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THESIS APPROVAL

The abstract and thesis of Anthony David Lott for the Master of Arts in Political Science were presented on July 12, 1996, and accepted by the thesis committee and the department.


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ABSTRACT

An abstract of the thesis of Anthony David Lott for the Master of Arts in Political Science presented July 12, 1996.

Title: Neorealism and Environmental Cooperation:
Towards a Structural Explanation of
International Environmental Matters

The realist tradition in world politics has long been heralded by statesmen and scholars alike as offering an authentic account of the relations between states. Realists consider self-interest, anarchy, and power politics to guide the behavior of states in the international system. The perception that cooperation and amity are now the norm in the international system has raised the possibility of a theoretical shift of focus in the study of international politics. At present, scholars within the discipline of international politics are debating the relevance of realist thought. In particular, neorealism, or the structural variation of traditional

realism, is under attack for not providing a rationale for international cooperation.

This project undertakes to expand neorealism's ability to explain state behavior in the area of environmental cooperation. Employing the notion of anarchy as a self-help system, it shall be demonstrated that international environmental agreements appear to be influenced by the distribution of power in the international system. Anarchy mandates the need for state actors to cooperate on certain environmental issues, while that same system dissuades cooperation on a number of other important environmental matters.

This thesis critiques the theoretical principles in neorealism and makes moderate changes to them. In keeping with neorealist thought, power, the interests of important states, and the position of the hegemon are considered important factors in understanding environmental cooperation. This project also studies three global environmental issues that provide insight into the rewards and limitations of using neorealism to explain cooperation.

NEOREALISM AND ENVIRONMENTAL COOPERATION: TOWARDS A
STRUCTURAL EXPLANATION OF INTERNATIONAL ENVIRONMENTAL
MATTERS

by
Anthony David Lott

A thesis submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS
in
POLITICAL SCIENCE

Portland State University
1996

INTRODUCTION

The realist tradition in world politics has long been heralded by statesmen and scholars alike as offering an authentic account of the relations between states. Thucydides, exploring the roots of conflict between ancient Athens and Sparta, pointed to the inevitable growth of power and self-interest as a cause of war.¹ Niccolo Machiavelli suggested prudent leaders ought to resort to imperialism and war. Anarchy, he suggested, requires the prince to violate ethical principles in defense of the state.² Thomas Hobbes acknowledged that international anarchy produces a disposition towards competition and war.³ In 19th century Prussia, Otto von Bismarck and Carl von Clausewitz legitimized the use of war as an extension of diplomacy.⁴

Twentieth-century realists have continued the tradition. Studying Germany's rise to power in the years prior to W.W.II, E.H. Carr condemns the appeasement philosophy of many European nations.⁵ Hans Morgenthau

reminds the student of world politics that power and self-interest lie at the heart of the state.⁶ Hedley Bull suggests an underlying logic to anarchy and warns against alternative world organizations.⁷

This pessimistic view of the political struggle between states depicts the foundation upon which realism, as the dominant paradigm in international relations theory, rests. It characterizes the anarchic environment as a struggle for power by self-interested, sovereign states. International politics is competitive, war-prone, and brutal. Conflict is the norm, and cooperation, the exception.⁸

Others suggest this view is too pessimistic. They contend that cooperation appears to develop relatively easily among self-interested states.⁹ Wars, although possible, are interrupted by long periods of amicable relations between states. Cooperation consistently occurs in the form of accepted legal norms, economic agreements, and international humanitarian missions.¹⁰

Theorists who stress cooperation and order are inclined toward a more benign picture of international

politics, quite removed from the traditional realist perspective. At the end of W.W.I, liberal statesmen and scholars envisioned that politics in the future would be marked by concord and "perpetual peace."¹¹ Leaders after W.W.II established the United Nations and proclaimed a new era for humankind.¹² As economic cooperation progressed through the 1970's, "neoliberal institutionalism" examined the rise of institutions (international organizations, regimes, and other supranational entities) as a means of ensuring global cooperation.¹³ These neoliberals proclaimed that a paradigm shift was occurring, and announced their institutional perspective as the new candidate.¹⁴

Which view correctly described world politics? Could realist philosophy maintain its 2000 year old tradition of dominance? Realists of various persuasions attempted to bolster the state-centric, power-politics model. Rebuffed by the continuous attacks of institutionalists, it appeared that a fundamental change in the study of the global system was underway. Finally, Kenneth Waltz introduced a systemic theory of international politics.¹⁵

Termed, neorealism, Waltz's account of the politics between nations borrowed a structural framework from oligopolistic theory in economics.¹⁶

Traditional realist thought, according to Waltz, was reductionist. It reduced the study of international relations to the internal attributes of the state or the psychological make-up of the citizenry.¹⁷ Reliance on ideas such as "human nature," "national character," and "legal ideals,"¹⁸ all point to discussions around states and their internal characteristics. For, Waltz, such theories could not adequately explain state behavior. Therefore, in *Theory of International Politics*, he applied a systemic approach to the study of international relations. Analogous to oligopolistic market theory, where competition and self-help reign, Waltz's theory was a marked change from the traditional realist school. The discipline was introduced to new concepts, like system and structure.¹⁹ Systems are conceptual tools that theorists use to study actors.²⁰ A system is a "set of interacting units."²¹ Structures are bounded realms of actors. As

defined by Waltz, the *international* structure consists of states, varying in strength, interacting in anarchy.²²

For many in the discipline, neorealism rose from the ashes of traditional realist thought and reclaimed the title of dominant paradigm. By maintaining the importance of power, anarchy, self-interest, and the state, neorealism would be indelibly linked to its predecessor. However, with its systemic dimension, it would be powerful enough to explain economic cooperation. Subsequent attempts at explaining these matters by employing neorealist theory met with critical success.²³ Combined with the traditional realist ability to explain discord, neorealism appeared able to stave off the institutionalists.

Ironically, in the same decade that bore neorealism, several international environmental agreements were signed introducing the emergence of a new issue area in the study of international relations.²⁴ The increasing salience of environmental issues has provided many theorists with the opportunity to raise the specter of a paradigm shift once again.²⁵ Institutionalists now claim that the

oligopolistic analogy in neorealism, tolerable for explaining economic matters, does not sufficiently explain environmental cooperation.²⁶

Various institutional theories have attempted to account for the relative success of many prominent international environmental agreements.²⁷ Individually and collectively, these works provide a strong counter-response to neorealism.²⁸ Currently, it appears that the discipline is once again wrought with paradigm competition. Awkward claims that issues such as environmental cooperation matter little in a world dominated by nuclear weapons,²⁹ only add to neoliberal claims. Consider, for example, that Kenneth Waltz's seminal piece, *Theory of International Politics*, lacks any in-depth mention of environmental issues.³⁰

This project undertakes to expand neorealism's ability to explain state behavior in the area of environmental cooperation. I seek to demonstrate that international environmental agreements appear to be influenced by the distribution of power in the international system.³¹ Specifically, *I contend that the*

international anarchical structure, and its ramifications for state actors, sufficiently explains the success or failure of international environmental agreements.

Anarchy, described as a self-help system,³² mandates the need for state actors to cooperate on certain environmental issues, while that same system dissuades cooperation on a number of other important environmental matters. As states seek to survive in the anarchical order, cooperation, often more apparent than real,³³ is engendered.

In order to construct a structural explanation of environmental cooperation, I shall first critique the institutionalists' perspective. This will provide insight into the limited ability of neoliberalism to account for environmental cooperation. Further, this critique will suggest a more modest role for international institutions, a role that can be explained through the lens of neorealism.

Second, I will enhance the current ability of neorealism to account for cooperation. Frequent attacks on the paradigm suggest that its deterministic structure³⁴

does not allow for a great deal of cooperative behavior. In response to such criticisms, I shall present a theoretical case for understanding cooperation through the lens of neorealism.

Finally, a structural explanation of environmental cooperation will be developed. By surveying a number of successful and unsuccessful environmental agreements, it will be demonstrated that great powers, in order to ensure their sovereign integrity, exercise their ability to influence and co-opt other states. Consequently, less powerful states remain as incapable of influence on environmental issues as they are in military and strategic arenas.

NOTES

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- ¹ Thucydides (c. 400 B.C.), The History of the Peloponnesian War, trans. and ed. Rex Warner (Baltimore: Penquin Classics, 1954).
- ² Niccolo Machiavelli (1532), The Discourses, ed. Bernard Crick, trans. Leslie J. Walker (Baltimore: Penquin Classics, 1976); and Niccolo Machiavelli (1513), The Prince, trans. Harvey Mansfield, Jr. (Chicago: University of Chicago Press, 1985).
- ³ Thomas Hobbes (1651), Leviathan: Or the Matter, Forme, and Power of a Commonwealth Ecclesiasticall and Civil, ed. Michael Oakeshott (New York: Macmillan Publishing Co., 1962), pp. 98-102.
- ⁴ Edward Hallett Carr, The Twenty Years' Crisis, 1919-1939 (New York: Harper and Row Publishers, 1964): 109.
- ⁵ *Ibid.*, generally; and Hans Morgenthau makes much the same point in Hans Morgenthau, Politics Among Nations: The Struggle for Power and Peace, brief edition (New York: McGraw Hill, 1993): 6.
- ⁶ Morgenthau, p. 5 and p. 13.
- ⁷ Hedley Bull, The Anarchic Society: A Study of Order in World Politics (New York: Columbia University Press, 1977).
- ⁸ Robert G. Gilpin, "The Richness of the Tradition of Political Realism," in Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986): 304.
- ⁹ Robert Powell, "Anarchy in International Relations Theory: The Neorealist-Neoliberal Debate," International Organization 48 (Spring 1994): 328.
- ¹⁰ Robert O. Keohane, After Hegemony: Cooperation and Discord in the World Political Economy (Princeton, NJ: Princeton University Press, 1984): 49-64; Mark W. Zacher,

"Toward a Theory of International Regimes," in Robert L. Rothstein, ed., The Evolution of Theory in International Relations (Columbia, SC: University of South Carolina Press, 1992): 119-137.

¹¹ I borrow this phrase from Immanuel Kant (1795), "Perpetual Peace," in Kant's Political Writings, ed. Hans Reiss, trans. H.B. Nisbet (Cambridge: Cambridge University Press, 1971). Perhaps the best example of this is Woodrow Wilson, "The World Must be Made Safe for Democracy and the Fourteen Points," in John A. Vasquez, ed., Classics of International Relations, 3rd. ed. (New Jersey: Prentice Hall, 1996), pp. 35-40.

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¹³ Ernst B. Haas, "On Systems and International Regimes," World Politics 27 (January 1975): 147-74; Ernst B. Haas, Beyond the Nation-State: Functionalism and International Organization (Stanford: Stanford University Press, 1964).

¹⁴ Richard W. Mansbach and John A. Vasquez, In Search of Theory: A New Paradigm for Global Politics (New York: Columbia University Press, 1981): 68-83.

¹⁵ Kenneth Waltz, Theory of International Politics (New York: Random House, 1979).

¹⁶ *Ibid.*, p. 89-93.

¹⁷ *Ibid.*, p. 19.

¹⁸ Theorists that employ these notions include, Morgenthau, pp. 143-147; Hobbes, pp. 98-102; and Reinhold Neibuhr, Moral Man and Immoral Society: A Study of Ethics and Politics (New York: Charles Scribner's Sons, 1932).

¹⁹ Waltz, p. 79.

²⁰ *Ibid.*, p. 80.

²¹ *Ibid.*, p. 40.

²² *Ibid.*, pp. 88-101.

²³ Three works on economic cooperation that utilize Neorealism include, Robert Gilpin, War and Change in International Politics (New York: Cambridge University Press, 1981); Stephen D. Krasner, Structural Conflict: The Third World Against Global Liberalism (Berkeley: University of California Press, 1985); David Lake, Power, Protection, and Free Trade (Ithaca, N.Y.: Cornell University Press, 1988).

²⁴ This should not appear as a comprehensive and exhaustive list of international environmental agreements. For a more comprehensive list, see Edith Brown Weiss, Paul C. Czasz, and Daniel P. Magraw, International Environmental Law: Basic Instruments and References. (USA: Transnational Publishers Inc., 1992). Some of the more notable agreements include: Stockholm Declaration on the Human Environment of the United Nations Conference on the Human Environment, 16 June 1972, reprinted in 11 ILM 1416 (1972). UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, reprinted in 11 ILM 1358 (1972). United States of America- Union of Soviet Socialist Republics: Agreement on Co-operation in the Field of Environmental Protection, 23 May 1972, reprinted in 11 ILM 761 (1972). Nordic Convention on the Protection of the Environment and Protocol, 19 February 1974, reprinted in 13 ILM 591 (1974). Brussels International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 29 November 1969, reprinted in 970 UNTS 211. London Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 2 November 1973, reprinted in 13 ILM 605 (1974). Brussels International Convention on Civil Liability for Oil Pollution Damage, 19 December 1971, reprinted in 11 ILM 284 (1972). IMO Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention-LDC), 29 December 1972, reprinted in 11 ILM 1294 (1972). London International Convention for the Prevention of Pollution from Ships (MARPOL) 2 November

1972, reprinted in 12 ILM 1319 (1973). Oslo Convention for the Prevention of Pollution of Marine Pollution By Dumping from Ships and Aircraft, 15 February 1972, reprinted in 11 ILM 262 (1972). Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, 4 June 1974, reprinted in 13 ILM 352 (1974). Gdansk Convention on Fishing and Conservation of Living Resources in the Baltic Sea and The Belts, 13 September 1973, reprinted in 12 ILM 1291 (1973). Barcelona Convention for the Protection of the Mediterranean against Pollution, 16 February 1976, reprinted in 15 ILM 290 (1976). Convention of International Liability for Damage Caused by Space Objects, 29 March 1972, reprinted in 961 UNTS 187. Washington Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), 3 March 1973, reprinted in 12 ILM 1088 (1973). London Convention for the Conservation of Antarctic Seals, 1 June 1972, reprinted in 11 ILM 251 (1972). Oslo Agreement on the Conservation of Polar Bears, 15 November 1973, reprinted in 13 ILM 13 (1973). Rangoon Convention on Wetlands of International Importance, Especially as Waterfowl Habitat, 2 February 1971, reprinted in 11 ILM 969 (1972).

²⁵ Consider for example, Geoffrey Palmer's comment concerning the environment and action, "There is a political imperative driving environmental diplomacy. It is the rising level of consciousness among people everywhere of the serious nature of the global environmental problems. One can feel it in the air at the increasingly numerous international conferences held on the subject. Governments are eager to be seen as taking a constructive stance. It is time to translate that attitude into action." Geoffrey Palmer, "New Ways to Make International Environmental Law," American Journal of International Law 86 (April 1992): 259.

²⁶ This criticism is lodged in a broader criticism that neorealism cannot account for cooperation generally. See for example, Robert O. Keohane, "Theory of World Politics," in Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986): 195-

197. Barry Buzan, Charles Jones, and Richard Little, The Logic of Anarchy (New York: Columbia University Press, 1993): 150-153. Alexander Wendt, "The Agent-Structure Problem in International Relations Theory," International Organization 41 (Summer 1987): 335-370.

²⁷ Consider for example, Peter Haas, Saving the Mediterranean, (New York: Columbia University Press, 1990). Peter Haas, "Banning Chlorofluorocarbons: Epistemic Community Efforts to Protect Stratospheric Ozone," International Organization 46 (Winter 1992): 187. Peter H. Sand, "Institutions for Global Change: Whither Environmental Governance?," Policy Studies Journal 19 (Spring 1991): 93-102.

²⁸ To contend that political realism, and in particular neorealism, is the dominant paradigm in international relations theory is not without its critics. However, as Robert Keohane states, "For over 2000 years, what Hans J. Morgenthau dubbed 'Political Realism' has constituted the principle tradition for the analysis of international relations in Europe and its offshoot in the New World." see Keohane, "Theory of World Politics," p. 158; and Buzan, Jones, and Little, p 1.

