INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS: THE ROLE OF POWER, PREFERENCES, AND INFORMATION IN NEGOTIATION OUTCOMES

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INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS: THE ROLE OF POWER, PREFERENCES, AND INFORMATION IN NEGOTIATION OUTCOMES

A Thesis

by

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Abstract

of

INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS: THE ROLE OF POWER, PREFERENCES, AND INFORMATION IN NEGOTIATION OUTCOMES

by

Jeb Shannon Blain

Statement of Problem:

Why were states able to reach agreement on the United Nations Framework Convention on Climate Change (UNFCCC), but not the Kyoto Protocol? What role did power, preferences, and information play in climate change negotiation outcomes? How do systemic and domestic factors influence international cooperation?

Sources of Data:

The study relies on qualitative analysis based on secondary and primary sources, including material from the United Nations, European Union, and United States government.

Conclusions Reached:

Systemic and domestic factors help explain the difference in outcomes of UNFCCC and the Kyoto Protocol. Both the provision of information and the compatibility of state preferences varied in the two cases, resulting in agreement on UNFCCC but not the Kyoto Protocol. Although the provision of information is partially explanatory, the compatibility of state preferences best explains the difference in negotiation outcomes. An exploration of domestic politics is required in order to determine the compatibility of state preferences in international cooperative efforts.

________________________, Committee Chair  ____________________________

Patrick Cannon, Ph.D.  Date
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A number of indicators show that since 1850 global average temperatures have increased by 0.76±0.19°C (Houghton, 2009). Much of the warming appears to be due to changes in the earth’s energy cycle. The earth’s surface absorbs solar radiation and re-transmits it as thermal radiation. This thermal radiation is then absorbed by greenhouse gases in the atmosphere; as John Houghton (2009) puts it: “[greenhouse gases act] as a partial blanket for this radiation” (p. 20).\(^1\) This blanketing action, also known as the greenhouse effect, makes the earth habitable by keeping it warm. The greenhouse effect is unproblematic in the presence of naturally occurring levels of greenhouse gases. Without greenhouse gases much more of the thermal radiation released by the earth would be lost to space, making the planet cooler. However, increased amounts of greenhouse gases in the atmosphere is problematic because more radiation is absorbed, resulting in warming of the lower atmosphere and surface of the earth.

Human actions have been increasing the amount of greenhouse gases in the atmosphere, contributing to an enhanced greenhouse effect. Practices such as agriculture, land use changes (e.g. deforestation), and the burning of fossil fuels have all led to increased amounts of greenhouse gases in the atmosphere. Fossil fuel use is especially at fault: “[since the Industrial Revolution] over 600 thousand tones (or gigatonnes, Gt) of carbon have been emitted into the atmosphere from fossil fuel burning. This has resulted

\(^1\) The main greenhouse gases are water vapor, carbon dioxide (CO\(_2\)), methane (CH\(_4\)), and nitrous oxide (N\(_2\)O).
in a concentration of carbon dioxide in the atmosphere that has increased by about 36%, from 280 ppm [parts per million] around 1700 to a value of over 380 ppm at the present day, a greater concentration than for at least 650,000 years” (Houghton, 2009, p. 37).

A doubling of carbon dioxide equivalent concentration in the atmosphere is likely to lead to an increase in temperature of 2° to 4.5°C compared with the average temperature in the years 1980-1999 (IPCC, 2007). ² Rising temperatures are problematic because of the potential effect on other aspects of the earth’s climate. Possible climate changes include more extreme heat waves, altered precipitation patterns, sea level rise, and more intense hurricanes and typhoons (IPCC, 2007). If such climatic changes occur, the earth’s ecological, economic and social systems will be altered dramatically. For example, rising sea levels can destroy wetlands, agriculture lands, and submerge low lying islands, resulting in the displacement of people, plants, and animals. Additionally, altered temperatures and precipitation patterns will lead to changes in farming practices and the locations where crops are grown; they will also lead to shifts in the ranges of plants and animals (IPCC, 2007).

Despite increasing scientific understanding of climate change and its potential for harm, efforts to address the problem have been slow coming. World leaders have found it difficult to reach climate change agreements that everybody can accept. In order to understand why states have had a difficult time reaching agreements on climate change, it

² Carbon dioxide equivalent concentration is defined as, “The concentration of carbon dioxide that would cause the same radiative forcing as a given mixture of carbon dioxide and other greenhouse gases” (Houghton, 2009, p. 420).
is necessary to look at the factors that shape cooperative arrangements in international affairs.³

A. International Relations Theory and Cooperation

One of the central debates in international relations concerns the ability of states to cooperate. Three international relations theories--neorealism, neoliberal institutionalism (neoliberalism), and liberal theory--specify unique factors that influence international cooperative efforts. Neorealism focuses on the importance of military power, concluding that cooperation is nearly impossible. According to neorealists, cooperative agreements almost always create relative gains for one or more actors. This is problematic because gains can be converted into military power, which means the state that achieves relative gains can threaten the security of others. As a result, states are wary about entering into cooperative arrangements.

Neoliberal institutionalism suggests international cooperation is not as difficult as neorealists claim. According to neoliberals, states are more concerned with absolute gains than relative gains, and will partake in agreements that are beneficial, regardless if another state or states benefit relatively more. However, according to neoliberals, cooperative agreements may not occur because of a poor contractual environment that results from a lack of information. In order to overcome this problem, states can create

³ According to Keohane (1984): “Cooperation occurs when actors adjust their behavior to the actual or anticipated preferences of others, through a process of policy coordination…intergovernmental cooperation takes place when the policies actually followed by one government are regarded by its partners as facilitating realization of their own objectives, as the result of a process of policy coordination” (p. 52).
Regimes. Regimes create a better contractual environment by providing information that helps states negotiate agreements and ensure all participants fulfill their commitments.

Liberal theory places more emphasis on domestic factors than neorealism and neoliberal institutionalism. According to liberal theory, cooperative agreements can be difficult to reach even if regime mechanisms are available and a cooperative arrangement would be beneficial to the parties involved; this is because states may have differing preferences. Liberal theory is based on the idea that the actions of states are shaped by domestic politics, which allows certain individuals and groups to advance their particular ideational and material interests. If the particular interests of states are not compatible, then reaching a cooperative arrangement may not be possible.

The present thesis will explore the explanatory power of the three theories outlined above. It will add to the literature by examining the role played by preferences, information, and power in climate change negotiations. Many neoliberals have applied their theory to international environmental agreements, showing how regimes function and make cooperation possible. However, almost all neoliberal studies focus on successful agreements, neglecting agreements that fail or are rejected by certain countries. The explanatory power of neoliberal institutionalism can be strengthened if unsuccessful cases are examined in order to show that agreements fail due to the absence of information or regime functions. The present study will focus on a case that was not a complete success. The thesis will also add to the literature by examining the usefulness

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4 Regimes are defined as, “Sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors’ expectations converge in a given area of international relations” (Krasner 1983, p. 2).
of neorealist theory in environmental politics. Few studies have explored whether or not neorealist factors play a role in international environmental issues.

B. Methods and Cases

The present thesis will attempt to answer the following question: Why were states able to reach agreement on the United Nations Framework Convention on Climate Change (UNFCCC), but not the Kyoto Protocol? In order to address this question, negotiation of UNFCCC and the Kyoto Protocol will be explored to determine what role the three factors mentioned above--power, information, and preferences--played in the outcomes. The hypothesis to be tested is drawn from liberal theory and can be stated as follows: Differences in the compatibility of state preferences is the main reason why states were able to reach agreement on UNFCCC, but not on the Kyoto Protocol. This hypothesis identifies preferences as the most explanatory factor, rather than power or information.

In order to examine the hypothesis, a two step approach will be taken. In the first step, domestic politics will be explored in order to see how factors identified by liberal theory shaped environmental policy in the build-up to negotiations on UNFCCC. This is important because it set the context within which climate change negotiations were held. The second step will examine how preferences, power, and information have shaped international negotiations and outcomes. The study will focus on two attempted agreements to combat climate change: UNFCCC, and the Kyoto Protocol to UNFCCC. Within these cases the United States and Germany will be examined in order to identify
the source of state preferences, and see how these preferences influenced negotiations.5 These countries were chosen because they have been two of the most important actors in climate change negotiations. Not only are they two of the biggest emitters of greenhouse gases, they have also taken a lead role in trying to shape outcomes, often promoting opposing positions. The study will rely on qualitative analysis based on secondary and primary sources, including material from the United Nations, European Union, and United States government.

C. Thesis Outline

The rest of the thesis will proceed as follows. The next chapter will provide a more in-depth look at neorealism, neoliberal institutionalism, and liberal theory. A literature review will be conducted in order to examine the role of power, information, and preferences in international affairs. The third chapter will look at domestic politics in Germany and the United States in order to see how liberal factors shaped environmental policy in the run-up to climate change negotiations. Chapters four and five will be the main case studies, with chapter four focusing on UNFCCC and chapter five on the Kyoto Protocol. The final chapter will provide concluding remarks.

5 Germany’s policy has been coordinated with the European Union. As a result, the European Union will also be examined.
The major international relations theories all have something to say about cooperative agreements in international affairs. As discussed in the first chapter, neorealism, neoliberalism, and liberal theory all have different takes on why or why not states are able to cooperate. The present chapter will explore the key concepts that differentiate the theories, paying special attention to how they relate to environmental issues.

A. Neorealism

Neorealism is by far the most pessimistic theory when it comes to international cooperation. The theory focuses on systemic or structural influences on state behavior--namely the distribution of power capabilities in the international system (Waltz, 2005). Neorealism’s most important assumption--the presence of anarchy in the international system--has led its adherents to conclude that cooperation amongst states is extremely difficult. Anarchy in neorealist thought means there is no world government or supranational authority to police world affairs (Mearsheimer, 1995). Due to anarchy, states’ primary interest is security, because war is always a possibility (Waltz, 2005). Anarchy requires states to fend for themselves because “the absence of a centralized authority means that states are by definition self-help agents” (Grieco, 1997, p. 165). Anarchy prevents cooperation because states are concerned about an unequal distribution
of gains resulting from cooperation; other states reneging on promises; and maintaining autonomy and not becoming dependent on others (Grieco, 1997). According to neorealists, relative gains are of utmost concern to states. Relative gains are important because they can be converted into power capabilities. This means a state that obtains relative gains will be able to threaten the security and survival of other states. As a result, even if absolute gains can be obtained through cooperation, it is unlikely to occur because relative gains create security concerns.

Neorealists, focusing on relative gains and anarchy, believe that cooperation can be achieved in a limited number of situations. One instance in which cooperation is possible is the formation of military alliances; these may be necessary to balance the threat of a strong state that threatens others’ survival (Grieco, 1997). Cooperation is also possible in situations that “reflect the distribution of power”, such as in “arms control agreements signed by the superpowers during the Cold War” (Mearsheimer, 1995, p. 338). Because neorealism relies on relative gains, it is useful to explore some of the deficiencies of that concept in order to see where the theory is faulty.

The focus on relative gains in neorealist thought is problematic in several respects. First, as David Baldwin (1993) argues, neorealism does not specify what types of gains are important and in which context they are important. Baldwin suggests that not all relative gains are significant because not all gains are fungible. This is relevant for cooperation in economic and environmental issue areas because it is not entirely clear that gains in these areas can be translated into power capabilities. Neorealism, for example, is at a loss when it comes to explaining the cooperation that has taken place
within the European Union and numerous environmental agreements. It may be that relative gains in these issue areas are not as important as in security matters. However, Mearsheimer (1995) points out that there is not a clear line separating economic and security issues, which makes cooperation in the European Union difficult to explain from a neorealist perspective.

Another problem with the concept of relative gains is the source of relative gains concerns. One of the assumptions within neorealism relates to the nature of the state. The state is said to be the most important actor in world affairs and is assumed to be rational, unitary, and autonomous (Grieco, 1997). For the present purposes, problems with the assumption of the state as an autonomous and unitary actor will be explored. Autonomy suggests that central decision-makers “have sufficient autonomy from their national societies to recognize and pursue the interests of the nation as a whole” and that decision-makers “respond on behalf of the nation-state as a whole to the opportunities and dangers engendered by the international system” (Grieco, 1997, p. 166). The problem with this assumption is that it completely neglects domestic interests as a source of relative gains concerns, especially in economic matters. It may be that relative gains concerns come from domestic interest groups worried about competition, rather than security fears of central decision-makers. The assumption of autonomy is more accurate for authoritarian states, which are often shielded from domestic interests (Putnam, 1988). Autonomy may also be an accurate assumption for democratic states in certain situations, such as when presidents in the United States have fast track authority in which
international agreements must be voted on without opportunity for amendment by domestic interests (Moravcsik, 2003).

The assumption that states behave as unitary actors is also problematic. The unitary actor assumption is based on the belief that “central decision-makers maintain sufficient control over different organizational elements of their governments to allow them to direct and coordinate government actions in such a way as to implement the decision-makers’ strategies” (Grieco, 1997, p. 166). This assumption is problematic in the context of growing interdependence, which has permitted international connections between government bureaucrats with their own interests, making it increasingly difficult to coordinate government actions (Keohane & Nye, 1977). It is also problematic in cases of divided government such as in the United States, where both the executive and legislative branches are needed to implement strategies but may be at odds.

An example of neorealist theory applied to environmental issues comes from Sevasti-Eleni Vezirgiannidou (2008), who looks at the issue of climate change. Vezirgiannidou argues that the United States did not ratify the Kyoto Protocol due to fears about relative gains. Vezirgiannidou asserts that the United States Senate was worried about economic gains accruing to China because the Kyoto Protocol did not require China to reduce greenhouse gas emissions. The Senate feared China’s economic gains would be turned into military capabilities, threatening the United States.

This argument has several shortcomings. First, although it may explain the actions of the Senate, it does not explain why President Bill Clinton signed the agreement in the first place. According to realist assumptions, Clinton should have been just as
worried about relative gains as the Senate. Second, use of a neorealist argument in this case is somewhat strange because the theory treats states as rational, unitary actors with fixed interests. In this case the United States clearly did not act in a unitary manner. Third, Vezirgiannidou fails to consider the source of relative gains concerns; it may be that economic interests were the source of relative gains concerns rather than central decision makers worried about security. Finally, the neorealist argument fails to explain why the European Union has participated in the Kyoto Protocol. According to neorealism, all states treat relative gains as one of their greatest concerns; this suggests that the Europeans should also have rejected the Kyoto Protocol because of the potential threat from China. This example shows that domestic politics can lead to differentiation of interests and actions across states.

Another study that addresses the role of power in climate change negotiations comes from Matthew Patterson (1996). Patterson argues that negotiation positions have been shaped by each state’s reliance on energy resources. According to Patterson, states that are more reliant on energy imports have been more willing to cut greenhouse gas emissions because this makes them more energy independent. States that rely on domestic sources of energy, on the other hand, are unwilling to make emissions cuts because they are afraid of losing their energy independence. This argument corresponds with the neorealist idea that states wish to maintain autonomy in order to assure security (Grieco, 1997).

Power in terms of energy independence has no doubt played an important role in the positions that states have taken, but it is not completely explanatory. For one, this
argument does not explain the subtleties of state positions over time. The United States, for example, has changed its position over the years, even though its energy structure has remained largely unchanged. The energy independence argument also fails to explain the energy choices of states. For example, Germany is reliant on energy imports, so the power argument can explain why it has adopted greenhouse gas emissions reductions--because this also improves energy security. However, from a neorealist perspective, Germany should have adopted nuclear energy in order to improve its autonomy and power; this is because it is a leader in nuclear technology, which would have been the easiest option. However, rather than relying on nuclear power to meet its energy demands, Germany promoted renewable sources due to domestic politics.

Unlike neorealism, hegemonic stability theory (a variant of realism) suggests that cooperation is possible in issue areas besides security. According to this theory, cooperation is possible because states are concerned with maximizing wealth in addition to maintaining security (Guzzini, 2001). Hegemonic stability theory focuses on the ability of strong states to facilitate cooperation in international affairs: “Drawing from the theory of collective goods, Robert Gilpin and Stephen Krasner argue that a necessary condition for the formation and maintenance of a liberal (i.e., market-based) international economy is that a single state be available that is both able and willing to invest the resources and to bear the burdens associated with the operation of such an economic order” (Grieco, 1997, p. 176). A hegemonic state is willing to fulfill this role because it benefits disproportionately from cooperation. One of the most frequent examples used in hegemonic stability theory is the United States’ role in helping to create and maintain a
stable and open international economic system after WWII (for instance by taking up much of the burden in supplying the Bretton Woods economic instruments) (Gilpin, 2001; Keohane & Nye, 1977).

Hegemonic stability theory provides a useful way of explaining cooperative behavior in certain instances. However, its explanatory power appears to be limited to specific time periods and issue areas. Hegemonic stability theory has lost much of its explanatory power because the world is more multi-polar and the United States is no longer a clear hegemon (Keohane, 1984). The theory also has little to say about whether hegemonic leadership is possible in the case of environmental problems; this is because an improved environment can only indirectly be connected to maximizing wealth and maintaining security, which are the reasons why hegemons supposedly organize cooperative behavior. Even if solving environmental problems did promote security or wealth maximization, in many cases the states that have led the effort to establish environmental agreements have not been hegemons, even regionally (Haas, 1990).

Despite hegemonic stability theory’s seemingly limited importance in environmental politics, Elizabeth DeSombre (2000) provides an example of where it is applicable. DeSombre uses a realist theory based on hegemonic power to suggest that international policy coordination may actually not be entirely voluntary, even in environmental politics. She argues that industries in the United States have influenced the government to use America’s asymmetrical trading power in order to force states to adopt uniform environmental standards. DeSombre looks at how industries and environmentalists in the United States have forged coalitions of convenience (‘Baptist-
bootlegger’ coalitions) in order to internationalize environmental policies that the United States has adopted. Environmental groups provide the United States with moral justifications to force its environmental policies on other countries, while industry provides the economic power and political clout to force countries to comply. Industry benefits because forcing policies on other states evens the regulatory playing field, while environmentalists benefit by having other countries adopt policies that they support. One of the cases DeSombre looks at involves international fishing agreements. According to DeSombre, the fishing industry in the United States pushed the government to adopt sanctions against countries that did not meet international standards for sustainable fishing. The countries that eventually adopted the standards did so because they were dependent on the United States for their fish exports. This case highlights the importance of industry for international cooperation: environmental groups had supported similar actions by the United States, but action was taken only after industry put its support behind the effort. As will be seen below, DeSombre’s argument also fits with liberal theory.

B. Neoliberal Institutionalism

Neoliberal institutionalism, or regime theory, argues that cooperation in international affairs is easier than both neorealists and hegemonic stability theorists presume. Neoliberals believe regimes facilitate cooperation, even in the presence of anarchy: “To understand international cooperation, it is necessary to comprehend how institutions and rules not only reflect, but also affect, the facts of world politics”
Before discussing the mechanics of regime theory, it is necessary to examine complaints about the concept of regime in order to understand its usefulness.

Regimes are defined as, “Sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors’ expectations converge in a given area of international relations” (Krasner 1983, p. 2). Susan Strange (1983) downplays the usefulness of the concept of regime, claiming “regime is yet one more woolly concept that is a fertile source of discussion simply because people mean different things when they use it” (p. 343). Strange’s complaint--shared by Haggard and Simmons (1987)--is understandable given the fact that some theorists find regimes in all sorts of actions, making it difficult to determine what is unique about the concept and how it supposedly influences behavior. Oran Young (1989a), for example, claims some regimes, such as language, are spontaneous and do not require awareness of action. This description of regime makes it difficult to pinpoint what separates regimes from everyday actions. As Haggard and Simmons (1987) note: “Deducing regimes from patterned behavior makes it difficult to decide how they mediate, constrain, or influence behavior” (p. 493). A narrower definition is in order.

There is more use in focusing on what Oran Young (1989a) calls negotiated regimes, as opposed to spontaneous regimes. According to Young, negotiated regimes are “characterized by conscious efforts to agree on their major provision, explicit consent on the part of individual participants, and formal expression of results…Such regimes may take the form either of constitutional contracts or legislative bargains” (p. 86).
Keohane and Nye (1977) also stress the importance of the bargaining process, although their emphasis is on regime change rather than creation. Negotiated regimes are much easier to identify and analyze because they are explicit about the principles, norms, rules and decision making procedures that states are expected to follow. However, these conceptual components can be difficult to distinguish from one another.

Beth Simmons and Stephen Haggard complain about the subtleties of definition found in the conceptual components of regimes: “Despite the care with which this complex hierarchy of components is defined, ‘principles’ (which include not only beliefs of fact and causation, but also of ‘rectitude’) shade off into norms, ‘standards of behavior in terms of rights and obligations’. Norms, in turn, are difficult to distinguish from rules, ‘specific prescriptions or proscriptions for action’” (p. 493). This ambiguity is recognized by regime theorists, but not completely resolved. Robert Keohane (1984) acknowledges that the terms can blur together and attempts to simplify the concept by saying that norms, principles, rules, and procedures all “prescribe certain actions and proscribe others” with varying degrees of specificity (p. 59). Again, focusing on negotiated regimes is useful because they often explicitly list the various regime components, making analysis easier.

There is also ambiguity surrounding usage of the term regime. The terms regime, institutions, and organizations can be conflated, making it difficult to follow what is being discussed. Haggard and Simmons (1987) favor a narrow definition of regime, one that is similar to Young’s idea of explicit negotiated regimes: “Regimes must be distinguished from the broader concept of ‘institutions’, the essential feature of which is
‘the conjunction of convergent expectations and patterns of behavior or practice’.

Regimes aid the ‘institutionalization’ of portions of international life by regularizing expectations, but some international institutions such as the balance of power are not bound to explicit rights and rules” (p. 495). Oran Young (1989a) further points out that there is a key analytical difference between regimes and organizations; specifically, regimes can operate with or without organizations. According to Young, organizations are “material entities possessing physical locations (or seats), offices, personnel, equipment, and budgets. Equally important, organizations generally possess legal personality in the sense that they are authorized to enter into contracts, own property, sue and be sued” (p. 32). Organizations do not have to be attached to any particular regime and can operate across multiple regimes. This is the case with the United Nations Environment Program (UNEP), which is associated with most environmental regimes. Also, a regime can operate with the presence of more than one organization.

