On compliance

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In an increasingly complex and interdependent world, negotiation, adoption, and implementation of international agreements is a major component of the foreign policy activity of every state.[1] International agreements come in a variety of shapes and sizes—formal and informal, bilateral and multiparty, universal and regional. Our concern is with contemporary agreements of relatively high political salience in fields such as security, economics, and environment, where the treaty is a central structural element in a broader international regulatory regime.[2] Some of these agreements are little more

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1. Barry E. Carter and Phillip R. Trimble, *International Law* (Boston: Little, Brown, 1991), pp. 133–252, cite a statistical study showing that of 10,189 U.S. treaties and international agreements made between 1789 and 1979, 8,955 were concluded between 1933 and 1979 (see p. 169). In the U.S. lexicon, the term "treaty" is reserved for international agreements ratified with the advice and consent of the Senate in accordance with Article 2, cl. 2 of the Constitution. Other international agreements are concluded by the President, in the great majority of cases with the authorization of Congress and less frequently on his or her own responsibility. All of these are "treaties" according to international usage, which defines a treaty as "an international agreement, concluded between states in written form and governed by international law." See Vienna Convention on the Law of Treaties (entered into force on 27 January 1980) Article 2(1)(a), in *International Legal Materials,* vol. 8 (Washington, D.C.: The American Society of International Law, July 1969), pp. 679–735 (hereafter cited as Vienna Convention on the Law of Treaties). The quotation is found on p. 701. The computer bank of the United Nations (UN) Treaty Office shows treaty growth, including multilateral and bilateral treaties and amendments, as follows: 373 treaties were entered into during the ten-year period ending in 1955; 498 in the period ending in 1965; 808 in the period ending in 1975; 461 in the period ending in 1985; and 915 in the period ending in 1991.

2. Treaty law, based on nineteenth-century practice, adopts, implicitly or explicitly, a contractual model of bilateral relationships (or, at most, agreements among a few parties), and a good deal of contemporary work in international relations reflects this same framework. Although nineteenth-century legal thought was hospitable to conceptions based on contract, they do not fit comfortably with regulatory lawmaking.

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than statements of general principle, while others contain detailed prescriptions for a defined field of interaction. Still others may be umbrella agreements for consensus building in preparation for more specific regulation. Most of the agreements of concern are multilateral, except in the field of nuclear arms control, in which the cold war generated a series of bilateral negotiations and agreements between the United States and the Soviet Union.

We believe that when nations enter into an international agreement of this kind, they alter their behavior, their relationships, and their expectations of one another over time in accordance with its terms. That is, they will to some extent comply with the undertakings they have made.[3] How or why this should be so is the subject of a burgeoning literature and debate in which, for the first time in half a century, the possibility of fruitful dialogue between international lawyers and students of international relations has emerged. This article explores some basic propositions we think should frame this discussion.

First, the general level of compliance with international agreements cannot be empirically verified. That nations generally comply with their international agreements, on the one hand, and that they violate them whenever it is "in their interests to do so" are not statements of fact or even hypotheses to be tested, but assumptions. We give some reasons why we think the background assumption of a propensity to comply is plausible and useful.

Second, compliance problems often do not reflect a deliberate decision to violate an international undertaking on the basis of a calculation of interests. We propose a variety of other (and in our view more usual) reasons why states may deviate from treaty obligations and why, in particular circumstances, these reasons are accepted by the parties as justifying such departures.

Third, the treaty regime as a whole need not and should not be held to a standard of strict compliance but to a level of overall compliance that is "acceptable" in the light of the interests and concerns the treaty is designed to safeguard. We consider how the "acceptable level" is determined and adjusted.