²⁹ Waltz, p. 139.

³⁰ The only mention of the environment appears in a summary of what other theorists consider interdependence among states, "The four p's- pollution, poverty, population, and proliferation- pose problems so pressing that national interest must be subordinated to collective need." Waltz, p. 139.

³¹ For a general description of what the international system level of analysis entails see, Martin Hollis and Steve Smith, Explaining and Understanding International Relations (Oxford: Clarendon Press, 1990): 92-118.

³² Waltz, p. 111.

³³ This term is taken from Lewis Alexander's discussion of cooperation by states concerning maritime conventions. He states, "Regarding cooperative action among individual states in ocean activities, there often seem to be more examples of appearance than of reality." Lewis M. Alexander, "The Cooperative Approach to Ocean Affairs: Twenty Years Later," Ocean Development and International Law 21 (1990): 108.

³⁴ Wendt, "The Agent-Structure Debate."

INSTITUTIONAL EXPLANATIONS OF COOPERATION

In the wake of a series of devastating oil spills like that of the *Torrey Canyon*, and popular protest movements like the inaugural Earth Day of 1971,¹ the highly charged environmental debate entered the academic arena. Significant works appeared by highly praised scholars denouncing the self-destructive path of humankind and prescribing radical alternatives. In 1971, Richard Falk published *This Endangered Planet*.² This provocative look at the effect humanity has on the global ecosystem suggested the extreme measures that the species must take in order to survive.³ Richard Heilbroner, R. Buckminster Fuller, and others⁴ voiced similar opinions in response to the perceived imminent doom facing humankind.

These early texts on the subject of the international environment seem indelibly linked to the historical period in which they were created. The *psycho milieu*⁵ of the authors is colored by suggestions that the extinction of the species was forthcoming. This should not detract from

their worth as outstanding intellectual achievements in raising the collective conscience of humankind in order to deal with serious environmental issues.

Nevertheless, these highly normative early works gave way to more cautious analyses as the accumulation of cooperative agreements increased at a rapid rate through the 1970s.⁶ More recent research on the environment has involved close scrutiny of these agreements.⁷ With recourse to data, theorists were able to establish explanations of how and why cooperation, on a variety of complex and difficult environmental matters, was possible. Further, these more empirical works suggest that humankind can achieve a reasonable degree of environmental integrity without radical systemic change. The resulting collection represents a strong counter-response to the radical economic and political alternatives expressed in the early writings.⁸

In 1977, Hedley Bull published a classic study of international politics entitled *The Anarchical Society*.⁹ This inquiry into order and stability in the international

arena suggests the importance of the state in minimizing international conflict.¹⁰

Unlike the early environmental theorists, who suggested that order and cooperation must come at the expense of the state,¹¹ Bull argues that the nation-state system is an integral, indeed the integral, component of order. Applying this logic to environmental issues, Bull suggests that the current state-centric system is the only political structure presently able to deal with environmental threats. Concurring with Shields and Ott,¹² Hedley Bull notes that "it is only national governments that have the information, the experience and the resources to act effectively in relation to these matters."¹³ This analysis, then, provides a foundation for studies on environmental cooperation that acknowledge the importance of the nation-state system.

Both neoliberals and neorealists agree on the primacy of the state in international politics.¹⁴ This is welcome relief for a great many theorists. The similarity allows for a more genuine comparison of the institutional role within each paradigm.

Peter Haas, Robert Keohane, and Marc Levy provide a thorough discussion of the state in their recent compilation of articles under the rubric *Institutions for the Earth*.¹⁵ In the introductory chapter, these theorists concern themselves with the importance of the nation-state in establishing international environmental cooperation. They suggest that institutions, which may take the form of organizations, regimes, or conventions,¹⁶ do not

supersede or overshadow states. They lack the resources to enforce their edicts. To be effective, they must create networks over, around, and within states that generate the means and the incentives for cooperation among those states.¹⁷

These neoliberals emphasize their pragmatic nature,¹⁸ and argue throughout their analyses that the state is *integral* to cooperative ventures. This state-centric approach adheres closely to theoretical principles in neorealism. Kenneth Waltz is quick to point out the presence of international processes in his own theory.¹⁹

Process results from state interaction within the international system. For Waltz, processes take the form of rules, institutions, and organizations.²⁰ Processes

are vibrant entities in international politics. But, like the neoliberals, Waltz considers their presence in cooperative ventures to be secondary to the primary actors in the system. He argues,

States set the scene in which they, along with nonstate actors, stage their dramas or carry on their humdrum affairs. Though they may choose to interfere little in the affairs of nonstate actors for long periods of time, states nevertheless set the terms of the intercourse, whether by passively permitting informal rules to develop or by actively intervening to change rules that no longer suit them. When the crunch comes, states remake the rules by which other actors operate.²¹

An almost identical viewpoint of the relationship between institutional processes and the state is expressed in *Institutions for the Earth*. Haas, Keohane, and Levy suggest that international institutions perform three crucial functions that "have contributed to more effective national efforts to protect the quality of the global environment."²² Coining these elements "the three C's," the authors note that institutions increase government concern, enhance the contractual environment, and increase national capacity.²³ Having expressed this opinion, they concede that,

if the rules and practices of international institutions are inconsistent with realities of power or ecology, they may become meaningless; and if their content creates perverse incentives, they may do more harm than good.²⁴

The limits of institutions are correctly demarcated by these authors. They emphasize the mirroring effect that institutions have with power relationships in the international system. John Mearsheimer, writing in the realist tradition, allows that states do utilize institutions, however he is quick to point to the power relationship as well,

Realists also recognize that states sometimes operate through institutions. However, they believe that those rules reflect state calculations of self-interest based primarily on the international distribution of power. The most powerful states in the system create and shape institutions so that they can maintain their share of world power, or even increase it. In this view, institutions are essentially 'arenas for acting out power relationships.'²⁵

Other theorists who argue from the institutional perspective are open about the power dimension in international politics. Oran Young suggests that the creation of international regimes is often done in the presence of, and with the encouragement of, an

international hegemon.²⁶ "Imposed regimes,"²⁷ are a classic example of "power politics" manifested in an international process. These regimes are "fostered deliberately by dominant powers or a consortia of dominant powers."²⁸ Because the capability differential is so great, less powerful states are compelled through "some combination of coercion, cooptation, and manipulation of incentives,"²⁹ to obey the informal rules of the regime.

Karen Litfin echoes the regime analysis of Oran Young. She contends that regimes play an increasingly important role in the development of international environmental solutions.³⁰ However, she still considers the state to be the primary international actor,

Only the state has the human and financial resources to mount the large-scale scientific and technical projects for detecting, monitoring, and preserving the global environment.³¹

Neoliberals have also witnessed power manifested in institutions while studying epistemic communities. In 1990, Peter Haas published *Saving the Mediterranean*.³² This book was a compilation of research dedicated to understanding why Mediterranean states cooperated with

each other in solving marine pollution problems. According to Haas, the motivating force behind Mediterranean cooperation has been the "epistemic community."³³ This community is a professional group drawn from many different scientific disciplines.³⁴ The members all share a common world view and a willingness and desire to promote such values.³⁵ Haas suggests that beyond their similar scientific history, these members share a 'consensual knowledge' about how to solve problems.³⁶

Although Haas considers the international scientific community to have been the motivating force in establishing the MEDPlan agreements, he adds important qualifers concerning the power distribution in the Mediterranean region. Acknowledging France's pre-eminent role as an economic hegemon for many Mediterranean basin countries, he concedes that,

Without active French participation, no efforts to clean up the Mediterranean could hope to succeed. Since the developing countries were more dependent on French trade for contributions to their GNP than France was dependent on them, French negotiators were in a better position to coerce compliance from LDC diplomats by way of tacit threats of unilaterally implementing new

policies to control pollution. Thus, France could expect to create pollution control arrangements which would satisfy French concerns.³⁷

Haas, turning his attention to the ozone depletion issue, finds similar results with regard to United States hegemony.³⁸ Arguing once again that epistemic analysis provides a rich explanation of cooperation, Haas concedes that U.S. influence was a necessary pre-condition for that cooperation.³⁹

Legal institutionalists also maintain the primacy of the state and the importance of the power distribution in international environmental agreements.⁴⁰ While introducing his edited volume, *Greening International Law*,⁴¹ Philippe Sands acknowledges that states "continue to play the primary and dominant role in the international legal order, both as principal creators of the rules of international law and the principal holders of the rights and obligations under those rules."⁴²

So far, it would appear that neoliberals and neorealists share similar views with regard to the importance of both the state and power in the

international system. Nothing, to this point, in the discussion of institutions by neoliberals contradicts the theoretical principles in neorealism. States remain the key actors and institutions provide scientific information and enhance the negotiating arena. Indeed, Charles Glaser has pointed out that neorealists have no problem with institutions that merely reduce transaction costs and provide information.⁴³ This type of institutional analysis maintains the logic of neorealism. "States remain the key actors, and anarchy remains unchanged; from this perspective, the role played by these institutions is modest."⁴⁴ According to Glaser,

If institutions of this type would make cooperation desirable, then structural realism predicts that states would create them for essentially the same reason that under certain conditions they should pursue advances in technology or increases in force size: these policies would enhance their military capabilities.⁴⁵

However, most neoliberals prescribe a more active role for the institution in developing international environmental cooperation.⁴⁶ Here, a theoretical split begins to take place. Increasingly, the view of the state

as a passive participant in the institutional process becomes clear.

This seriously undermines the importance of the state and counters much of the self-help logic of neorealism. Accordingly, many institutional analyses seek to explain international environmental cooperation *as the result of* regimes, organizations, and epistemic communities.⁴⁷

Karen Litfin provides an excellent example of just such an explanation. She asserts,

scientists and social movements have instigated virtually all existing international environmental agreements, and in many cases were key actors in their negotiation, implementation, and monitoring. Moreover, these non-state actors are infusing new rules, processes, and norms into both new and existing social structures.⁴⁸

Peter Haas, whose earlier discussion of French hegemony in the MEDPlan, suggested a realist bias, moves away from the state-centric approach and insists that

The epistemic community approach offers suggestions for more resilient cooperation that is broader in scope than that anticipated by realists, neorealists, and historical materialists.⁴⁹

Thus, the true explanation for successful environmental cooperation in the Mediterranean basin results from the active involvement of the international epistemic community. Neorealists become uneasy as this explanation of cooperation unfolds. This group, composed of "bureaucrats, technocrats, scientists, and specialists,"⁵⁰ must consider themselves members of that community *a priori* their role as government officials. Maintaining the importance of the state, realists argue that these individuals are members of the apparatus known as the state.⁵¹

Categorizing these individuals as members of the state, proffers an opposing explanation of their behavior. As state agents these individuals have a desire to maximize state interests.⁵² The cooperative activities they engage in result from an understanding that environmental degradation can diminish the economic and aesthetic interests of the state. Realists insist that the international system reflects this notion. States have not given up regulatory authority to international

organizations and the monitoring functions of these organizations are quite limited.⁵³

Further evidence of neoliberalism's intent to move away from the state as the primary actor is provided by the work of Haas, Keohane, and Levy.⁵⁴ Originally introducing themselves as pragmatists, their subsequent discussions seed the institutional dimension with an activist aire. In order to be effective, they suggest, institutions must "*create networks over, around, and within states that generate the means and the incentives for cooperation among those states.*"⁵⁵ Institutions are given an international personality that makes the neorealist uncomfortable. John Mearsheimer, perhaps an extreme critic of the role of institutions, defends the realist argument succinctly,

Realists maintain that institutions are basically a reflection of the distribution of power in the world. They are based on self-interested calculations of the great powers, and they have no independent effect on state behavior.⁵⁶

While Mearsheimer is over-exuberant in his disdain of institutions, he is not completely at fault. Neoliberals

provide him with the impetus for such a harsh critique by implying that the state is either impotent to, or unaware of, forces driving institutional fabrication.⁵⁷

Institutions are better understood if they occupy a more modest role in a theory of international politics. Reformulating Haas, Keohane, and Levy's discussion to read, states build institutional networks when the need for such networks appears in the interest of the state, provides for a more balanced account of the role of institutions. Institutional networks can then be described as a process of state activity. Additionally, these processes will more accurately reflect the power distribution and the desires of states.

By discounting the notion of self-interest in the international system, neoliberal analyses often paint too optimistic a picture of international cooperation. Self-interest and anarchy provide neorealism with an explanation of state behavior. Notions such as these, provide answers as to *why* environmental cooperation occurs. Finding an explanation for cooperation, neorealists can then enhance their theory by describing

how that cooperation is formalized. Institutions provide just such an enhancement. Neoliberals appear to confuse the descriptive with the explanatory.

Perhaps some examples will shed some light on the problem created by neoliberals. Consider the recent attempt to develop a comprehensive and thorough set of legal agreements to deal with climate change. In early 1991, officials from over 100 countries met in Washington D.C. to convene the United Nations Intergovernmental Negotiating Committee on Climate Change (INC).⁵⁸ States concerned with rising sea levels and atmospheric change used the forum to voice their opinions and lament the uncooperative behavior of major world powers.⁵⁹

The most active group of states involved in this issue, provides evidence of why a comprehensive set of agreements has not been created. Known as the Alliance of Small Island States,⁶⁰ a host of nations in the Pacific, Indian, and Atlantic Oceans⁶¹ continuously demand action. For neorealists, their overwhelming lack of power points to their subsequent inability to achieve cooperation.

However, for neoliberals focusing on the institutional process, this group is described quite differently. Oran Young suggests that the Alliance has achieved "real success within the INC."⁶² He considers that, "[b]ecause the concerns of its members are so palpable and because the group has attracted the help of sophisticated advisors from the NGOs, the Alliance of Small Island States has proven effective in the climate negotiations, despite the weakness of its members in material terms."⁶³

Young seems to confuse internal institutional cooperation among a variety of weak states and NGOs, with international environmental cooperation. There is an implicit desire to establish non-governmental organizations as influential in promoting cooperation. However, what does it matter if the Alliance has proven effective in the negotiations, if the negotiations do not result in success? Young concedes that, "there is no way to check global warming without the active participation of the developing countries."⁶⁴ It pays to look beyond an

institutional perspective to understand cooperation or lack thereof.

Recourse to simple and rather unattractive principles such as anarchy and sufficient self-interest,⁶⁵ prove more valuable than institutional explanations. That negotiations take place, and cursory scientific data is collected, does not point to an impending set of environmental agreements. There is confusion created in using institutions as explanations of why cooperation takes place. Much the same occurs in an institutional analysis of the MEDPlan.

Throughout the 1970's, the newly formed United Nations Environment Programme (UNEP) assisted in the creation and maintenance of a regime to ensure the environmental integrity of the Mediterranean Sea from a host of pollutants.⁶⁶ Hailed as the "flagship" of UNEP's Regional Seas Initiatives,⁶⁷ the MEDPlan⁶⁸ is considered a resounding success for the institutional model of cooperation.

According to many in the academic and public-policy communities, this set of agreements represents a

"brilliant invention and a new contribution to the resources of diplomacy."⁶⁹ If these experts are correct, then why have UNEP's other Regional Seas Initiatives not qualified as similar successes? After all, from the institutional perspective, all necessary components for cooperation should be present. Indeed, subsequent agreements should be easier since the institutional infrastructure is already in place. All things being equal, agreements to protect the Red Sea, the Persian Gulf, the Caribbean, etc.⁷⁰ should be relatively simple.