Despite complaints about the imprecision of the concept of regimes, they do have value. The narrow definition of negotiated regimes appears to be of most use. The proscriptions and prescriptions found in negotiated regimes do appear to allow for international cooperation. This is readily apparent in the environmental issue area. Formal agreements have been created on a wide range of issues, including trade in endangered species (Convention on International Trade in Endangered Species); air pollution (Convention on Long-range Transboundary Air Pollution); sea pollution (Mediterranean Action Plan); ozone pollution (Montreal Pollution); and numerous
fisheries conventions. These agreements have operated with varying levels of success.

The question remains: why do regimes facilitate cooperation?

In order to explain the functioning of regimes, Robert Keohane (1984) adopts the assumptions of neorealism, focusing on the presence of anarchy and treating states as rational, unitary actors. In contrast to the neorealist focus on relative gains, neoliberals concentrate on absolute gains. A focus on absolute gains leads neoliberals to conclude that states often find cooperation desirable. However, cooperation may not occur, even if it is in the interests of states, due to a lack of information about participants’ intentions and actions. Regimes can help solve this problem by providing several functions.

Neoliberals use micro-economic and game theory in order to explain the existence of regimes. Robert Keohane (1983, 1984) explains how regimes help facilitate cooperation and avoid sub-optimal outcomes. According to Keohane, one reason why cooperation is difficult in international affairs is because of the complexity involved in finding compromise agreements that satisfy all participants. Regimes can help deal with this problem by centralizing negotiations and reducing transaction costs. Another factor Keohane identifies that makes cooperation difficult is fear of cheating and free riding. Each state must worry about other states free riding and cheating when cooperation produces a public good that all states can benefit from regardless of their contribution. This is problematic in an anarchic world because there is no entity to make sure states follow through with their commitments. Rather than concerns about relative gains and security, neoliberals suggest states worry about others not following through on their commitments because this leads to inefficiencies and sub-optimal outcomes, which
reduces absolute gains. Keohane argues that regimes can help deal with commitment concerns by providing transparency and information about the actions of participating states.

In sum, regimes are useful and will be ‘demanded’ if they can do one or more of the following: 1. Help create a clear legal framework establishing liability for actions where there is none; 2. Provide information about the intentions of participants and whether they have fulfilled their obligations; and 3. Lower transactions costs of cooperation by centralizing the diffusion of information, linking issues, and/or iterating interaction (Keohane, 1984). Regimes generally help create a better contractual environment that facilitates cooperation by providing information. The information provided by regimes helps states reach agreements and guards against the problems of cheating and free riding.

Expanding on the regime functions identified by Keohane, Oran Young (1991) claims regimes are an important source of informational leadership. Organizations attached to regimes are said to provide important leadership functions that help lead to successful agreements. Specifically, organizations can provide information and ideas where they are lacking. Young highlights two important roles played by supranational political leaders within international organizations. The first role is that of an innovative problem solver able to find common ground amongst states: “[leaders rely on] negotiating skill to frame issues in ways that foster integrative bargaining and to put

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6 By linking issues and iterating interactions, regimes help make defection costly, making up for the lack of a world enforcer.

7 Young also says that this type of leadership can come from individuals within states, although he highlights the role of supranational actors within international organizations.
together deals that would otherwise elude participants endeavoring to form international regimes” (Young, 1991, p. 293). Young cites the example of UNEP Secretariat Mostafa Tolba, who helped participants work out deals and find a zone of agreement during negotiations to create a plan to combat ozone layer depletion. A second role of political leaders that Young finds important is the provision of new ideas: “An intellectual leader is an individual who produces intellectual capital or generative systems of thought that shape the perspectives of those who participate in institutional bargaining” (p. 298). One of the examples Young gives is the influential role played by John Maynard Keynes during the development of the postwar international trade and monetary regimes; Keynes helped develop the idea of embedded liberalism, which Young argues made cooperation possible.

Andrew Moravcsik (1998, 1999) questions the claim that participants in international negotiations lack information, as well as the supposed importance of political leaders attached to regimes. In his study of the European Community, Moravcsik contends that international bargaining can be rather efficient and successful, even without the presence of regimes or supranational political leaders. Moravcsik (1998) suggests states interested in cooperative outcomes will provide the necessary leadership to break information bottlenecks that can inhibit agreements from being reached: “Given common interests…governments have a strong incentive to reveal their preferences in the form of bargaining demands and compromise proposals” (p. 61). Moravcsik (1999) analyzes the development of the European Community and argues that information was not scarce: “the demand for cooperation tends to create its own supply.
Institutions, procedures, and norms, as well as entrepreneurs, are not required” (p. 301). According to Moravcsik, European Community officials played a redundant or symbolic role during negotiations and did not provide any real leadership. Rather, the most interested participants--Germany, France and the United Kingdom--were able to provide innovative proposals and compromise solutions because they were interested in reaching an agreement. The efforts of these countries helped avoid deadlock rather than supranational political leaders.\(^8\)

In addition to Moravcsik’s complaints with regards to Young, there are several other shortcomings of neoliberalism--especially as laid out by Keohane (1984). As with neorealism, neoliberalism is problematic because it treats states as rational, unitary, and autonomous actors with fixed, limited interests.\(^9\) The theory becomes too mechanical by adopting neorealist assumptions: states are presumed to be capable of easily identifying their interests and acting in an expedient manner to realize these interests. However, state interests are not obvious; rather, they can develop slowly and change over time due to domestic politics.\(^10\) This is a process that neoliberal theory ignores. Additionally, states do not always act in an autonomous or unitary fashion: central decision-makers often have their actions limited by domestic interests, as well as sectors of government that work at cross-purposes (Moravcsik, 1997). According to Haggard and Simmons (1987),

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\(^8\) Moravcsik does qualify his argument by noting that the European Community may be a unique case. He suggests regimes and their associated functions may be more important in issue areas where there are more actors and more technical problems. Climate change negotiations contain these elements and can test Moravcsik’s claims.

\(^9\) The only interests that Keohane (1984) ascribes to central decision-makers are to “increase the wealth, security, and power of their states” (p. 66).

\(^10\) Andrew Moravcsik (1997) addresses the problem of fixed interests when he says: “Neither realism nor institutionalism explains the changing substantive goals and purposes over which states conflict and cooperate; both focus instead on formal causes, such as relative power or issue density, and formal consequences, such as conflict and cooperation per se” (p. 534).
by focusing on the systemic level and overlooking domestic politics, regime theory fails to show “domestic policymakers were actually concerned with reputation, reducing transaction costs, the need for transparency and so forth” (p. 514). Finally, the theory does not have much to say about how regimes are created. Keohane (1984) focuses on regimes created by a hegemonic state (the United States), which hung on after the decline of the United States because of their usefulness. However, there is little said about how regimes are created in the absence of a hegemon.

Arthur Stein (1983) lends some insight into how regimes can be created absent a hegemon. He uses game theory to show how regimes are the result of “dilemmas of common interests”. Dilemmas of common interests are “situations…in which individualistic self-interested calculation leads them [actors/states] to prefer joint decision making because independent self-interested behavior can result in undesirable or suboptimal outcomes” (p. 120). Many environmental problems are examples of dilemmas of common interest (commons problem). In order to solve these problems, cooperation is needed:

Each actor most prefers to be the only user of a common resource, next prefers joint restraint in the mutual use of the good, then prefers joint unrestrained use even if it leads to depletion, and least prefers a situation in which its own restraint is met by the other actors’ lack of restraint. Each actor would rather share in such use of the resource that leads to depletion than to see its own restraint allow either the continued existence of the resource for others’ use or the disappearance of the resource because the others show no restraint. The actors have a common interest in moving from their suboptimal (but not least preferred) outcome to one in which they exercise mutual restraint by collaboratively managing the resource. The commons thus represent a class of dilemmas of common interests in which individually rational behavior leads to a collectively suboptimal outcome (p. 129).
Stein provides a logical explanation for regime creation in the absence of a hegemon, but also assumes that states are unitary, autonomous actors with fixed interests. However, in order to better understand the creation of agreements it is necessary to take a more detailed look at domestic actors as sources of state interests. For example, domestic politics help determine when states judge issues to be “dilemmas of common interest”, rather than central decision-makers alone (Moravcsik, 1997).

A number of studies on environmental regimes show that the provision of information has helped states cooperate. The volumes by Haas et al. (1993), Young (1999), and Miles et al. (2002) focus on the effectiveness of regimes and look at how they change state behavior. All of these studies find that one of the keys for altering state behavior is the ability of regimes to monitor the commitments of states (as suggested by Keohane). A number of examples from international environmental politics demonstrate the importance of monitoring commitments and the reduction of uncertainty. In the regime to reduce oil pollution from ships, for example, states were more easily able to cooperate because of the increased transparency the regime created. The International Maritime Organization was put in charge of monitoring ships, allowing for the identification of ships out of compliance (Mitchell et al., 1999). In another example, the regime to reduce overfishing in the Barents Sea was made possible by an agreement between Norway and the Soviet Union to monitor the compliance of each other’s ships. The two countries agreed to exchange reports on fish yields from their ships, and each state allowed observers from the other to inspect ships in order to make sure quotas were not exceeded (Stokke, 1999). A final example comes from the Vienna Convention,
which helped facilitate cooperation by creating panels to review the progress of participants in reducing the use of ozone depleting chemicals (Parson, 1993).

In environmental regimes the provision of scientific information is also important and can help facilitate cooperation. Young’s (1991) concept of intellectual leadership fits well with the role played by epistemic communities.\(^\text{11}\) Complex environmental problems pose difficulties for government officials who may be unaware of the nature of these problems. Epistemic communities can help identify environmental problems and suggest policies that alleviate damage, making cooperation easier. Peter Haas (1990) notes the importance of an epistemic community in efforts to protect the Mediterranean Sea from pollution. Officials within UNEP identified the pollution problem in the Mediterranean and showed how it affected the economic well being of countries in the region. UNEP then developed policies to deal with the pollution problem, which most states adopted. Sharp (2006) makes a similar argument with regards to climate change, claiming that an epistemic community was able to identify the problem of climate change and influence the policy prescriptions of the climate convention (UNFCCC).

Epistemic communities are no doubt important in identifying problems and helping to shape policies. However, their influence is variable. Peter Haas (1990) says that in the case of the Mediterranean, states did not truly appreciate the pollution problem and only made moderate policy changes; rather than adopting a holistic ecological approach and the strict pollution policies promoted by scientists and UNEP, countries

\(^{11}\) “An epistemic community is a professional group that believes in the same cause-and-effect relationships, truth tests to assess them, and shares common values. As well as sharing an acceptance of a common body of facts, its members share a common interpretive framework, or ‘consensual knowledge’, from which they convert such facts, or observations, to policy-relevant conclusions” (Haas, 1990, p. 55)
simply realized they had to balance economic and environmental needs. The influence of epistemic communities may also be partially dependent on random contextual factors. Karen Litfin (1994) argues that in the case of ozone depletion, the epistemic community was greatly aided by the discovery of the ozone hole over Antarctica. Without this discovery it is unclear how much influence the community would have had. Litfin also points out that science can be used strategically by different interests, limiting the influence of epistemic communities. In the case of ozone depletion, industry used the fact that scientists could not definitively link chlorofluorocarbons to ozone depletion to question strict regulation policies. Finally, once negotiation over the details of agreements begins, scientific epistemic communities appear to play less of a role. In the case of climate change, it appears an economic epistemic community displaced the scientific epistemic community once negotiations began (Raustiala, 2001).

C. Liberal Theory

Liberal theory differs from neorealism and neoliberalism in that it places more emphasis on domestic politics. Whereas the other theories focus mainly on the systemic level, liberal theory focuses on both the systemic and state levels. Rather than taking interests as given (as do neorealists and neoliberals), Andrew Moravcsik (1997) argues liberal theory is needed in order to explore the sources of state interests or preferences.\(^\text{12}\)

\(^{12}\) There is some conceptual ambiguity surrounding the term ‘preferences’. Jennifer Sterling-Folker (2000) says interests are different from preferences, with preferences being “the particular policies and practices an actor might adopt in pursuit of those interests” (p. 102). In Andrew Moravcsik’s work (1997, 1998, 2003) preferences are synonymous with interests: Preferences are the “fundamental social purposes underlying the strategic calculations of governments” and can include material as well as ideological elements (Moravcsik, 1997, p. 513). This is the usage being employed in the present paper.
Liberal theory is not completely at odds with the other theories and concedes that numerous factors can be important at the systemic level: “If foreign policymaking is a process of constrained choice by purposive states, a view shared by realist, institutionalist, and liberal theory, there may well be cases in which a combination of preferences and constraints shapes state behavior” (Moravcsik, 1997, p. 542). However, Moravcsik (1997) argues liberal theory must come first in any analysis because state preferences determine which structural constraints matter: “Preferences determine the nature and intensity of the game that states are playing and thus are a primary determinant of which systemic theory is appropriate and how it should be specified…In short, liberal theory explains when and why the assumptions about state preferences underlying realism and institutionalism hold” (p. 542).\(^\text{13}\) Moravcsik (1997) also argues neoliberals need the concept of preferences in order to explain why regimes become stable: “international regimes are stable when societal individuals and groups adjust so as to make domestic policy reversal (or even stagnation) costly” (p. 537). Although liberal theory helps focus analysis on the domestic level, it does not lose sight of systemic factors.

Liberal theory according to Moravcsik (1997), “elaborates the insight that state-society relations--the relationship of states to the domestic and transnational social context in which they are embedded--have a fundamental impact on state behavior in

\(^{13}\) Moravcsik, expanding on this point, says: “The implication for realism is clear: Not only do we need to know what state preferences are, but unless they are arrayed so that substantial interstate conflict of interest exists and the deployment of capabilities to achieve a marginal gain is acceptable, realist theory is powerless to explain state behavior. Similarly, institutionalist explanations of suboptimal cooperation are appropriate only under circumstances in which states have an interest in resolving particular interstate collective action problems” (p. 543).
world politics. Societal ideas, interests, and institutions influence state behavior by shaping state preferences, that is, the fundamental social purposes underlying the strategic calculations of governments” (p. 513). Liberal theory has three main assumptions, which focus on individuals, the state, and the world system. The first assumption is that individuals and groups are the most important actors in international politics. Individuals and groups shape state preferences by promoting their ideas, ideologies, and material interests. The second assumption is that some groups and individuals are more favored than others in shaping state preferences; this is due to unequal resources and/or the makeup of state institutions: “[certain groups] tend to ‘capture’ government institutions and employ them for their ends alone, systematically passing on the costs and risks to others” (Moravcsik, 1997, p. 530). Changes in state preferences are explained by changes in access to decision making institutions. Unlike neoliberal and neorealist theory, liberal theory does not treat the state as a unitary actor. Depending on domestic institutions, “the state may be ‘disaggregated’, with different elements--executives, courts, central banks, regulatory bureaucracies, and ruling parties, for example--conducting semiautonomous foreign policies in the service of disparate social interests” (Moravcsik, 1997, p. 519). Finally, liberal theory assumes that any one state is limited in the pursuit of its preferences due to constraints created by the preferences of other states. For this assumption Moravcsik utilizes the concept of complex interdependence (Keohane & Nye, 1977); using this concept, Moravcsik shows that actions by one state can create negative externalities for other states, which can cause
the affected states to push back, limiting the ability of the state that created the externalities to achieve its goals.

Andrew Moravcsik (1997) lays out three variants of liberal theory, claiming each one uniquely explains the source of state preferences. The first variant (ideational liberalism), “views the configuration of domestic social identities and values as a basic determinant of state preferences and, therefore, of interstate conflict and cooperation” (Moravcsik, 1997, p. 525). Ideational liberalism is useful because it can incorporate the ideas of constructivist theorists. In contrast to neorealists and neoliberals, constructivists argue states are not simply self-regarding and have a wider range of interests. According to constructivists, states can hold normative beliefs and concerns for others in addition to concerns about security and wealth. For example, concern for others can be derived from the values and philosophical outlook held by individuals and groups within states; these beliefs are then projected at the international level. David Lumsdaine (1993) argues that countries with strong welfare states spend more on foreign aid because of moral values, even though this does not help these states obtain power or wealth. A similar argument can be made with regards to other values, such as environmental protection. Constructivists argue similarities in values can help facilitate cooperation. Andrew Hurrell (1995), for example, argues states cooperate because of a sense of community.

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14 According to Moravcsik (1997), “Social identity is defined as the set of preferences shared by individuals concerning the proper scope and nature of public goods provision, which in turn specifies the nature of legitimate domestic order by stipulating which social actors belong to the polity and what is owed to them” (p. 525). This is very similar to Finnemore’s (1996) description of norms: “normative contestation is in large part what politics is all about: competing values and understandings of what is good, desirable, and appropriate in our collective, communal life. Debates about civil rights, affirmative action, social safety nets, regulation and deregulation, and the appropriate degree of government intrusion into the lives of citizens are all debates precisely because there is no clear stable normative solution” (p. 135).
According to Hurrell, states cooperate because of a sense of moral or normative duty towards other states, which is derived from participation in the international system of states.\textsuperscript{15}

The second variant of liberal theory (commercial liberalism) focuses on the effort of domestic groups to promote their material interests: “At its simplest, the commercial liberal argument is broadly functionalist: Changes in the structure of the domestic and global economy alter the costs and benefits of transnational economic exchange, creating pressure on domestic governments to facilitate or block such exchanges through appropriate foreign economic and security policies” (Moravcsik, 1997, p. 528). As will be discussed below in greater detail, commercial liberalism incorporates ideas drawn from international political economy.

The third variant of liberal theory (republican liberalism), rather than being completely separate and unique, appears to be intended for use with the other two. Republican liberalism looks at how domestic political systems aggregate the ideological and material demands of groups, resulting in some groups being favored over others. As will be discussed below in greater detail, republican liberalism incorporates ideas drawn from the field of comparative politics. Liberal theory, by identifying three variables important for shaping state preferences (ideas, material interests, political systems), lays

\textsuperscript{15} There have been a number of critiques aimed at constructivism. With regards to cooperative behavior, Haggard and Simmons (1987) point out, “Cognitive approaches cannot predict at what point consensual values or knowledge will produce cooperation. Consensus still may not overcome problems of collective action” (p. 510). Kratchowil and Ruggie (1986), while acknowledging the importance of norms, question the idea of norms as causes of state action: “norms can be thought of only with great difficulty as ‘causing’ occurrences. Norms may ‘guide’ behavior, they may ‘inspire’ behavior, they may ‘rationalize’ or ‘justify’ behavior, they may express ‘mutual expectations’ about behavior, or they may be ignored. But they do not effect cause in the sense that a bullet through the heart causes death” (p. 767).
out a model that allows for a focused analysis of domestic politics. However, as mentioned, liberal theory also focuses on systemic influences.

According to Moravcsik (1997), liberal theory has two features that make it a systemic theory. One systemic component is the idea that state preferences can “vary in response to a changing transnational social context” (p. 522). For example, transnational influences--such as multinational corporations and international non-governmental organizations--can influence a state’s preferences. The second systemic component is derived from liberal theory’s third assumption. As mentioned, liberal theory uses the idea of complex interdependence--policy interdependence in Moravcsik’s terms--to explain why states are constrained in the pursuit of their preferences. Moravcsik (1997) says the rather simplistic essence of liberal theory is “what states want is the determinant of what they do” (p. 521). However, states are limited in their actions, not by the systemic distribution of capabilities (neorealism) or information (neoliberalism), but rather by the configuration of state preferences:

National leaders must always think systemically about their position within a structure composed of the preferences of other states. Since the pattern of and interdependence among state preferences, like the distribution of capabilities and the distribution of information and ideas, lies outside the control of any single state, it conforms to Waltz’s own definition of systemic theory, whereby interstate interactions are explained by reference to ‘how [states] stand in relation to one another’. Hence the causal preeminence of state preferences does not imply that states always get what they want (Moravcsik, 1997, p. 523).

The configuration of preferences determines when cooperation as imagined by liberal theory is likely: “where motives are mixed such that an exchange of policy concessions through coordination or pre-commitment can improve the welfare of both parties relative
to unilateral policy adjustment (i.e. a collective action problem), states have an incentive
to negotiate policy coordination” (Moravcsik, 1997, p. 521). On the other hand, where
preferences are incompatible there is conflict.

The liberal concept of preferences also provides insight into how cooperative
agreements are worked out. Moravcsik (1997) says: “by linking social purpose to the
symmetry and relative intensity of state preferences, liberalism offers a distinctive
conception of political power in world politics…The liberal conception of power is based
on an assumption more consistent with basic theories of bargaining and negotiation than
those underlying realism: namely that the willingness of states to expend resources or
make concessions is itself primarily a function of preferences, not capabilities” (p. 523).
For example, a state with strong preferences will be more likely to expend resources,
make concessions, or take risks in order to make sure an agreement satisfies its
preferences. However, Moravcsik concedes that a combination of preferences and
systemic constraints identified by neorealism and neoliberalism can determine outcomes.
As a result, he suggests taking a two stage approach: “collective state behavior should be
analyzed as a two-stage process of constrained social choice. States first define
preferences--a stage explained by liberal theories of state-society relations. Then they
debate, bargain, or fight to attain particular agreements--a second stage explained by
realist and institutionalist (as well as liberal) theories of strategic interaction” (Moravcsik,

As with other theories, liberal theory is not without its faults. Moravscik’s
reliance on the concept of state preferences is problematic in that it merely shifts the idea
of fixed preferences from the state level to the individual level, but does not eliminate the problem of fixed preferences (Finnemore, 1996). Moravcsik (1997) says: “Socially differentiated individuals define their material and ideational interests independently of politics and then advance those interests through political exchange and collective action” (p. 517). However, the theory does not delve into the ‘socially differentiated’ world of individuals and makes no effort to explain how their material and ideational interests are formed. Rather, material and ideational interests seem to be taken as given. Since there is no explanation of how material and ideational interests are formed, there is no explanation of how these interests can change or evolve. Moravcsik claims liberal theory is important because it can explain change at the state and international levels: change results from shifting state preferences caused by the rise and fall in power of different societal groups. However, the theory does not appear to leave open the possibility that individual and group preferences can change or evolve, which may also influence state actions. Constructivism offers a solution to this problem by highlighting the importance of learning. For example, new scientific information about environmental problems generated by epistemic communities can help shape individual preferences (Haas, 1990). Despite this weakness, liberal theory remains useful because it allows for an exploration of domestic factors.

