordinate government levels. In the case of Europe, the continent had been divided into many completely separate and often hostile states for hundreds of years. The disastrous results of two world wars during the 20th century that destroyed economies and cost millions of lives led to a group of progressive thinkers envisioning a federation of European states. The vision was first manifest as a customs and free trade union in the 1950s and morphed into what we currently know as the European Union. This is a supranational (and at times described as an intergovernmental) organization in which states remain as sovereign entities,

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[1]The supranational character of the EU is an approach which emphasizes the autonomy of the institutions and the importance of common European policies, though some refer to the EU as a consociation, which is a political model in which distinct communities come together in shared decision-making, while protecting the minority's interests (Chryssochoou 384).
[2]According to Chryssochoou, the EU resembles a confederal structure, a political model in which states are grouped loosely, with the center having fewer powers than the states or regions (440).

most countries share a common currency, and regulation and policy in many spheres reside in the EU institutions (Council, Commission, and Parliament).

The story of federalism in the United States is quite different. In the late 18th and early 19th centuries, the crucial debate which was to define the way the United States of America is governed was one between federalists—proponents of a strong central authority—and the anti-federalists, who proposed a very limited central authority mostly dealing with foreign affairs and defense, with all other powers residing in the several states. Over time, the federalist position prevailed and has produced the modern U.S. government with a large centralized government and to a lesser degree, some regulatory powers vested in the states.

Regarding environmental federalism, Kelemen states that the EU and U.S. "combine a vertical division of authority between federal and state governments with horizontal fragmentation of authority at the federal level (114). As we will see in the case studies of Germany and California, state government control of implementation and enforcement of climate change policies is prevalent not only in a system with a powerful central government such as the U.S., but also in a system in which has been accused of lacking regulatory powers of a true federal system such as the EU (Kelemen in Vig and Faure 129).

Germany

Germany was not historically the environmental leader that it is today. Germany lagged behind the United States, Japan and Sweden at the time "modern" environmental policies began to be developed in the 1960s; but chancellor Helmut Kohl's establishment of the Ministry of Environment in the late 1980s demonstrated Germany's commitment to environmental concerns

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and announced that "the climate issue was among the world's most pressing environmental problems" (Weidner and Mez 358, 362). Ever since then, its ambitious GHG emissions reductions and renewable energy policies have made Germany one of the leading countries in terms of climate change not only in Europe but in the rest of the world. Today, three main factors account for Germany's leadership role in climate change policy: its shift to low-emission fuels, improvements in energy efficiency, and emissions control through the EU's Emissions Cap and Trading Scheme (ETS) (Weidner and Mez 364).

In some instances, Germany has gone beyond standards set by the EU, pledging unilateral GHG reductions that have shaped the agenda at international climate negotiations (Weidner and Mez 357). For example, as Weidner and Mez point out,

> In Kyoto, individual targets for EU member states were not negotiated. Instead, the EU as a whole agreed to an 8% reduction of GHG emissions relative to 1990 levels by 2008-2012. In subsequent negotiations within the EU as to how this goal would be obtained, Germany took on the largest share of the reduction burden agreeing to a 21% reduction in its own GHG emissions during the same time frame. (363).

In other words, Germany has not shied away from setting higher standards for itself than the targets set by the EU, indicating a stance that climate change can only be fought through aggressive goals. Weidner and Mez suggest that one possible motivating force for the Germans' seeming willingness to 'go out on a limb' in the hopes of spurring necessary global efforts is citizens' increased perception of vulnerability to climate change—75% of Germans are afraid of

warlike conflicts in other countries about water and other resources, and 47% are afraid of the negative consequences of the greenhouse effect for themselves and their families—even though Germans are actually less vulnerable to the effects of climate change than Americans (373-4). Again, this heightened perception of risk to climate change impacts has shown to encourage higher levels of action. Although it is beyond the scope of this study, it would be interesting to research possible explanations for Germans' increased perception of vulnerability, as it might further illuminate the nature of their ambitious climate change policies.