3. We are mindful of the distinction between treaty compliance and regime effectiveness. See Oran Young, "The Effectiveness of International Institutions: Hard Cases and Critical Variables," in James N. Rosenau and Ernst-Otto Czempiel, eds., *Governance Without Government: Order and Change in World Politics* (Cambridge: Cambridge University Press, 1992), pp. 160–92; and Jesse Ausubel and David Victor, "Verification of International Environmental Agreements," *Annual Review of Energy and Environment,* vol. 17, 1992, pp. 1–43. The parties to the International Whaling Convention, for example, complied fully with the quotas set by its commission, but the whale population crashed because the quotas were too high. Nevertheless, we think the observance (or not) of treaty commitments by the parties is a subject worth studying in its own right. Moreover, treaties are ordinarily intended to induce behavior that is expected to ameliorate the problem to which they are directed, so that, if Young's warning is kept in mind, compliance may be a fair first approximation surrogate for effectiveness.

Background assumption

According to Louis Henkin, "*almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time.*"[4] The observation is frequently repeated without anyone, so far as we know, supplying any empirical evidence to support it. A moment's reflection shows that it would not be easy to devise a statistical protocol that would generate such evidence. For example, how would Iraq's unbroken respect for the borders of Turkey, Jordan, and Saudi Arabia count in the reckoning against the invasions of Iran and Kuwait?

Equally, and for much the same reasons, there is no way to validate empirically the position of mainstream realist international relations theory going back to Machiavelli, that "a prudent ruler cannot keep his word, nor should he, where such fidelity would damage him, and when the reasons that made him promise are no longer relevant."[5] Contemporary realists accept that the interest in reciprocal observation of treaty norms by other parties or a more general interest in the state's reputation as a reliable contractual partner should be counted in the trade-off of costs and benefits on which a decision is based (an extension that detracts considerably from the power and elegance of the realist formula).[6] No calculus, however, will supply a rigorous, nontautological answer to the question whether a state observed a particular treaty obligation, much less its treaty obligations generally, only when it was in its interest to do so. Anecdotal evidence abounds for both the normative and the realist propositions, but neither of them, in their general form, is subject to statistical or empirical proof. The difference between the two schools is not one of fact but of the background assumption that informs their approach to the subject.

A critical question for any study of compliance, then, is which background assumption to adopt, and that question is to be resolved not on the basis of whether the assumption is "true" or "false" but whether or not it is helpful for the particular inquiry. Thus, for game-theoretic approaches that focus on the abstract structure of the relationship between states, the realist assumption of a unitary rational actor optimizing utilities distributed along smooth preference curves may have value. As Thomas Schelling said at the beginning of his classic

4. See Louis Henkin, *How Nations Behave,* 2d ed. (New York: Columbia University Press, 1979), p. 47; and p. 69 of Louis Henkin, "International Law: Politics, Values, and Functions: General Course on Public International Law," *Recueil Des Cours,* vol. 216, 1989, pp. 1–416, emphasis original.

5. Niccolò Machiavelli, *The Prince,* eds. Quentin Skinner and Russell Price (Cambridge: Cambridge University Press, 1988), pp. 61–62. For a modern instance, see Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace,* 5th ed. (New York: Alfred A. Knopf, 1978), p. 560: "In my experience [states] will keep their bargains as long as it is in their interest."

6. See, for example, James A. Caporaso, "International Relations Theory and Multilateralism: The Search for Foundations," *International Organization* 46 (Summer 1992), pp. 599–632.

work, "The premise of 'rational behavior' is a potent one for the production of theory. Whether the resulting theory provides good or poor insight into actual behavior is . . . a matter for subsequent judgment."[7]

Our interest in this work is in improving the prospects for compliance with treaties, both at the drafting stage and later as the parties live and operate under them. From this perspective, the realist analysis, focusing on a narrow set of externally defined "interests"—primarily, in the classical version, the maintenance or enhancement of state military and economic power—is not very helpful. Improving compliance becomes a matter of the manipulation of burdens and benefits defined in terms of those interests, which translates into the application of military or economic sanctions. Because these are costly, difficult to mobilize, and of doubtful efficacy, they are infrequently used in practice. Meanwhile, analytic attention is diverted from a wide range of institutional and political mechanisms that in practice bear the burden of efforts to enhance treaty compliance.