I. State Preferences

Liberal theory’s focus on state preferences requires an investigation of domestic politics. As mentioned above, its variants allow for the incorporation of ideas from
various fields of study. The following section examines studies from political economy and comparative politics in order to provide a better idea of what shapes state preferences, paying special attention to environmental issues. Understanding the factors that shape state preferences is important because, according to liberal theory, these preferences must be compatible in order for states to be able to form cooperative agreements.

a. Comparative Politics and Republican Liberalism

Liberal theory takes a pluralist view with regards to domestic politics, suggesting preferences are “biased in favor of the governing coalition or powerful domestic groups, but more sophisticated extensions are numerous” (Moravcsik, 2003, p. 16). Liberal theory’s republican variant points out the importance of political systems and how they aggregate domestic demands. The literature on political systems and interest group representation helps explain the preferences of states.

Different government systems lead to different sorts of political interactions, which can result in varying preferences across states. Heads of state are particularly important in shaping state preferences, but have varying levels of influence depending on the political institutions of a country. For example, Robert Putnam (1988) points out that presidents in the United States must consider the interests of domestic constituents due to the need for Senate ratification of treaties; whereas authoritarian leaders can focus on their own individual preferences because they have the final say in political decisions. Similarly, prime ministers in parliamentary systems tend to have an easier time
promoting their preferences than presidents in the United States because parliament is controlled by the party of the prime minister (Lijphart, 1999). This can be important for the promotion of environmental norms. For example, the parliamentary system in Germany allowed Chancellor Willy Brandt to advance an environmental program in the early 1970’s with very little difficulty, even though there was no real public demand (Schreurs, 2002).

Electoral systems and governance styles are also important for preference formation because they provide varying degrees of political access for different interests. States with proportional representation often have numerous parties, representing various interests (Lijphart, 1999). Green Parties, for example, have obtained parliamentary representation in European countries with proportional representation electoral systems, allowing for the promotion of progressive environmental positions.

Governing styles also provide varying degrees of access for interest groups. For example, states with a corporatist style of governance provide greater access to certain interest groups. In Northern European corporatist systems the groups most favored tend to be labor and industry. In states such as Norway, environmental groups have been included in the corporatist system, resulting in strong environmental preferences (Dryzek et al., 2003).

According to March and Olson (1984), the mere existence of an institutional body can alter the dynamics of politics and preference formation: “Political democracy depends not only on economic and social conditions but also on the design of political institutions. The bureaucratic agency, the legislative committee, and the appellate court
are arenas for contending social forces, but they are also collections of standard operating procedures and structures that define and defend interests. They are political actors in their own right” (p. 738). For example, the presence of an environment ministry or agency makes it more likely that a state will adopt environmental preferences. These institutional bodies can increase the influence of individuals with environmental views. This is demonstrated by Great Britain in the 1980’s, which did not have an autonomous environment ministry, thereby limiting the importance placed on environmental protection (Dryzek el. al., 2003).

b. Political Economy and Material Liberalism

In the case of material liberalism, industry is one of the most important groups that shape state preferences. Industry plays a particularly important role in the formation of environmental preferences because it tends to have access to central-decision makers and is often the source of new technologies that make more stringent environmental policies possible. As a result, environmental agreements are difficult to reach without the support of industry. In its effort to influence state preferences, industry benefits from ease of organization and structural power.

Mancur Olson’s (1965) study of collective action shows that small groups are easier to organize than large groups. Individuals and organizations in large movements have a tendency to free ride when it comes to provision of collective goods. Free riding occurs--even if there is widespread support for the provision of certain collective goods--because individuals are reluctant to contribute to the effort, knowing that collective goods
can be enjoyed by all regardless of participation. This has been shown to be a problem for environmental groups in the United States (Godwin & Mitchell, 1982). If environmental groups are absent or weak then there is less of a chance that environmental interests will be included in state preferences. In contrast to large groups, small groups find it much easier to organize:

This is because in some small groups each of the members, or at least one of them, will find that his personal gain from having the collective good exceeds the total cost of providing some amount of that collective good; there are members who would be better off if the collective good were provided, even if they had to pay the entire cost of providing it themselves, than they would be if it were not provided...Thus, in a very small group, where each member gets a substantial proportion of the total gain simply because there are few others in the group, a collective good can often be provided by the voluntary, self-interested action of the members of the group (Olson, 1965, p. 34).

As a result, smaller groups (in Olson’s study the focus is on firms in an oligopoly or monopoly) can organize relatively quickly and easily. An example of this from environmental politics is the creation of the Alliance for a Responsible Chlorofluorocarbon Policy in the United States. This small group of chemical producers mobilized rapidly in an effort to reduce regulation of ozone depleting chlorofluorocarbons during negotiation of the Vienna Convention (Litfin, 1994). The ease with which industry can mobilize is especially important in the United States, where it can bundle contributions to political campaigns. For example, in the 2000 elections political action committees from major environmental groups contributed $2.2 million to candidates, whereas corporate political action committees spent $159 million (Bosso & Gruber).
Industry also benefits from structural power. In capitalist systems, governments are dependent on the economic well-being of the state because it legitimizes their existence. As a result, economic growth and accumulation are imperatives of capitalist states (Dryzek et. al., 2003; Newell & Patterson, 1998). Industry has a privileged position in capitalist states due to its centrality in promoting growth and, therefore, has an easier time promoting its interests:

Businessmen only rarely threaten any collective action such as a concerted restriction of function. Ordinarily, they need only point to the costs of doing business, the state of the economy, the dependence of the economy’s stability and growth on their profits or sales prospects—and simply predict, not threaten, that adverse consequences will follow on a refusal of their demands…Ostensibly businessmen do nothing more than persuade. They simply acquaint officials with the facts. But prophecies of some kinds tend to be self-fulfilling. If spokesmen for businessmen predict that new investment will lag without tax relief, it is only one short step to corporate decisions that put off investment until tax relief is granted (Lindblom, 1977, p. 185).

Once more the case of ozone depletion demonstrates the influence of industry. France and Great Britain were reluctant to regulate ozone depleting chemicals because of opposition from domestic chemical manufacturers (Litfin, 1994). However, industry’s position can be weakened if its claims are proven to be untrue. In contrast to France and Great Britain, the chemical industry in the United States was unable to prevent the government from introducing strict regulations of ozone depleting chemicals. In this case the Environmental Protection Agency (EPA)--with help from the Rand Corporation--was able to show that the chemical industry exaggerated its claims of costs caused by regulations. Even in the United States though, the structural power of the chemical industry was crucial: the United States’ position in international negotiations was made
possible because Du Pont announced it could produce safer alternatives to chlorofluorocarbons and would support international regulation (Litfin, 1994).

Conclusion

According to the international relations theories discussed above, three main factors that shape cooperative agreements in international affairs are power, information and preferences. Neorealism suggests international cooperation is almost impossible because of power concerns. In contrast, neoliberal theory proposes that cooperation is relatively easy: states are willing to cooperate on a number of issues but may be unable to do so because of a poor contractual environment. Regimes help alleviate this problem by providing information. Liberal theory suggests regime mechanisms are not sufficient for agreements to be reached. Additionally, states must have compatible preferences, which depend on the alignment of domestic interests. Based on this information, predictions can be made about the outcome of climate change negotiations from the perspective of each theory. Neorealism predicts climate change agreements will not be possible because of relative gains concerns. Neoliberal institutionalism predicts climate change agreements are likely, as long as a collective action problem is identified and adequate information is available. Liberal theory also predicts agreements are likely, as long as a collective action problem is identified and state preferences are compatible.

Based on the review of liberal theory, a number of factors appear to be important in determining the environmental positions of countries, both domestically and internationally. These factors include individual actors/norm entrepreneurs, political
systems, and powerful industry groups. The next chapter turns to an examination of environmental politics in the United States and Germany prior to the start of climate change negotiations. Developments within the two countries set the context within which climate change negotiations were held. This is important from the perspective of liberal theory because preferences must be compatible in order for states to be able to cooperate.
In order to appreciate why countries take the positions that they do at the international level, it is informative to look at domestic politics. According to liberal theory, the ideational and material interests that predominate domestically also influence state positions at the international level. If the positions of states are not compatible, then cooperative agreements are difficult to reach. During the 1980’s, as climate change reached the global political agenda, the United States and Germany showed diverging levels of interest in environmental matters: Germany took great interest, while the United States seemed to lose interest. These developments set the context within which climate change negotiations began; the diverging positions in the two countries seemingly made agreement on climate change a difficult task. The present chapter will examine environmental politics in Germany and the United States in the build-up to climate change negotiations, focusing on the influence of factors identified in the previous chapter: individual actors/norm entrepreneurs, political systems, and powerful industry groups.

A. Policy Divergence

Comparative analysis of environmental policies is a complicated task. One of the main challenges is determining which measures to compare, because a wide range of issues fall under the domain of environmental politics. As Helmut Weidner (1997) points
out, there are often differences within countries, making an overall assessment difficult. For example, a country may have strong measures in one issue area (such as air pollution), but weak measures in another issue area (such as water pollution).

Furthermore, existence of a policy only tells half of the story: the policy may be weak or only partially implemented. Having said this, the following analysis will focus mainly on policies enacted in order to gain an idea of the interest in environmental matters in Germany and the United States. Although the content of policies and their implementation are important, the enactment of policies is also insightful.

Taking a general overview, Germany in the 1980’s appears to have had relatively more interest in environmental protection than the United States. The study by Holzinger et. al. (2008) gives an indication of the diverging positions within the two countries. Holzinger et. al. collected information on a set of forty general environmental policies in order to obtain an overview of environmental positions within industrialized states. According to the study, Germany enacted a number of environmental policies over the course of the 1980’s, increasing from twelve out of forty policies in 1980 to twenty-four out of forty in 1990 (Holzinger et. al., 2008, p. 569). Many of these policies were enacted towards the end of the decade, including a waste avoidance law (1986), strengthened liability law (1990), and environment impact assessment law (1990). In contrast, over the course of the decade the United States did not enact any of the forty policies listed in the Holzinger et. al. study (it remained at thirteen out of forty policies

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16 Some of these policies were the result of directives from the European Community. However, Holzinger et. al. note that Germany was a leading proponent of numerous European Community policies. Also, Germany has adopted more environmental policies than other countries in the European Community because there is some room for flexibility.
between 1980 and 1990). However, a more in-depth look reveals that the United States did have some environmental policy activity during the latter half of the decade. After a virtual absence of activity in the first half of the decade, in the second half a number of laws already on the books were reauthorized and/or amended; these include the Drinking Water Act (1986), Superfund Reauthorization Act (1986), Clean Water Reauthorization Act (1987), and Clean Air Act (1990) (Kraft, 2003).

Germany and the United States also took differing approaches towards two environmental problems with international implications: acid rain and ozone depletion. The United States initially took a strong stance on ozone depletion, pressing for strict international measures to reduce ozone destroying chlorofluorocarbons (CFC’s). However, towards the end of the decade it backed off of its activist approach and resisted further actions. In contrast, Germany pushed for tough measures throughout the decade and voluntarily adopted stronger CFC reduction targets than were mandated by international agreements (Litfin, 1994). In the case of acid rain the United States ignored the issue, neglecting two international conventions it was a party to—the Convention on Long-Range Transboundary Air Pollution (LRTAP) and the Canada-U.S. Memorandum of Intent (MOI). Germany, on the other hand, enacted strong air pollution policies at home and tried to get other countries to do the same by working through LRTAP and the European Community (Munton et. al., 1999).

Government funding for pollution control also indicates that Germany and the United States took different stances on environmental protection during the 1980’s. Germany almost doubled spending on research and development for pollution control
between 1981 and 1985, increasing from $248 million in 1981 to $460 million in 1985 (OECD, 2007). At the same time, the United States reduced its spending by about twenty percent, dropping from $458 million in 1981 to $370 million in 1985. By 1990 the United States had increased spending to former levels ($483 million), but still spent less than Germany ($545 million), a country with a much smaller economy. The question is why did these differences emerge?

B. Environmental Politics in the United States

Liberal factors help explain the developments in the United States during the 1980’s. Probably the most important factor influencing environmental politics in America was powerful individuals sympathetic to the goals of industry--namely Presidents Ronald Reagan and George H.W. Bush. Ronald Reagan entered office determined to roll-back the robust environmental program enacted during the 1970’s. The president was ideologically opposed to government regulation and sympathetic to the complaints of industry--a traditional Republican constituency. Upon entering office, Reagan set about reducing the environmental regulatory system. He cut the budget of the EPA as well as environmental research and development programs. Reagan staffed environmental agencies with conservative ideologues and turned to his executive powers in order to provide relief for business:

He attempted to abolish the Council on Environmental Quality (CEQ), and when that effort failed because it would require congressional legislation, he drastically cut its staff and ignored its members’ advice. In its place he appointed Vice President George Bush to head a new Task Force on Regulatory Relief to review and propose revisions or rescissions of regulations in response to complaints from business. All regulations were
analyzed by a staff agency, the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget. OIRA held up, reviewed, and revised hundreds of EPA and other regulations to reduce their effect on industry (Vig, 2003, p. 108).  

This new approach focused on cost-benefit analysis, eliminating or suspending regulations deemed too costly for businesses. George H.W. Bush continued this policy upon becoming president.

While President George H.W. Bush was certainly more moderate than his former boss, he never fully embraced the environmental agenda. Initially, Bush retreated from the more extreme views of Reagan. Public backlash against Reagan’s actions convinced Bush to take a more conciliatory approach towards environmental issues. He appointed William Reilly (former president of the World Wildlife Fund) as head of the EPA and restored some of the power and funding to the agency. However, Bush’s chief of staff, John Sununu, was opposed to environmental regulations (as were a number of other appointees in the executive office) (Vig, 2003). Bush’s biggest accomplishment was passage of the 1990 Clean Air Act, which helped deal with the acid rain problem that Reagan had virtually ignored. However, much like Reagan, Bush was worried about the costs of regulation and the complaints of industry. He created the Council on Competitiveness (headed by Vice President Dan Quayle), which, similar to the Task Force on Regulatory Relief, provided regulatory relief for industry (Vig, 2003). After implementation of the Clean Air Act began, Bush felt it was too

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17 The Council on Environmental Quality coordinates environmental policy within the executive office; it was created by the 1969 National Environment Policy Act.
tough and allowed the Council on Competitiveness “to delay more than 50 rules and rewrite several others to limit the law’s reach” (Schneider, 1992).

Another factor drawn from liberal theory that influenced environmental politics during the 1980’s was the American political system--especially party politics. Throughout the 1980’s there was increasing conflict in Congress between the two major political parties. This conflict was partially a result of another liberal factor: powerful industry groups. Bipartisanship had been a feature of environmental politics during the early 1970’s. Grassroots support for environmental protection in the 1960’s led both parties to embrace the issue because of its political expediency (Kraft, 2003). This widespread support, however, quickly broke down: “[Congressional] members were increasingly cross-pressured by environmental and industry groups and partisanship on these issues increased…The cumulative effect of these developments in the early 1980’s was that Congress was unable to agree on new environmental policy directions” (Kraft, 2003, p. 134).¹⁸ Much like Reagan and Bush, many members of Congress were concerned with the economic costs of regulations. Echoing the complaints of industry, Republicans and a number of Democrats framed environmental protection as a tradeoff between the economy and the environment. Republicans, however, were most vocal and became increasingly at odds with Democrats.¹⁹ This resulted in conflictual politics that

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¹⁸ This cross-pressuring became more distinct as time went on. For example, in the years 1990-2002, 91% of campaign contributions from environmental groups went to Democrats, while 71% of oil and gas industry and 73% of chemical and manufacturing contributions went to Republicans (Sussman, 2004, p. 359).

¹⁹ League of Conservation Voters scores, which track Congressional votes on environmental issues, show that Republicans and Democrats diverged on environmental policy: “The two major parties show increasing divergence from the 1970’s through the late 1990’s. On average they have differed by nearly 25
made any policy progress difficult. Partisan conflict was momentarily broken with the passage of the 1990 Clean Air Act, which utilized free market mechanisms in order to reduce costs and obtain Republican support. There was, however, no long-lasting reduction in differences between the two parties.

C. Environmental Politics in Germany

Whereas the United States experienced growing partisanship and hostility towards environmental regulation in the 1980’s, Germany witnessed a burst of activity. As in the United States, liberal factors were important in shaping German environmental politics. Similar to the United States, German industry complained about environmental regulations that had been enacted in the 1970’s. However, unlike the United States, regulations in Germany were not scaled back.

While individuals (Presidents Reagan and Bush) are arguably the most important factor explaining the dearth of environmental action in the United States in the 1980’s, the political system in Germany--especially the party system--is perhaps most important in explaining why new environmental policies were adopted in that country. A substantial environmental movement developed in opposition to nuclear power in the middle part of the 1970’s, and grew stronger towards the end of the decade in response to worsening pollution problems. In particular, concern about large-scale forest die-back (Waldsterben) caused by acid rain led to public demands for stronger environmental points on a 100-point scale, and the differences grew wider during the 1980’s and 1990’s” (Kraft, 2003, p. 131).

20 In order to limit cost concerns, a permit trading system was designed to make the policy more efficient; companies that could not meet their air pollution reduction targets could buy permits from companies that were able to exceed their targets.
policies. The popularity of the environmental movement was highlighted by its political success, as a number of local Green Parties won local elections beginning in 1977 (Scharf, 1995). These various Green Parties coalesced in 1980, forming a national Green Party (Die Grunen), which contested national elections in the same year. Although not successful in the 1980 elections, the emergent Green Party put pressure on the major political parties to adopt environmental positions.

In 1982 the center-left government of Helmet Schmidt--which consisted of a coalition between the Social Democratic Party (SPD) and Free Democratic Party (FDP)--drafted an environmental program in response to growing public demands. At the center of the program was a set of strict air pollution policies to deal with acid rain. However, the Schmidt government was unable to enact its plan because the FDP abandoned the SPD in order to form a new coalition government with the Christian Democratic Union/Christian Social Union (CDU/CSU). Many feared the worst when the new center-right government took power in 1982; it was believed that Chancellor Helmut Kohl would give in to the demands of industry and scale back environmental regulations. However, the Kohl administration surprised many by adopting the environmental program of the outgoing SPD (Schreurs, 2002). One reason for Kohl’s actions is that pressure from the environmental movement had grown: the Green Party won its first seats in the Bundestag (lower house of parliament) in the 1983 elections (the elections that resulted from the FDP leaving the SPD for the CDU/CSU), obtaining 5.6% of the national vote and twenty seven seats in parliament (Scharf, 1995). Much as had
happened in the United States in the early 1970’s, the major parties in Germany seemed to embrace the issue of environmental protection because of its political expediency.

In addition to the party system, a second liberal factor that influenced German environmental politics during the 1980’s was individuals/norm entrepreneurs. Chancellor Helmut Kohl and his ministers in charge of the environment were particularly important in promoting new environmental policies. These officials were aided by the political system in Germany, which allowed them to reduce opposition from dominant industry groups.

As mentioned, one reason Helmut Kohl supported new environmental policies was because of pressure from the Green Party. However, Kohl also embraced new environmental policies because he believed that they could be beneficial for the economy. Kohl, along with Minister of the Interior Friedrich Zimmermann, believed that environmental technology could be a new source of exports for the German economy.21 Key for the success of the new policies was acceptance by industry and the unions: “Business and trade union organizations weakened in their opposition to environmental goals…While they previously argued, almost without reservation, that pollution control measures would have a negative impact on economic growth and employment, they came to recognize that such measures could constitute an important factor in improving both the economic climate and the structure of the economy” (Weidner, 2002, p. 152).22

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21 The Interior Ministry was responsible for environmental matters at this time.
22 For example, the coal industry and automobile industry were willing to accept the new air pollution regulations because of potential economic benefits: the coal industry was convinced there would be new international markets for scrubbers and other clean-coal technology, while the automobile industry believed adoption of catalytic converters would help close the technology gap with Japanese and American automakers (Boehmer-Christiansen, 1992).
compliance of these groups was the result of Germany’s corporatist governance style. The government worked closely with industry and labor to make sure that the new policies were acceptable. In order to help industry, the government engaged in a form of ‘Green Keynesianism’, increasing funding for environmental research and development (Boehmer-Christiansen & Kellow, 2002). It also pressed the European Community to adopt strict air pollution measures so that German industry would not be at a competitive disadvantage, and so European countries would be more likely to have to purchase German air pollution technologies.

Demand for environmental protection remained strong throughout the 1980’s. Discovery of the ozone hole in 1985, and the Chernobyl nuclear accident in 1986, highlighted the need for proactive measures. In the wake of Chernobyl, the Kohl government created the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU), which took over environmental responsibilities from the Interior Ministry. In the 1987 elections, the Green Party increased its share of seats in the Bundestag to 42, while the Bundesrat—a parliamentary body representing states’ interests—increasingly supported environmental regulation. This widespread support for environmental issues provided the BMU with political power and made it easier to enact new policies (Wallace, 1995). The new environment ministry gained prominence with

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23 Germany’s original environment program was founded on three principles. One of the founding principles was based on Germany’s traditional corporatist system: “The principle of cooperation tries from the very outset to secure the voluntary willingness of German industry to cooperate in order to prevent environmental damage by developing innovations in environmental technology” (Rothkirk, 1995, p. 66).