Climate change policy in Germany is characterized by "top-down governance," in which the central government determines and even pushes climate policy (Weidner and Mez 371; Hall and Taplin 62). Indeed, despite stimulation of national policies by the federal states and communities, the central government has been chiefly in charge of moving climate policy forward since the 1990s (Weidner and Mez 373).

Even so, Germany is a very good example of a country where multiple levels of governance are involved in the policymaking process. Energy and climate regulation responsibilities are divided between the EU, the German central government, 16 federal states, and local levels (including more than 12,300 municipal entities) (Weidner and Mez 370). Although various levels of governance would, in theory, complicate the policymaking process, in Germany this has not been the case. Shared goals and commitments to environmental protection and climate policy are part of the explanation for an "overall positive cooperative atmosphere" between EU and German administrative levels (Weidner and Mez 371). In regards to the states, the federal government structure has in fact "provided some impetus" to the development of renewable energy policy—towns, cities, and Länder run their own programs promoting the

spread of renewable energy (Weidner and Mez 369). North Rhine-Westphalia's renewable

energy promotion program, started in 1987, became a model not only for other Länder but also

for developments at the federal level also (Weidner and Mez 369-370). As we will see with

California, these states' actions have made them, in essence, "role models" to their "peers."

Weidner and Mez state that Länder have "found it to be in their self-interest to demand

supportive national standards and requirements to support their renewable energy sectors" (370).

Although Steurer claims that parliamentary majorities in most European governments might

explain parliamentary adherence to governments' wishes, overall support for the government's

policies might also reflect an intrinsic need to solve a collective action problem on behalf of

citizens (346). However, it is evident that underneath the overall collaborative effort to reduce

GHG emissions, self-interests are still a motivating factor for many states, which, in the end,

result in "win-win" situations.

This leads to Germany's government system of proportional representation, which makes

coalition governments a common German feature. The federal system and coalition governments

thus encourage mutual cooperation—in this system, negotiation and consensus politics are the

norm (Weidner and Mez 359). Of particular interest in this section is the emergence of the Green

parties in Western Europe in the 1970s and 1980s. Green parties have been essential in providing

support for the formation of center-left governments since their integration into the political-

administrative system, distinguishing Germany from the United States (Weidner and Mez 359;

Gallagher, Laver and Mair 240). The German Greens were ones of the first green parties in

Europe to have its members elected to local, state, and national legislatures (Lipschutz 157). In

1998, the Social Democrats (SPD) outpolled the Christian Democrats (CDU), who had been in

power for 16 years, and invited the Greens to form a governing coalition, giving them a junior

position in the new government (Lipschutz 157). Although the Greens were the main proponents

of environmental interests when they first appeared, global warming and climate change have

been a primary concern of the German government ever since. This is clearly demonstrated by

the fact that despite a change in government in 2005 to the current Grand Coalition between the

CDU and the SPD, the main parties, climate change has remained a top priority (Weidner and

Mez 356, 363).

California

Much like Germany in the EU, California represents the United States' leading effort to

combat climate change, especially in the realm of greenhouse gas emissions reductions.

California is the world's ninth largest emitter of greenhouse gases, and the world's sixth largest

economy—two factors that may account for its long history of progressive state-level

environmental protection legislation and strong levels of public awareness of environmental

issues (Hall and Taplin 68-69, 75). The states' location on the Pacific Ocean makes California

vulnerable to potential sea level rise as a result of global warming—perhaps another reason why

California has been proactive in its climate change efforts. California's ambitious GHG

emissions reduction targets and development of alternative energy sources have successfully

reduced Californian electricity consumption to "one of the lowest rates of GHG emissions per

capita among the American states and almost half that of the national per capita average in 2005"

(Hall and Taplin 69). These are indeed impressive results, but they are the outcome of years of

progressive and aggressive environmental policies.

Hall and Taplin, who studied the influence of environmental nonprofit campaigns on Californian Government's efforts to address climate change, indicate that state competition for economic advancement and political leadership on issues of public concern have helped environmental protection, with states enacting legislation beyond federal requirements, as California has done. They point out:

> In the 1960s, California set a state-based vehicle-emission standard that precipitated its federal equivalent in 1970. To manage this state/federal difference, the Federal Clean Air Act 1970 allowed California to set more stringent air quality laws than the federal legislation. Since that time, other states can choose to adopt either the federal laws or the more progressive Californian air pollution laws. (68).