For a study of the methods by which compliance can be improved, the background assumption of a general propensity of states to comply with international obligations, which is the basis on which most practitioners carry out their work, seems more illuminating.[8] We note here some of the chief considerations that lend plausibility to such an assumption. We do not suggest that these factors, singly or in combination, will lead to compliance in every case or even in any particular instance. Our claim is only that these considerations support the background assumption of a general propensity for states to comply with their treaty obligations.

Efficiency

Decisions are not a free good. Governmental resources for policy analysis and decision making are costly and in short supply. Individuals and organizations seek to conserve those resources for the most urgent and pressing matters.[9] In these circumstances, standard economic analysis argues against the continuous recalculation of costs and benefits in the absence of convincing evidence that circumstances have changed since the original decision. Efficiency dictates considerable policy continuity. In areas of activity covered by

7. Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, Mass.: Harvard University Press, 1980), p. 4.

8. Oran R. Young, *Compliance and Public Authority: A Theory with International Applications* (Baltimore, Md.: Johns Hopkins University Press, 1979), pp. 31–34.

9. See George Stigler, "The Economics of Information," *Journal of Political Economy* 69 (June 1961), pp. 213–25; G. J. Stigler and G. S. Becker, "De Gustibus non Est Disputandum" (There is no disputing taste), in Karen S. Cook and Margaret Levi, eds., *The Limits of Rationality* (Chicago: University of Chicago Press, 1990), pp. 191–216; Charles E. Lindblom, *The Policy Making Process* (Englewood Cliffs, N.J.: Prentice-Hall, 1968), p. 14; and Young, *Compliance and Public Authority,* pp. 16–17.

treaty obligations, the alternative to recalculation is to follow the established rule.

Organization theory would reach the same result as economic analysis, but by a different route. In place of the continuously calculating, maximizing rational actor, it substitutes a "satisficing" model of bounded rationality that reacts to problems as they arise and searches for solutions within a familiar and accustomed repertoire.[10] In this analysis, bureaucratic organizations are viewed as functioning according to routines and standard operating procedures, often specified by authoritative rules and regulations. For Max Weber, this was the defining characteristic of bureaucracy.[11] The adoption of a treaty, like the enactment of any other law, establishes an authoritative rule system. Compliance is the normal organizational presumption.

The bureaucracy is not monolithic, of course, and it will likely contain opponents of the treaty regime as well as supporters. When there is an applicable rule in a treaty or otherwise, opposition ordinarily surfaces in the course of rule implementation and takes the form of argument over interpretation of language and definition of the exact content of the obligation. Such controversies are settled in accordance with normal bureaucratic procedures in which, again, the presumption is in favor of "following" the rule. Casuistry is admissible, though sometimes suspect. An advocate of outright violation bears a heavy burden of persuasion.

Interests

The assertion that states carry out treaty commitments only when it is in their interest to do so seems to imply that commitments are somehow unrelated to interests. In fact, the opposite is true. The most basic principle of international law is that states cannot be legally bound except with their own consent. So, in the first instance, the state need not enter into a treaty that does not conform to its interests.[12]

10. Herbert Simon, *Models of Man: Social and Rational—Mathematical Essays on Rational Human Behavior in a Social Setting* (New York: John Wiley & Sons, 1957), pp. 200–204. See also James G. March and Herbert A. Simon, *Organizations* (New York: John Wiley & Sons, 1958), p. 169. For an example of this model of organizational behavior applied to the analysis of international affairs, see Graham T. Allison, *The Essence of Decision: Explaining the Cuban Missile Crisis* (Glenview, Ill.: Scott, Foresman, 1971), chaps. 3 and 4.

11. M. Rheinstein, ed., *Max Weber on Law in Economy and Society* (New York: Simon and Schuster, 1954), p. 350: "For modern bureaucracy, the element of 'calculability of its rules' has really been of decisive significance."