24 With the Green Party’s entry into power, the traditional ‘iron triangle’ corporatist system (government, industry, labor) became a ‘green rectangle’ as environmental interests were included in the decision making process (Weidner, 2005).

25 The government also wanted to make sure that trans-boundary air pollution from other European countries did not counter its hard work.
the appointment of Klaus Topfer in 1987. Much like Kohl, Topfer, an economist by training, felt environmental regulations could be beneficial for the economy. Topfer was very active and pushed through a number of policies that benefitted the environment, as well as the economy. For example, the strengthened liability law (1990) aimed at increasing economic efficiency and industry competitiveness by reducing waste and pollution (Weidner, 1997). Topfer also led the way in international negotiations, pressing for tough policies in order to ensure environmental protection and German competitiveness.

Conclusion

Germany and the United States experienced very different political situations in the 1980’s, resulting in differences in environmental preferences. Factors identified by liberal theory explain these differences. As liberal theory stresses, preferences are usually “biased in favor of the governing coalition or powerful domestic groups” (Moravcsik, 2003, p. 16). This was true in both the United States and Germany. In the United States, industry found allies in Presidents Reagan and Bush, who objected to stringent environmental regulations. There was enough push-back from Congress to stop too much damage from being done, but it was too divided to enact new policies. In Germany, a growing environmental movement convinced all political parties to adopt environmental positions. Helmut Kohl also embraced environmental positions because he thought new policies would benefit the economy. Similarly, industry accepted new policies because it was convinced by the Kohl government, through corporatist dealings,
that in the long-run the economy would benefit. These domestic influences carried over into climate change negotiations.
Chapter 4

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Climate change was placed on the international political agenda in the 1980’s. From the start, there were mixed reactions to the problem. The United States approached the issue reluctantly, while many European countries, including Germany, thought that strong, immediate action should be taken. After much effort, international negotiations ended in a compromise agreement, creating the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. This compromise agreement can best be explained by liberal theory.

A. Discovery of Climate Change and Political Action

Contemporary research on the greenhouse effect and potential climate change began in the 1950’s. In the 1970’s research on climate change accelerated as scientists from around the world looked into the issue. This effort was led by two international scientific bodies--the World Meteorological Organization (WMO) and International Council of Scientific Unions (ICSU)--in collaboration with the United Nations Environment Program (UNEP). These organizations hosted a number of conferences and workshops that brought the issue of climate change to the world’s attention. In the early 1980’s, UNEP, led by Secretariat Dr. Mostafa Tolba, funded a report by WMO and ICSU, which was intended to reach a broader scientific and political audience (Bolin,
In order to showcase the report’s findings, UNEP sponsored an international conference in Villach, Austria in 1985.

The report showcased at the Villach Conference made strong claims about man-made climate change and called for political action to be taken. Buoyed by the successful adoption of the Vienna Convention to fight ozone depletion, Dr. Tolba sent a letter to Secretary of State George Schlutz urging the United States to consider creating a convention on climate change based on the findings of the Villach report (Agrawala, 1998). The letter was discussed by the National Climate Program Policy Board, which included a number of agencies with conflicting views. Some members of President Ronald Reagan’s administration were skeptical of the science behind climate change and reluctant to take any action. Within the Policy Board, “the Department of Energy felt strongly that the Villach report was inadequate because it was not prepared by government officials” (Hecht & Tirpak, 1995, p. 381). In contrast to the Department of Energy, “EPA and the Department of State supported the idea of a convention and suggested that perhaps it was time for governments to prepare an international scientific assessment, especially in light of conflicting scientific evidence” (Hecht & Tirpak, 1995, p. 381). The State Department and EPA supported an intergovernmental scientific body, in part, because they had witnessed the importance of an international scientific consensus for reaching an agreement to combat ozone depletion; their hope was that an intergovernmental scientific body could reach a similar consensus on climate change, making it easier to create a convention (Hecht & Tirpak, 1995). President Reagan and

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26 The National Climate Program Policy Board was a body established by President Jimmy Carter to explore climate change.
the Department of Energy also supported intergovernmental scientific cooperation. However, as opposed to the EPA and State Department, Reagan and the Department of Energy were hoping to gain control of the process and slow it down; they wanted “to prevent Mostafa Tolba from ‘capturing’ climate, the way he had ozone” (Agrawala, 1998, p. 612). As a result, the decision was made to support an intergovernmental scientific assessment. This led to the creation of the Intergovernmental Panel on Climate Change (IPCC), under UNEP auspices, in 1988.

The Reagan administration approached climate change science warily, whereas the German government took an active interest in the issue. In response to growing concerns about ozone layer depletion and climate change, in 1987 the German government created a special Enquete Commision on Preventative Measures to Protect the Atmosphere. The commission was made up of scientists and members from all political parties; its purpose “was to incorporate scientific findings more rapidly into the political process by bringing parliamentarians face to face with scientific experts” (Schreurs, 2002, p. 133). The commission also consulted with federal ministries and industry (Hatch, 2007). Its first report was completed in 1988 and called for precautionary action based on the available scientific evidence:

There is growing evidence suggesting that the expected changes in the Earth’s atmosphere and in the climate…will have serious consequences for human living conditions and for the biosphere as a whole—consequences which preventive measures can prevent to a limited extent only. Dramatic developments cannot be precluded…In the energy sector,

27 The Reagan administration tried to get more control of the domestic process as well. In 1987, shortly after it recommended an intergovernmental scientific organization, the National Climate Program Policy Board was replaced with the Committee on Earth Sciences, which had greater oversight by the Reagan White House (Hecht & Tirpack, 1995).
the Federal Republic of Germany accounts for about 3.6 percent of global CO\textsubscript{2} emissions from commercial fuels. So, even if national reduction strategies go beyond international reduction targets, their direct contribution is very small on a global scale. It can be assumed, however, that measures initiated in the Federal Republic of Germany may indirectly induce larger reductions. These indirect reductions might attain a relevant order magnitude, e.g., if national German measures push ahead the development within the EC, if they lead to competitive advantages in the world market, if energy-efficient innovations which are ready to be marketed are rapidly launched in the market place, if they help to improve the innovation potential of the industrialized nations as a whole, if they lead to appropriate development assistance, etc. (Schreurs, 2002, p. 155).

Miranda Schreurs (2002) points out that the report was unique in that it had unanimous support from all parties, whereas “Enquete Commissions typically have majority and minority opinions” (p. 155).

The issue of climate change took on greater relevance after the 1988 Toronto Conference. This was a conference attended mainly by scientists, but a number of government officials from various countries were also present. Conference attendees produced a paper that called for a climate change convention, as well as governments and industry to “reduce CO\textsubscript{2} emissions by approximately 20 per cent of 1988 levels by the year 2005” (as cited in Patterson, 1996, p. 34). This spurred political action in the United States.

Following the Toronto Conference, Democratic Senators Timothy Wirth and Al Gore conducted a number of hearings on climate change, bringing the problem to the attention of the American public. In February 1989 Wirth introduced a national energy bill that promoted nuclear and renewable energy and incorporated the goals agreed to at

\footnote{Much as was the case with air pollution policy, the report hinted at the potential economic benefit from environmental technology.}
Toronto: “The bill [aimed] to cut carbon dioxide emissions in the United States by 20 percent by the year 2000…[it also called] for the convening of an international conference to adopt a binding global climate convention to reduce carbon dioxide in 2000 by 20 percent from the 1988 level” (“Senate Proposal”, 1989, p. 73). 29 Al Gore introduced a corresponding bill aimed at beefing up the EPA; focusing more attention on international environmental problems; and reducing greenhouse gases (U.S. Senate, 1989).

During the 1988 presidential election, George H.W. Bush attempted to distance himself from the extreme anti-environmental views of Ronald Reagan. Bush said he would be an environmental president, famously saying in regards to climate change: “Those who think we are powerless to do anything about the greenhouse effect are forgetting about the White House effect. As president I intend to do something about it” (Agrawala & Andresen, 1999, p. 460). But, much like Reagan, Bush approached the issue of climate change warily. In May 1989, however, he was shamed into taking a more active approach after it was revealed that the Office of Management and Budget--led by Reagan holdover Richard Darman--altered the testimony of National Aeronautics and Space Administration (NASA) scientist James Hansen: “[Hansen] had intended to assure the subcommittee [Senate Subcommittee on Science] that he and his NASA colleagues who prepared the testimony were ‘confident that greenhouse gases are primarily of human origin’”. But the OMB insisted he state that the relative contribution

29 Wirth’s bill was based on a report entitled Project 88, which was commissioned by Wirth and Republican Senator John Heinze. Project 88 focused on using market mechanisms--such as the use of taxes in order to induce conservation--to address environmental problems. The report called for a reduction in use of fossil fuels and the promotion of renewable energy in order to reduce reliance on oil imports and guard against global warming. It was also the basis for the Clean Air Act (Stavins, 1988).
of human and natural processes to changing climate patterns ‘remains scientifically unknown’” (Rosenbaum, 1995, p. 83). Three days later, after a barrage of criticism from the media and Congress, the Bush administration said it was willing to begin working towards an international agreement on climate change.

In contrast to the Bush administration’s cautious approach, Germany took proactive measures. Due to widespread support for the Enquete Commission Report, Germany pushed for the adoption of an international convention. Environment Minister Klaus Topfer began shaping a domestic program to reduce greenhouse gas emissions. Much like Timothy Wirth and Al Gore in the United States, Topfer believed it was feasible to meet the twenty percent reduction goal agreed on at the Toronto Conference.

Germany was joined by a number of other European countries that felt action needed to be taken. These countries met in The Hague, Netherlands, in the early part of 1989 to discuss the need for stronger international rules to deal with climate change and other environmental problems (North, 1989). Participants at The Hague Conference organized a follow up meeting in Noordwijk, Netherlands. This gathering brought together environment ministers from around the world to discuss the issue of climate change. At Noordwijk a number of countries proposed measures similar to those outlined in Toronto, focusing on the need to stabilize greenhouse gas emissions. EPA administrator William Reilly attended the Noordwijk Conference and supported the stabilization plan. However, Reilly was challenged by the White House Domestic Policy

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30 Darman was also staunchly opposed to the Clean Air Act. EPA director William Reilly notes that Darman launched an “uncompromising attack, basically, on the proposal to spend any money at all on acid rain” (as cited in Gabriel, 1989)
Council, which opposed the plan (Gold, 1989). The Bush administration’s failure to support strong action resulted in a weakened final agreement at Noordwijk: “the Noordwijk Declaration recognized the need for industrialized countries to stabilize their greenhouse gas emissions ‘as soon as possible’, [but] opposition by the United States, Japan, and the Soviet Union prevented conference participants from agreeing on a specific date for stabilization (a ‘timetable’) or the level of emissions at which stabilization should occur (a ‘target’)” (Bodansky, 1993, p. 468). Klaus Topfer felt the declaration was too weak, stating: “The time to act is now, even if we have not yet reached any definitive scientific certainty about the causal interrelations and the future development of climatic changes…We believe it is necessary to stabilize CO₂ emissions by the year 2000. A 20% reduction by the year 2005 must be urgently examined” (as cited in Schreurs, 2002, p. 146). This difference between the United States and European countries became entrenched over time.

As momentum increased towards a climate change convention, Chief of Staff John Sununu (as well as other conservatives within the Bush administration) stressed a go-slow approach. Sununu was particularly influential, edging out William Reilly. A background in engineering and skepticism of climate change led Sununu to dissect climate change computer models in order to point out their faults (Dowd, 1990).

President Bush’s top science advisor, Allan Bromley, shared Sununu’s skepticism:

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31 President Reagan gave the White House Domestic Policy Council oversight of international environmental matters in response to the independent, proactive actions taken by the EPA and State Department during the ozone negotiations: “after 1987, international environmental issues were coordinated by a working group of the White House Domestic Policy Council, in which the Environmental Protection Agency was increasingly outmuscled by major domestic political players such as the Departments of Energy, Interior, and Commerce, the Office of Management and Budget, and the Council of Economic Advisers” (Bodansky, 1993, p. 464).
“Given the broad slate of science policy issues that demand attention, it can sometimes be frustrating to dwell predominantly on a phenomenon--anthropogenic climate change on a global scale--that has yet to be conclusively demonstrated” (Bromley, 1990, p. 55).

These views drew criticism, both from Democratic members of Congress and Europeans.

In response to criticism that it was moving too slowly on climate change, the Bush administration scheduled a White House conference in April 1990 to discuss the issue. At the conference Bush focused on the economic and scientific uncertainties surrounding climate change. Germany, in contrast, wanted to move more rapidly. Klaus Topfer once more stressed the need for immediate action: “Gaps in knowledge must not be used as an excuse for worldwide inaction” (as cited in Shabecoff, 1990a). Topfer and other European leaders were angered by two Bush administration documents leaked during the course of the meeting. The first was a set of proposals, “written in the form of a resolution, seemingly for the approval of the conference” (Shabecoff, 1990b). The second was an internal set of talking points produced for administration officials at the conference: “Among the points listed under ‘debates to avoid’ was the statement that it was ‘not beneficial to discuss whether there is or is not’ global warming or how much or how little warming. ‘In the eyes of the public’, it went on, ‘we will lose this debate. A better approach is to raise the many uncertainties that need to be better understood on this issue” (Shabecoff, 1990b). While the Bush administration continued its cautious approach, Germany and Europe moved ahead.

The policies of European countries became increasingly intertwined throughout 1990. Klaus Topfer estimated that Germany could reduce its carbon dioxide emissions
by as much as thirty percent—a figure confirmed by the Enquete Commission. This resulted in the government agreeing to “a goal of 25 percent reduction of the CO₂ emissions in the former West Germany based on 1987 levels” (Beuermann & Jager, 1996, p. 195). Several measures were proposed to meet this goal, including a European-wide carbon tax, energy efficiency regulations, and an electricity feed-in law that promoted renewable energy by guaranteeing a minimum price for electricity generated by renewable sources. At the same time, the European Council called for the adoption of targets and timetables in order to reduce greenhouse gas emissions. This resulted in a proposal to reach stabilization of 1990 emission levels by the year 2000. The proposal was drafted by the Environment and Energy Directorates-General within the European Commission. In order to meet the stabilization goal, the Environment and Energy Directorates-General drew up a plan that was similar to Germany’s, focusing on energy conservation, the promotion of renewable energy, and a carbon tax (Haigh, 1996).

However, the tax proposal became bogged down because of opposition from the Taxation Directorate, as well as European industry.

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32 A European-wide tax, rather than a purely domestic tax, was proposed because industry and the Ministry of Economics were concerned about German economic competitiveness (Schreurs, 2002, p. 160).
33 The feed-in law was also meant to promote the growing wind industry in Germany (Rickerson, 2002).
34 At its June meeting the European Council stressed that the European Community should take a leadership role on the environment: “The Community and its Member States have a special responsibility to encourage and participate in international action to combat global environmental problems. Their capacity to provide leadership in this field is enormous” (as cited in Haigh, 1991, p. 163).
35 The Environment Directorate supported these measures in the name of environmental protection, while the Energy Directorate supported them in order to promote energy security (Skjaerseth, 1994).
In November 1990 the European Community brought its emissions stabilization proposal to the Second World Climate Conference in Geneva. The purpose of the conference was to showcase the First Assessment Report of the IPCC, which laid out the most up to date climate change science. The report stressed human-induced climate change was a real concern, but acknowledged that many uncertainties remained (Bolin, 2007). Once more the Bush administration played down the need for action, stressing the uncertainties found in the IPCC report. Allan Bromley noted: “Working Group I devoted considerable attention to scientific uncertainties in its report…[and] Working Group III concluded…the information available to make sound policy analyses is inadequate because of…uncertainty with respect to the costs, effects on economic growth, and other economic and social implications” (Bromley, 1990, p. 57). A number of countries were upset with the United States for its intransigence. Germany and Japan tried to quell the economic worries of the United States by arguing that emissions reductions would “stimulate industry though the development of new technology” (Simons, 1990). Despite the reluctance of the United States, the conference resulted in a United Nations resolution that created an International Negotiating Committee (INC) to begin discussion of a climate change convention.

The points of contention between the industrialized countries at the Noordwijk Conference and Second World Climate Conference carried over into the INC

36 The legal standing of the European Community/European Union in international environmental affairs has been somewhat confusing. It generally negotiates as a whole and signs agreements, but member states also sign agreements and can provide their own proposals (Vogler, 1999)
negotiations. The initial negotiating positions of countries were similar to those made at Noordwijk and Geneva. Once more the major disagreement was over what action needed to be taken. European countries called for stabilization of carbon dioxide emissions to 1990 levels by the year 2000. Germany and the Netherlands stressed the need for urgent action based on the precautionary principle: “This [climate change] requires immediate and drastic measures on the part of the developed countries in order to stabilize and reduce their emissions” (United Nations, 1991, p. 18). Germany suggested countries “increase use of renewable energy sources” and consider the use of “economic and fiscal instruments” (i.e. taxes) in order to reduce emissions (United Nations, 1991, p. 22). The Netherlands proposed countries “refrain from subsidizing activities, inter alia, in the energy domain, which contributes to global warming” (United Nations, 1991, p. 29). The Bush administration, however, felt such policies were excessive.

The United States opposed almost all of the European proposals. To begin with, the Bush administration was against institutionalizing the precautionary principle (as well as a number of other principles) because it did not want the principle to become a

37 Prior to creation of the INC, developing countries played a minor role in the politics of climate change. As discussions moved under United Nations auspices, developing countries became more involved, adding a new dimension to discussions. However, as early as the Noordwijk Conference, the industrialized countries noted that developing countries would not have to take the same actions industrialized countries would have to take. As a result, industrialized countries played a more important role negotiating the substantive details of what should be done to mitigate climate change.

38 Europeans focused on reducing carbon dioxide because it plays the biggest role in global warming.

39 “A 1998 consensus statement characterized the precautionary principle this way: ‘when an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically’” (Epstein et. al., 2001, pg. 871).
precedent in international law (Bodansky, 1993).\textsuperscript{40} The administration also rejected any targets and timetables, arguing, “Specific commitments for emissions reductions should not be included in the framework convention, because of the need for flexibility in nations’ choices of their own measures. Further, there is a real need for further analysis of the costs and benefits of international responses” (United Nations, 1991, p. 94).

Quantified targets were opposed because the administration was worried about having to implement top-down government regulations (U.S. House of Representatives, 1991). In order to make emissions reductions flexible and cheap, the Bush administration focused on reducing all greenhouse gases, including changes in both sources and sinks:

“strategies to understand and address climate change will be most environmentally effective and most economical if they address all sources, sinks and reservoirs of greenhouse gases and their precursors comprehensively, are based on, and continually reevaluated in light of, relevant scientific, technical, and economic considerations, and are as equitable and economically efficient as possible” (United Nations, 1991, p. 90).

The administration wanted to count increasing sinks (e.g. planting trees) towards its emissions reductions in order to avoid having to reduce emissions from sources (e.g. limiting the burning of fossil fuels).\textsuperscript{41} This position was required as a result of the administration’s domestic plan, which included planting trees, and reducing greenhouse gases (excluding carbon dioxide) through actions already being taken under the Montreal

\textsuperscript{40} In a separate environmental agreement being negotiated at the same time as climate change negotiations—the Rio Declaration on Environment and Development—the administration tried to alter the language of the text so that it read ‘precautionary approach’, rather than ‘precautionary principle’ (Kramer, 2004, p. 63).

\textsuperscript{41} Several other countries, including Canada, Australia, and New Zealand, also supported the inclusion of both sources and sinks (Bodansky, 1993).
Protocol and Clean Air Act. European countries and members of Congress, however, objected to this ‘double counting’ (Bodansky, 1993).

In contrast to negotiations over what actions should be taken, negotiations over the implementation mechanisms to be included in a climate change convention went relatively smoothly. The United States, European Community and other industrialized countries generally agreed on the need for reporting and compliance mechanisms. By the time of the fourth INC session in December 1991, the second working group of the INC had prepared a text that all countries agreed upon (Dowdeswell & Kinley, 1994). It was agreed countries should create reports detailing their greenhouse gas emissions and the measures taken to reduce output of these gases. The reports were to be reviewed by the Conference of Parties--a plenary session of convention signatories that would take place once a year (United Nations, 1992). It was also agreed to resolve disputes through “negotiation or any other peaceful means”, including referral to the International Court of Justice if all parties consented (United Nations, 1992). The only objections to the implementation mechanisms were voiced by developing countries: “they regarded with suspicion proposals to establish strong monitoring, review, and enforcement mechanisms, since these would, in their view, be controlled by the North [industrialized countries], which could use the mechanisms to criticize developing countries and interfere with their sovereign right to develop” (Bodansky, 1993, p. 481). However, the

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42 The administration predicted that carbon dioxide emissions would actually increase fifteen percent by the year 2000 (U.S. House of Representatives, 1991, p. 29).
43 During the negotiations two working groups were created: the first dealing with commitments and the second dealing with implementation mechanisms.
44 It was also agreed to create a Subsidiary Body for Implementation (a special body housed in the Secretariat) that would help review reports.
developing countries relented since they did not have to make any emissions reductions, and because the developed countries agreed to pay for the reports of the poorest countries.

After reaching agreement on implementation mechanisms, the only remaining point of conflict between the industrialized countries--especially between Europe and the United States--was what actions should be taken. The European Community, aided at times by Japan, attempted to work out a compromise with the United States. However, it was repeatedly rebuffed by the Bush administration. In order to try and break the deadlock, INC Chairman Jean Ripert of France scheduled several meetings with a select number of countries. After more disagreement it was decided that Ripert should draft his own compromise text. Ripert was able to resolve many minor issues in his compromise text, but “declined to introduce a text on specific commitments to limit greenhouse gas emissions because of its political sensitivity” (Bodansky, 1993, p. 491). Determined to get its way, the Bush administration threatened to boycott the Earth Summit in Rio (where the convention was supposed to be signed) if the final text included binding targets and timetables.\footnote{The Bush administration also warned that bilateral relations would be damaged if the Netherlands, Austria, and Switzerland went through with a plan to create a separate document for countries to sign that would commit them to more stringent emissions reductions (U.S Senate, 1992a).} The United Kingdom stepped in at the last minute and worked out a compromise proposal with the United States.