According to Bryner, climate change is "re-emerging as a bi-partisan issue addressed by pragmatic, non-ideological political leaders" at the state-level (332). This is due to perceived lack of action at the federal state level in regards to climate policy. The fact that climate change has evolved into a deep ideological issue has resulted in political gridlock in Washington concerning environmental policy. In 2006, Republican governor Arnold Schwarzenegger said, 'California will not wait for our Federal Government to take strong action on global warming,' adding in 2007 that 'a lot of times the states provide the leadership and then eventually the Federal Government picks up with it and carries it on' (Hall and Taplin 64,68). This is exactly what happened with California's AB1493 ("tail pipe law") signed in 2002—by 2009, 11 other states saw the passage of similar laws (Hall and Taplin 69).

Hall and Taplin suggest that the governor's political motivations for aggressive action on climate change may have also been based on economic opportunity and risk management—environmental threats to California resulting from climate change could include: a decrease in water supplies for drinking and irrigation from snowmelt, higher incidences of wildfires, flooding of coastal areas, the 'disassembly' of California's ecosystems, and heatwaves that will affect both agriculture and public health (75). However, Schwarzenegger's two statements indicate not only his intention of demonstrating state leadership, but also his motivations for taking a strong stance toward climate change action.

California has produced four of "arguably the most progressive climate policies in the U.S."—Assembly Bill 1493 (AB1493), Assembly Bill 32 (AB32), a Renewable Portfolio Standard (RPS) and the "one million solar roofs" project (Hall and Taplin 77). In 2002, California became the first government in the world to mandate emissions caps for motor vehicles with AB1493, the "tail pipe law," which required reduced emissions in all automobiles manufactured after 2009 (Hall and Taplin 69). AB32, the Global Warming Solutions Act, was signed by Governor Schwarzenegger in 2006 in order to reduce GHG emissions to 1990 levels by 2020 through a statewide cap on emissions beginning in 2012 (Hall and Taplin 70). The RPS is "a state-based policy facilitated by the U.S. Department of Energy" requiring energy providers to obtain a minimum proportion of power from renewable energy resources, and has been adopted by 24 other states (Hall and Taplin 69). The "one million solar roofs" project involves the California Energy Commission and California Public Utilities Commission and aims to install solar panel systems to existing and new homes, and has been called the biggest solar program in the United States (Hall and Taplin 70). All of these are powerful examples of

California's initiative to significantly reduce its GHG emissions and promote renewable energy sources. In addition, California has begun to cooperate with partner states in foreign countries, such as Brazil and Indonesia, on state to state climate action initiatives (Satariano).

Another factor that has helped California's successful climate change policy initiatives is the presence of nonprofit environmental organizations, such as the Sierra Club, Greenpeace USA, the Bluewater Network, and others. These nonprofits represent an "enduring source of pressure on the U.S. Government" despite their limited political access at the federal level, where they have faced much resistance (Hall and Taplin 77). The organizations felt that the Federal Government's 'intransigent' action on climate policy was being driven by fossil fuel industry and business interests, particularly under the Bush Administration; for this reason, they 'shifted venues' to state legislation, focusing their campaigns on influencing state policies (Hall and Taplin 67, 77).

Indeed, Hall and Taplin assert that American policymakers do not respond to constituents equally; instead, they "are more responsive to wealthy interests that are able to aid in funding the re-election campaign" (67). These organizations have operating climate change campaigns in California and have played active roles in lobbying for, and publicly supporting, the California government's development of climate change policies (Hall and Taplin 71). For instance, Bluewater Network "conceived, drafted and championed" AB1493 and worked closely with Assembly Member Fran Pavley in its introduction (Hall and Taplin 71). Another example is the crucial role that Sierra Club played in encouraging its supporter base to actively lobby their political representatives into voting for the AB32 in 2005 (Hall and Taplin 72). Despite having

less clout at the national level, environmental nonprofits build lobbying pressure by targeting messages at specific audiences and by creating coalitions with diverse organizations (Hall and Taplin 72). Although these environmental organizations have no formal policymaking authority, they are extremely influential in disseminating information and garnering public support for policy initiatives.