Unfortunately, subsequent agreements have largely been cosmetic and have not involved measures necessary for even limited environmental protection. Tony Brenton discusses the merits of UNEP's efforts as well as its limitations,

The scale of this programme, and the number of countries involved, is impressive evidence of UNEP's ability to pull regional groupings of countries together to discuss, and sign agreements on, their local marine pollution problems....It is a great deal less clear, however, how much the Regional Seas Programme has actually done to begin to reverse marine pollution, or to what extent it reveals a willingness on the part of the participants to make economic sacrifices to that end. With one exception, the programmes undertaken so far seem

largely to be confined to generalized expressions of the need to tackle pollution... There is little evidence of the emergence of concrete regional programmes and standards intended to cut polluting discharges into the marine environment.⁷¹

Ironically, it is unclear that the exception noted by Brenton, the MEDPlan, has been as effective as many authors insist.⁷² Recent analysis of the MEDPlan suggests that although it

is a model of success at getting disparate states to come together to create legal documents for the protection of the environment, it may be considered less successful in getting the parties to those documents to adopt and implement policies that would actually carry out the plan envisioned by the Convention and subsequent Protocols."⁷³

Neoliberals seem unable to answer why there is a discrepancy between envisioned and actual cooperation. By endowing the institution with a significant amount of agency, their analysis should suggest no difference in the level of cooperation called for by the international legal framework and the level witnessed in the international system.

On the other hand, by prescribing only a modest role for the institution, neorealists need not be concerned

with this discrepancy. Maintaining the primacy of the state, allows for an explanation of the level of cooperation achieved, and a rationale for the difference between envisioned and actual cooperation. Still maintaining that self-interest will dictate the level of cooperation witnessed, these theorists expect to see relatively modest forms of cooperation. Limited cooperation is a result of self-interest in an anarchic environment.⁷⁴ States are not willing to involve themselves in strict regulations that compromise their drive to maintain capabilities.⁷⁵

This appears to answer why a lower level of cooperation is achieved than initially called for by the formal agreement. However, it still remains a mystery as to why, since states have control over institutions, there should ever be a higher level of envisioned cooperation. It is important to remember Waltz's cautious description of the interaction between states and institutions. He recalls that states may not interfere with the activities of institutions for extended periods of time.⁷⁶ However, they "set the terms of the intercourse, whether by

passively permitting informal rules to develop or by actively intervening to change"⁷⁷ those rules.

If there is a minor discrepancy between envisioned and actual cooperation, neorealists would suggest that states are simply not concerned with it. If this discrepancy were to inhibit powerful state behavior, then intervention into the institutional process would be expected. The rabid refusal by powerful states, to sign the third United Nations Convention on the Law of the Sea treaty⁷⁸ suggests such a scenario. Because many of the more 'progressive' articles⁷⁹ in UNCLOS III could potentially diminish great power capabilities, this document remained unsigned by the majority of maritime powers.⁸⁰ The envisioned cooperation in UNCLOS went beyond the actual level that these states were willing to adopt. Before the agreement was signed, *post hoc* negotiations were required that lessened the discrepancy between envisioned and actual cooperation.

Many neoliberal and legal scholars are unhappy with this explanation. They seek to demonstrate that there is an autonomous international personality granted to

institutions and legal principles.⁸¹ For many, neorealism does not allow such a capacity to exist for international law and institutions.⁸² Anarchy, self-interest, and power, appear unable to sufficiently explain notions like sovereign equality⁸³ and the doctrine of *res communis*.⁸⁴ These concepts, visible in the international system, suggest that something other than power and self-interest guides the behavior of states. Neoliberalism, and many of the earlier realist thinkers, contend that rules, norms of behavior, and membership in a 'loose' international society allow for more robust explanations of international cooperation than neorealism is willing to allow.⁸⁵

The force of this well-reasoned argument suggests reasons for accepting another paradigm *in lieu of* neorealism. However, it is also possible to include this argument in the neorealist paradigm. The underlying logic of anarchy, considered a self-help system, does not necessitate removing legal norms and practices. All that this logic suggests, is that *when strategic issues threaten the integrity of the state, maintenance of*

capabilities will trump considerations of legal norms and institutional rules.

Kenneth Waltz's theory of international politics attempts to provide the discipline with a parsimonious theory, whose definitions are concise and whose actors limited to only the most important.⁸⁶ Because of this, roles, norms, and practices appear to be missing from his view of the international system.⁸⁷ This is not the case. Processes are accounted for in neorealism; although they are provided only a modest role.

Unlike other theorists who envision the international structure as a legal order above the states,⁸⁸ Waltz considers law and institutions to be processes of state interaction.⁸⁹ He is quick to point out, "the difficulty political scientists have in keeping the distinction between structures and processes clearly and constantly in mind."⁹⁰ For Waltz, a conceptual structure can be created separate from process.⁹¹ Such a structure is described as a self-help system. For the purposes of the theoretical enterprise, this structural concept is not endowed with legal and institutional attributes.⁹²

What benefit can result from such an abstract structure? Neorealism's limited theoretical principles allow for a clarity of explanation. Unlike many of the institutional analyses, Waltz's structural dimension is easy to understand. Although its concepts come under attack for various deficiencies,⁹³ rarely is Waltz considered fuzzy in his concepts.

This is a pervasive problem with neoliberal analyses. It is often difficult to distinguish between an institution and any number of other concepts. Often, the institutional definition is so broad, it can be used to describe all interactions between states in the international system. Haas, Keohane, and Levy, provide an example of this fuzziness. The authors suggest,

By 'institutions' we mean the persistent and connected sets of rules and practices that prescribe behavioural roles, constrain activity, and shape expectations. They may take the form of bureaucratic organizations, regimes (rule-structures that do not necessarily have organizations attached), or conventions (informal practices).⁹⁴

A similarly broad definition is employed by Steven Krasner in his study of regimes. Krasner notes that

regimes are "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations."⁹⁵

Defining institutions (or regimes) so broadly, these authors deflect much criticism concerning their discussions of cooperation. However, the question must be asked, what in the complex inter-relations between states does not fall under the authors' definition? If it is indeed a valuable asset for a theory to explain, and even predict, the behavior of states,⁹⁶ then this institutional analysis does little more than muddy the waters. Agreeing with this assessment, John Mearsheimer has stated,

defining institutions as 'recognized patterns of behavior or practice around which expectations converge' allows the concept to cover almost every regularized pattern of activity between states, ... thus rendering it largely meaningless.⁹⁷

Institutions, defined in the above manner, could be used to describe any number of activities between states. For theorists wishing to explain a specific behavior of states, it is important to limit conceptual definitions.

Consider, for example, the prolific analyses of the stratospheric ozone issue.⁹⁸ Much of the work on this issue has established that without institutional structures (including UNEP, the scientific community, and non-governmental organizations) cooperative agreements to protect the ozone layer would not have been possible.⁹⁹ Because institutions are defined so broadly, they can include Peter Haas's epistemic community,¹⁰⁰ Karen Litfin's diplomatic norms and practices,¹⁰¹ Parson's scientific organizations (both national and international),¹⁰² and Philippe Sands's legal rules.¹⁰³ By incorporating all these principles, the institutional thesis is able to account for cooperation. However, it remains extremely difficult to understand the institutional explanation.

All of these theorists seek to demonstrate that sufficient self-interest¹⁰⁴ and power relationships¹⁰⁵ alone could not account for cooperation. What all of these authors seem to disregard is the extent to which the CFC issue constituted a serious threat to the general well-being of large populations. Neorealists argue that issues with the potential to reduce state capability directly

involve self-interest motivations. Why has cooperation developed on solving ozone depletion? For neorealists, cooperation developed because of sufficient self-interest and progressed via institutional norms.

Without a theoretical discussion that properly defines the institution, neoliberal works make giant intellectual leaps. The role of the institution in explaining cooperation appears to encompass the majority of the relations between states. Theory, for the international relations scholar, quickly becomes an historical description of international environmental ventures. No longer does the theoretical endeavor purport to explain or understand specific phenomena.

The position taken in this project is that a structural explanation of international environmental cooperation must precede an institutional description. Without such a notion, institutional analyses remain fuzzy and limited in their ability to explain or describe. It is important to understand that inclusion of institutional processes does not undermine the use of neorealism. Rather, a rich explanation of environmental cooperation is

established by combining structural explanations with
institutional descriptions.

NOTES

¹ The *Torrey Canyon* disaster involved the grounding of the 974 foot oil tanker off the coast of England in March of 1967, and the subsequent oil spill. For a thorough review of this occurrence see, Edward Cowan, *Oil and Water: The Torrey Canyon Disaster* (New York: J.B. Lippincott, 1968). The highly popular 'Earth Day' began in 1971. It is often hailed as the beginning of the modern environmental movement. For more detail on this event see, *New York Times*, 28 February 1971, sec. 4, p. 1; *New York Times*, 22 March 1971, sec. 1, p. 4. Other important issues included literary works, *Silent Spring* and *The Tragedy of the Commons*. Rachel Carson's *Silent Spring* is an eloquent and moving critique of the use of pesticides and other man-made chemicals in the United States. See, Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962). Garrett Hardin's classic study of common pool resource depletion has become widely used in and out of the academic arena. See, Garrett Hardin, "The Tragedy of the Commons," 162 *Science* (1968): 1243-1248.

² Richard Falk, *This Endangered Planet* (New York: Random House, 1971).

³ For a discussion of these alternatives, see chapters VII and VIII, *Ibid.*, pp. 285-414.

⁴ Richard Heilbroner, *An Inquiry into the Human Prospect* (New York: Norton, 1974); R. Buckminster Fuller, *Utopia and Oblivion: The Prospects for Humanity* (New York: Bantam Books, 1969); R. Buckminster Fuller, *Operating Manual for Spaceship Earth* (Carbondale: Southern Illinois University Press, 1969); Alvin Toffler, *Future Shock* (New York: Random House, 1970); Barbara Ward and Rene Dubos, *Only One Earth* (New York: Norton, 1972); E.F. Schumacher, *Small is Beautiful: Economics As If People Mattered* (New York: Harper and Row, 1973); D.H. Meadows, et.al., *Limits to Growth* (New York: Universe Books, 1972).

⁵ Harold and Margaret Sprout, Toward a Politics of the Planet Earth (New York: Van Nostrand Reinhold Co., 1971): 194-198.

⁶ See note 24 in the introduction for an abbreviated list of some of the most important agreements.

⁷ See for example, Peter Haas, Robert O. Keohane, and Marc Levy, eds., Institutions for the Earth (Cambridge, MA: MIT Press, 1993); Nazli Choucri, ed., Global Accord (Cambridge, MA: MIT Press, 1993); Philippe Sands, ed., Greening International Law (New York: The New Press, 1994); Oran Young, International Cooperation: Building Regimes for Natural Resources and the Environment (New York: Cornell University Press, 1989).

⁸ Even Richard Heilbroner, who saw the sky falling in the early seventies, has adjusted his premise in later editions of An Inquiry into the Human Prospect. See, Richard Heilbroner, An Inquiry into the Human Prospect: Updated and Reconsidered for the 1980s (New York: W.W. Norton, 1980): 25.

⁹ Hedley Bull, The Anarchical Society (New York: Columbia University Press, 1977).

¹⁰ *Ibid.*

¹¹ Geoffrey Palmer, for example, suggests that state sovereignty must be diminished for the sake of international cooperation, see Geoffrey Palmer, "New Ways to Make International Environmental Law," American Journal of International Law 86 (April 1992): 259. More generally, Clark and Sohn consider this to be the case, see, Grenville Clark and Louis B. Sohn, World Peace Through World Law, (Cambridge, MA: Harvard University Press, 1958). Philippe Sands recently stated that, "[t]oday, *ad hoc* and reactive policy responses by individual States or local communities can no longer effectively address the environmental problems that have grown exponentially with advances in technology, industrialization, and social change." Sands, p. xv.

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- ¹² Linda P. Shields and Marvin C. Otts, "The Environmental Crisis: International and Supranational Approaches," International Relations 4 (November 1974).
- ¹³ Bull, p. 284.
- ¹⁴ Haas, Keohane, and Levy, p. 3.
- ¹⁵ *Ibid.*
- ¹⁶ *Ibid.*, pp. 4-5.
- ¹⁷ *Ibid.*, p. 24.
- ¹⁸ *Ibid.*, p. 7.
- ¹⁹ Kenneth Waltz, Theory of International Politics (New York: Random House, 1979): 93-96.
- ²⁰ *Ibid.*
- ²¹ *Ibid.*, p.94.
- ²² Joseph Nye, Preface to Haas, Keohane, and Levy, p. x.
- ²³ Haas, Keohane, and Levy, p. 19-20.
- ²⁴ *Ibid.*, p. 13.
- ²⁵ John Mearsheimer, "The False Promise of International Institutions," International Security 19 (Winter 1994/95): 13.
- ²⁶ Young, pp. 48-50.
- ²⁷ *Ibid.*, p. 49.
- ²⁸ *Ibid.*, p. 88.
- ²⁹ *Ibid.*
- ³⁰ Karen Litfin, "Eco-regimes: Playing Tug of War with the Nation-State," in Ronnie D. Lipschultz and Ken Conca, eds., The State and Social Power in Global Environmental

Politics (New York: Columbia University Press, 1993): 94-117.

³¹ *Ibid.*, p. 95.

³² Peter Haas, Saving The Mediterranean (New York: Columbia University Press, 1990).

³³ *Ibid.*, generally.

³⁴ *Ibid.*, p. xviii.

³⁵ *Ibid.*, p. 55.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ Peter Haas, "Banning Chlorofluorocarbons: Epistemic Community Efforts to Protect Stratospheric Ozone," International Organization 46 (Winter 1992).

³⁹ *Ibid.*

⁴⁰ Sands, p. xvii.

⁴¹ *Ibid.*

⁴² *Ibid.*, p. xvii.

⁴³ Charles Glaser, "Realists as Optimists: Cooperation as Self-Help," International Security 19 (Winter 1994/95): 84.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ Haas, Keohane, and Levy; and Haas, Saving the Mediterranean.

⁴⁷ *Ibid.*

⁴⁸ Litfin, "Eco-Regimes," p. 95.

⁴⁹ Haas, Saving the Mediterranean, pp. 64-65.

⁵⁰ *Ibid.*

⁵¹ For a general discussion of diplomats and their role in the state, see, Hans J. Morgenthau, Politics Among Nations: The Struggle for Power and Peace, brief edition (New York: McGraw Hill, 1993): 155-158. For a definition of the state and its officials, see, Gary L. Scott and Craig L. Carr, "Are States Moral Agents?," Social Theory and Practice 12 (Spring 1986): 76.

⁵² Scott and Carr, p. 75.

⁵³ Harold Jacobson, "The Nature of International Organizations," in Bruce Russett, Harvey Starr, Richard Stoll, eds., Choices in World Politics: Sovereignty and Interdependence (New York: W.H. Freeman, 1989): 39-41; and Elliot Richardson, "Climate Change: Problems of Law-Making," in Andrew Hurrell and Benedict Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992): 168.

⁵⁴ Haas, Keohane, and Levy, Institutions for the Earth.

⁵⁵ *Ibid.*, p. 24, my emphasis.

⁵⁶ Mearsheimer, p. 7.

⁵⁷ Haas, Keohane, and Levy, p. 24.

⁵⁸ Oran Young, "Negotiating an International Climate Regime," in Nazli Choucri, ed., Global Accord (Cambridge, MA: MIT Press, 1993): 431.

⁵⁹ *Ibid.*, p. 437.

⁶⁰ *Ibid.*

⁶¹ *Ibid.* The Alliance includes small island states in the Pacific, Indian, Caribbean, and Mediterranean seas, along with Bangladesh and a few other countries with low coastal plains.

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ *Ibid.*

⁶⁵ These components are outlined in Gary L. Scott, Geoffrey Reynolds, and Anthony D. Lott, "Success and Failure Components of Global Environmental Cooperation: The Making of International Environmental Law," ILSA Journal of International and Comparative Law 2 (Fall 1995): 23-59.