The compromise proposal worked out between the United States and United Kingdom appears as article 4(2) of the convention; it contains extremely convoluted language that says countries will ‘aim’ to reduce their emissions to 1990 levels by the
year 2000 (United Nations, 1992). Even though a compromise on the language was reached, there was still disagreement over its meaning: “President Bush’s domestic policy advisor stated, ‘there is nothing in any of the language which constitutes a commitment to any specific level of emissions at any time.’” In contrast, the chief British negotiator characterized the provisions as ‘indistinguishable’ from an absolute agreement” (Bodansky, 1993, p. 516). However, other European countries and a number of Congressmen in the United States saw the compromise for what it was: acquiescence to the demands of the Bush administration. The Germans were particularly upset with the compromise; Klaus Topfer complained: “conservatives in the United States are picking ‘ecologism’ as their new enemy” (Greenhouse, 1992). Several weeks before the Earth Summit, the German Bundestag held a special session in which it attacked the Bush administration. Chancellor Kohl complained President Bush had prevented progress, while Bundestag members “accused the United States of ‘ecological terrorism’” (“Germans Criticize”, 1992). Despite these complaints, Germany, as well as other European countries, the European Community, and the United States signed the United Nations Framework Convention on Climate Change at the Earth Summit in June 1992.

B. Discussion and Analysis

Beginning with the Reagan administration, the United States approached the issue of climate change warily. Once negotiations began, the United States took a very cautious approach, calling for further research and non-binding commitments. The Bush administration wanted to make any agreement as flexible as possible: it pushed for
inclusion of multiple greenhouse gases and sinks, and opposed any mandatory policies or measures in the final text. In contrast, the European Community, led by proactive states such as Germany, thought immediate action was necessary. The European Community called for binding targets and timetables in order to guarantee countries would take action. Germany and the Netherlands wanted all states to adopt similar policies and measures in order to ensure a climate change agreement was effective. In the end, UNFCCC was a compromise agreement, with the final details largely worked out between the United States and the European Community. Liberal theory best explains this compromise.

I. Liberal Theory

According to liberal theory, state preferences must be compatible in order for states to be able to reach cooperative agreements. In the case of UNFCCC preferences were minimally compatible, resulting in an agreement based on the lowest common denominator. The compromise found in UNFCCC is in line with the prediction of liberal theory, which states: “the willingness of states to expend resources or make concessions is itself primarily a function of preferences, not capabilities” (Moravcsik, 1997, p. 523). In this case Germany and the European Community wanted an agreement more than the United States, and had to make numerous concessions in order to reach a deal. The United States got much of what it wanted in the final text: multiple greenhouse gases
were included, as were sinks, and mandatory policies were excluded. The only recognizable proposal that remained from the European Community was the target to reduce emissions to 1990 levels by the year 2000. However, even here the United States got its way because the target was non-binding. Domestic politics help explain these results.

The factors identified in the previous chapter--individuals/norm entrepreneurs, political systems, and powerful industry groups--help explain the position of the United States and the outcome of UNFCCC. The actions of the United States were shaped by a number of important groups and individuals. President Bush and his top advisers played a particularly important role in shaping the preferences of the United States. As was seen in the previous chapter, the Bush administration was generally unenthusiastic about environmental policies because of worries about economic costs. The same was true for climate change policies. Chief of Staff John Sununu was especially influential in shaping the administration’s position. Sununu opposed tough measures because he was suspicious of environmentalists and felt climate change was being used to implement a radical environmental agenda promoted in the 1970’s, which stressed the need to cut back on consumption and economic growth. Sununu felt the focus on carbon dioxide (rather than all greenhouse gases) proved his fears: “some people are less concerned about climate change and more concerned about establishing an anti-growth policy” (as cited in “Where Sununu Stands”, 1991). President Bush expressed similar views, charging that

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46 Matthew Patterson (1996) argues that the language on the greenhouse gases to be included was also a compromise. The final language in the agreement says participants will try to reduce “carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol” (United Nations, 1992, p. 6). The specific mention of ‘carbon dioxide’ appeased the European Community, while the inclusion of the term ‘other greenhouse gases’ appeased the United States.
“environmentalist critics of his Earth Summit positions [were] ‘extremes’ who [wanted] to ‘shut down’ American society” (Wines, 1992). Based on these ideological views, it is clear why the administration opposed tough actions.

The personal views of Bush administration officials are nearly sufficient to explain the position of the United States (Falkner, 2008). However, the influence of powerful industry groups was also important. A number of industry organizations formed because of concerns about the potential costs of climate change policies. The largest and most influential industry group was the Global Climate Coalition, which included most large manufacturing, fossil fuel, and chemical businesses in the United States. The Global Climate Coalition formed in 1989 and conducted a lobbying campaign that targeted the Bush administration, Congress, and the public. The group stressed the scientific uncertainty of climate change, as well as the potential economic costs of reducing greenhouse gas emissions: “We believe it is essential that the climate change issue be framed in the context of industrial competitiveness in the global economic environment” (U.S. Senate, 1992a, p. 69). Industry clearly played a role in shaping the stance of the Bush administration. William Reilly, responding to Congressional questioning, pointed out the role of industry: “We were encouraged by some other governments to call for stabilization and make a commitment to targets and timetables. We wanted to be literally fair to our analysis and say that that is not something that we are prepared to do at this time, particularly in view of the concerns of a number of U.S. industries about the likely implications of such a commitment” (U.S. House of Representatives, 1992, p. 93). It is noteworthy that the Global Climate
Coalition was supportive of the weak compromise language found in the climate convention (U.S. Senate, 1992a).

The views of President Bush and the influence of industry were evident in the domestic energy program of the administration. The energy plan had the potential to help reduce greenhouse gas emissions, however, the administration paid little attention to reducing emissions; instead it appeased a certain constituency--the fossil fuel industry. President Bush’s national energy strategy was largely supply-side oriented, calling for opening the Arctic National Wildlife Refuge to oil exploration; tax breaks for oil, gas, and coal; and deregulation of the energy industry (Schneider, 1991). The plan was devoid of energy efficiency requirements, such as increased automobile gas mileage standards; building insulation requirements; and efficiency standards for industry (U.S. Senate, 1991).\footnote{Due to its distaste for regulation and complaints from industry, the administration relied on market mechanisms such as labeling requirements for energy efficient industrial equipment (U.S. Senate, 1991).} Attempting to justify the absence of such policies, James Watkins, the Secretary of the Department of Energy, said: “the Administration opposes ‘harsh command and control’ measures, like increases in the mandatory gasoline mileage standards” (Wald, 1991). The oil industry praised the plan: “it certainly sounds very positive, not only for the industry, but for the consumer…it certainly makes us less reliant on insecure sources of oil” (as cited in Schneider, 1991). The administration’s policies made it impossible to reduce carbon dioxide emissions, explaining why the United States wanted multiple gases and sinks included in the convention.

Considering the views of the Bush administration and industry, it is surprising that the United States committed to any climate change agreement at all. However, the
American political system—especially the party system and divided government—also played an important role. Throughout the process a number of Congressmen—mostly Democrats—kept constant pressure on the Bush administration to take action. This appears to have had positive results.

Responding to the climate change plan of the Bush administration, Senate Majority Leader George Mitchell introduced a non-binding Sense of the Senate resolution (co-sponsored by thirty-five Democrats and five Republicans), which called for the administration to adopt more stringent greenhouse gas reduction policies. Mitchell said: “We cannot afford pea-under-the-shell proposals that sound like they address the problem but in reality, like the old shell game, do very little” (“Report Says”, 1991). Senators Al Gore and Timothy Wirth repeatedly tried to get the administration to take tougher actions, holding hearings and stressing that new energy technology could benefit the American economy by making it more efficient and competitive. During Senate committee hearings on climate change, Wirth told Robert Reinstein (the United States’ lead negotiator) new policies could be beneficial for the economy: “There are those of us who believe that other countries around the world have done a much better job of recognizing that they have to move aggressively toward an economy of the twenty-first century…The Germans are taking advantage of this for the purposes of their economy, and their government and their businesses are working very closely together making this transition. We would like to see that in this country as well” (U.S. Senate, 1992b, p. 193). Democrats reacted negatively to Bush’s energy plan, realizing that it did little to reduce greenhouse gas emissions. Senator Joseph Lieberman denounced the plan,
complaining: “the administration has turned its back on looking for new sources of energy. The 1990 combined energy technology research and development budgets, in 1990 dollars, for renewable and clean energy and conservation was 82 percent lower than the budgets were in 1980” (U.S. Senate, 1991, p. 117). Congressional Democrats introduced a number of competing bills, which focused on energy efficiency and renewable resources of energy--policies similar to those promoted in Europe. Ultimately, Democrats were able to amend Bush’s energy bill, adding funds for renewable energy and energy efficiency measures.

In addition to Congress, the Bush administration was pressured on several other fronts as well. The Democratic challengers to George Bush’s re-election bid called for stronger action, challenging the environmental credentials of the president (Patterson, 1996). This was combined with public support for action on climate change. European countries also pressed the Bush administration to act. These pressures made it politically expedient for Bush to sign the treaty: he did not want to be blamed for bringing down a relatively popular agreement in an election year.

Shake-ups in the White House also appear to have influenced the preferences and actions of the United States. European countries intensified their pressure on the administration after the departure of John Sununu in 1991. It is noteworthy that the Bush administration became more flexible and willing to compromise after Sununu’s

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48 Senators Timothy Wirth and John Heinz, for example, released a report looking at the feasibility of a carbon or fuel tax. The Bush administration, however, rejected a carbon tax based on a report from the Department of Energy, which said a tax would be excessively costly to the economy (U.S. Senate, 1992a).

49 Polls showed a majority of the population (63%) felt climate change was a serious threat. Also, a majority of the population (58%) supported a treaty, even if it would hurt the economy (“How Three”, 1992).
resignation (Kjellan, 1994). Sununu’s departure coincided with an increase in influence for William Reilly, who pushed the administration to adopt the year 2000 stabilization target found in the compromise proposal. Reilly argued the target was achievable given the fact he had convinced a number of companies to partake in the EPA’s voluntary ‘Green Lights’ program, which focused on increasing energy efficiency (Goldberg, 1993). Liberal theory helps explain this situation, highlighting the importance of individuals during the final stages of negotiation. With the removal of Sununu and the rise of Reilly, the United States adopted a position that was minimally in-line with the European Community.

As in the United States, key individuals shaped the preferences of Germany (as well as the European Community). In Germany, Environment Minister Klaus Topfer led the way. Topfer believed climate change was an urgent threat and immediate actions needed to be taken. He produced a plan suggesting Germany could make significant reductions in greenhouse gas emissions, which influenced the negotiating position of the European Community since Germany was its biggest polluter (Oberthur & Ott, 1999). Topfer was also one of the most vocal critics of the United States, repeatedly pushing the Bush administration to take stronger actions.

Klaus Topfer benefitted from the support of Chancellor Helmut Kohl. Kohl supported greenhouse gas emission reductions for a number of reasons. To begin with, he wanted to promote new technologies that would boost the economy. In 1990 the government enacted an electricity feed-in law that provided guaranteed prices for renewable energy. The law had dual purposes: to reduce greenhouse gas emissions and
to spur the renewable energy industry in Germany (Rickerson, 2002). This helps explain why Germany proposed countries use more renewable energy during the UNFCCC negotiations: the government was hoping that its renewable energy technologies would be needed by other countries (Boehmer-Christianson & Kellow, 2002). Kohl also supported climate change policies for political reasons. By stressing the dangers of climate change, Kohl opened the door to nuclear energy because it produces few greenhouse gas emissions. This was politically expedient because the nuclear industry had close ties to the CDU/CSU (Boehmer-Christiansen, 1992). Furthermore, a commitment to reduce carbon dioxide emissions gave Kohl an excuse to try and cut subsidies to the coal industry--a supporter of the rival SPD (Boehmer-Christiansen, 1992). Finally, the CDU/CSU hoped to use the issue of climate change as a way to capture Green Party votes (Schreurs, 2002).

The political system in Germany (party politics and the corporatist governance style) provided Topfer and the Kohl with relative freedom to promote strong climate change policies. The issue of climate change arose at the height of environmental awareness and support in Germany. As was seen in the previous chapter, the rise of the Green Party pressured the major parties in Germany to adopt greener stances. The same was true in the case of climate change. In addition to pressure from the Green Party, the major parties were supportive of climate change policies because of the results of the Enquete Commission. All parties participated in the commission and unanimously agreed climate change was a problem that needed to be dealt with. As a result, there was
relatively little political opposition to climate change policies in Germany, making it easier for the Kohl administration to take strong positions internationally.

As in the United States, industry in Germany opposed strict measures. However, German companies were more willing to accept action than were companies in the United States. This appears to be the result of Germany’s corporatist system. German industry was brought into the process early on, beginning with the Enquete Commission in 1987. In 1991, after consultations with the government, German industry agreed to take voluntary measures to reduce greenhouse gas emissions and improve energy efficiency (Beuermann and Jager, 1996). Although industry was willing to take voluntary actions, it opposed strict policies (especially the carbon tax promoted by Klaus Topfer). Industry was joined by the Economics Ministry, which argued that if a carbon tax were adopted it should also be adopted by other European countries in order to protect economic competitiveness (Schreurs, 2002). This resulted in Germany trying to influence the position of the European Community.

Liberal theory also helps explain the preferences of the European Community. The position of Germany—as well as other European countries—was complicated by its membership in the European Community. Dominant industry groups and a number of member countries forced the European Community to adopt a weaker position than some would have liked. Countries such as Germany, the Netherlands, and Denmark pushed for significant emissions reductions by the year 2000 and called for a European-wide carbon tax to help meet this goal. However, the European Commission’s Economics Directorate General and industry (Union of Industrial and Employers Confederations of Europe)
opposed a carbon tax, as did the United Kingdom and countries in Southern Europe.\(^{50}\) Much as had happened in Germany, the various interests reached an agreement that a carbon tax would only be adopted if other Organization for Economic Development countries did the same (Skjaerseth, 1994). The inability of the European Community to agree on a carbon tax helps explain why it was willing to compromise with the United States on the point of a binding target. Without the carbon tax in place, it was less certain the European Community would be able to stabilize emissions, meaning a non-binding target was more practical.

Although liberal theory does a good job of explaining the preferences of states and the compromise reached, it only partially explains the overall UNFCCC process. Andrew Moravcsik (1997) acknowledges the usefulness of neoliberalism in his delineation of liberal theory, and suggests liberal theory and neoliberalism can compliment each other: “States first define preferences--a stage explained by liberal theories of state-society relations. Then they debate, bargain, or fight to particular agreements--a second stage explained by realist and institutionalist (as well as liberal) theories of strategic interaction” (Moravcsik, 1997, p. 544). In the case of UNFCCC, liberal theory cannot stand on its own: neoliberalism is also required to help explain the outcome.

\(^{50}\) The United Kingdom did not oppose a carbon tax per se; rather, it did not believe that taxation should be a task of the European Community. Southern European countries opposed a tax because they thought it would hamper development (Haigh, 1996).
II. Neoliberal Institutionalism

Liberal theory on its own cannot fully explain the process and outcome of UNFCCC. Neoliberalism explains a number of key aspects of the climate change agreement, highlighting the importance of information provision. To begin with, neoliberalism explains why climate change became a worldwide concern that reached the political agenda. An international epistemic community--consisting of the WMO, IUSC, and UNEP--brought the issue of climate change to the world’s attention, spurring political action. Once this community became institutionalized through creation of the IPCC, it helped negotiations by providing the most up-to-date scientific information and suggestions for policy action. However, it is questionable how influential the IPCC’s policy suggestions were for the final agreement. This is because the suggestions were very general in an attempt to remain neutral. Regardless of its influence during negotiations, the process would not have been put in motion without the efforts of the international scientific community.

Liberal theory fails to completely explain why an agreement was reached. The theory correctly predicts the concessions made, but has little to say about mechanisms that made agreement possible. The relative quickness of negotiations was the result of successfully operating regime mechanisms. The International Negotiating Committee (INC) structure established by UNEP greatly aided the process. To begin with, the INC helped reduce the transaction costs by centralizing negotiations and streamlining the flow of information. According to Bodansky (1993), the INC “played a necessary role by giving states an opportunity to voice their views and concerns. They learned about and
gauged the strength of other states’ views. They sent up trial balloons and explored possible areas of compromise” (Bodansky, 1993, p. 475). Another function was carried out by INC Chairman Jean Ripert, who provided informational leadership. Ripert played a key role by drafting a final text that worked out a number of disagreements between the parties. Several participants in the negotiations claim agreement would not have been possible without the efforts of Ripert (Mintzer & Leonard, 1994). This case partially refutes the claim of Moravcsik (1998, 1999) that informational leaders are not important. Ripert helped states compromise on a number of minor issues, but states themselves developed the final compromise on the target and timetable of emissions reductions--the most important element of the agreement.

Another key role was played by the INC secretariat. Particularly important was the working group on implementation. Secretariat officials worked in collaboration with states to develop a set of rules that promoted transparency and created a better contractual environment (Dowdeswell & Kinley, 1994). For example, participating states agreed to a reporting and monitoring scheme in order to review the fulfillment of commitments. They also agreed to a dispute settlement process. These mechanisms provided some assurance states would not free ride, making agreement easier. Despite the presence of a better contractual environment, agreement was still difficult, suggesting other factors were important.

As with liberal theory, neoliberalism cannot explain certain aspects of this case. Neoliberalism’s reliance on game theory and neorealist assumptions makes it too mechanical; it suggests once a collective action problem is identified, actors will want to
find a solution and will be able to do so relatively easily. Neoliberalism cannot explain the complexity of negotiations in this case because it uses the assumption that states are autonomous, rational, unitary actors. The process of UNFCCC was far from straightforward. The Reagan and Bush administrations only reluctantly acknowledged a collective action problem existed; they were dragged into the process and did not show much enthusiasm for finding a solution to the problem. Domestic pressures forced both administrations to partake in the process. Once negotiations began, finding an agreement was difficult and was only made possible by a last minute compromise. The compromise was partially a result of political shifts within the White House. Domestic politics are needed to explain these events--a factor neoliberalism ignores.

A final shortcoming of neoliberalism is it largely ignores the details of outcomes. The theory does not predict how negotiations will turn out and has little to say about why concessions are made. This is where the concept of preferences, and an exploration of domestic politics, is needed. In the case of UNFCCC, it appears liberal theory and neoliberalism are complimentary: neoliberalism can explain aspects of the broader process, while liberal theory can explain much of the details and the final outcome.

III. Neorealism

Neorealism is not very useful in the case of UNFCCC, but is not without explanatory power. The concept of power can explain certain aspects of UNFCCC. Energy security--and its implications for power--no doubt shaped the Bush administration’s preferences. The issue of energy security was particularly relevant for
the United States because the opening rounds of the climate change negotiations occurred as the Gulf War commenced. Robert Rubenstein (the lead negotiator of the United States) explicitly stated that the Bush administration was worried about energy security and, as a result, would not accept a binding target (“Money, U.S.”, 1991). The Bush administration’s energy plan also suggests concerns about power; it aimed at increasing domestic supply (mostly fossil fuels) in order to boost energy security.

Energy security and power concerns, however, cannot completely explain the actions of the United States. Although Bush’s energy plan relied on increasing domestic supply, it did little to reduce America’s reliance on foreign oil. Renewable energy could have also increased energy security, but was ignored by the Bush administration. Furthermore, it is questionable how much the Gulf War and power concerns influenced the energy plan. The Bush administration began working on the plan shortly after entering office and before the start of the Gulf War, making the connection to energy security more tenuous. The Bush administration’s ties to the oil industry can just as easily explain why the energy plan aimed at increasing domestic fossil fuel supplies. This explanation is more in-line with political economy and liberal theory than neorealism.

Energy security and its implication for power can also partially explain the actions of the European Community. The European Community had concerns about energy security, but unlike the United States, did not think making emissions reduction commitments was a problem. This is because Europeans believed renewable energy and energy efficiency policies could provide greater energy security (Commission of the
European Communities, 1991). The belief that climate change policies would make Europe more energy independent--and potentially more powerful--can help explain the actions of the European Community. However, environmental concerns were just as important, especially since the European Community climate change plan was created by Environment Directorate Carlo Ripa de Meana, a strong proponent of environmental protection. As in the case of the United States, domestic politics can explain the actions of the European Community just as well as neorealism.

Relative gains concerns were an issue during negotiations, but they appear to be mostly from industry--a situation better explained by political economy and liberal theory than neorealism. In the United States the Global Climate Coalition was worried about economic competitiveness and lobbied politicians to prevent an agreement. In Germany, industry worried about the effects of a carbon tax on its competitiveness and pushed the government to adopt the tax at the level of the European Community in order to create a level playing field. Similarly, the Union of Industrial and Employers Confederations of Europe lobbied the European Community to adopt a tax only if other Organization for Economic Cooperation and Development countries adopted similar measures. Based on this, participating states appear to have been more worried about relative gains in terms of economic competitiveness than power differentials.

Perhaps neorealism’s greatest weakness in this case is its inability to explain why an agreement was reached. The theory does help explain why the agreement had a non-

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51 Ripa de Meana ended up boycotting the Earth Summit because the European Community failed to pass a carbon tax in time for the conference. He also felt the convention did not do enough to combat global warming (Wielaard, 1992)
binding commitment with no mandatory policies. According to Grieco (1997), states wish to maintain as much autonomy as possible. The United States was clearly interested in maintaining flexibility and autonomy, and therefore rejected mandatory policies that would have limited its actions. However, neorealism cannot explain why the United States participated in negotiations and signed the agreement. From a neorealist standpoint, the convention should not have been signed since the Bush administration seemed rather uninterested in the matter. Furthermore, even if the agreement was non-binding and required little action from the United States, it does not appear to have had any real benefit in terms of power. Instead, domestic politics and pressure from the public and Democrats help explain the actions of the United States.