12. Even in the case of peace treaties, the victor seems to attach importance to the signature of the vanquished on the document. After the Persian Gulf War, for example, the UN Security Council insisted that Iraq accept the terms of Resolution 687 establishing a cease-fire. See Sean Cote, *A Narrative of the Implementation of Section C of UN Security Council Resolution 687,* Occasional Paper, Center for Science and International Affairs, Harvard University, Cambridge, Mass., forthcoming; and Morgenthau, *Politics Among Nations,* p. 282.

More important, a treaty does not present the state with a simple binary alternative, to sign or not to sign. Treaties, like other legal arrangements, are artifacts of political choice and social existence. The process by which they are formulated and concluded is designed to ensure that the final result will represent, to some degree, an accommodation of the interests of the negotiating states. Of course, if state interests are taken to be fixed and given, the assertion that states do not conclude treaties except as they embody those interests would add little to the realist position. But modern treaty making, like legislation in a democratic polity, can be seen as a creative enterprise through which the parties not only weigh the benefits and burdens of commitment but explore, redefine, and sometimes discover their interests. It is at its best a learning process in which not only national positions but also conceptions of national interest evolve.

This process goes on both within each state and at the international level. In a state with a well-developed bureaucracy, the elaboration of national positions in preparation for treaty negotiations requires extensive interagency vetting. Different officials with different responsibilities and objectives engage in what amounts to a sustained internal negotiation. Phillip Trimble's list of the U.S. groups normally involved in arms control negotiations includes the national security staff, the Departments of State and Defense, the Arms Control and Disarmament Agency, the Joint Chiefs of Staff, the Central Intelligence Agency, and sometimes the Department of Energy or the National Aeronautics and Space Administration (NASA).[13] These organizations themselves are not unitary actors. Numerous subordinate units of the major departments have quasi-independent positions at the table. Much of the extensive literature on U.S.–Soviet arms control negotiations is devoted to analysis of the almost byzantine complexity of these internal interactions.[14]

The process is not confined to arms control but can be seen in every major U.S. international negotiation. For example, at the end of what Ambassador Richard Benedick calls "the interagency minuet" in preparation for the Vienna Convention for the Protection of the Ozone Layer, the final U.S. position "was drafted by the State Department and was formally cleared by the Departments of Commerce and Energy, The Council on Environmental Quality, EPA

13. Phillip R. Trimble, "Arms Control and International Negotiation Theory," *Stanford Journal of International Law* 25 (Spring 1989), pp. 543–74, especially p. 549.

14. See John Newhouse, *Cold Dawn: The Story of SALT* (New York: Holt, Rinehart and Winston, 1973); Gerard C. Smith, *Doubletalk: The Story of SALT I* (Lanham, Md.: University Press of America, 1985); Strobe Talbott, *Endgame: The Inside Story of SALT II* (New York: Harper & Row, 1979); Strobe Talbott, *Deadly Gambits: The Reagan Administration and the Stalemate in Nuclear Arms Control* (New York: Knopf, 1984); Raymond L. Garthoff, *Detente and Confrontation: American–Soviet Relations from Nixon to Reagan* (Washington, D.C.: Brookings Institution, 1985); and J. McNeill, "U.S.–U.S.S.R. Arms Negotiations: The Process and the Lawyer," *American Journal of International Law* 79 (January 1985), pp. 52–67. Although knowledge of the process in the former Soviet Union is less detailed, the sources cited above, among others, suggest that (making allowances for a more compartmentalized bureaucratic structure) the process was not fundamentally dissimilar.