⁶⁶ This regime is formalized in the Barcelona Convention for the Protection of the Mediterranean against Pollution, 16 February 1976, as reprinted in 15 I.L.M. 290 (1976).

⁶⁷ Tony Brenton, The Greening of Machiavelli: The Evolution of International Environmental Politics (London: Earthscan Publications, 1994): 96. According to Brenton, the "Regional Seas Initiatives" have been renamed the "Ocean and Coastal Areas Programme."

⁶⁸ The 'MEDPlan' is the common name of the Barcelona Convention for the Protection of the Mediterranean against Pollution.

⁶⁹ Phillip Allott, "Power Sharing in the Law of the Sea," American Journal of International Law 77 (January 1983): 1-30.

⁷⁰ According to Brenton it includes ten regional seas and over 100 countries, Brenton, p. 96.

⁷¹ *Ibid.*

⁷² Haas, Saving the Mediterranean.

⁷³ Scott, Reynolds, and Lott, p. 39.

⁷⁴ Waltz, p. 105-106.

⁷⁵ *Ibid.*, p. 107.

⁷⁶ *Ibid.*, p. 94.

⁷⁷ *Ibid.*

⁷⁸ Third United Nations Convention on the Law of the Sea A/CONF. 62/122, 7 October 1982, as reprinted in 21 I.L.M. (1982): 1261-1354.

⁷⁹ Particularly "Part XI," *ibid.*, p. 1293.

⁸⁰ Gerhard Von Glahn, Law Among Nations: An Introduction to Public International Law, sixth edition (New York: Macmillan Publishing Co., 1986): 488.

⁸¹ Stephen Kocs, "Explaining the Strategic Behavior of States: International Law as System Structure," International Studies Quarterly 38 (1994): 542.

⁸² Anne-Marie Slaughter Burley, "International Law and International Relations Theory: A Dual Agenda," American Journal of International Law 87 (1993): 217.

⁸³ Richardson, p. 167.

⁸⁴ Christopher C. Joyner and Elizabeth A. Martell, "Looking Back to See Ahead: UNCLOS III and Lessons for Global Common Law," Ocean Development and International Law 27 (January-June 1996): 76.

⁸⁵ Anne-Marie Slaughter Burley, "International Law," generally, Peter Haas, Saving the Mediterranean, pp. 64-65; and Hedley Bull, The Anarchical Society, pp. 122-177.

⁸⁶ Waltz, p. 93.

⁸⁷ This contention is made by Burley, p. 217.

⁸⁸ Kocs, p. 542.

⁸⁹ Waltz, p. 95.

⁹⁰ *Ibid.*

⁹¹ *Ibid.*

⁹² *Ibid.*, p. 96.

⁹³ Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986).

⁹⁴ Haas, Keohane, and Levy, pp. 4-5.

⁹⁵ Steven Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," in Friedrich Kratochwil and Edward D. Mansfield, eds., International Organization: A Reader (New York: Harper Collins, 1994): 97-109.

⁹⁶ Waltz, p. 8.

⁹⁷ Mearsheimer, p. 8; Thomas Bernauer suggests much the same in Thomas Bernauer, "The Effect of International Institutions: How We Might Learn More," International Organization 49 (Spring 1995): 356.

⁹⁸ These analyses include: Haas, "Banning Chlorofluorocarbons,"; Karen Litfin, Ozone Discourse (New York: Columbia University Press, 1994); Richard E. Benedict, Ozone Diplomacy (Cambridge, MA: Harvard University Press, 1991); and Edward Parson, "Protecting the Ozone Layer," in Peter Haas, Robert Keohane, and Marc Levy, eds., Institutions for the Earth (Cambridge MA: MIT Press, 1993): 27-73.

⁹⁹ Haas, "Banning Chlorofluorocarbons"; Litfin, Ozone Discourse, and Parson, "Protecting the Ozone Layer."

¹⁰⁰ Haas, "Banning Chlorofluorocarbons."

¹⁰¹ Litfin, Ozone Discourse.

¹⁰² Parson, "Protecting the Ozone Layer."

¹⁰³ Sands, Greening International Law.

¹⁰⁴ Scott, Reynolds, and Lott, p. 33.

¹⁰⁵ *Ibid.*, p. 52.

NEOREALISM AND ENVIRONMENTAL COOPERATION

Increasingly, as theorists attempt to understand international politics in the post-Cold War¹ system, explaining cooperation becomes a litmus test for a successful theory.² Neorealism, with its emphasis on power politics, the primacy of the state, and anarchy is considered unable to account for cooperation generally, and environmental cooperation specifically.³ If this is true, it is indeed a problem. Cooperation, in the form of international legal agreements, is a regular occurrence in international relations. More than 130 multilateral environmental treaties have been signed in this century, over half since 1974.⁴ The increasing salience of environmental issues necessitates that neorealism provide some explanation concerning the behavior of states on this matter.

Applying the neorealist paradigm to a low-politics issue,⁵ such as environmental cooperation, becomes a troublesome task. Writing during the Cold War, Kenneth

Waltz was concerned with military and security issues. His theory emphasizes geo-political strategies and the dynamics of polarity.⁶ Cooperation, for Waltz, is considered an anomalous occurrence in international politics.⁷ His theoretical framework suggests that competition, rather than cooperation, results from an anarchic global environment.⁸ Only passing mention is made of the need to seek global cooperation on environmental matters. In the final paragraph, of the concluding chapter of *TIP*, Waltz notes that, "Global problems can be solved by no nation singly, only by a number of nations working together."⁹ This is a valid statement, and welcome news for scholars wishing to employ his theory to explain environmental cooperation. However, since the dominating logic, up to that point, revolved around the enduring tendency toward competition, theorists are left wondering how global cooperation is possible. The door to understanding environmental cooperation is left closed; but at least there is a door!

In order to open the door, and explain environmental cooperation, it is first necessary to find the correct

keys. A neorealist paradigm incapable of allowing for cooperation in international politics will be useless in the present endeavor. Therefore, the paradigm will be examined for "keys" or opportunities that assist in providing an explanation of cooperation. A careful analysis of the paradigm will suggest that cooperation can indeed develop in an anarchic system.

To understand the traditional neorealist's disregard for cooperation, it is first important to understand their preoccupation with competition and conflict. Kenneth Waltz employs the analogy of an oligopic market to outline his structural dimension of international politics. According to the oligopic theory of economics, firms are in a self-help, laissez-faire system.¹⁰ Their primary goal is to survive.¹¹ If they do not, they face bankruptcy. Competition and rivalry dominate the behavior of firms as they desperately seek to maintain their market-share.¹² The competitive self-help system is created by the co-action of these firms and perpetuates as firms have no choice but to compete to survive.

Waltz transposes this "structure" on to the international scene. States replace firms as the dominant unit¹³ and international anarchy replaces the laissez-faire market as the ordering principle.¹⁴ The consequences for states in anarchy remain the same. The states' number one priority is to survive.¹⁵ Like the oligopic market, they must rely only on themselves to ensure their survival. They, too, exist in a self-help system. Because of this, states use power as a means to ensure their survival.¹⁶ Power can be measured by looking at a state's capabilities. For Waltz, capabilities are measured by considering

all of the following items: size of population and territory, resource endowment, economic capability, military strength, political stability and competence.¹⁷

Again, thinking analogically, states (like firms) compete in the international system. There is an uneasiness to join cooperative ventures. Doing so would increase efficiency but lead to interdependence. States become vulnerable if they specialize.¹⁸ Therefore, the

system tends towards like states with varying capabilities.

For the neorealist, the behavior of states is predictable. Competition trumps cooperation as states seek desperately to survive in an anarchic "self-help" system. Robert Gilpin states flatly that the first assumption underlying all realist thought is "the essentially conflictual nature of international affairs... Anarchy is the rule; order, justice, and morality are the exceptions."¹⁹ Joseph Grieco contends that "realists argue that states are preoccupied with their security and power; by consequence, states are predisposed toward conflict and competition."²⁰ He also considers that, "international anarchy fosters competition and conflict among states and inhibits their willingness to cooperate even when they share common interests."²¹ Kenneth Waltz agrees with this assessment of anarchy. He suggests that

A state worries about a division of possible gains that may favor others more than itself. That is the first way in which the structure of international politics limits the cooperation of states. A state also worries lest it become dependent on others through cooperative endeavors and exchanges of goods and services. That is the second way in which the structure of

international politics limits the cooperation of states.²²

The stage is thus set. The anarchical international system is governed by rules of competition and conflict. As states seek desperately to survive, they ignore cooperative strategies and rely solely on competition. For these theorists, anarchy *inhibits* cooperation.

This rather dogmatic view of the international structure tends to incite fierce criticism.²³ Placing heavy reliance on an abstract structural component, and providing that component with the ability to dictate the outcome of state behavior, appears to be deterministic.²⁴ The conflictual nature of international affairs is predetermined by the structure of the system *a priori* the activities of states.

This is a debilitating charge. First, it renders this form of neorealism useless as an explanatory theory. There would be no need to investigate the behavior of states since the theory already mandates conflict. Cooperation would have to be viewed as an anomalous occurrence in international relations. That it is

present, and proliferates in the system, would be disregarded.

Second, the charge of determinism is difficult to defend at a philosophical level.²⁵ Since the individual is not prescribed any agency, the course of history is set and the encounters of states, merely the works of destiny. The claims of structuralism are uncomfortable, especially for the theorist who considers free-will a component of the self.²⁶ Pragmatically, the claims of structuralism are highly confining and uninteresting. It becomes futile to study the components necessary for robust cooperation. It is also illogical to contemplate the possibilities of change in the international system.

This strict neorealist theory, based on the oligopic analogy of the competitive market, appears incapable of accounting for cooperation. Further, it seems to stymie additional philosophical inquiry. Does this extinguish all hope of providing a structural explanation of environmental cooperation? Not necessarily. The last two decades in the discipline of international relations have been witness to a host of modified neorealist writings.²⁷

Waltz's theory acted as a snowball placed atop a steep hill. As it slowly rolled down, it continued to pick up more and more snow. Coming to rest at the bottom of the hill, it appeared significantly larger. *TIP*, the theory, can be considered the original snowball. The excess snow represents the neorealist paradigm, or world view, that dominates the discipline today.

In this manner, the strict neorealist theory developed by Waltz may be seen as "deeply and perhaps fatally flawed."²⁸ However, the greater neorealist paradigm may "continue to inform the community of international relations scholars."²⁹ It is from this greater paradigm that the keys can be found to unlock the "cooperation door."

Recent neorealist writings rely less on the oligopic analogy of competition and more on the logic of self-help.³⁰ In so doing, these moderate neorealists make no claim about a competitive preference. Indeed, Charles Glaser contends that, "self-help tells us essentially nothing about whether states should prefer cooperation over competition."³¹ Self-help means just that, a state,

in order to ensure its survival, must look out for its own security interests. Cooperation is an important form of self-help.³²

Remaining true to the neorealist understanding of state preferences, survival remains the states' number one priority. However, cooperation can now be viewed as a means to ensuring that survival. This is an important key to a neorealist understanding of cooperation. The state is provided a measure of agency and may choose between competitive and cooperative strategies.³³ Note how Arthur Stein outlines the options for states,

Outcomes of international cooperation and conflict emerge as a result of states' strategic choices, which include both cooperation and conflict as strategies. Nations are neither inveterate cooperators nor defectors. Both options constitute parts of states' repertoires of behavior, and countries use both to ensure survival and fulfill national interests.³⁴

Less reliance on the oligopic analogy and increased emphasis on the logic of self-help removes charges of determinism from the theoretical framework. A "menu for choice"³⁵ is now granted the primary actor in international affairs. It is possible to consider that

where competition may be used to avoid losses in capabilities, cooperation may be used in the same fashion.³⁶ Charles Glaser contends that

although it is correct in stating that uncertainty about the adversary's motives creates reasons for a state to compete, the standard argument fails to recognize that uncertainty about motives also creates powerful reasons for states to cooperate.³⁷

A brief review of recent literature concerning "cooperation under anarchy"³⁸ suggests that cooperation is a successful state strategy. Game theoretic models consistently demonstrate two important points for the present discussion. First, the models support the notion that cooperation under anarchy is indeed possible.³⁹ Second, the robust nature of cooperation witnessed in these models, reinforces the benefit claims of moderate neorealist theorists. Cooperative strategies invariably win out over competitive strategies.⁴⁰

It should be added that although the paradigm grants states the option to *choose* cooperation, they are not given *carte blanche* with regard to the matter. The overriding logic of self-help and the security dilemma

requires that states consider the ramifications of their cooperative ventures. States, like Waltz suggests, will be wary of cooperative schemes that expose their capabilities to harm.⁴¹ Enforcement and monitoring mechanisms remain under the sovereign control of states. Indeed the highly constraining logic of self-help appears to be followed religiously by states. Elliot Richardson notes that,

none of the existing environmental agreements confers on an international institution the power to set binding standards, issue and enforce regulations, or prescribe sanctions.⁴²

The logic of self-help suggests that cooperation, although present and possible in the international system, does not lead to the diminution of state sovereignty. States still seek to maintain and enhance capabilities, limited cooperation is just another means to that end.

This moderate reading of structure not only allows for cooperation, it makes it a viable, important strategy for ensuring the security of the state. Strict neorealists will most likely be perturbed by such a modification. The highly touted parsimony of Waltz's

structural definition⁴³ becomes clouded with state preference calculations and a cooperation factor. However, it seems warranted to surrender some parsimony for more explanatory power.⁴⁴

This modified view of anarchy suggests that cooperation can be accounted for by neorealism. Moving away from the blatant and disturbing nuances of structuralism to a more balanced concern for the ramifications and consequences of states under anarchy, the broader neorealist paradigm survives the "cooperation" test. The door now appears open, and a structural explanation of environmental cooperation can be outlined.

Three principles, present in the neorealist paradigm, are necessary fixtures in a structural explanation of environmental cooperation. Without these three components, it is unlikely that cooperation will be achieved. First, the state must be considered the primary international actor. Second, the cooperative venture must "mirror" the power distribution in the international system. If the system contains a hegemon, its support is necessary in order to produce substantial cooperation.

Third, since the maintenance of capabilities is a dominating concern, the benefits of cooperation must outweigh the costs. If these three principles are met, the likelihood of generating cooperation on the issue is dramatically increased.

I. The Primacy of the State

The primacy of the state is a central tenet of all realist thought.⁴⁵ This special status given to states is due in part to their claims of territorial sovereignty. Sovereignty entails that a state has the power to decide its own course of action, no matter how much it is constrained by the system. Waltz summarizes the sovereignty concept nicely,

States develop their own strategies, chart their own courses, make their own decisions about how to meet whatever needs they experience and whatever desires they develop. It is no more contradictory to say that sovereign states are always constrained and often tightly so than it is to say that free individuals often make decisions under the heavy pressure of events.⁴⁶

Constraints on a state may hinder its ability to do much of what it wishes to do. To claim that states are sovereign does not enjoin them with the power to do as

they please. States, as Waltz notes, "may be hardpressed all around, constrained to act in ways they would like to avoid, and able to do hardly anything just as they would like to."⁴⁷

The primacy of the state is important in another respect. For the neorealist, the state is viewed as a "unitary rational actor." Instead of "opening" the apparatus of the state, it remains closed.⁴⁸ Because of this, neorealists miss the nuances of the state. Pressure groups, political infighting, and the opinions of the citizenry, are assumed away. However, because of the underlying assumption in neorealist theory that states seek to survive, state attributes are considered unnecessary components.⁴⁹ No matter the ideological, social, and political struggles that take place within the state, the conditioning effect of anarchy requires that a state choose the most rational course of action- the course that best maintains or enhances its capabilities.