Conclusion

All three theories have some explanatory power in the case of UNFCCC. Neorealism is the least explanatory theory and is only marginally useful. It can explain concerns about energy security and the weakness of the final agreement, but cannot explain why the United States was a signatory. Liberal theory and neoliberalism are more useful. The two theories are complimentary and both are needed to explain UNFCCC. The concept of information (neoliberalism) helps explain why cooperation was possible in the case of climate change. To begin with, a collective action problem was identified by an international scientific community. This led to the creation of regime mechanisms that helped make finding a solution possible. The INC process helped reduce transaction costs by facilitating the flow of information, and transparency
mechanisms in the final agreement helped create a better contractual environment. However, this case shows regimes are not sufficient for cooperation in international affairs. Even though regime mechanisms were in place a final agreement was almost not achieved. The concept of preferences and exploration of domestic politics is needed in order to understand why states found it difficult to reach agreement, but also why agreement was eventually possible. In countries such as Germany, leaders adopted strong environmental positions as a result of pressure from green movements and belief in the economic benefits of new green technologies.\(^\text{52}\) In the United States, President Bush was less interested in an agreement because of ideological beliefs and pressure from industry. However, pressure from Democrats and EPA administer William Reilly kept the administration involved in the process. Liberal theory does the best job of explaining the compromise agreement reached: preferences were minimally compatible, but the European Community had to make concessions because it was more interested than the United States in creating a climate change agreement.

\(^{52}\) In addition to Germany, a similar situation occurred in other proactive states such as the Netherlands and Denmark (Weidner, 1997)
Chapter 5

THE KYOTO PROTOCOL

The Kyoto Protocol is a follow-up agreement to UNFCCC that took many years to complete. Negotiations dragged on as a result of the complexity of the Kyoto Protocol and because of disagreements between participants. Once again most of the major disagreements were between the United States and European Union. Unlike UNFCCC, however, the United States and European Union were unable to reach a compromise on a final agreement. Liberal theory does the best job of explaining these events.

A. Negotiations

Shortly after signing UNFCCC, President Bush lost his bid for re-election. Bush was defeated by Bill Clinton, who stressed the importance of the environment during the campaign; this was largely the result of pressure from his running mate Al Gore (Schneider, 1992). Climate change was an important area of focus in the early days of the Clinton administration, thanks in large part to the new vice president. Al Gore stressed the dangers of climate change and convinced Clinton to commit to the target outlined in UNFCCC (Carlson & Carney, 1993). In order to help meet the UNFCCC target (and ease the national deficit) the administration proposed enacting an energy tax.

53 The Maastricht Treaty (1992) resulted in the creation of the European Union. The European Community was one of the ‘three pillars’ of the European Union and technically still in charge of climate change negotiations (Volger, 1999). However, the term European Union will be used henceforth.
on the heat content of fuels. However, the plan was killed in the Senate after a targeted media and lobbying campaign by the American Energy Alliance, an umbrella group created by the National Association of Manufacturers that contained 1,650 organizations, including many members of the Global Climate Coalition (Salpukas, 1993). As a result, the Clinton administration had to pursue a different tack: it put forward a ‘Climate Action Plan’ in 1993, which relied on investment in renewable energy, switching from coal to natural gas, and public-private partnerships to improve energy efficiency (White House, 1993b). This plan too, however, was questioned by members of Congress because of cost concerns and fears about government intervention in the market (U.S. House of Representatives, 1995).

In March 1994, UNFCCC officially came into force after the required fiftieth country ratified the agreement. This triggered plans to organize the first Conference of the Parties (COP), which was to be held within one year of entry into force of UNFCCC. Germany took the lead, and Helmut Kohl offered to host the first COP in Berlin in 1995. In the months before COP 1, Germany took a number of proactive moves both domestically and internationally. In September 1994, an inter-ministerial working group led by Klaus Topfer released a report listing 109 measures to reduce carbon dioxide emissions (Beuermann & Jager, 1996). Shortly thereafter, Angela Merkel--the replacement of Klaus Topfer--reached an agreement with 15 industry associations requiring them to reduce their carbon dioxide emissions 20% below 1987 levels by the

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54 The European Union was consulted during the development of the plan, which, if enacted, would have made it easier for the European Union to adopt its own energy tax (“U.S. President Calls”, 1993).
55 The campaign targeted Senator David Boren of Oklahoma and John Breaux of Louisiana. These Senators were Democrats that represented states with oil interests; they were the swing votes in the Senate Finance Committee, which had to pass the tax (Salpukas, 1993).
At the international level, Germany (which held the rotating presidency of the European Union in the second half of 1994) pushed other European countries to adopt an energy tax, but to no avail. Prior to COP 1, Germany suggested the commitments of UNFCCC were not sufficient and called for countries to make additional emissions cuts: “The proposal called on industrialized states to reduce their CO₂ emissions by the year (x) individually or jointly by (y) percent” (Schreurs, 2002, p. 179). These developments set the stage for the first COP.

The purpose of COP 1 was to assess the actions of member countries and decide whether new commitments were required based on the latest scientific knowledge. A number of important points were agreed to at Berlin (Berlin Mandate), which laid the groundwork for future negotiations. First, participants agreed developed countries needed to make emission reduction commitments beyond the year 2000. Second, the distinction between developed and developing countries was reaffirmed. In order to get developing countries to go along, the developed countries agreed developing countries would not have to adopt any new commitments to reduce emissions. Instead, developing countries were required to continue to develop reports detailing their greenhouse gas emissions, and urged to introduce greenhouse gas reduction policies when possible.

Industry was willing to go along with voluntary commitments because of its experience with acid rain, where the government had enacted stringent measures; it also wanted to avoid a carbon tax (Hatch, 2005).

The distinction between developed and developing countries was established in Article 3(1) of UNFCCC: “The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country parties should take the lead in combating climate change and the adverse effects thereof” (United Nations, 1992).

The compromise on developing countries was developed by Angela Merkel--the president of the conference--and agreed to by the United States’ lead negotiator Timothy Wirth, who obtained approval from Al Gore (Agrawla & Andresen, 1999; Oberthur & Ott, 1999).
Finally, participants agreed to begin a pilot project on joint implementation (United Nations, 1995).

The issue of joint implementation was a preview of the differences that were to develop between the United States and a number of European countries. Joint implementation was a mechanism proposed by Norway at UNFCCC. The idea was that countries would be able to get credit for emissions reductions by carrying out projects that reduced emissions in other countries. The goal of joint implementation was to lower costs by focusing on cheap emission reduction projects in lesser developed countries, rather than more expensive policies in developed countries. For example, Norway had very few opportunities to lower emissions because of its reliance on hydro-power for energy. As a result, it hoped to look elsewhere to make cuts (Grubb et. al., 1999). From the beginning, Germany was wary of joint implementation. It felt joint implementation would be a way for developed countries to shirk their responsibilities. As a result, “Germany suggested that the credits given for emissions reductions in developing countries be discounted so as to encourage developed countries to take domestic measures unless joint implementation is substantially cheaper” (Bodansky, 1992, p. 521).

The Berlin Mandate was immediately attacked in the United States. Even though joint implementation meant climate change would likely be less costly to address, members of Congress were still concerned about potential harm to the economy. A number of Congressmen were concerned about America’s trade competitiveness because developing countries did not have to make emissions cuts (U.S. House of Representatives, 1995). Others feared the Berlin Mandate would result in an
international carbon tax ("Senate Would Reject", 1995). The concerns of Congress were echoed by the Global Climate Coalition, which complained that the administration was moving too quickly (U.S. House of Representatives, 1995). These complaints grew louder with time.

In contrast to the United States, Germany remained proactive. At COP 1, Germany pledged to reduce its carbon dioxide emissions 25% below 1990 levels by the year 2005. This new plan shifted the base year of its previous emissions reduction pledge from 1987 to 1990, resulting in a stronger commitment: “This, at once, [brought] it into conformity with the base year employed in the ongoing international negotiations surrounding the UNFCCC and [made] it more ambitious, since many of the wall fall benefits from unification would be lost” (Hatch, 2005, p. 106).59 Following criticism from environmental groups that Germany would not be able to meet its pledged emissions reduction target, the government strengthened its agreement with industry: “Included in the revised agreement was a pledge to reduce specific CO$_2$ emissions by 20 percent, with a change in the base year from 1987 to 1990…Also, additional industrial associations joined, meaning that approximately 80 percent of German industry’s total energy consumption was now covered by the agreement” (Hatch, 2005, p. 107). The domestic actions of Germany allowed it to take a leadership role internationally.

Germany, along with the European Union, led the way after Berlin. Germany proposed countries adopt specific policies, such as energy taxes and increased use of renewable energy (United Nations, 1996, p. 17). Similarly, the European Union

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59 ‘Wall fall benefits’ refers to the fact that unification helped reduce Germany’s overall greenhouse gas emissions because of the economic downturn in East Germany.
proposed all countries adopt specific ‘policies and measures’. However, the European
Union’s plan did not specify any policies and measures; rather, it suggested there would
be certain policies all countries would adopt and others that would be recommended for
adoption (United Nations, 1996a, p. 18). The German government also filled in the
blanks of its earlier proposal for countries to adopt (y) emissions reductions by year (x): it
called for a 10% reduction in carbon dioxide emissions by the year 2005, and a 15-20%
reduction by the year 2010 (United Nations, 1997a). These proposals set the stage for
COP 2 in Geneva in July 1996.

The second COP was notable for the actions of the United States. Al Gore
convinced Bill Clinton to commit the United States to a binding emissions reduction
target (Fineman & Breslau, 1997). At the conference, Timothy Wirth (the head
negotiator of the United States) justified the actions of the administration by citing the
recent findings of the IPCC, which said that a growing body of evidence implicated
human actions in global warming. Wirth laid out the position of the United States going
forward:

Based on these principles—encompassing environmental protection,
realism and achievable, economic prosperity, flexibility, fairness, and
comprehensiveness—the United States recommends that future
negotiations focus on an agreement that sets a realistic, verifiable, and
binding medium-term emissions target. We believe that the medium-term
target must be met through maximum flexibility in the selection of
implementation measures, including the use of measures such as reliable
activities implemented jointly and trading mechanisms around the world
(Wirth, 1996, p. 377).

This plan, however, did not sit well with a number of groups in the United States.
Domestically the Clinton administration was challenged at every turn. An effort to raise Corporate Average Fuel Economy Standards (CAFÉ)—in order to reduce greenhouse gas emissions—ended in failure after the automobile industry and trade unions refused to work with the administration (Falkner, 2008). The Global Climate Coalition questioned the cost of any new emission reduction commitments and the scientific certainty underlying the administration’s decision: “The Clinton administration is willing to risk a wild ride for Americans on a roller coaster economy while giving developing countries a free ride…This decision was made without adequate economic facts and is based on uncertain climate science” (as cited in Gelbspan, 1997, p. 124).60 Echoing the concerns of the Global Climate Coalition, Congressmen worried about how binding targets would affect the trade competitiveness of the United States vis-à-vis Europe and developing countries that did not have to make emissions cuts—such as China, India, South Korea, Mexico, and Brazil (U.S. Senate, 1996). The administration stressed that flexibility mechanisms would reduce the cost to the United States, and it also stressed that developing countries did have minimal commitments under UNFCCC. However, this did not reduce the complaints of opponents.

Following COP 2, countries began formulating proposals for a protocol to UNFCCC. True to the statement made by Timothy Wirth at Geneva, the proposal from the United States contained a number of features to make any new agreement as flexible as possible. The plan called for use of joint implementation and an emission trading scheme modeled after the Clean Air Act in the United States. It also rejected the use of

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60 Several members of the Global Climate Coalition funded a number of climate change scientists that questioned the findings of the IPCC (Gelbspan, 1997).
mandatory policies and measures, and called for a flexible target: “A number of ideas and approaches regarding the structure of the target have been suggested thus far in the discussions within the Ad Hoc Group of the Berlin Mandate (AGBM). Many of these ideas and approaches have focused on a single-year target, but we believe it will be important to consider a broader range of possibilities (e.g., cumulative or aggregate targets covering a number of years, multiple-year rolling average targets, flexibility over time through banking and borrowing, etc.)” (United Nations, 1996b, p. 51). The plan, however, did not include specific numbers on targets or timetables for emission cuts. Finally, the United States’ proposal hinted at the need for developing countries to take on stronger commitments—a position similar to the European Union’s.

The proposal of the European Union expanded on the one it set forth prior to COP 2. It listed a number of policies and measures all countries would be obligated to adopt; these included increased use of renewable energy, uniform energy taxes, energy efficiency labeling, and voluntary agreements with industry (United Nations, 1997a). The European Union plan acknowledged the need for joint implementation; it also suggested developing countries—especially new Organization for Economic Cooperation and Development countries such as South Korea and Mexico—may need to adopt emissions reduction commitments (Oberthur & Ott, 1999). Much like the United States, the European Union plan did not identify a specific target and timetable; it did, however, list a number of proposals by individual members, including the target proposed by Germany prior to COP 2 (United Nations, 1997a). These proposed targets were crafted into a unified position.
The third Conference of the Parties was scheduled to be held in Kyoto in December 1997. As COP 3 approached, countries worked out domestic plans that allowed them to make more specific proposals for a protocol. The task of European countries was complicated by the European Union, which planned to establish a general commitment that included all members. Some countries, such as Germany, already had individual plans in place. The Netherlands took over the rotating European Union Presidency in the first half of 1997 and immediately began crafting a community-wide plan. A research group from the Netherlands identified potential emission reduction targets for each country, which were then added together to arrive at a European-wide target. The overall target was roughly a 10% reduction of 1990 emissions levels by the year 2010 (Hatch, 2007). However, this did not sit well with all countries: “The German Minister of Environment and the European Commission were concerned that setting an EU target below 10 per cent would mean that the EU’s position in the global negotiations would not be politically credible…the Danish Environment Minister suggested keeping the EU-wide target at 15 per cent but accepting a 10 per cent internal burden sharing for the time being. It was suggested that if the Kyoto agreement were to exceed a reduction of 10 per cent, then the remaining 5 per cent would have to be renegotiated after the Kyoto Conference” (Hatch, 2007, p. 102). In order to meet the target, the European Commission developed a plan based on increased use of renewable energy and co-generation, voluntary commitments from European industries, energy

61 A number of countries were actually allowed to increase their emissions; this mainly applied to poorer southern European countries with smaller economies.
62 The reduction plan was based on three gases: carbon dioxide, methane, and nitrous oxide. The European Union suggested other industrialized countries accept a 15% reduction target by 2010 and a 7.5% reduction target for 2005 (Hatch, 2007).
efficiency programs, and an energy tax (Commission of the European Communities, 1997). While the European Union fine-tuned its proposal for a protocol, the Clinton administration was trying to do the same in the United States.

The Clinton administration began working on its climate change plan in early 1997; two task forces were created within the White House to work with the public, and private companies, to try and find ways to reduce greenhouse gas emissions. However, industry maintained its opposition to any agreement. The oil company Mobil launched a series of ads attacking the actions of the Clinton administration: “Legally binding emissions targets…are likely to cause severe economic dislocations…Though the industrialized world accounts for half of greenhouse gases, that share will drop as developing nations flex their economic muscle. If developed nations act alone to reduce emissions, the staggering cost…will drive nations to export much of their industrial base to countries with less stringent controls…the dislocations will be even more severe if the solutions are not implemented globally” (Gelbspan, 1997, p. 130). This view was echoed by Congress. In July 1997, the Senate passed a non-binding Sense of the Senate Resolution (SRES 98), establishing what the Clinton administration needed to do in order for the Senate to consider ratifying any treaty:

1. The United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would-
   a) Mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties [developed countries], unless the

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63 Once more the energy tax was held-up because of complaints from industry and the United Kingdom.
64 Closer to COP 3, industry ran a $13 million ad campaign expressing the same sentiments (Cushman, 1997a).
protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or b) would result in serious harm to the economy of the United States; and
2. any such protocol or other agreement which would require the advice and consent of the Senate for ratification should be accompanied by a detailed explanation of any legislation or regulatory actions that may be required to implement the protocol or other agreement and should also be accompanied by an analysis of the detailed financial costs and other impacts on the economy of the United States which would be incurred by the implementation of the protocol or other agreement (U.S. Senate 1997).

Significantly, this resolution passed 95-0.\textsuperscript{65} The concerns of industry were cited as a key reason for the stipulations found in the agreement.\textsuperscript{66}

Following the actions of Congress and industry, the Clinton administration launched a campaign to gain support for its actions: “[The White House Initiative on Global Climate Change] campaign included regional conferences held across the United States on the probable impacts of climate change, which generated wide media coverage of the issue” (Oberthur & Ott, 1999). President Clinton met with a number of companies--including Enron, Alcoa, and British Petroleum--to try and get them to accept an international agreement, stressing that flexible mechanisms would not harm the economy of the United States (“U.S. President Says”, 1997). In October the administration outlined a five year, $5 billion plan--essentially a beefed up version of its 1993 Climate Action Plan--to reduce emissions by “encouraging energy efficiency and the use of cleaner energy sources” (White House, 1997a). However, because emissions

\textsuperscript{65} There were, however, major disagreements about the type of commitments developing countries should have to make and what constituted ‘serious harm to the economy’ (U.S. Senate, 1997).

\textsuperscript{66} For example, in his opening statement Senator Chuck Hagel, the co-sponsor of the bill, said: “The American Farm Bureau has called the treaty a back-door BTU tax that would drive up fuel and overall energy costs as much as 50 percent...American industry has expressed concern that a treaty without developing country commitments would encourage capital flight and loss of jobs” (U.S. Senate, 1997, p. 3).
had risen by 13% since 1990, Clinton only committed to reduce emissions to 1990 levels between the years 2008 and 2012 (Cushman, 1997b). This was the position of the United States at COP 3.

Negotiations at COP 3 in Kyoto were highlighted by disagreement on three key points: 1. the size and timing of emission reduction targets, 2. use of flexible mechanisms, and 3. commitments by developing countries (Grubb et. al., 1999). Two broad negotiating blocks formed around these issues: 1. The European Union supported by Eastern Europe and a number of developing countries, and 2. The Umbrella Group, which was led by the United States. The United States favored flexibility in a number of areas in order to reduce costs. The Clinton administration wanted to include both sources and sinks of greenhouse gases; a basket of six gases to count towards emission reduction targets (carbon dioxide, methane, nitrous oxide, sulfur fluoride, hydrofluorocarbons, perfluorocarbons); joint implementation; an emissions trading scheme; flexible target dates that allowed countries to bank and borrow emission credits between commitment periods; and differentiation of targets based on each country’s unique circumstances (Grubb et. al., 1999). The United States also wanted developing countries to adopt some sort of emissions reduction target.

The European Union and its followers rejected most of the United States’ positions. The European Union (led by Germany) felt that the flexibility positions promoted by the United States were a way of shirking responsibility for reducing

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67 Since UNFCCC the United States had worked with Japan, Canada, Australia, New Zealand and Switzerland (JUSSCANNZ). During the Kyoto negotiations, Switzerland shifted its support to the European Union, while Iceland, Russia, and Ukraine joined the remaining members of JUSSCANNZ, forming ‘the Umbrella Group’ (Lacasta et. al., 2007).
emissions domestically. Instead, it called for a basket of three gases to count towards emission reduction targets (carbon dioxide, methane, nitrous oxide); uniform targets and timetables for industrialized countries (7.5% reduction by 2005 and 15% by 2010), without banking or borrowing between commitment periods; rejection of emissions trading; rejection of inclusion of sinks; and limited use of joint implementation (Grubb et. al., 1999). 68 The European Union did agree with the United States that developing countries should adopt emission reduction targets, but only after the Kyoto commitment period ("U.S., EU Still", 1997). 69

Disagreement between the two negotiating blocks threatened to derail the Kyoto conference. Hectic negotiations lasted until the very end of the COP 3 schedule. Al Gore arrived on the eve of the final day of negotiations and told the United States negotiating team to adopt a more flexible position (Stevens, 1997). With the help of Raul Estrada-Oyuela--the Chairman of negotiations since COP 1--the two negotiating blocks were able to reach a compromise agreement. In the end, each county adopted individual emission reduction targets to be met by the years 2008-2012. 70 The United States accepted a

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68 The European Union’s concern with emissions trading was that the United States would be able to get a substantial amount of emission reduction credits from Russia and the Ukraine. The 1990 base year of UNFCCC and the Kyoto Protocol meant that Russia and the Ukraine’s emissions baseline would be high; this is because the emissions total would be based on a point in time when the economies in the two countries were relatively strong. The two countries would have credits to sell because their economies had collapsed after the breakup of the Soviet Union, reducing emissions output after 1990.

69 The argument of developing countries and the European Union was that industrialized countries were historically responsible for most anthropogenic greenhouse gases. Based on this fact, industrialized countries agreed at UNFCCC to act first to reduce greenhouse gas emissions. However, by the time of Kyoto, the European Union was the only member of UNFCCC that had fulfilled its commitment. Developing countries and the European Union did not feel developing countries should have to adopt targets until the industrialized countries fulfilled their commitments (Grubb et. al., 1999, p. 49).

70 However, Article 3(2) of the Kyoto Protocol says, “Each Party shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol”. This statement was included to appease the European Union (Grubb et. al., 1999, p. 117).
reduction target of 7% below 1990 levels, and the European Union accepted an 8% reduction target.  

These targets were based on a basket of six greenhouse gases. The European Union accepted emissions trading; joint implementation between countries with emissions targets; and the inclusion of sinks. The issue of developing country commitments was resolved by a compromise between the United States and Brazil. The two countries agreed to create a joint implementation mechanism (Clean Development Mechanism or CDM) between developed and developing countries. The CDM allowed developed countries to get credit for funding emissions reduction projects in developing countries. This created hope that developing countries might adopt emissions reduction commitments in the future and was the best the United States could hope for on the issue. These compromises allowed for creation of the Kyoto Protocol at COP 3. However, this was only a skeletal document and most of the details were put off until the next COP.