[Environmental Protection Agency], NASA, NOAA [National Oceanographic and Atmospheric Administration], OMB [Office of Management and Budget], USTR [U.S. Trade Representative], and the Domestic Policy Council (representing all other interested agencies)."[15] In addition to this formidable alphabet soup, White House units, like the Office of Science and Technology Policy, the Office of Policy Development, and the Council of Economic Advisers, also got into the act. According to Trimble, "each agency has a distinctive perspective from which it views the process and which influences the position it advocates. . . . All these interests must be accommodated, compromised or overriden by the President before a position can even be put on the table."[16]

In the United States in recent years, increasing involvement of Congress—and with it nongovernmental organizations (NGOs) and the broader public—has introduced a new range of interests that must ultimately be reflected in the national position.[17] Similar developments seem to be occurring in other democratic countries.

In contrast to day-to-day foreign policy decision making that is oriented toward current political exigencies and imminent deadlines and is focused heavily on short-term costs and benefits, the more deliberate process employed in treaty making may serve to identify and reinforce longer range interests and values. Officials engaged in developing the negotiating position often have an additional reason to take a long-range view, since they may have operational responsibility under any agreement that is reached.[18] What they say and how they conduct themselves at the negotiating table may return to haunt them

15. Richard Elliot Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet* (Cambridge, Mass: Harvard University Press, 1991), pp. 51–53. The Domestic Policy Council, which established a special senior-level working group to ride herd on the process, consists of nine Cabinet secretaries, the director for the OMB, and the USTR. At the time of the ozone negotiations, the council was chaired by Attorney General Edwin Meese. Other states, at least in advanced industrialized societies, exhibit similar, if perhaps not quite as baroque, internal practices in preparation for negotiations. Developing countries, with small resources to commit to bureaucratic coordination, may rely more on the judgment and inspiration of representatives on the scene.

16. Trimble, "Arms Control and International Negotiation Theory," p. 550.

17. See Benedick, *Ozone Diplomacy,* p. 57, for a description of the emphasis on Congress, industry, and environmental groups in the development of the U.S. strategy to build support for the Protocol on Substances that Deplete the Ozone Layer. For a discussion of how governments "organize themselves to cope with the flow of business generated by international organizations" in an international political system of "complex interdependence," see Robert O. Keohane and Joseph S. Nye, *Power and Interdependence,* 2d ed. (Glenview, Ill.: Scott, Foresman, 1989), p. 35.

18. Hudec uses the examples of the General Agreement on Tariffs and Trade (GATT) and the International Trade Organization (ITO): "For the better part of the first decade, GATT meetings resembled a reunion of the GATT/ITO draftsmen themselves. Failure of the code would have meant a personal failure to many of these officials, and violation of rules they had helped to write could not help being personally embarrassing." See p. 1365 of Robert E. Hudec, "GATT or GABB? The Future Design of the General Agreement of Tariffs and Trade," *Yale Law Journal* 80 (June 1971), pp. 1299–386. See also Robert E. Hudec, *The GATT Legal System and World Trade Diplomacy,* 2d ed. (Salem, N. H.: Butterworth Legal Publishers, 1990), p. 54.

once the treaty has gone into effect.[19] Moreover, they are likely to attach considerable importance to the development of governing norms that will operate predictably when applied to the behavior of the parties over time. All these convergent elements tend to influence national positions in the direction of broad-based conceptions of the national interest that, if adequately reflected in the treaty, will help to induce compliance.

The internal analysis, negotiation, and calculation of the benefits, burdens, and impacts are repeated, for contemporary regulatory treaties, at the international level.[20] In anticipation of negotiations, the issues are reviewed in international forums long before formal negotiation begins. The negotiating process itself characteristically involves intergovernmental debate often lasting years and involving not only other national governments but also international bureaucracies and NGOs. The most notable case is the UN Conference on the Law of the Sea, in which that process lasted for more than ten years, spawning innumerable committees, subcommittees, and working groups, only to be torpedoed in the end by the United States, which had sponsored the negotiations in the first place.[21] Bilateral arms control negotiations between the United States and the Soviet Union were similarly extended, and although only the two superpowers were directly involved, each felt a measure of responsibility to bring along the members of its alliance. Current environmental negotiations on ozone and on global warming follow very much the Law of the Sea pattern. The first conference on stratospheric ozone was convoked by the UN Environment Program (UNEP) in 1977, eight years before the adoption of the Vienna Convention on the Protection of the Ozone Layer.[22] The formal beginning of the climate change negotiations in February 1991 was preceded by two years of work by the Intergovernmental Panel on Climate Change, convened by the World Meteorological Organization and the UNEP to consider scientific, technological, and policy response questions.[23]