The component of state primacy has a distinct effect on the theoretical emphasis. Although the state is by far the most dominant actor in international relations, it is

by no means the only actor. Non-state actors, including international governmental and non-governmental organizations, are given a "license to operate" in the international system by states. Unlike the neoliberal model of cooperation, the institution plays a minimal role in the activities of states.

Institutions provide information, enhance the negotiating environment, and coordinate scientific studies.⁵⁰ These activities do not compromise a state's capabilities and do not require the state to specialize. Institutions are sometimes necessary but never sufficient entities for gaining cooperation on an issue. States are motivated by self-interest and the need for security. That they use institutions to meet their security needs, does not mandate an activist institutional role.⁵¹

It should also be noted that an institutional history of success on one issue does not entail success on several more. Many institutionalists seek to demonstrate that certain institutional approaches to cooperation will succeed in overcoming the inhibitions of states.⁵² However, for neorealists, the dominating logic of the

security dilemma suggests that the drive to maintain capabilities will trump innovative institutional approaches unless there is another reason to cooperate. A classic example of this difference is the current employment of the "convention-protocol" approach.⁵³ This approach was first developed by UNEP as a mechanism to facilitate measures to protect the Mediterranean Sea from a host of pollutants.⁵⁴ The first step in the approach is the creation of an "umbrella convention" which simply includes a "definition of terms, a description of the geographic scope of the agreement, a general commitment to co-operate, and an outline of the work that needs to be done at future meetings."⁵⁵ Subsequent "protocols" are then created to address, "specific sources of pollution and set forth plans for remedial action."⁵⁶

Officials from UNEP considered this mechanism successful at getting states to cooperate. Therefore, in UNEP-coordinated negotiations after the MEDPlan, they attempted to apply the same technique.⁵⁷ This appeared to work in the case of ozone protection. However, attempts at achieving cooperation on climate change and other

regional seas initiatives were complicated and ineffective.⁵⁸ In neorealist terms, it is not the institutional approach that warrants study; but rather the issue itself and how states perceive the potential problem. If indeed the problem necessitates a solution, the institutional approach provides a description of how the cooperation is formalized.

II. Power Distribution and the Presence of Hegemony

Kenneth Waltz considers the "distribution of capabilities" among the states in the system to be an important component to his structural theory.⁵⁹ The structural explanation of environmental cooperation, developed here, maintains this theme. Agreements to manage the global ecosystem must be developed with the "distribution of power" factor in mind.⁶⁰ Further, if the system contains a hegemon, successful cooperation will require its acquiescence or active support.

A common assumption that leads the environmental discussion forward is the belief that increased human activity and the resulting "transformations of the environment"⁶¹ are global problems that require global solutions. As Waltz argues, global problems cannot be solved by individual states.⁶² The requirement that large numbers of sovereign states must cooperate to solve problems at the global level can be debilitating. States often have different formulas for achieving their security needs. A good example of this is provided by studying the interplay between economics and the environment.

It has been known for some time that environmental issues and economic development are intrinsically tied to each other. The Brundtland Commission, articulates this notion,

It is impossible to separate economic development issues from environmental issues; many forms of development erode the environmental resources upon which they must be based, and environmental degradation can undermine economic development.⁶³

Because of the inability to separate economic development from environmental issues, a range of complex problems arise. There is a tension created between the North and the South. The North is considered the developed industrial economies of North America, Europe, and the Pacific Rim.⁶⁴ These nations rapidly expanded their economies throughout the last half of the nineteenth and twentieth centuries. Now in a position to slow their economic growth, many of these countries are interested in protecting the global environment. The South, or developing states of Latin America, Africa, and Asia,⁶⁵ consider that it is now their turn to increase industrial output and raise their standards of living. Because of

this, many international environmental issues split the states into two camps, the North and the South.

Often, the high costs involved in reversing environmental degradation or ensuring it does not take place strains the North/South relationship. When this situation arises, many weak states are unable to comply with the provisions in cooperative agreements. Because of limited capabilities, these states simply do not have the power to cooperate. Other states may be dissuaded from cooperating after rationally weighing the consequences of cooperation.⁶⁶ Both types of states require hegemonic influence if substantial cooperation is to be achieved. Consider how Waltz characterizes the position of the United States in the international system,

Economically the United States is far and away the leading power. If the leading power does not lead, the others cannot follow. All nations may be in the same leaky world boat, but one of them wields the biggest dipper. In economic and social affairs, as in military matters, other countries are inclined to leave much of the bailing to us.⁶⁷

Although recent claims have been made concerning the decline of U.S. hegemony,⁶⁸ few will disagree with Waltz's

characterization. Especially with regard to environmental matters, which may necessitate scientific knowledge, technology transfers, and aid packages,⁶⁹ the position of the United States is crucial. The U.S. may be called upon frequently to "bail" on behalf of the South. Similarly, the refusal to support a cooperative venture (even tacitly) can have a deleterious effect on the outcome.

If a hegemon decides to support a cooperative scheme, it may use its extensive capabilities to persuade other states of the merits of joining in two ways. First, through benign incentives, hegemonies can provide financial "carrots" to states unable or initially unwilling to join cooperative ventures. Examples of this type of incentive are technology transfers, development loans, and temporal extensions for compliance.

Second, hegemonies can wield a negative power and coerce cooperation. Coercing compliance is feasible for a hegemon because of its extensive resource and economic capabilities. Coercion will usually take the form of unilateral actions and sanctions. The use of tariffs and the creation of new technologies which outdate previous

technologies can be considered coercive examples of hegemonic power. The neorealist also leaves open the "use of force" option to ensure compliance.

III. Interest and the Cost/Benefit Analysis

There has been an implicit understanding in the discussion above that a state can successfully weigh the costs of cooperating. It is now time to examine how a state can indeed do just that. The final neorealist component necessary for the generation of cooperation is the "benefit" component. Accordingly, a state must perceive it to be in its best interest to cooperate or not cooperate on an issue. Waltzian neorealism does not seem to have a need for state preference calculations.⁷⁰

Instead, this strict neorealist theory suggests that the structural constraints weigh so heavily on the state, that the preferred state response is self-evident.⁷¹ Moving away from this version of neorealism, and allowing the state more freedom to choose policy responses, creates a need to explicate how the state is capable of choosing a rational policy response.

To begin, with regard to environmental matters, states must perceive that a problem exists. The perception of a problem sounds like an obvious and rather uninteresting concept. However, perception of harm is crucial if cooperation is to be engendered. An example may help illustrate this matter. In the early 1970s, it was technologically infeasible to mine rare earth minerals, known as manganese nodules, from the ocean floor. Because of this, states did not perceive of a problem with regard to nodule exhaustibility.⁷² However, as some states gained the capabilities of mining these minerals, states began to perceive that there was an exhaustibility problem.⁷³ It was this perception on the part of states that created the environmental crisis.

Once a problem is perceived by the state, it has two policy options. First, it can cooperate with other states and attempt to alleviate the problem. Second, it can ignore the concerns of other states and maintain its current activities. How does a state decide which course to take?

Because a state is considered a rational unitary actor, the interest of the state is judged by how a problem affects state capabilities. As has been demonstrated above, states exist in a self-help system and consider survival their number one concern. As they seek to survive, states are cognizant of the need to maintain and enhance capabilities.

In order to judge which action to take on a particular environmental issue, states must perform a "cost/benefit" analysis. Using the information that they have obtained concerning the matter in question,⁷⁴ states weigh the costs of cooperating against the benefits. Particular emphasis is placed on the *certainty* of the problem and how that problem could reduce state capabilities.

Consider how a cost/benefit analysis may reduce the likelihood of a weak state cooperating on a global problem. When the costs are deemed to be so high that the economic capabilities of weak states are severely compromised, it makes little sense to cooperate.

Maintenance of capabilities overrides the desire to cooperate to protect the global environment.

The powerful actors in the system are in a similar situation. However, the question for these states is not whether cooperation is possible. The question that these states must ask, is how much are we willing to finance weaker state compliance? As it has already been shown, the hegemon may be needed to finance the cooperation of weak states. Powerful states must consider how serious the environmental threat is to the maintenance of their own capabilities. If it is demonstrated that serious harm may befall all states in the system, the hegemon, and other powerful states, will consider the benefits of aid to outweigh the costs.

The discussion above has established that the neorealist paradigm is capable of explaining cooperation in an anarchical system. Further, three components to understanding environmental cooperation from a neorealist standpoint were outlined. It is important to consider that the state is the primary actor in international

relations. Continuing the neorealist emphasis on power, it is considered necessary to involve the hegemon in a cooperative agreement. Finally, states must perceive of the environmental concern and consider it in their best interest to cooperate to solve it. With the support of these theoretical tools, it becomes possible to study a number of international environmental agreements.

NOTES

¹ The Cold War is generally considered over, it began shortly after the end of World War II and wound down in the late 1980s, see John Mearsheimer, "Back to the Future: Instability in Europe After the Cold War," International Security 15 (1990): 5-56.

² Michael W. Doyle, "Liberalism and World Politics Revisited," in Charles W. Kegley, ed., Controversies in International Relations Theory: Realism and Neoliberal Challenge (New York: St. Martin's Press, 1985): 83.

³ *Ibid.*, Robert O. Keohane, ed. Neorealism and Its Critics (New York: Columbia University Press, 1986); for commentary on this point see, Charles Glaser, "Realists as Optimists: Cooperation as Self-Help," International Security 19 (Winter 1994/95): 50-90.

⁴ Peter M. Haas and Jan Sundgren, "Evolving International Environmental Law: Changing Practices of National Sovereignty," in Nazli Choucri, ed., Global Accord (Cambridge, MA: MIT Press, 1993): 405.

⁵ High politics issues are generally considered peace and security issues. Low politics issues are social and economic in nature. See Charles W. Kegley, Jr. and Eugene R. Wittkopf, World Politics: Trends and Transformations, second edition (New York: St. Martin's Press, 1985): 9 and *passim*.

⁶ Kenneth Waltz, Theory of International Politics (New York: Random House, 1979): 79-210.

⁷ *Ibid.*, pp. 105-7.

⁸ *Ibid.*, p. 77.

⁹ *Ibid.*, p. 210.

¹⁰ *Ibid.*, p. 105.

¹¹ *Ibid.*

¹² *Ibid.*

¹³ *Ibid.*, p. 93.

¹⁴ *Ibid.*, p. 88.

¹⁵ *Ibid.*, p. 91.

¹⁶ *Ibid.*, p. 98.

¹⁷ *Ibid.*, p. 131.

¹⁸ *Ibid.*, p. 105.

¹⁹ Robert Gilpin, "The Richness of the Tradition of Political Realism," in Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986): 304.

²⁰ Joseph M. Grieco, Cooperation Among Nations: Europe, America and Non-tariff Barriers to Trade (Ithaca, N.Y.: Cornell University Press, 1990): 4. This is also quoted in Glaser, p. 57.

²¹ Joseph M. Grieco, "Anarchy and the Limits of Cooperation: A Realist Critique of the New Liberal Institutionalism," in Charles W. Kegley, ed., Controversies in International Relations Theory: Realism and Neoliberal Challenge (New York: St. Martin's Press, 1995): 151.

²² Waltz, p. 106.

²³ Robert Cox, "Social Forces, States and World Orders: Beyond International Relations Theory," in Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986): 204-254; Richard K. Ashley, "The Poverty of Neorealism," in Robert O. Keohane, ed., Neorealism and Its Critics (New York: Columbia University Press, 1986): 255-300; Alexander Wendt, "Anarchy is What States Make of It: The Social

Construction of Power Politics," International Organization 46 (1992): 391-425; for commentary on this debate see Stephen Haggard, "Structuralism and its Critics: Recent Progress in International Relations Theory," in Emanuel Adler and Beverly Crawford, eds., Progress in Postwar International Relations (New York: Columbia University Press, 1991): 403-37.

²⁴ Martin Hollis and Steve Smith suggest that this may be either a strict or situational determinism. See, Martin Hollis and Steve Smith, Explaining and Understanding International Relations (Oxford: Oxford University Press, 1990): 114-5.

²⁵ *Ibid.*

²⁶ For a discussion of free-will, see Richard Lindley, Autonomy (Atlantic Highlands, NJ: Humanities Press International, Inc., 1986): 63-70.

²⁷ Glaser, "Realists as Optimists;" William C. Wohlforth, "Realism and the End of the Cold War," International Security 19 (Winter 1994-5): 91-129; Robert Gilpin, The Political Economy of International Relations (Princeton, NJ: Princeton University Press, 1987).

²⁸ Ethan B. Kapstein, "Is Realism Dead? The Domestic Sources of International Politics," International Organization 49 (Autumn 1995): 751.

²⁹ *Ibid.*

³⁰ Glaser, "Realists as Optimists."

³¹ *Ibid.*, p. 59.

³² *Ibid.*, p. 53.

³³ *Ibid.*, p. 58.

³⁴ Arthur Stein, Why Nations Cooperate: Circumstance and Choice in International Relations (New York: Cornell University Press, 1990): 173.

³⁵ This term is taken from Bruce Russett and Harvey Starr, World Politics: The Menu for Choice (New York: W.H. Freeman and Company, 1992). For insight into their use of the menu for choice and how it coheres with the discussion involving Arthur Stein and Charles Glaser, see pages 20-25.

³⁶ Glaser, p. 59.

³⁷ *Ibid.*, p. 59.

³⁸ This is the title of Kenneth Oye, ed., Cooperation Under Anarchy (New Jersey: Princeton University Press, 1986). I am using it here in a more general sense to refer to a variety of game-theoretic works that appeared after *TIP*.

³⁹ This best example of this is the TIT-FOR-TAT strategy exemplified in Robert Axelrod, The Evolution of Cooperation (New York: Basic Books, 1984).

⁴⁰ This has been demonstrated in a number of works, see Kenneth Oye, Cooperation Under Anarchy; Duncan Snidal, "The Game Theory of International Politics," in Kenneth Oye, ed., Cooperation Under Anarchy (Princeton, NJ: Princeton University Press, 1986): 25; Robert Keohane, "Reciprocity in International Relations," International Organization 40 (1986): 1-27. Further some theorists contend that even though cooperation under anarchy proliferates, it does not reflect the relative gains concerns of states in the international system (see Richard M. Grieco, "Realist Theory and the Problem of International Cooperation: Analysis with an Amended Prisoner's Dilemma Model," The Journal of Politics 50 (1988): 600-624.) However, recent analysis suggests that even when relative gains situations develop, cooperation still proliferates (see, Marc L. Busch and Eric R. Reinhardt, "Nice Strategies in a World of Relative Gains,"

⁴¹ Waltz, p. 107.

⁴² Elliot Richardson, "Climate Change: Problems of Law-Making," in Andrew Hurrell and Richard Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992): 168.

⁴³ Haggard, p. 417.

⁴⁴ *Ibid.*, p. 418.

⁴⁵ Gilpin, p. 305.

⁴⁶ Waltz, p. 96.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*, p. 97-98; and for commentary see Hollis and Smith, generally.

⁴⁹ *Ibid.*, p. 70; A good discussion of this issue in neorealism is developed by Robert Powell, "Anarchy in International Relations Theory: The Neorealist-Neoliberal Debate," International Organization 48 (Spring 1994): 313-344. He states, in a discussion surrounding Robert Cox's notion of neorealism as a problem-solving theory, "The former [neorealism] uses the ceteris paribus assumption to restrict the statement of a specific problem 'to a limited number of variables which are amenable to a relatively close and precise examination.' Among the many things that problem-solving theories may exclude by taking them as given and unproblematic are intersubjective understandings and expectations. The ceteris paribus assumption effectively freezes and thereby assumes away interaction of units and structure.

It seems entirely appropriate to assume away this interaction in a problem-solving theory *as long as* the applicability or domain of the theory is understood to be

bounded by the ceteris paribus assumption." *Ibid.*, p. 322.

⁵⁰ Glaser, p. 84.