Following COP 3, the Clinton administration promoted the agreement reached at Kyoto; it also continued to push for its spending plan to reduce greenhouse gas emissions. The spending plan grew from the previously announced $5 billion to $6.3 billion. However, the actions of the administration were met with hostility from Congress and industry. Both groups complained that the administration had failed to satisfy the stipulations of Senate Resolution 98 and, as a result, there was no need to

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71 Commitments from industrialized countries added up to a 5% reduction target. This was essentially the same as a compromise proposed by Japan (Grubb et. al., 1999).
72 The European Union accepted the inclusion of sinks because Sweden and Finland supported this position. It accepted joint implementation because of the need to get Eastern European countries to go along. And it accepted emissions trading because the United States argued that the European-wide emissions reduction target (the ‘bubble’) was essentially a form of trading (the United States believed countries would be able to adjust individual reduction targets amongst themselves as long as the overall European Union target was met) (Oberthur & Ott, 1999).
move forward (U.S. House of Representatives, 1998a). A number of Congressmen felt the administration’s $6.3 billion plan was going to be used to implement the Kyoto Protocol; Senator Chuck Hagel complained: “after failure of this administration of their effort to bring before this Congress and give this Nation a BTU tax in 1993, I can understand their possible interest in backdoor implementation of the Protocol agreed to in Kyoto” (U.S. House of Representatives, 1998a, p. 45). Due to such fears, Congress attempted to limit the administration’s actions.

The Clinton administration countered the complaints of Congress and industry with several arguments. To begin with, it said the climate change spending plan was justified in order to meet UNFCCC commitments (U.S. House of Representatives, 1998b). The administration also claimed it had done much to satisfy the stipulations of Senate Resolution 98. Janet Yellen (Chair of the Council of Economic Advisers) said the Kyoto Protocol’s flexible mechanisms meant the costs to the American economy would be minimal: “Ignoring the benefits of mitigating climate change itself, our conclusion is that the net costs of our policies to reduce emissions are likely to be small…the resource costs of obtaining the Kyoto targets for emission reductions might amount to just $7 to $12 billion per year in 2008 to 2012, or about one-tenth of a percent of projected GDP” (U.S. House of Representatives, 1998b, p. 15). Although developing countries did not make commitments, Stuart Eizenstat (the lead United States negotiator at Kyoto) claimed progress had been made: “We did make an important down payment on developing country participation through the Clean Development Mechanism incorporating our
concept of joint implementation with credits” (U.S. House of Representatives, 1998b, p. 17). This, however, did little to sway opponents.

Europeans also moved forward following COP 3. The European Commission continued working on its plan to reduce greenhouse gas emissions; it reached agreements with the Association of European Automobile Manufacturers and Union for Industrial and Employers Confederation in Europe to reduce carbon dioxide emissions (“Delegates to Work”, 1997). In Germany, a new government replaced the Kohl administration. Gerhard Schroeder became chancellor, heading a new coalition government formed by the SPD and Green Party. The new government, frustrated by the inability of the European Union to pass a carbon tax, passed new eco-taxes in Germany. These new taxes increased the cost of fossil fuels in an attempt to reduce greenhouse gas emissions.73 Tax revenues were to be pumped back into the economy, furthering the Green Keynesianism policies started by the Kohl administration: “The assumption of the coalition was that by creating new environmental jobs and industries the environmental industry would become one of Germany’s top five employers by 2050” (Schreurs, 2002, p. 231). The eco-tax plan highlighted the ambitions of the new environment minister--Green Party member Jurgen Trittin.

Leading into COP 4 in Buenos Aires in 1998, European countries were at odds over what position to take with regards to emissions trading. A number of countries worried about their ability to reduce greenhouse gas emissions domestically and felt

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73 Notably, coal was not taxed. This was because the SPD had strong ties with the coal industry. Other industries accepted the taxes because they were offset by lower income and corporate taxes (Schreurs, 2002).
emissions trading might be needed. The European Commission also accepted that trading would be needed because of the shortcomings of some member countries. In addition, the Commission also felt partaking in emissions trading would be a way to force the United States to take domestic actions: “If the EU gets into the market as a buyer, then the price for emissions will be more expensive and it will make domestic measures in the U.S. more appealing” (as cited in “U.S. Opposes Caps”, 1998). Germany also had concerns about the United States not carrying out domestic measures; it was worried about economic competitiveness vis-à-vis the United States and creating an effective protocol that would prevent climate change (Hatch, 2007). Juergen Trittin suggested only fifty percent of a country’s reduction obligations could be met through trading (“German Environment”, 1999). Trittin’s idea was rejected by the United States.\footnote{The International Climate Change Partnership, an industry organization in the United States that was more accepting of the dangers of climate change than the Global Climate Coalition, also opposed caps on flexible mechanisms (U.S. House of Representatives, 1998b).}

No final decision was made on emissions trading at COP 4. Participants simply agreed that the details of the Kyoto Protocol should be worked out by COP 6 in the year 2000. The Buenos Aires conference was, however, notable for the actions of the United States. In the run-up to COP 4, the United States put pressure on Latin American countries to promote renewable energy and adopt emission reduction targets as soon as possible (“Developing Countries”, 1998). At COP 4 Argentina and Kazakhstan—considered to be developing countries under the Kyoto Protocol and therefore not required to adopt targets—voluntarily adopted emission reduction targets.\footnote{According to Heinke Schroder (2001): “there are rumors that Argentina’s announcement [was] connected to U.S. payment of the conference costs, which are usually paid by the host country” (p. 77).} It appears the Clinton administration saw this as another step towards fulfilling the demands of the
Senate, as it signed the Kyoto Protocol at Buenos Aires. The administration’s actions, however, did not diminish conflict with the European Union.

Disagreements between the European Union and United States continued into COP 5 in Bonn in 1999. At the insistence of Germany, the European Union officially called for a fifty percent cap on emissions trading ("EU to Push", 1999). Once more the United States, along with other members of the Umbrella Group, rejected this position. The issue of sinks was briefly discussed at COP 5, but action was delayed until the IPCC finished its special report on the role land use played in reducing greenhouse gas emissions. Not much progress was made on the most important issues at COP 5, but a number of technical matters were resolved (Dessai, 2000). As a result, much work was left to be done in order to meet the year 2000 deadline for finalizing the details of the Kyoto Protocol.

In the lead-up to COP 6 in The Hague in November 2000, the IPCC released its Special Report on Land-Use, Land-Use Change and Forestry. The report concluded "carbon sinks play enough of a role that they must be considered in assessing Kyoto Protocol signatories’ efforts to reduce greenhouse gas emissions" ("IPCC Report", 2000, p. 409). The United States seized on the report, suggesting countries get limited credit for greenhouse gas emission reductions by managing sinks. Germany rejected the inclusion of sinks, once more complaining it was a way for the United States to avoid

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76 A number of countries, including Sweden, Finland, and the Netherlands, opposed a cap on emissions trading.
77 At one point the Umbrella Group threatened to create a ‘bubble’ of its own, with one unified emission reduction target, in order to trade amongst itself ("U.S. Opposes Caps", 1998).
78 German Chancellor Gerhard Schroeder proposed the Protocol should enter into force by 2002. This plan was accepted by the participants at COP 5 (Dessai, 2006).
taking action on domestic sources of greenhouse gases. Jurgen Trittin summed up
Germany’s position thus: “We have strong interest groups in German society…What
shall I tell them if the United States makes a fire road in a forest and flies airplanes over it
and says that is an emissions project? They’d say you’re ridiculous” (Revkin, 2000).
Other members of the European Union, however, supported the inclusion of sinks. For
example, Sweden and Finland supported the inclusion of sinks because they had large
forested areas that would provide them with emissions credits.

The issues of sinks and emissions trading caps ended up being the major sticking
points at COP 6. In the final days of COP 6, a number of attempts were made to reach
agreement on the final points of dispute. The President of the Conference--Dutch
Environment Minister Jan Pronk--produced a compromise proposal, which allowed a
limited inclusion of sinks and no caps on emissions trading. However, the proposal did
say that emissions reductions should ‘primarily’ be the result of domestic measures (Ott,
2001). At the same time that the Pronk paper was released, the United Kingdom was
attempting to work out a compromise with the United States. The two countries were
able to reach a tentative agreement: the United States agreed to lower the amount of sinks
it wanted credited toward emissions reductions, and “the term ‘primarily’ used in the
Pronk paper to refer to domestic measures was replaced by the much weaker
‘significant’” (Ott, 2001, p. 283). This compromise, however, was rejected by other
members of the European Union, especially France and Germany. France held the
presidency of the European Union, so its decision carried extra weight. As with
Germany, the French delegation was led by an environment minister from the Green
Party. French Environment Minister Dominique Voynet “criticized the proposed agreement on harmful emissions, brokered by Britain, as ‘environmentally unacceptable’” (Quetteville & Helm, 2000). Similarly, Jurgen Trittin said the compromise would not do “because industrial countries wanted to count too much on their natural forests as a source of man-made reduction rather than actually cutting greenhouse gases” (Quetteville & Helm, 2000). However, there remained hope that agreement could be met and a second COP 6 session was scheduled for July 2001.

Any hope of the European Union reaching agreement with the United States was lost with the election of George W. Bush. The second session of COP 6 was delayed to accommodate the new administration and allow it to formulate a position. However, in March 2001, President Bush declared that the United States would not participate in the Kyoto Protocol.79 As a result, the European Union turned to other members of the Umbrella Group in order to reach an agreement to enact the Kyoto Protocol.80 Ironically, in order to reach an agreement with Umbrella Group members at the second session of COP 6, the European Union had to allow inclusion of sinks in the Kyoto Protocol and no limit on emissions trading. The so-called Bonn Agreements were finalized into legal text at COP 7 in Marrakech in November 2001 (Marrakech Accords), which allowed countries to begin ratifying the Kyoto Protocol.

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79 This decision coincided with President Bush’s announcement that he would not regulate carbon dioxide emissions from power plants--a proposal he had made during the campaign (Jehl & Revkin, 2001).
80 In order to be enacted the Kyoto Protocol required ratification by at least 55 countries, “incorporating Parties included in Annex I [countries with emissions reduction commitments] which accounted in total for at least 55 percent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I” (United Nations, 1997b, p. 18).
B. Discussion and Analysis

The United States and European Union were once again two of the main protagonists during negotiations of the Kyoto Protocol. Throughout most of the process the United States showed more interest in reaching an agreement than it did during UNFCCC negotiations. However, the Clinton administration proposed policies similar to those of the first Bush administration, stressing the need for a flexible agreement. The European Union, led by proactive states such as Germany, also had positions similar to those during UNFCCC: it wanted stringent, immediate action and objected to the proposals of the United States for fear they would allow countries to avoid reducing greenhouse gases from domestic sources. The European Union and United States were able to reach a compromise agreement on the broad outline of the Kyoto Protocol, but were unable to agree on the final details. As in the case of UNFCCC, liberal theory explains these outcomes.

I. Liberal Theory

Liberal theory helps explain the outcome of the Kyoto Protocol negotiations: the preferences of the United States and European Union were not minimally compatible, meaning an agreement could not be reached. As in the case of UNFCCC, the European Union wanted an agreement more than the United States and had to make concessions in order to try and get the United States to accept a deal. After opposing most of the proposals of the United States early on, the European Union ended up giving in to American demands. The European Union had to allow emission reduction commitments
based on a basket of six greenhouse gases; a multiple year timetable; inclusion of sinks, emissions trading, and joint implementation; a reduced emissions reduction target; and exclusion of mandatory policies and measures. It was unwilling to concede the issue of emissions credits from sinks, resulting in the breakdown of negotiations. However, the European Union eventually relented on this issue in order to get other Umbrella Group members to adopt the Kyoto Protocol.

During UNFCCC the United States was not very interested in reaching agreement and made few concessions, whereas during the Kyoto negotiations the United States was more interested in reaching an agreement and had to make a number of concessions. The Clinton administration agreed to an emissions reduction target that was greater than its initial proposal. Initially the United States pledged to reduce its emissions to 1990 levels by the years 2008-2012; this was increased to a 7% reduction target at Kyoto. Although the larger target was made easier to meet by the inclusion of flexible mechanisms, it still meant extra costs for the United States. The United States also relented on its demand that countries be able to bank and borrow emissions credits between commitment periods. Although it pressed developing countries to adopt emission reduction targets, the United States conceded this point as well by accepting the CDM. Finally, at COP 6, the United States significantly lowered its demands for sink credits. The Clinton administration initially wanted sink credits to total 300 million metric tons per year. The compromise worked out between the United States and United Kingdom lowered this amount to 75 million metric tons a year (“Hague Talks”, 2000). This, however, was not
enough to satisfy some members of the European Union. Domestic politics help explain this outcome.

Factors identified by liberal theory—individuals/norm entrepreneurs, political systems, and powerful industry groups—help explain the actions of the United States. As in the case of UNFCCC, a number of individuals were particularly important. Vice President Al Gore played a key role in shaping the preferences of the United States. Gore held beliefs similar to those in Europe and, much like the German government, felt new environmental technologies could boost the economy and improve the environment. In his book *Earth in the Balance* (1992)—published in the run-up to the 1992 election—Gore suggested implementing a Green Keynesianism program in the United States in order to develop new environmental technologies. Gore’s plan focused on increased government funding for research and development. Some of his ideas made their way into the Clinton administration’s two climate change programs.

Like the Europeans, Al Gore believed climate change was a pressing concern that needed to be dealt with immediately. He convinced President Clinton to commit to the UNFCCC target and accept a new binding treaty. Gore brought in Timothy Wirth as Undersecretary of State for Global Affairs to work on climate change negotiations, and the two worked tirelessly to help reach agreement on the Kyoto Protocol. In order to make sure a deal was reached at Kyoto, Gore flew to the conference on the second to last

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81 Gore named his plan the Strategic Environment Initiative, which was modeled on the Strategic Defense Initiative that was implemented in the 1980’s to develop new weapons systems (Gore, 1992).

82 In addition to Wirth, Gore brought in Rafe Pomerance (a former president of Friends of the Earth) as the Deputy Assistant Secretary of State for Environment and Development, Kathleen McGinty (a former Senate staffer of Gore) as Chair of the Council on Environmental Quality, and Carol Browner (a former Senate staffer of Gore) as director of the EPA (Vig, 2003).
day of negotiations in order to help broker a compromise. However, Gore was not the only influential individual in the White House; he had to contend with Clinton’s economic advisers, who warned about the costs of climate change policies (Cushman, 1997b). This helps explain why the United States promoted flexible mechanisms in order to reduce costs.  

The preferences of the United States shifted dramatically in 2001. President George W. Bush and Vice President Dick Cheney had no interest in climate change and immediately abandoned the Kyoto Protocol. Echoing the views of Congress and industry, President Bush said making greenhouse gas reductions would be too costly (Jehl & Revkin, 2001). Without needing to focus on reducing greenhouse gases, the administration proceeded to cut research and development for energy efficiency and renewable energy technologies (Kahn, 2001). Instead, the administration appeased the fossil fuel industry; its energy plan “put the most emphasis on opening protected lands to oil and gas exploration, while rolling back environmental rules that inhibited the burning of coal and the construction of pipelines and refineries” (Kahn, 2001). The preferences of George W. Bush administration were clearly similar to those of the George H.W. Bush administration.

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83 Flexible mechanisms—especially emissions trading—and market efficiency also fit in with the views of Timothy Wirth; he played a key role in implementing the emissions trading program found in the Clean Air Act, which was meant to make the law cheaper and more efficient.

84 This decision was taken despite the objections of EPA Administrator Christine Whitman (Easterbrook, 2001).

85 In an attempt to justify the cutting of funds, Dick Cheney told a meeting of the Associated Press: “Conservation may be a sign of personal virtue, but it is not a sufficient basis for a sound, comprehensive energy policy” (Kahn, 2001).

86 It must be noted that the energy plan was developed by Dick Cheney, who before becoming vice president was CEO of oilfield services company Halliburton. He refused a request from the General Accounting Office to release a list of names that advised him on the energy plan (Schreurs, 2002).
George W. Bush also shared his father’s distrust of climate change science. Much like his father before him, George W. Bush’s administration interfered with the efforts of climate change scientists. In 2002, the administration helped force out Robert Watson (a former environmental advisor in the Clinton administration) as Chair of the IPCC (Lawler, 2002).\footnote{Several months before taking this action, the White House received a memo from ExxonMobil asking for the removal of Watson because he was “handpicked by Al Gore”. The administration, however, denied that the memo had any influence on their decision (Lawler, 2002).} After withdrawal from the Kyoto Protocol, “the White House in the summer of 2003 altered a climate report by the U.S. Environmental Protection Agency, editing out all references to the dangerous impacts of climate change on the United States” (Gelbspan, 2004, p. 42). Additionally, the administration tried to get rid of a report that overlapped with the EPA’s (the U.S. National Assessment of the Potential Consequences of Climate Variability and Change), which was completed under the Clinton administration: “In August 2003, the attorneys general of Maine and Connecticut made an extraordinary discovery. Through a Freedom of Information request, they unearthed e-mails indicating that the White House had secretly requested the private, right-wing CEI [Competitive Enterprise Institute] to sue it—the White House—in order to have the national assessment withdrawn” (Gelbspan, 2004, p. 57).

Powerful industry groups also shaped the preferences of the United States. As shown above, the Bush administration’s ties to industry appear to have influenced its actions. The political economy of climate change also affected the actions of the Clinton administration. The Global Climate Coalition, as well as other industry groups, waged a non-stop campaign to derail the Kyoto Protocol. Industry was able to influence
Congress, which demanded any climate change agreement include developing countries and not harm the economy. As a result, the administration had to carefully engage in a two level game, attempting to reach an agreement that other countries and Congress would accept (Putnam, 1988). In order to appease Congress, the administration made sure a number of flexible mechanisms were included in the Kyoto Protocol in order to make the agreement cost effective; it also pressed developing countries to adopt emission reduction targets.  

The Clinton administration was further hampered by the political system in the United States. The administration needed a two-thirds majority in the Senate in order to ratify the Kyoto Protocol. Although Senate Resolution 98 passed 95-0, there were clear splits between the parties. Most Republicans in the Senate were adamantly opposed to a climate change agreement, questioning both the costs and science behind climate change (U.S. Senate, 1997). The Republican majorities that took power in both houses of Congress in 1995 held views similar to those of Ronald Reagan and they tried to scale back environmental regulations (Kraft, 2003). In response to Congress’s disinterest in climate change, Timothy Wirth “assembled a bipartisan advisory group of a dozen or so Senators to build support for the treaty” (Traub, 2007). However, based on the views of most Republicans and a number of conservative Democrats, it does not seem likely that any version of the Kyoto Protocol would have been ratified.

88 The administration’s decision to press for the inclusion of sinks at COP 6 was also influenced by the Senate. A number of Senators pushed for the inclusion of sinks and introduced legislation to fund land management practices (“United States Wants”, 2000).
Liberal factors also shaped the preferences of Germany and the European Union. In Germany, environment ministers were especially influential individuals that shaped state preferences. Angela Merkel continued the policies of her predecessor Klaus Topfer: she accepted the need for immediate action on climate change and wanted to make sure countries did not avoid their responsibilities. Merkel was able to reach voluntary agreements with industry and took a pragmatic approach in international negotiations. Juergen Trittin was more ideological than Merkel and influenced Germany to take a stronger approach on climate change. Trittin helped pass eco-taxes in Germany, and he played a key role in the breakdown of negotiations at COP 6 because he would not give in to the demands of the United States. Chancellors Helmut Kohl and Gerhard Schroeder provided Merkel and Trittin with a fair amount of freedom. This is because both Kohl and Schroeder believed green technologies would benefit the country. Schroeder also had to allow the Green Party room to maneuver in order to maintain his coalition government.\(^8^9\)

Powerful industry groups did not limit the actions of the German government as much as they did the United States government. German industry was much more willing than American industry to help combat climate change. A number of industry associations reached voluntary agreements in 1995, 1996, and 2000 with the German government to reduce greenhouse gas emissions. Germany’s corporatist governing system helped make these deals possible. In exchange for reducing greenhouse gases,

\(^{89}\) Schroeder and Trittin did not actually get along. Schroeder thought some of the Green Party’s proposals were too extreme, while Trittin complained Schroeder’s former ties to Volkswagon prevented the chancellor from doing more to reign in car emissions (“Facing Crises”, 1999).
industry was promised no new regulations would be implemented. German industry was willing to go along because it wanted to avoid the type of tough policies it faced as a result of acid rain, and because the government funded research and development for new technologies. It was also willing to go along because increased energy efficiency was good for the bottom line. Much like businesses in the United States, German companies worried about international competitiveness and wanted other countries to adopt similar policies. However, German industry did not attempt to kill the agreement even though developing countries were exempt from emission reductions.

Unlike in the United States, party politics in Germany reinforced the government’s preferences. The findings of the Enquete Commission and pressure from the Green Party appear to have had lasting effects. Although parties differed slightly on what policies should be enacted to combat climate change, they all agreed it was a problem that needed to be dealt with. As a result, both the Bundestag and Bundesrat unanimously approved the Kyoto Protocol (Weidner, 2005).

Liberal factors also help explain the actions of the European Union. As with Germany and the United States, individuals played a key role in the European Union. The rotating presidency was particularly important in shaping the preferences of the European Union. The presidency provided the member country holding the position extra influence because the president coordinates the position of the European Union (Vogler, 1999). This in turn provided environment ministries added influence, since they were usually the ones that acted on behalf of their country in climate change negotiations. For example, when the Netherlands took over the presidency prior to Kyoto, the Dutch
environment minister helped create an emissions reduction plan that allowed the European Union to take a strong position at Kyoto. When Germany held the presidency in the first half of 1999, Juergen Trittin was able to make a 50% cap on emissions trading the official negotiating position of the European Union. Finally, French Environment Minister Dominique Voynet played a key role in the breakdown of COP 6. France held the presidency during COP 6 and Voynet rejected the compromise worked out between the United States and United Kingdom.