Both Germany and California employ the strategy of ecological modernization in order to deal with climate change. Ecological modernization refers to the "compatibility of economic growth, a liberal market order, and environmental protection," a view largely in contrast to that of the Republicans at the federal level in the United States, who fear climate change action will damage economic growth (Van der Heijden 59). Ecological modernization, which now "underpins all aspects of EU environmental policy," first emerged in West Germany in 1982, when it strongly advocated policies not only to address domestic concerns but also to strengthen its technology industry (Benson and Jordan 364). In California, an appeal to bipartisanship, Governor Schwarzenegger's "pragmatic problem solving" and support from clean energy technologies could result in a "win-win" situation in which climate change action promotes industry growth as well as greenhouse gas emissions reductions (Bryner 332; Hall and Taplin 70). In Germany, "there was much evidence that strict air pollution control policy favored employment, technological innovation, and generally a modernization of industrial branches involved" (Weidner and Mez 360).

In spite of the fact that Germany, as part of the EU, and California, as part of the U.S., had diametrically opposed positions regarding the Kyoto Protocol, that is not the end all of the

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climate mitigation debate. Environmental federalism, as opposed to a dictatorial, centralized government, allows for some degree of independent policy and regulation from member states, as is the case of both Germany and California. These case studies are examples that there is hope yet with sub-federal units taking leadership roles in the fight against climate change—and that their leadership can have the bandwagon effect on other states and actors.

CONCLUSION

This thesis sought to provide one possible explanation for the EU and United States'

disparate behavior regarding the Kyoto Protocol. In order to do this, public opinion was first

examined in an attempt to ascertain whether these varied as greatly as their government's

stances. Then, the preponderance of social democracy (and Green/leftist parties) in the EU and

conservatism in the U.S. were used to determine whether or not these political tendencies

influenced each polity's behavior. Case studies of Germany and California served to illuminate

that even in the face of federal government action (or inaction) toward climate change, the state-

level presents new opportunities to lead in climate change policymaking. The following table

summarizes the results obtained regarding public attitudes toward perceived personal risk,

awareness and urgency relating to climate change action, as well as the political ideologies of

both polities post-World War II.

Table 1. Summary of Results

	Public Attitudes			Political Ideology	
	Personal risk	*Awareness*	*Urgency*	*Social Democracy*	*Conservatism*
European Union	High	High	Low	Collectivism	
Germany	High	High	High	Ecological modernization	
United States	Medium	Medium	Low		Individualism
California	High	High	High		Ecological modernization

Public opinion on climate change in both regions was reviewed in order to ascertain whether or not the attitudes did in fact differ. This chapter was initially envisioned as a comparative study of public opinion in the EU and U.S. Because of a preconception that the European Union public was much more concerned with climate change and much more supportive of immediate and even drastic action and that the U.S. public not only "believed" less in climate change, but also was not aggressive in their call for immediate and strong policy action, the analysis was thought to be straightforward. However, careful examination of public opinion polls conducted by several authors over time, and using various methodologies, reveals that not only is a bias in favor of European attitudes for the most part unsubstantiated, but also the issue of public attitudes itself is highly complex and is an interesting reflection of the political, ideological, belief system, worldview, educational and social complexity present in both the European Union and the U.S.

On average, the American public is nearly as concerned with climate change as the European public. This concern hovers around a mean of 50 percent. Geographical location, age, education, party affiliation, and a plethora of other factors are among the explanatory factors involved in climate attitude. In Europe, for example, several geographical divides exist. Although northern Europeans countries are generally conceived as the leaders and the stalwarts of eco-friendly action and are seen as active in promoting climate change policies, at least one study found that some of the highest average levels of concern were to be found among southern European countries such as Greece and Italy (Lorenzoni and Pidgeon 76). The authors point to a possible association between the perceived loss of quality of life and climate change. In fact, some of the greatest climate change impacts are likely to be felt in the Mediterranean region,

which studies show will become ever drier and warmer than at present. The United Kingdom is somewhat of an anomaly, as despite its northerly location, public concern there is less salient.