⁵¹ *Ibid.*, pp. 83-85.

⁵² Keohane, "Reciprocity," pp. 19-26.

⁵³ For a discussion of the convention/protocol approach, see Lawrence Susskind and Connie Ozawa, "Negotiating More Effective International Environmental Agreements," in Andrew Hurrell and Benedict Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992); 144-149.

⁵⁴ *Ibid.*, p. 145.

⁵⁵ *Ibid.*, p. 144.

⁵⁶ *Ibid.*, p. 145.

⁵⁷ *Ibid.*, p. 145; and Daniel Bodansky, "The United Nations Framework Convention on Climate Change: A Commentary," in Philippe Sands, ed., Greening International Law (New York: The New Press, 1994): 210

⁵⁸ For commentary on the symbolic nature of climate change see, Daniel Bodansky, "The United Nations Framework Convention on Climate Change," p. 210; and for the symbolic nature of regional seas programmes see, Tony Brenton, The Greening of Machiavelli (London: Earthscan Publications, 1994): 96.

⁵⁹ Waltz, pp. 97-99.

⁶⁰ For a discussion of this notion, see Gary L. Scott and Craig L. Carr, "Multilateral Treaties and the Formation of Customary International Law," paper presented at the International Studies Association 37th Annual Convention, San Diego, California, April 18, 1996. Their discussion of multilateral treaties needing the participation of

pertinent states (termed *sine qua non* states) appears apropos to the present matter.

⁶¹ Ken Conca, Michael Alberty, and Geoffrey D. Dabelko, eds., Green Planet Blues: Environmental Politics from Stockholm to Rio (Boulder, CO: Westview Publishing, 1995): 3.

⁶² Waltz, p. 210.

⁶³ As quoted in, Steven Shrybman, "Trading Away the Environment," World Policy Journal (Winter 1991-2): 94.

⁶⁴ Robert Gilpin, War and Change in World Politics (Cambridge: Cambridge University Press, 1981): 144.

⁶⁵ *Ibid.*

⁶⁶ How this happens, will be discussed below in the section entitled, "Interest and the Cost/Benefit Analysis."

⁶⁷ Waltz, p. 210.

⁶⁸ Robert O. Keohane, After Hegemony: Cooperation and Discord in the World Political Economy (Princeton, NJ: Princeton University Press, 1984).

⁶⁹ For a discussion of these matters, see Edward A. Parson, "Protecting the Ozone Layer," in Peter Haas, Robert Keohane, and Marc Levy, eds., Institutions for the Earth (Cambridge, MA: MIT Press, 1993): 27-74.

⁷⁰ Waltz, pp. 107-111.

⁷¹ *Ibid.*

⁷² W. Frank Newton, "Inexhaustibility as a Law of the Sea Determinant," Texas Journal of International Law 16 (1981):422.

⁷³ *Ibid.*

⁷⁴ I think it should be emphasized that states will never have a full understanding of an environmental issue, nor will they be able to obtain all information available on an environmental issue.

**THE U.N. LAW OF THE SEA III: POWER MANIFESTED IN THE
INTERNATIONAL ARENA**

On November 16, 1994, a process begun over twenty years before culminated in the Third United Nations Convention on the Law of the Sea¹ entering into force.² Nations from around the world celebrated the long and arduous journey to the party in Jamaica. The convention was heralded as a new global constitution for the oceans.³ It is a comprehensive and exhausting list of rules, regulations, and promises by the states of the world to manage the ocean resources. The majority of the text covers issues such as navigation, territorial sea limits, contiguous zones, overflight matters, resource management and dispute settlement mechanisms.⁴ The text encompasses 200 single-spaced pages, divided into seventeen parts with 320 articles and 448 provisions.⁵

While the agreement suggests that world states can agree to a comprehensive and lengthy set of rules to manage the oceans, it also suggests that power, self-

interest, the maintenance of capabilities, and the logic of self-help, continue to be important and dominating factors in international affairs. This study examines the political struggle over just one part of UNCLOS III. Part XI provides insight into how U.S. hegemony radically altered an innovative international regime to manage deep seabed minerals.⁶

The historical march to Jamaica in 1994 begins almost three decades earlier. As the maritime technological capabilities of states began to increase throughout the 1950s and 1960s, states became acutely aware of the need to regulate certain activities.⁷ Among these activities, is the mining of manganese nodules. These nodules contain nickel, copper, cobalt, and manganese,⁸ and can potentially accent a state's economic capabilities. The problem for states is that these mineral deposits lie on the deep seabed. This area did not need to be regulated until the capabilities of states made the mining possible.

Because there were no laws to regulate state activity on the deep seabed, states in the system were in need of a comprehensive regime. Two options presented themselves.

The United States, and a number of other western industrialized countries, felt that the deep seabed should remain, as it had historically, *res nullius*, or the property of nobody.⁹ Such a ruling would favor "laissez-faire, free-trade principles"¹⁰ and allow those states with the capabilities to mine to reap the profits.

Less developed countries (LDCs) promoted the idea that the deep seabed and high seas should be considered *res communis*, of the common property of all.¹¹ This notion became the predominant viewpoint of a majority of LDCs, and is best exemplified in Arvid Pardo's speech before the U.N. General Assembly in 1967 espousing the view that the deep seabed is "the common heritage of mankind."¹²

It did not take long before the LDC majority in the United Nations adopted the "Moratorium Resolution,"¹³ dictating that states should refrain from exploiting the deep seabed until international legal mechanisms were in place. The LDC majority in the United Nations was beginning to make its presence known. Using the one-

state, one-vote mechanism, it appeared that "on paper" at least, the notion of *res communis* was becoming the norm.

With this divisive situation unresolved, the first session of the Third Law of the Sea Conference "was gavelled to order in Caracas in 1974."¹⁴ The North/South split over the deep seabed issue appeared insurmountable. As two legal scholars would contend,

The distinction between *res communis* and *res nullius* as applied to the deep seabed proved to be irreconcilable at UNCLOS III. While developed states espoused laissez-faire, free-trade principles, Third World states denounced the fact that in the modern era, 'open access meant equal access to the valuable resources of the commons in name only.' The philosophical lines had been drawn for a protracted ideological confrontation.¹⁵

Indeed, the ideological confrontation took on added weight when only three months after the first Caracas session closed, the U.S. based Deepsea Ventures Inc. claimed "exclusive mining rights" to 60,000 square kilometers of the Pacific Ocean.¹⁶

Throughout eleven heated sessions,¹⁷ the debate concerning the deep seabed would continue. Finally, in December of 1982, an overwhelming majority of U.N. member

states adopted the Convention. Because of a "no reservations" rule agreed to early in the negotiations,¹⁸ states that ratified the document were committed to all parts. This included Part XI, the rules and regulations to govern deep seabed mining.

Again, because of the sovereign equality rule¹⁹ in many U.N. conferences, the LDCs brokered a highly idealistic document that ensured revenue-sharing and technology transfers. Titled "the Area,"²⁰ Part XI embodies the notion of *res communis*. Articles 136 and 137 proclaim the Area "the common heritage of mankind" and deny states exclusive sovereignty.²¹ Additionally, a governing body, the International Sea-Bed Authority, is charged with the sole responsibility of conducting research²² and defining mining policies.²³ Part XI also mandates technology transfers to LDCs²⁴ and establishes an international mining company, "the Enterprise" to handle all mining activities.²⁵ Finally, all administrative functions mandate one-state, one-vote tactics which strongly enhance LDC administrative influence.²⁶

The response by the United States and several other maritime powers was less than exuberant. Many statesmen and scholars alike considered that

while 117 states became signatories to the new 1982 Convention on that December day, many other governments continued to harbor real frustration and dissatisfaction with the final legal product. Included among these disgruntled governments were several of the most important international maritime actors, including the United States, the United Kingdom, Italy and the Federal Republic of Germany.²⁷

In the years following Jamaica, a series of belligerent acts would be carried out by these powerful states, in defiance of the U.N. Convention.

A number of these acts included the creation of "mini-treaties"²⁸ to deal with many of the same concerns dealt with in UNCLOS III. Just prior to the 10 December 1982 signing ceremony, four major maritime powers signed the Agreement Concerning Interim Arrangements Relating to Polymetallic Nodules of the Deep Sea Bed.²⁹ Two years later, in Geneva, the U.S., Belgium, the U.K., West Germany, France, Italy, Japan, and the Netherlands, signed an agreement to "prevent disputes over sites among

companies mining minerals from the sea-bed outside territorial waters."³⁰

Calls for more drastic measures were sounded.

According to some,

considering the number and, in many instances, the technological development, of the non-signatories to the 1982 UN Convention, it might be to their advantage at some future time to be parties to a separate and comprehensive sea law treaty.³¹

These actions and policy discussions had an enduring affect on the Convention and the Parties to it. The LDCs, victors on paper, were on the verge of losing all that they had gained. Early in 1972, Harold Brown noted that

the consequences of non-agreement will be catastrophic only for those who have entertained expectations quite out of keeping with present trends in international relations.³²

It appeared that this early warning would prove true. The number of states acceding to UNCLOS III was bringing the treaty ever closer to an "in force" date.³³ After such a date, non-parties would be legally free to engage in deep seabed mining because of the *pacta tertiis* principle in international law.

With time running out for the LDCs, the Secretary-General of the United Nations initiated informal consultations³⁴ in order to resolve the Part XI dilemma.

By bending to the demands of maritime powers, a breakthrough agreement was soon annexed to the treaty.³⁵ The adjoining 'Agreement'³⁶ was adopted by a General Assembly "vote of 121 in favor, none against and 7 abstentions"³⁷ on June 28, 1994. To date, the document has been signed by over fifty states- "including the United States and virtually all other industrialized states."³⁸ The agreement is a classic example of how envisioned cooperation must accommodate the power distribution in the international system.

A number of significant changes were adopted and annexed to the 1982 Convention. Specifically, in the text of the 1982 Convention, decision making in the International Sea-Bed Authority (ISA), the international organization charged with overseeing deep seabed mining, was to "be carried out by a one-nation, one-vote assembly."³⁹ The 1994 agreement alters this process. Presently, it is necessary to seek the "collaboration of

the Council" before the decision of the assembly is approved.⁴⁰ Alone, this would not have provided the United States with additional power, because the Council did not guarantee a seat to the U.S. However, the 'Agreement,' "guarantees a seat on the Council for 'the state, on the date of entry into force of the Convention, having the largest economy in terms of gross domestic product.' That state was the United States."⁴¹

The United States was also guaranteed a seat on the Finance Committee and a seat in the Council "chamber."⁴² These provisions further enhanced U.S. voting power and control over deep seabed mining. Additionally, the United States achieved success in getting production limits on the mining of manganese nodules lifted,⁴³ removing mandatory "technology transfers" from PART XI,⁴⁴ and curtailing the competitive advantage offered the Enterprise (the supranational mining company of the ISA).⁴⁵

In 1982, pursuant to the text of Part XI, the distribution of revenues was to proceed via equitable distribution

taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status.⁴⁶

However, according to the 'Agreement,' any "surplus funds would be subject, ...to consensus in the Finance Committee."⁴⁷ Since the United States was guaranteed a seat on the Finance Committee, their ability to deal with surplus revenues was enhanced.

In the wake of these changes, the 1994 Agreement reinforced the maritime powers' preference to view the high seas and deep seabed as *res nullius*. The most notable articles in Part XI, aimed at formalizing the "common heritage of mankind" concept were rendered largely ineffective. According to one assessment,

The 1994 Agreement substantially accommodates the objections of the United States and other industrial states to the deep seabed mining provisions of the Law of the Sea Convention. The Agreement embraces market-oriented policies and eliminates provisions identified as posing significant problems of principle and precedent, such as those dealing with production limitations, mandatory transfer of technology, and the review conference. It increases the influence of the United States and other industrial states in the Sea-Bed Authority, and reflects their longstanding preference for emphasizing interests, not merely numbers, in

the structure and voting arrangements of international organizations.⁴⁸

The issues involved in deep seabed mining, and the historical events that brought the revised regime into existence, suggest that power, the primacy of the state, and the logic of self-help, remain important factors in international affairs. A neorealist explanation of deep seabed mining can offer insight into the behavior of states.

To begin, the activities of powerful states in the system suggest that the primacy of the state is an ever present feature of the relations between states. As it became apparent in the 1950s and 1960s that a new set of rules to govern the oceans was necessary, the United Nations appeared to be the most feasible institution to use toward that end. When it provided logistical support and a neutral negotiating arena, the great powers did not object. After all, these functions of institutions cohere with the logic of self-help. However, as the U.N. began to be used to enhance LDC capabilities, relative to those of the great powers, cooperation broke down.

In order to achieve final agreement, it was necessary to return to the logic of self-help. This logic suggests that the maintenance of capabilities is an overriding concern. States, be they powerful or weak, will not enter agreements that diminish capabilities relative to others. Accordingly, the cooperative scheme that resulted maintains or enhances the capabilities for all states concerned. The financial and distributive arrangements in Part XI reflect the international power distribution. They do not require a diminution of state sovereignty, nor do they instill in the relevant international organizations an autonomous regulative or enforcement mechanism.

Further, the position of the United States provides a good example of the need for hegemonic support. From the start, the U.S. was hesitant about Part XI. Since its economy and seabed mining capabilities are by far the largest, the United States would have had to contribute the greatest share. Not until the "envisioned cooperation"⁴⁹ of the U.N. and LDCs more closely matched

the level of cooperation predicted under anarchy did the position of the U.S. change.

Finally, the perception of benefits from deep seabed mining changed from 1982 to 1994. By the time that the U.S. began to actively participate in the 'Agreement' negotiations, it was apparent that "the anticipated commercial mining of deep seabed minerals had receded into the twenty-first century."⁵⁰ As it had become less viable to mine the seabed, it became more viable for the U.S. to acquiesce to the modified Part XI.

The extent of the cooperation in UNCLOS III suggests that self-help and cooperation are not incompatible. However, UNCLOS III, and in particular Part XI, also support the claim that cooperation must reflect the power distribution in the international system. The limits of cooperation with regard to Part XI and the annexed Agreement are examples of self-help logic and the drive to maintain capabilities.

NOTES

¹ Third United Nations Convention on the Law of the Sea A/CONF.62/122 7 October 1982, as reprinted in 21 I.L.M. (1982): 1261-1354. Hereinafter, UNCLOS III.

² This occurred one year after the accession to UNCLOS III of Guyana, the sixtieth state, in accordance with article 308(1) of UNCLOS III.

³ Christopher C. Joyner, "The United States and the New Law of the Sea," Ocean Development and International Law 27 (January-June 1996): 42.

⁴ *Ibid.*

⁵ *Ibid.*, pp. 41-42.

⁶ *Ibid.*

⁷ W. Frank Newton, "Inexhaustibility as a Law of the Sea Determinant," Texas International Law Journal 16 (1981): 422.

⁸ *Ibid.*

⁹ Black's Law Dictionary, 6th ed., s.v. "Res," p. 1306.

¹⁰ Christopher C. Joyner and Elizabeth A Martell, "Looking Back to See Ahead: UNCLOS III and Lessons for Global Common Law," Ocean Development and International Law 27 (January-June 1996): 76.

¹¹ Black's Law Dictionary, 6th ed., s.v. "Res," p. 1304.

¹² U.N. GAOR 22nd Sess., U.N. Doc. A/6695 (17 August 1967). According to Christopher Joyner and Elizabeth Martell, "Pardo suggested that the General Assembly should internationalize the seabed beyond a narrow territorial sea by either reinterpreting or amending the 1958 Continental Shelf Convention, and that this international seabed should be placed under international management." Christopher Joyner and Elizabeth Martell, "Looking Back," p. 91.