As in Germany, dominant industry groups did not restrict the European Union too much. European industry held some views similar to American and German industry. For example, European industry wanted developing countries to adopt emissions reduction targets in order to create a level playing field (“Delegates at Work”, 1997). However, unlike American companies, European businesses did not try to kill the Kyoto Protocol. Robert Falkner (2008) notes that European companies felt the European Commission would take action on climate change regardless if there was an international agreement or not. As a result, industry tried to influence the shape of the agreement rather than oppose it. The Union for Industrial and Employers Confederation in Europe, and Association of European Automobile Manufacturers, agreed to make voluntary emissions cuts, but warned that the 15% emissions reduction target promoted by the European Union at Kyoto was unrealistic (“Delegates at Work”, 1997). This may explain why the European Union was willing to lower its emission reduction target in the final compromise. The role of powerful industry groups can also explain why the European Union accepted flexible mechanisms. The European Petroleum Industry Association
pushed for the inclusion of emissions trading and joint implementation in the hope that it could avoid a carbon dioxide tax (“Carbon Tax”, 1995).\textsuperscript{90}

As in the case of UNFCCC, liberal theory does a good job of explaining the preferences of states, their willingness to make concessions, and the final outcome of the Kyoto Protocol. However, neoliberalism is also useful in explaining why states were able to reach agreement on the outline of the Kyoto Protocol, but not on the details. Once more liberal theory and neoliberalism are complimentary.

II. Neoliberal Institutionalism

Neoliberalism highlights the importance of information provision during negotiation of the Kyoto Protocol. To begin with, the IPCC played an important role by providing up-to-date scientific information. The IPCC’s Second Assessment Report was released prior to COP 2 and stated with greater confidence that human actions were contributing to climate change. The report highlighted the need for action and was used by the Clinton administration as justification for accepting a binding treaty. However, the report created problems as well. The Global Climate Coalition criticized the findings of the Second Assessment Report, claiming the summary for policymakers overemphasized the link between human actions and global warming; it argued that the full report was much more cautious than the summary for policymakers and suggested the editing of the summary for policymakers was politically motivated (Grubb et. al.,

\textsuperscript{90} Two of Europe’s biggest oil companies, British Petroleum and Shell, were less opposed to a climate change agreement than American oil companies; this is because British Petroleum and Shell had large natural gas and renewable energy holdings and therefore were less concerned about economic harm resulting from mandated greenhouse gas reduction policies (Falkner, 2008).
1999). The Global Climate Coalition appears to have had some influence on Congress, as a number of Congressmen questioned the scientific certainty of human induced climate change. This case supports Karen Litfin’s (1994) claim that the role of epistemic communities is limited because science can be used strategically for political purposes.

The Third Assessment Report of the IPCC also created problems. In the run-up to COP 6, the preliminary Third Assessment Report was leaked. This report “indicated that the climate change problem might be even worse than previously feared, as the IPCC had raised its estimate of the range of temperature change that might result if emissions were to proceed unchecked” (Grubb & Yamin, 2001, p. 265). This new information made it more difficult to reach a compromise: “Raised European expectations and increased public concern, especially in the absence of more in-depth understanding of the political situation and constraints of other countries, further widened the gulf between the European and US positions” (Grubb & Yamin, 2001, p. 265). In the end, the gulf between European and American positions could not be reduced.

The Kyoto Protocol also demonstrates the importance of informational leadership. Both the UNFCCC Secretariat and COP presidents played important roles during negotiations.91 Raul Estrada-Oyuela was the most influential leader within the Secretariat. Estrada-Oyuela had been a member of the INC during UNFCCC negotiations, and at COP 1 he was elected Chairman of the Ad Hoc Group on the Berlin Mandate. Estrada-Oyuela, along with the rest of the Secretariat, took the proposals of

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91 The COP president usually comes from the host country and is often the environment minister. Presidents are supposed to help countries reach consensus on agreements and are supposed to be impartial in their duties (Depledge, 2005).
participating countries and combined them into negotiating texts that helped move the process along. Estrada-Oyuela’s experience with climate change negotiations and familiarity with delegates made the process more efficient (Depledge, 2005). At COP 3 he played a key role. On the final day of negotiations, Estrada-Oyuela pushed through a compromise text that was the basis for the Kyoto Protocol. In the compromise text, Estrada-Oyuela included emissions trading and the Clean Development Mechanism in order to satisfy the Umbrella Group, and excluded developing countries from emission reduction targets in order to satisfy the European Union and developing countries (Grubb et. al., 1999). However, as discussed above, the exclusion of developing countries created problems in the United States.

While Raul Estrada-Oyuela helped ensure an agreement at Kyoto, COP 6 President Jan Pronk played a part in the breakdown of negotiations on the final details of the Kyoto Protocol. Pronk (the Dutch environment minister) tabled a compromise proposal on the second to last day of COP 6. However, this only created confusion. To begin with, Pronk’s paper contained a number of elements that would have required much more negotiation. Another problem was the paper contained a compromise on sinks, but the numbers were different from the compromise that was simultaneously being worked out between the United States and United Kingdom (“Hague Talks”, 2000). Hermann Ott (2001) suggests part of the problem with Pronk’s paper is that he relied on his own staff to create the plan rather than the Secretariat, which had more experience with the issues. Ott also argues the success of Raul Estrada-Oyuela at Kyoto actually created problems at COP 6. This is because participants were expecting Pronk to deliver
a suitable last minute compromise and therefore were not willing to make deals themselves.

Part of the reason for Jan Pronk’s failure was the complexity of the issue. According to neoliberal theory, one of the functions of regimes is to reduce transaction costs by centralizing negotiations and streamlining the flow of information (Keohane, 1984). However, in this case the issue was too complex and taxed negotiating institutions (Grubb & Yamin, 2001). Although the Secretariat and its subsidiary bodies helped work out many details by the time of COP 6, there were still too many complex issues to be resolved.  

One of the reasons there were still so many unresolved items on the agenda at COP 6 is because of differences between the European Union and United States. Neoliberal theory does not do a very good job of explaining this situation. Neoliberalism--due to its reliance on game theory and neorealist assumptions--suggests an agreement should have been reached relatively easily. It was clear both the European Union and United States (under the Clinton administration) saw climate change as a collective action problem that needed to be dealt with. However, negotiations dragged on and ultimately were unsuccessful because of domestic politics. By relying on the assumption that states are autonomous, unitary actors, neoliberal theory ignores the need for domestic ratification of agreements. In the case of the United States, the Senate made things difficult for the Clinton administration because it demanded a number of

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92 UNFCCC created the Subsidiary Body for Implementation and the Subsidiary Body for Scientific and Technological Advice in order to help implement the agreement and develop new agreements when necessary.
provisions be met before it would consider ratifying any agreement. The Clinton administration tried to meet the Senate’s requirements by including flexible mechanisms in the Kyoto Protocol. However, this caused conflict with the European Union and brought down negotiations.

Neoliberal theory also cannot explain why the United States abandoned the Kyoto Protocol in 2001: the collective action problem of climate change remained, suggesting the United States should have still wanted to solve the problem. However, the Bush administration no longer viewed climate change as a collective action problem. This highlights the point made by Andrew Moravcsik (1997): “institutionalist explanations of suboptimal cooperation are appropriate only under circumstances in which states have an interest in resolving particular interstate collective action problems” (p. 543). The concept of preferences is required in order to determine when states consider something to be a collective action problem. In this case, domestic politics caused states to have different views on whether or not climate change was a collective action problem.

III. Neorealism

Power concerns also played a role in the development of the Kyoto Protocol. Neorealism can help explain the actions of both the United States Congress and the Bush administration. Both Congress and the Bush administration had concerns about limits being placed on the military, which made them reluctant to partake in the Kyoto Protocol. During debate of Senate Resolution 98, Chuck Hagel expressed concerns about how a binding agreement would affect the military: “One of the biggest users of fossil fuels is
the U.S. military. How would this treaty affect our military operations and our national defense capabilities?” (U.S. Senate, 1997, p. 5). The Clinton administration tried to alleviate the concerns of Congress by making sure the Kyoto Protocol did not limit military activities; lead negotiator Stuart Eizenstat tried to reassure Congress that the power capabilities of the United States would not be harmed: “The parties in Kyoto took a position to exempt key overseas military activities from any emissions targets, including exemptions for bunker fuels we used in international aviation and maritime transport and from emissions resulting from multilateral operations, such as self-defense, peacekeeping, and humanitarian relief…Secretary Cohen…said the Department [Defense Department] is fully satisfied with Kyoto. That remains the view of the uniformed military as well” (U.S. House of Representatives, 1998b, p. 18). Congress, however, did not seem to be completely satisfied. Although power concerns can help explain the unwillingness of the Senate to ratify the Kyoto Protocol, they appear to have been a smaller issue. The most prominent concern was harm to the economy, which dominated Congressional hearings and debate on Senate Resolution 98. This is more in line with a political economy argument.

The Bush administration also had concerns about how the Kyoto Protocol would affect American power. Shortly after COP 3, the Committee to Preserve Security and Sovereignty (COMPASS) sent a letter to the Clinton administration complaining about the Kyoto Protocol: “The treaty will hamstring American military operations around the world and would lead to the creation of a ‘Climate Change Secretariat’, which would usurp the authority of elected local, state and federal governments” (as cited in Knight,
The letter was signed by Dick Cheney and a number of other politicians formerly involved in security matters. Although the Bush administration did not cite security concerns for pulling out of Kyoto, if Cheney retained his earlier views then it is likely security concerns played a role in the administration’s actions. But, political economy can also explain the sentiments of COMPASS and the actions of the Bush administration.

At the time the COMPASS letter was sent, Dick Cheney was chairman of Halliburton, which opposed the Kyoto Protocol. Cheney maintained close ties to the oil industry once he became vice president, and abandoning the Kyoto Protocol allowed him to promote the interests of the oil industry in the administration’s energy plan. Other politicians that signed the COMPASS letter also had economic interests: former Secretary of State Lawrence Eagleburger sat on the board of Phillips Petroleum and former Secretary of State Alexander Haig was promoting oil investments in China and Turkmenistan (Knight, 1998). Although these individuals probably had genuine security concerns, their economic interests cannot be ignored.

Much like UNFCCC, there were relative gains concerns during negotiation of the Kyoto Protocol—but these emanated from industry. As discussed in chapter two, Sevasti-Eleni Vezirgiannidou (2008) argues that the United States Senate refused to ratify the Kyoto Protocol because it was worried about Chinese relative gains (since China did not have to make emissions reductions). While there may have been concerns about the implications of relative gains for Chinese power capabilities, the explicit reason given by a number of Senators for Senate Resolution 98 was industry fears about economic competitiveness. Furthermore, China was not the only country singled out by the Senate:
Brazil, Mexico, South Korea, India, and others were also mentioned. Once again, a political economy argument appears to be as explanatory as a power argument.

As discussed in chapter two, the biggest shortcoming of neorealism in the case of the Kyoto Protocol is that it fails to explain the actions of the Clinton administration and the European Union. If the argument of Vezirgiannidou is correct, then the Clinton administration should have been just as concerned as the Senate about relative gains and their implications for power. According to neorealism, all states worry about relative gains; therefore the European Union and Clinton administration should have been concerned knowing China did not have to make emissions reductions. In order to understand the actions of the Clinton administration and European Union, it is necessary to look at domestic politics. Both the Clinton administration and European Union had green interests that pressed for an agreement—power and security were not the only interests on display. However, it is not clear what role power and security concerns played in shaping the actions of Germany and the European Union. A lack of sources from Germany and the European Union prevents a more detailed analysis of their actions in the present study.

Conclusion

Once more, all three theories lend some explanatory power to this case. The factors identified by the three theories all contributed to the failure of Kyoto Protocol negotiations. Power concerns appear to have contributed to the actions of the United States. Although economic concerns were most prominent, power and security were still
a factor. Both Congress and the Bush administration were worried about how the Kyoto Protocol would affect the military capabilities of the United States. This can help explain why they were uninterested in the agreement. Neoliberalism helps explain the collapse of negotiations: a lack of informational leadership on the part of Jan Pronk, and over-burdening of negotiating institutions, made it difficult for states to reach a compromise at COP 6. However, preferences help explain why the issue was so complex. The United States demanded a number of flexible mechanisms in order to appease domestic interests. These flexible mechanisms were very complex and created problems for both Pronk and the Secretariat. The flexible mechanisms also created disagreements between the United States and the European Union that could not be resolved. This highlights the most important reason why states could not reach a compromise: preferences were not compatible. Green interests within the European Union refused to concede the issue of sinks to the United States because the climate change agreement would be weakened. Preferences can also explain why President George W. Bush pulled the United States out of the Kyoto Protocol: the administration was interested in aiding economic interests in the United States.
Chapter 6

CONCLUSION

Climate change is a collective action problem for which states have had difficulty finding solutions. Several attempts have been made to create climate change agreements, with varying levels of success. Countries were able to agree on the United Nations Framework Convention on Climate Change, but found it much more difficult to reach agreement on the Kyoto Protocol. The Kyoto Protocol can be considered somewhat of a failure since it does not contain the United States—the largest emitter of greenhouse gases at the time of negotiations. Returning to the question introduced in the first chapter, what explains why states were able to reach a compromise on UNFCCC but not on the Kyoto Protocol? All three international relations theories provide a partial explanation of these outcomes. However, liberal theory can best explain the difference in outcomes in the two cases.

A. Study Overview

As discussed above, it is questionable how much of a role power concerns played in either case. Assuming power concerns were genuine, neorealism does the poorest job of explaining the difference in outcomes of UNFCCC and the Kyoto Protocol. This is especially true with regards to the actions of the United States. The United States does appear to have had some power concerns in both cases. During UNFCCC negotiations the United States was worried about energy security and its implications for power, and
during Kyoto Protocol negotiations there were worries about how an agreement would affect military capabilities. Despite there being power concerns in both cases, the United States signed one agreement and rejected the other. Neorealism suggests the United States should have rejected both agreements. The fact that UNFCCC was non-binding—and therefore less of a threat to energy security and power capabilities—can explain why the United States was willing to sign the agreement. However, even though there may have been a minimal threat to power from UNFCCC, there was no power gain to be made. From a neorealist viewpoint there was no real reason to sign the agreement. Furthermore, President George H.W. Bush never seemed too interested in climate change. Neorealism suggests the administration should have simply withdrawn from negotiations.

The present study has focused on the role played by power and security concerns in shaping the actions of the United States. This was done, in part, to highlight the deficiencies of the argument made by Sevasti-Eleni Vezirgiannidou (2008). It was also necessary, however, due to a lack of documentation from Germany and the European Union. As a result, it is not clear how power and security concerns affected the actions of Germany and the European Union; this is unfortunate because their actions appear to be at greatest odds with the neorealist argument. Further research would be beneficial in order to better understand the actions of Europeans.

Neoliberal theory does a better job of explaining the difference in outcomes of UNFCC and the Kyoto Protocol. The provision of information varied in the two cases. In both cases states were able to agree on mechanisms that monitored the fulfillment of
commitments, thus creating transparency and a better contractual environment. However, informational leadership varied in the two cases. During UNFCCC negotiations, INC Chairman Jean Ripert helped states reach a compromise on a number of issues. Similarly, Raul Estrada-Oyuela was influential in the compromise agreement reached at COP 3. At COP 6, however, Jan Pronk failed to provide informational leadership. His compromise proposal was released too late in the negotiation process and did little to bring the sides closer together. This helped lead to the breakdown of negotiations.

There were also differences in informational leadership on the part of the broader Secretariat. During UNFCCC negotiations, the Secretariat helped states reach agreement on most issues early on. As a result, only a small number of issues had to be worked out in the latter stages of negotiations--making it easier to reach a final agreement. In the case of the Kyoto Protocol, the Secretariat had less success in working out differences between countries. By the time of COP 6, there were still too many items to be negotiated and not enough time to reach agreement on all of them.

This study appears to add weight to the explanatory power of neoliberal theory. Most neoliberal studies have focused on successful agreements. In this study, the Kyoto Protocol was not completely successful because the United States could not reach agreement with the European Union. The failure of the Kyoto Protocol can partially be explained by the poor functioning of regime mechanisms and lack of information: without informational leadership, it was too difficult to reach a final agreement on the
Kyoto Protocol. This study also shows that functioning regime mechanisms are not sufficient for cooperative agreements. Preferences must also be compatible.

Liberal theory does the best job of explaining the difference in outcomes of UNFCCC and the Kyoto Protocol. The compatibility of preferences differed in the two cases. Preferences were minimally compatible in the case of UNFCCC, allowing for a compromise agreement to be reached. Preferences were not minimally compatible in the case of the Kyoto Protocol, preventing a final agreement between the United States and European Union. Domestic politics help explain why preferences differed.

On the issue of climate change, state preferences were largely shaped by economic and environmental interests. Factors from liberal theory explain which interests were able to have more influence. The most important liberal factors were the views of individuals at the top of government, powerful industry groups, and political systems. Chapter three showed how these factors shaped state preferences in Germany and the United States prior to the start of climate change negotiations. In the United States, economic interests had more influence, resulting in a roll-back of environmental regulations. Presidents Ronald Reagan and George H.W. Bush had close ties to industry and attempted to roll-back environmental regulations because of concerns about the economy. However, they were checked by environmental interests in the Congress and their own EPA administrators. In Germany, environmental interests had more influence, resulting in a strengthening of environmental policies. Environmental interests--especially the Green Party and environment ministry--pressed all parties and government leaders to adopt stronger environmental policies. Chancellor Helmut Kohl and industry
were willing to accept these policies because of the belief that they would benefit the economy. These influences carried over into climate change negotiations.

Agreement was possible at UNFCCC because preferences were minimally compatible. Although the United States was more influenced by economic interests, President George H.W. Bush signed UNFCCC because there was just enough pressure from environmental interests to make it politically necessary. Germany was more influenced by environmental interests, but had to weaken its stance because of complaints from domestic and European economic interests. As a result, Germany and the European Community were able to find a middle ground with the United States that allowed for an agreement to be reached.

During negotiation of the Kyoto Protocol, domestic politics altered state preferences in both Germany and the United States. Environmental interests obtained more influence in the United States as a result of Vice President Al Gore. However, economic interests were able to counter the influence of Gore by turning to Congress, which had become more conservative and sympathetic to the complaints of industry since UNFCCC. Gore and the Clinton administration tried to appease economic interests by pushing for flexible mechanisms in the Kyoto Protocol that would reduce harm to the economy. This created tensions with Germany and the European Union, which had become even more influenced by environmental interests since UNFCCC because of the rise of Green Parties. Green Party environment ministers in Germany and France could not reach a compromise with the United States because they were worried about creating

93 Similar situations occurred in other proactive countries such as the Netherlands and Denmark (Weidner, 1997)
a weak agreement. Economic interests gained more influence with the election of George W. Bush, widening the gap between the United States and Europe. In the end, preferences in the United States and European Union had grown too far apart and were not minimally compatible.

I. Predictions and Outcomes

Comparing the predictions laid out in chapter two with the outcomes of UNFCCC and the Kyoto Protocol, liberal theory appears to be the most accurate in its predictions, as demonstrated in the following table:

<table>
<thead>
<tr>
<th>Theory</th>
<th>UNFCCC Outcome</th>
<th>Kyoto Protocol Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neorealism (Power)</td>
<td>Prediction: No agreement Incorrect</td>
<td>Prediction: No agreement Correct</td>
</tr>
<tr>
<td>Neoliberal Institutionalism (Information)</td>
<td>Prediction: Agreement Correct</td>
<td>Prediction: Agreement Incorrect</td>
</tr>
<tr>
<td>Liberal Theory (Preferences)</td>
<td>Prediction: Agreement Correct</td>
<td>Prediction: No Agreement Correct</td>
</tr>
</tbody>
</table>

As discussed above, the two cases are fairly complex and all three theories are partially explanatory. However, at the most general level, only liberal theory correctly predicts the outcome in both cases. Neorealism suggests that neither agreement should have been possible, while neoliberal institutionalism suggests that both agreements should have been successful. Focusing on the compatibility of state preferences, only liberal theory correctly predicts the outcome in both cases. This adds weight to the argument that preferences (liberal theory) is a powerful explanatory factor in climate change negotiations.
B. Limitations and Further Research

The present study is limited in several respects. To begin with, it only focuses on a limited number of countries. Although the United States, Germany, and European Union were amongst the most important countries throughout negotiations, other countries also played a role. Developing countries became increasingly important over time and influenced the final shape of the Kyoto Protocol. A more complete study would include an examination of the domestic politics of additional countries in order to see what role preferences played in the final outcomes.

An additional limitation of the study is the lack of primary sources from Germany and the European Union. At present, internal validity threatens the study due to the lack of primary sources. Secondary sources are mainly relied on in order to identify the preferences of Germany and the European Union. Primary sources could help strengthen the argument that Germany and the European Union were most influenced by environmental interests, and shed light on the role played by power and security concerns in influencing the actions of Germany and Europe. This in turn would strengthen the argument that differences in preferences led to the breakdown of negotiation on the Kyoto Protocol. Interviews with those involved in negotiations could also strengthen the argument that preferences are the most explanatory factor for the difference in outcomes in the two cases.

The argument proffered in the present study could also be strengthened by testing another case. The ongoing negotiation to create a climate change agreement to follow the Kyoto Protocol is another potential case for study. Further research into domestic politics
would add depth to the study. For example, inclusion of opinion polls from the United States and Germany might highlight the power of favored interest groups: if opinions about climate change are similar amongst the populations in the two countries, then this would demonstrate the importance of powerful environmental and economic interest groups in shaping the contrasting positions of the two countries. On a related note, there is need for a more thorough examination of the political institutions in the two countries. As it is, the study only provides a superficial examination of political institutions. However, the importance liberal theory places on domestic politics means that a more detailed analysis of political institutions would be beneficial. Such an analysis would provide greater understanding of how environmental and economic interests are empowered, and how they have shaped the institutional capacity in the two countries over the years. This is important from a policy perspective because the institutional capacity of each country determines the types of climate change policies that can be implemented.
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