Another notable distinction is that between the Western European countries and the former Eastern bloc countries. While some level of concern is present in the East, because most nations and governments in the region have been independent for only 20 years, other pressing concerns override climate change for the moment. Even within the environmental arena, many Eastern European countries have to deal with a toxic legacy of waste dumps, polluted waterways, forest destroyed by acid rain, and poor air quality due to misguided Soviet industrialization policy, before they can address the more removed issue of climate change.

This finding led to the examination of the preponderance of social democracy (and leftist ideology in general) in Europe and conservatism in the United States in order to try to understand if these political tendencies are part of the explanation for the diametrically opposed behavior regarding the two polities' Kyoto Protocol positions. Political ideology and affiliation have been identified as major factors influencing opinion on climate change. It is important to note that while they might help explain attitudes at the public opinion level, there is no clear link between these perceptions and policy action. However, in a representative democracy, it can be expected that the public will exercise the right to vote and elect representatives, senators, and executives, who they feel are a best fit to their inclination. Finally, it is important to note that although the saliency of climate change as an environmental problem has been rising over the years, it is not at the top of the list of public concern. Typically, the economy and terrorism have overwhelmed other issues since September 11, 2001.

The fourth chapter was a case study of Germany and California, two states that have shown considerable leadership in efforts to mitigate climate change. They are a powerful reminder that in the absence of centralized government action, state-level efforts can in fact take the lead, and guide other states, and even the federal level in enacting effective climate change policy. In Germany this has been best exemplified by the presence of the Greens. While these parties do not hold very large representation, in the German parliament they have enough clout to tilt the political balance towards the left, and through their alliances with other center-left and left parties, are able to form coalitions that push climate change and other environmental issues to the forefront of the political agenda.

In California, NGOs such as the Sierra Club, Bluewater Network and Greenpeace USA, have played a catalyzing role that followed a different process than the Greens in Germany and the rest of the Europe. In spite of the fact that NGOs are not actors within the government, they have been able to—through fundraising, lobbying, and overtly public campaigns—exert pressure and influence on the California legislature and executive.

Thus, we may conclude that no one political or "extra-political" process is necessarily a one-size-fits-all, cookie-cutter solution that can be blindly standardized and reproduced in different situations. Rather, the complexities and nuances of local context including the political ecology, cultural milieu, and political realities of different polities will require tailored methods and practice that best fits the situation. These courses of action may develop organically but could also be informed through the study and analysis of what has worked elsewhere, how and why.

Climate change presents perhaps the most interdisciplinary problem ever faced by humankind. As such, field as disparate as meteorology and climatology, oceanography, hydrology, agriculture, economics, anthropology, geography, and many others are necessary to first understanding the biophysical changes and potential human impacts involved, and then designing strategies for mitigation and adaption. But the biophysical and social sciences are often missing a key link to policymaking arena. It is here that political science, and the field of international relations in particular, has much to offer.

Climate change is a challenge faced by all of humankind. The atmosphere and the ocean are, in essence, open access commons that have no borders. It is an archetypical collective action problem. In addition, and perhaps requiring most urgent attention, is the fact that a great deal of asymmetry exists between the industrialized countries, which can be characterized as the causal agents of much of the problem, and the developing countries, which studies show will bear the brunt of climate change impacts.

The discipline of Political Science draws on a longstanding academic tradition of research into economics, history, philosophy, political economy and cultural studies. In this thesis, I have attempted to use approaches, theories and methods acquired during my formative years in comparative politics studies. While I have made efforts to understand the issue at hand through several different lenses including political ideology, public perceptions, and contrasting case studies, the research presents limitations.

One of the limitations of this project was the fact that measures of public opinion of climate change in each polity are based on existing polling data from sources like Gallup and the

Eurobarometer surveys, which, despite being reliable sources, do not present commensurable information due to differences in question formulation, methodologies, etc. One way to account for this difference in commensurability would be for future research to be conducted using a standard set of questions in each polity. Further research could also be expanded to include the mechanisms to address climate change that exist not only in sub-national states (like the case studies of Germany and California), but also in regions such as the Pacific Northwest in the United States or the Iberian Peninsula in Europe.

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