¹³ U.N.G.A. Res. 2574 (XXV), as reprinted in 9 I.L.M. (1970): 419-423; see also, The Declaration of Principles Governing the Sea-bed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits on National Jurisdiction, U.N.G.A. Res. 2749, 25 U.N. GAOR, Supp. (No. 28) 24, U.N. Doc. A/8028 (1971). For commentary on these resolutions see, Joyner and Martell, p. 76.

¹⁴ H. Gary Knight, Consequences of Non-Agreement at the Third Law of the Sea Conference: A Report of the Working Group of Technical Issues in the Law of the Sea, American Society of International Law, Studies in Transnational Legal Policy, No. 11, (St. Paul, MN: West Publishing Co., 1976), p. VII

¹⁵ Joyner and Martell, p. 76.

¹⁶ Knight, p. 33.

¹⁷ See Gerhard Von Glahn, Law Among Nations: An Introduction to Public International Law, 5th ed. (New York: MacMillan Publishing CO., 1986): 392, for a list of the plenary sessions.

¹⁸ Joyner and Martell, p. 77.

¹⁹ For a discussion of this matter, see Elliot Richardson, "Climate Change: Problems of Law-Making," in Andrew Hurrell and Benedict Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992): 167.

²⁰ UNCLOS III, Part XI, Article 133, p. 1293.

²¹ *Ibid.*, Article 136, 137, p. 1293.

²² *Ibid.*, Article 143, p. 1294.

²³ *Ibid.*, Article 151, p. 1294.

²⁴ *Ibid.*, Article 144, p. 1294.

²⁵ *Ibid.*, Article 170, p. 1305, and Article 153, p. 1297.

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- ²⁶ *Ibid.*, Article 152, p. 1293; Article 159, p. 1299; Article 166, p. 1304.
- ²⁷ Joyner and Martell, p. 74.
- ²⁸ Anthony D'Amato, "An Alternative to the Law of the Sea Convention," American Journal of International Law 77 (April 1983): 281.
- ²⁹ Agreement Concerning Interim Arrangements Relating to Polymetallic Nodules of the Deep Sea Bed, *as reprinted in* 21 I.L.M. (1982): 950-62.
- ³⁰ Von Glahn, p. 395.
- ³¹ *Ibid.*, p. 396; and D'Amato, "An Alternative," pp. 281-285.
- ³² Edward D. Brown, "The 1973 Conference on the Law of the Sea: The Consequences of Failure to Agree," in Lewis Alexander, ed., The Law of the Sea: A New Geneva Conference Proceedings of the Sea Institute, University of Rhode Island, Kingston, Rhode Island, June 21-24, 1971. (1972): 35.
- ³³ By May of 1990, 44 states had ratified the Convention. It took sixty ratifications to bring the Convention into force.
- ³⁴ Joyner, p. 46.
- ³⁵ In fact, Joyner notes that little movement was seen for three years until in April of 1993, the United States actively participated in the talks. *Ibid.*
- ³⁶ 1994 Implementation Agreement, U.N. Doc. a/48/L.60 (June 22, 1994); This agreement has been called the "1994 Agreement" or the "Boat Paper."
- ³⁷ Bernard H. Oxman, "The 1994 Agreement and the Convention," American Journal of International Law 88 (October 1994): 687.
- ³⁸ *Ibid.*

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- ³⁹ *Ibid.*, p. 689; and Joyner, pp. 47-48.
- ⁴⁰ Oxman, pp. 689-90.
- ⁴¹ *Ibid.*, p. 690.
- ⁴² Joyner, p. 47.
- ⁴³ *Ibid.*, p. 48.
- ⁴⁴ Oxman, p. 691.
- ⁴⁵ *Ibid.*, p. 693.
- ⁴⁶ UNCLOS III, Part XI, Article 160, p. 1299.
- ⁴⁷ Oxman, p. 695.
- ⁴⁸ *Ibid.*
- ⁴⁹ See chapter II above, "Neoliberalism and Environmental Cooperation"
- ⁵⁰ Louis B. Sohn, "International Law Implications of the 1994 Agreement," American Journal of International Law 88 (October 1994): 696; see also Jonathon I. Charney, "U.S. Provisional Application of the 1994 Deep Seabed Agreement," American Journal of International Law 88 (October 1994): 713.

OZONE DEPLETION: COOPERATION AS SELF-HELP

Stratospheric ozone is an important component of the earth's atmosphere. Ozone has been found to act as a "global sunscreen," blocking harmful UV radiation from penetrating the earth's surface.¹ Early in 1974, scientists began to understand that chlorofluorocarbons (CFCs) had a devastating effect on the ozone layer.² Previously, CFCs had been widely accepted as a non-toxic, cheap, and easily manufactured chemical product with widespread domestic and industrial applications.³ Invented in 1928 by General Motors and DuPont,⁴ their use as refrigerants, propellants, and cleaning agents was widespread and growing.⁵ As the scientific data was inconclusive, and the potential economic impact from banning CFCs great, states did not act on the initial scientific findings.

As reports estimating ozone loss continued to appear throughout the 1970s and early 1980s, and "doomsday" hypotheses were formulated,⁶ states in the international

system grew more and more concerned. Evidence mounted that even modest losses in the ozone layer would cause increases in skin cancer, cataracts, and reduce the effectiveness of the human immune system.⁷ The loss of ozone due to man-made CFCs had the potential to reduce state capabilities. Fearing this, many CFC producing and consuming states took unilateral action. The United States banned all non-essential CFC use in 1977.⁸ Canada and many European states took similar steps.⁹

As concern grew, international institutions were called upon by states to coordinate scientific meetings and negotiating sessions. In March of 1977, the United States hosted a UNEP sponsored meeting of scientific experts and government officials.¹⁰ From this meeting came the Coordinating Committee on Ozone Layer (CCOL). This committee, meeting annually from 1977 until 1985, organized scientific information and prepared reports.¹¹

Within eight years of the first domestic control measures, the largest group of CFC producers and consumers met in Vienna, Austria and signed the Vienna Convention for the Protection of the Ozone Layer.¹² As with UNEP's

previous "Conventions," Vienna provided the international community with a framework agreement to coordinate scientific missions and report findings. At the insistence of the "Toronto Group" (the United States, Canada, Sweden, Norway, Denmark, Austria, and Switzerland), an amendment was added to the Vienna Convention enlisting the services of UNEP to begin consultations aimed at an additional protocol by 1987.¹³

Between 1985 and 1987, a number of important political and scientific events took place. In May of 1985, the British Antarctic Survey, a scientific group stationed on Antarctica, published what would become known as the "ozone hole" paper.¹⁴ This report detailed a loss of ozone of up to 40% over Antarctica.¹⁵ Subsequent to this report, NASA published the result of its Nimbus satellite Antarctica mission. This report noted an ozone hole larger than the United States over Antarctica.¹⁶ Additionally, NASA studies in 1986 and 1987, along with WMO reports, confirmed ozone losses in the stratosphere.¹⁷

Politically, the presence of the United States became an important factor between 1985 and 1987. Having decided

on a coherent ozone policy in 1986, "the United States assumed a strong leadership role in the negotiations for the first time."¹⁸ By November of 1986, the U.S. position on ozone controls was announced,

an immediate freeze in CFC consumption, followed by phased reductions to essentially zero (nominally, 95 percent reductions), with interim scientific reviews to determine whether the continued cuts were necessary.¹⁹

As the deadline for a protocol neared, it appeared that the U.S. was quite willing to flex its economic muscle and demonstrate its hegemonic position in the system. During 1987, domestic legislation was introduced calling for unilateral CFC reductions, and trade sanctions against those countries that did not follow the U.S. lead.²⁰

Throughout the interim period between Vienna and the protocol, technological innovations occurred as well. DuPont, the world's largest CFC producer, began research into substitutes and announced that they would be available by the early 1990s.²¹ Other industry leaders concurred and endorsed the idea of international controls.²²

The build-up of scientific, technical, and political events between 1985 and 1987, culminated in the Montreal Protocol on Substances that Deplete the Ozone Layer.²³ This document, signed in September of 1987, committed parties to a freeze by 1990, 20% cuts by 1994, and a final production target of one-half 1986 levels.²⁴ These measures were accepted by all industrialized states and a number of LDCs before the protocol entered into force. Although time-lags are granted to developing states, at least two large developing states, Mexico and Brazil, have renounced the grace period. Citing the need "to keep up with their trading partners,"²⁵ these states intend to follow the same phase-out dates as industrialized states. The two largest LDC states that produce CFCs, China and India, acquiesced to the international regime after pledges of money and technology.²⁶

Following Montreal, a number of new scientific and technological issues became known.²⁷ As a result, tighter restrictions and more immediate phase-outs were introduced during negotiating sessions in London²⁸ and Copenhagen.²⁹

Within two decades, the sovereign states of the world joined together and banned a popular and economically advantageous substance. Undeniably,

The progress that was made, in dealing with an increasingly menacing global problem, particularly near the end of the 1980s, was indeed impressive. Few problems requiring state cooperation on a global scale move from bare recognition to something approaching solution in less than two decades.³⁰

For the neorealist, the case of ozone depletion offers a classic example of "cooperation as self-help." No matter whether the state was developing or developed, powerful or weak, producing CFCs or merely consuming them, the potential harm from ozone depletion would affect it. The behavior of states in the international system appears to recognize this fact.

Of particular interest is the position of the powerful states in the system. Many European states, including England and France, appear hesitant to alter their economic capabilities during the initial debate concerning ozone depletion.³¹ As scientific knowledge increased concerning the cause and consequences of ozone damage, these states modified their respective positions.

Further, the influence that the United States had on these countries, appears to have contributed to their behavior. The coercive suggestion of trade sanctions, made by the U.S., may not have been the only factor in England and France's modified stance. However, it is perhaps wise to note that on two previous occasions, the 1977 aerosol ban and supersonic transport abandonment,³² the United States acted unilaterally. The latter action was of great cost to England and France.³³ These actions should suggest that with regard to ozone depletion, the U.S. had a long history of concern.

Certainly, the hegemonic position of the United States appears to have played a large role in the swift action that was taken on the matter. During the Vienna Convention, inclusion of the 'UNEP protocol amendment' was due in large part to a tough U.S. stance.³⁴ Further, even institutional theorists admit that "the final Protocol has a fairly strong American flavor."³⁵ It can be said with some certainty, that had the United States not desired a quick and effective response to ozone depletion, the

matter would have remained unresolved for some time longer.

Additionally, the position of the developing states is not unexpected and mirrors the hypothesized neorealist concern over the maintenance of capabilities. LDCs were at a real disadvantage during the early stages of the negotiations. Without the resources to develop and produce alternatives to CFCs, developing states were left little option but to continue to produce them. As it became clear that significant penalties would afflict them if they attempted to trade with CFC-alternative producing states, the LDCs lobbied for financial support.³⁶

The response by the powerful states exhibits a remarkably rational approach to the ozone problem. A good example is the cost/benefit analysis contemplated by the United States. In 1986, officials estimated that almost one million U.S. citizens would be killed in the following ninety years due to ozone loss.³⁷ According to their figures, this would cost the United States approximately one point three trillion dollars in reduced economic capabilities. It would only cost about four billion

dollars in domestic transition costs to outfit the economy with CFC alternative technology.³⁸ As well, the cost to transition LDC states appeared considerably less than one point three trillion. The political outcome of the London Amendments offers some insight into these costs,

London itself saw an extremely tense contest between, on the one hand, the determination of the major Southern states to get the best possible financial and technological terms for their participation and, on the other, Northern political determination to get the South on board without taking on vast and open-ended financial and technological commitments. The upshot was an agreement to establish a new fund, initially of \$160-240 million (the difference being a \$40 million tranche each for India and China if they acceded, as they eventually did), to be contributed by developed countries to help developing countries cease to use CFCs.³⁹

Given the choice between continued ozone destruction and assisting LDCs, the approach by the United States the other powerful states appears well reasoned. Further, the acceptance of financial and technological rewards by the LDCs coheres with the logic of self-help. The LDCs, had they not transitioned to ozone-friendly chemical production, would have been left with an outdated and

inefficient technology. This would drastically alter economic development plans so crucial to LDC survival.

The behavior of states surrounding the ozone issue represents an excellent example of how cooperation can be an important form of self-help. States in an anarchical system were confronted with a problem that required cooperation. In order to maintain capabilities, and thus ensure their survival, states found it in their interest to agree to a phase-out of an entire chemical group. Information presented to the states repeatedly confirmed that ozone depletion was caused by CFCs. Armed with knowledge of the cause and the effects, simple cost/benefit analyses resulted in substantial cooperation.

NOTES

¹ Gary L. Scott, Geoffrey Reynolds, and Anthony D. Lott, "Success and Failure Components of Global Environmental Cooperation: The Making of International Environmental Law," ILSA Journal of International and Comparative Law 2 (Fall 1995): 48.

² Richard S. Stolarski and Ralph J. Cicerone, "Stratospheric Chlorine: A Possible Sink for Ozone," Canadian Journal of Chemistry 52 (1974): 1610; and Stephen C. Wolfsy and Michael B. McElroy, "HOx, NOx, and ClOx: Their Role in Atmospheric Photochemistry," Canadian Journal of Chemistry 52 (1974): 1582.

³ Scott, Reynolds, and Lott, p. 48.

⁴ Edward A. Parson, "Protecting the Ozone Layer," in Peter Haas, Robert O. Keohane, and Marc Levy, eds., Institutions for the Earth (Cambridge, MA: MIT Press, 1993): 28.

⁵ Richard Elliott Benedict, "Ozone Diplomacy," in Ken Conca, Michael Alberty, and Geoffrey D. Dabelko, eds., Green Planet Blues: Environmental Politics from Stockholm to Rio (Boulder, CO: Westview Publishers, 1995): 128.

⁶ *Ibid.*

⁷ Scott, Reynolds, and Lott, p. 51.

⁸ Edward A. Parson, *Protecting the Ozone Layer*, pp. 35-36. Incidentally, since the U.S. was by far the biggest producer of CFCs, the 1977 domestic ban, cut the world production levels by about twenty-five percent, *ibid.*, p. 36.

⁹ *Ibid.*, p. 36.

¹⁰ *Ibid.*, p. 35.

¹¹ *Ibid.*

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- ¹² Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, as reprinted in 15 *I.L.M.* (1985): 1516.
- ¹³ Benedict, p. 131.
- ¹⁴ Parson, p. 31.
- ¹⁵ *Ibid.*
- ¹⁶ *Ibid.*
- ¹⁷ *Ibid.*
- ¹⁸ *Ibid.*, p. 41.
- ¹⁹ *Ibid.*, p. 41.
- ²⁰ *Ibid.*, p. 43; and Scott, Reynolds, and Lott, p. 52.
- ²¹ Parson, p. 41.
- ²² Richard E. Benedict, "Ozone Diplomacy," p. 130.
- ²³ Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, as reprinted in 26 *I.L.M.* (1987): 1541.
- ²⁴ *Ibid.*; For a discussion of these cuts, see Edward A. Parson, "Protecting the Ozone Layer," p. 44.
- ²⁵ *Ibid.*, p. 56.
- ²⁶ Tony Brenton, The Greening of Machiavelli (London: Earthscan Publications, 1994): 143.; It should be emphasized that even though China and India represent the two largest CFC producing LDCs, their world output is only about 2% of the total, and all LDCs account for only about 14%, see Scott, Reynolds, Lott, p. 57.
- ²⁷ Parson, pp. 45-46.

²⁸ Montreal Protocol Parties: Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, 29 June 1990, 30 I.L.M. (1990): 537.

²⁹ Montreal Protocol Parties: Adjustments and Amendments to the Montreal Protocol on Substances the Deplete the Ozone Layer, 25 November 1992, 32 I.L.M. (1992): 874.

³⁰ Scott, Reynolds, and Lott, p. 47.

³¹ Benedict, p. 132.

³² Scott, Reynolds, and Lott, p. 55.

³³ *Ibid.*

³⁴ Benedict, p. 131.

³⁵ Parson, p. 61.

³⁶ Brenton, pp. 142-43.

³⁷ Mark Crawford, "Ozone Plan Splits Administration," Science 236 (1987): 1053. This is noted in Scott, Reynolds, and Lott, p. 52.

³⁸ *Ibid.*

³⁹ Brenton, p. 143.

CLIMATE CHANGE: COMPROMISED CAPABILITIES

In 1827, Jean Baptiste Fourier, a French scientist and mathematician, recognized that the earth's atmosphere traps the sun's energy just like a greenhouse.¹ Seventy years later, the Swedish scientist, Arrhenius, hypothesized that the burning of fossil fuels could potentially raise the temperature at the earth's surface.² Little interest grew from the concerns of these scientists. Evidence to back their claims was not available. And, states were on the verge of rapid industrial expansion.

Concern over greenhouse gas (GHG) emissions remained dormant until the 1970s. Throughout the past three decades, a steady increase in scientific data³ and public speculation⁴ has moved the climate change issue from relative obscurity to international prominence. Recent studies suggest that even small increases in the temperature of the earth can cause agricultural losses, sea level increases, and forest deterioration.⁵

In order to deal with the possible threats caused by the catastrophic events of climate change, the United Nations General Assembly, in 1990, convened the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC).⁶ The INC mission was to develop a comprehensive umbrella convention to deal with climate change concerns by the time the 1992 United Nations Conference on the Environment and Development (UNCED) convened in Rio de Janeiro.⁷ Although the INC managed to accomplish its task,

the Convention was a disappointment: despite early hopes that it would seek to stabilize or even reduce emissions of greenhouse gases by developed countries, the Convention contains only the vaguest of commitments regarding stabilization and no commitment at all on reductions.⁸

Unlike the pressing matters in UNCLOS III and stratospheric ozone depletion, climate change is "not only distant in time but fraught with uncertainty as to its possible consequences."⁹ For the majority of states in the international system, including all of the powerful states, climate change does not automatically entail a reduction in state capability. Indeed, Russia

acknowledged that some benefits might befall it if small increases in the global surface temperature resulted from GHG consumption.¹⁰ Increases in food production would be likely to occur in China, Russia, and Canada as growing seasons increased.¹¹ For the United States, "estimates by the Environmental Protection Agency show that the net effect on agriculture is uncertain, with the possible range of effects lying between a net gain of \$10 billion and a net loss of \$10 billion."¹²

After studying all the potential costs associated with global warming (including agricultural losses, sea level increases, forest loss, and an increase in the need to seek cooler environments) Wilfred Beckerman concluded,

it seems impossible to escape the conclusion that even under pessimistic assumptions, the annual cost to the world as a whole of global warming associated with a doubling of CO₂ concentrations is likely to be almost negligible by comparison with the value of world output over the period in question.¹³

For only a handful of relatively weak and powerless states do the concerns of significant climate change appear to matter. The most active group of states in the

early negotiations, was the Alliance of Small Island States.¹⁴ According to Oran Young,

This bloc brings together about two dozen island states in the Pacific and Indian Oceans and the Caribbean and Mediterranean Seas, as well as a few others (for example, Bangladesh) likely to be hardest hit by rising sea levels resulting from global warming.¹⁵

This group attracted the support of scientific organizations and advisors.¹⁶ Because of this support, Young contends that the Alliance "has proven effective in climate negotiations, despite the weakness of its members in material terms."¹⁷ Neorealists would expect nothing less. Confronted with an environmental issue that would significantly undermine a state's capabilities, and possibly its very survival, states would be expected to use all means available to them.

What is significant about the Alliance is not its ability to lobby effectively in the negotiations, but rather its inability to lobby for a series of important articles in the final Convention. Here, power politics once again dictates the behavior of states. The Convention does nothing to create an 'insurance fund,'

something that the Alliance desired in order to compensate affected states for an increase in sea levels due to GHGs.¹⁸ Instead, the Convention offers a non-legal remedy, noting that the

Parties shall give full consideration to what actions are necessary... to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures.¹⁹

With only a tacit guarantee of 'full consideration,' the Alliance achieved no legal means to ensure compensation for GHG damages. Further, the Alliance was ecstatic that Article 4(4) was included in the Convention.²⁰ This article was perceived as a major victory because it states

the developed country Parties... shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.²¹

However, there is no mention of a particular degree of funding²² and "Parties seeking aid for adaptation costs may have difficulty proving causation."²³ The effects of GHGs are extremely slow, and the scientific information

collected to date is inconclusive. Alliance members may be disappointed in the victory that article 4(4) provides them.

The next clue that offers evidence of the Convention's limited ability to enjoin cooperation is the position of the United States on the issue of climate change. It is unclear how important the most prosperous and powerful nation in the system considered the climate change issue. As the world-wide fervor over climate change increased throughout the 1980s, the United States instigated the creation of the Intergovernmental Panel on Climate Change (IPCC),²⁴ hosted the first meeting of the INC,²⁵ and pledged financial support for developing countries.²⁶

However, other actions by the United States provide evidence that climate change was not perceived as a certain and debilitating threat. Throughout the negotiations, the United States resisted setting carbon dioxide targets and timetables.²⁷ These issues "were perhaps the most controversial in the entire negotiation."²⁸ The United States, not convinced of the

scientific findings,²⁹ felt it was "premature, rigid, and inequitable"³⁰ to establish strict targets and timetables.

Instead, the US argued that the Convention should adopt a 'bottom-up' approach that encourages the development of better information, national strategies, and actions plans.³¹

The U.S. also made several statements to the effect that they were unwilling to subsidize LDC efforts to control GHG emissions.³² Rather, the U.S. desired that LDCs apply to the General Environment Facility (GEF) for funding. The GEF is controlled by the World Bank, managed by developed states, and funded by voluntary donations.³³

Finally, many of the developing nations placed economic development before environmental concerns. Signaling a desire to maintain present capabilities, the developing states were not willing to forego economic development. 'Myopic' self-interest³⁴ appears to dominate the LDC cost/benefit analysis. With limited resources available, and myriad other problems to deal with,³⁵ LDCs were reluctant to deal with a long-term, and possibly non-existent, environmental problem.

A desire to ensure survival, along with an uncertainty concerning environmental degradation as a result of climate change, lessened the salience of this issue. No overwhelmingly powerful blocs formed. Unlike UNCLOS III negotiations, a North-South divide did not develop. The United States remained skeptical of the scientific data and considered the costs of reducing CO₂ emissions far too high. Wilfred Beckerman examines this issue,

a 50 per cent cut in world emissions would need a tax that would yield revenue in the USA alone of at least \$100 billion. The USA, which is usually very reluctant to hand over relatively trivial sums to the World Bank and other aid agencies, would never agree to handing over this amount, which is about one hundred times the current budget of the United Nations, to some international agency to hand out to developing countries for carbon abatement! And there must be great doubts whether any international agreement will get off the ground in the absence of USA support, if not leadership.³⁶

Other powerful states were similarly hesitant. England was wary of prescribing CO₂ targets, and often frustrated other EC states like Germany.³⁷ Developing states were also split. Energy producing states, like Saudi Arabia and Kuwait, were against higher taxes on GHG

emissions.³⁸ China desired only a framework convention.³⁹ India appeared more interested in receiving financial benefits like those won during the ozone negotiations.⁴⁰ In contrast, the Netherlands, the 'Alliance,' and many African states, all potential victims of global warming, wanted immediate reductions and financial support.⁴¹

The paltry concessions at UNCED represent the uneasiness that states have with the climate change issue. Without concrete scientific knowledge, neither developed nor developing states were willing to take appreciable losses on short-term economic plans in order to reduce GHG emissions. The over-riding logic of the self-help system resulted in few gains for weak states with the most to lose, and no real losses for powerful states with little to gain. In the aftermath of the Rio Convention, no further protocols have been developed and no international negotiations have taken place.

NOTES

¹ Tony Brenton, The Greening of Machiavelli (London: Earthscan Publications, 1994): 163.

² *Ibid.*

³ Studies were carried out by NASA, WMO, and many NGOs, see *ibid.*, pp. 164-172.

⁴ For a discussion of these concerns, see Oran Young, "Negotiating an International Climate Change Regime: The Institutional Bargaining for Environmental Governance," in Nazli Choucri, ed., Global Accord (Cambridge, MA: MIT Press, 1993): 448-451. A discussion of intergenerational equity and the relationship between humanity and the environment helps outline the speculation surrounding significant climate change.

⁵ Wilfred Beckerman, "Global Warming and International Action: An Economic Perspective," in Andrew Hurrell and Benedict Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992): 262-68.

⁶ Young, p. 431.

⁷ Daniel Bodansky, "The United Nations Framework Convention on Climate Change: A Commentary," in Philippe Sands, ed., Greening International Law (New York: The New Press, 1994): 210.

⁸ *Ibid.*

⁹ Elliot Richardson, "Climate Change: Problems of Law-Making," in Andrew Hurrell and Richard Kingsbury, eds., The International Politics of the Environment (Oxford: Oxford University Press, 1992): 168.

¹⁰ Brenton, p. 182.

¹¹ Beckerman, p. 263.

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- ¹² *Ibid.*, p. 262.
- ¹³ *Ibid.*, p. 268.
- ¹⁴ Young, p. 437.
- ¹⁵ *Ibid.*
- ¹⁶ *Ibid.*
- ¹⁷ *Ibid.*
- ¹⁸ Bodansky, p. 222.
- ¹⁹ United Nations Conference on Environment and Development: Framework Convention on Climate Change, Done at New York, May 9, 1992, as reprinted in 31 *I.L.M.* 849 (1992): 858; hereinafter cited as The Convention.
- ²⁰ Bodansky, p. 220.
- ²¹ The Convention, p. 858.
- ²² Bodansky, p. 220.
- ²³ *Ibid.*
- ²⁴ Brenton, p. 168.
- ²⁵ Young, p. 431.
- ²⁶ Brenton, p. 190.
- ²⁷ *Ibid.*, p. 172; Bodansky, pp. 215-217.
- ²⁸ Bodansky, p. 215.
- ²⁹ Brenton, p. 170.
- ³⁰ Bodansky, p. 215.
- ³¹ *Ibid.*
- ³² *Ibid.*, p. 219.

³³ Brenton, p. 188.

³⁴ The term "myopic self-interest" comes from Robert O. Keohane, After Hegemony: Cooperation and Discord in the World Political Economy (Princeton, NJ: Princeton University Press, 1984): 99.

³⁵ Wilfred Beckerman correctly points out that the limited capabilities of LDCs are currently being used to deal with serious health, pollution, and development issues, see Beckerman, p. 257.

³⁶ *Ibid.*, p. 285.

³⁷ Brenton, p. 174.

³⁸ *Ibid.*, pp. 189.

³⁹ *Ibid.*, p. 187.

⁴⁰ *Ibid.*, p. 190.

⁴¹ *Ibid.*, p. 189.

CONCLUSION

Among many in the field of international relations there is an uncontrollable urge to view the nation-state as locked in a desperate and losing struggle for its very existence. As natural resources are depleted, pollution levels increase, and the global population of the human species swells, theorists and lay people alike predict the quiet end of the state-centric era. Regimes, institutions, and international organizations are perceived as new and vibrant forces in the global struggle for survival. No longer is the international system run by the rules of state sovereignty and power politics, and conditioned by the overwhelming consequences of anarchy.

Much like the 1970s, when theorists foresaw the inevitable economic interdependence of states,¹ an ecological interdependence has gripped the imagination of scholars and statesmen. The state system is thus considered incapable of dealing with global environmental

issues. It is now necessary to cede authority to regimes and institutions for the earth.

This characterization of the current intellectual climate in international politics bodes well for theorists of the institutional persuasion. Moreover, the increasing numbers, and wide-spread support for, international legal instruments and regimes provides evidence for just such a world view.

Since the birth of neorealism in 1979, a steady stream of scholarly works has attempted to provide the discipline with structural explanations of polarity and the power dimension involved in the international political economy. These works contradict much of the logic detailed above. Instead of witnessing an increase in global interdependence, a diminution of state sovereignty, and a reduction in the use of power politics, theorists from this persuasion insist that the nation-state system is thriving.

Often ignoring environmental problems, or relegating their importance to the status of 'low politics,' neorealists have concentrated on the dynamics of global

strategic issues. The reluctance to sufficiently explain environmental cooperation through the lens of neorealism does a disservice, not only to the paradigm, but to the discipline of international relations.

This project has examined the merits of applying neorealist theory to environmental issues. Using the same principles involved in understanding strategic matters, this endeavor demonstrates that neorealism can sufficiently explain environmental cooperation.

The strict neorealist reliance on the competitive marketplace has been removed. In its place, a more balanced discussion of the logic of self-help remains. Here, cooperation exists as a useful and necessary component of self-help strategies. To supplement the drive to survive, three principles necessary for successful environmental cooperation have been highlighted. First, the primacy of the state remains a central tenet of neorealism. Second, agreements to protect the global environment must mirror the power distribution in the international system. When that system contains a hegemon, its support is often crucial.

Finally, states, because of a desire to maintain capabilities, will continue to rationally weigh the costs of cooperating with the benefits that that cooperation provides.

The presence of these principles have been demonstrated in the eventual outcome of UNCLOS III and ozone protection. States instigated, controlled, and finally accepted a number of policy options to govern their behavior. In keeping with the neorealist need to account for the power distribution in the system, these agreements were molded to reflect great power desires. The role of the United States, as a world hegemon, is of particular importance. The U.S. successfully led the revolt against LDC efforts in Part XI and coerced and influenced world states to accept many of the ozone provisions.

The lack of two of these principles in the climate change matter, effectively abolished current hopes of substantial cooperation to reduce GHG emissions. Although the state remained the primary actor, it appeared that cost/benefit analyses favored non-cooperation for a

majority of states. The power distribution in the system is reflected in the final "symbolic" agreement, but was not reflected in the negotiations. Few of the powerful actors appeared interested in substantially curtailing emissions. The United States considered the costs of GHG reductions to be extremely high. Further, those states with the most at stake, are some of the least powerful states in the international system.

A structural explanation of environmental cooperation suggests that power, anarchy, the state, and self-help logic, remain important principles in international relations. That this is the case is certainly welcome news for neorealism. However, it also provides hope that engendering cooperation can be better understood. Being cognizant of the need to protect the global environment *and* remaining realistic about the type and extent of the cooperation possible will allow for more successful environmental cooperation.

Although it is beyond the scope of this endeavor, it is important to analyze a greater number of international environmental agreements. The three case studies that

were outlined in this exercise involve global environmental problems. Further work should examine regional environmental matters, including both multilateral and bilateral agreements to protect the environment. Regional examples provide insight into the factors necessary for regional cooperation.

It is also necessary to develop a more thorough definition of the 'state' in international politics. With an increase in the number of non-governmental organizations and multinational corporations, comes a desire to alter the effectiveness of the state. There is also a desire to 'open the box' and peer into the apparatus of the state. The structural definition of environmental cooperation outlined above relies on a picture of the state as a rational unitary actor. To avoid reductionism, the state must be seen as maintaining or enhancing its capabilities. Therefore, internal attributes must be assumed away. When this is done effectively, a structural explanation of environmental cooperation appears to work. Further inquiry into the state may help alleviate the desire to 'open the box.'

The politics of international environmental issues are complex and complicated. They require the active participation of many state actors and potentially involve every citizen in every state. The importance of a safe environment has never been questioned. What has been questioned is the ability of states to work together to provide a safe environment. A better understanding of the motivations of states and the complexity of environmental issues allows for a more realistic account of future international cooperation.

NOTES

¹ Robert O. Keohane and Joseph S. Nye, Power and Interdependence: World Politics in Transition (Boston: Little Brown, 1977).

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