19. The Vienna Convention on the Law of Treaties permits limited recourse to the negotiating history when the treaty text is ambiguous, though the emphasis given to such history differs in various tribunals and national courts. See Vienna Convention on the Law of Treaties, Article 32. In the United States, resort to the negotiating history is much freer. See *United States v. Stuart,* 489 U.S. 353–377 (1989); and Detlev F. Vagts "Senate Materials and Treaty Interpretation: Some Research Hints for the Supreme Court," *American Journal of International Law* 83 (July 1989), pp. 546–50.

20. Robert D. Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42 (Summer 1988), pp. 427–60.

21. See James K. Sebenius, *Negotiating the Law of the Sea* (Cambridge, Mass.: Harvard University Press, 1984); and William Wertenbaker, "The Law of the Sea," parts 1 and 2, *The New Yorker,* 1 August 1983, pp. 38–65, and 8 August 1983, pp. 56–83, respectively.

22. As early as 1975, the UNEP funded a World Meteorological Organization (WMO) technical conference on implications of U.S. ozone layer research. But the immediate precursor of the negotiating conference in Vienna came in March 1977, when the UNEP sponsored a policy meeting of governments and international agencies in Washington, D.C., that drafted a "World Plan of Action on the Ozone Layer." See Benedick, *Ozone Diplomacy,* p. 40.

23. The Intergovernmental Panel of Climate Change was set up by the UNEP and WMO after the passage of UN General Assembly Resolution 43/53, A/RES/43/53, 27 January 1989, "Resolution on the Protection of the Global Climate."

Much of this negotiating activity is open to some form of public scrutiny, triggering repeated rounds of national bureaucratic and political review and revision of tentative accommodations among affected interests. The treaty as finally signed and presented for ratification is therefore likely to be based on considered and well-developed conceptions of national interest that have themselves been shaped to some extent by the preparatory and negotiating process.

Treaty making is not purely consensual, of course. Negotiations are heavily affected by the structure of the international system, in which some states are much more powerful than others. As noted, the Convention of the Law of the Sea, the product of more than a decade of international negotiations, was ultimately derailed when a new U.S. administration found it unacceptable.

On the other hand, a multilateral negotiating forum provides opportunities for weaker states to form coalitions and exploit blocking positions. In the same UN Conference on the Law of the Sea, the caucus of what were known as "land-locked and geographically disadvantaged states," which included such unlikely colleagues as Hungary, Switzerland, Austria, Uganda, Nepal, and Bolivia, had a crucial strategic position. The Association of Small Island States, chaired by Vanuatu, played a similar role in the global climate negotiations. Like domestic legislation, the international treaty-making process leaves a good deal of room for accommodating divergent interests. In such a setting, not even the strongest state will be able to achieve all of its objectives, and some participants may have to settle for much less. The treaty is necessarily a compromise, "a bargain that [has] been made."[24] From the point of view of the particular interests of any state, the outcome may fall short of the ideal. But if the agreement is well-designed—sensible, comprehensible, and with a practical eye to probable patterns of conduct and interaction—compliance problems and enforcement issues are likely to be manageable. If issues of noncompliance and enforcement are endemic, the real problem is likely to be that the original bargain did not adequately reflect the interests of those that would be living under it, rather than mere disobedience.[25]

It is true that a state's incentives at the treaty-negotiating stage may be different from those it faces when the time for compliance rolls around. Parties on the giving end of the compromise, especially, might have reason to seek to escape the obligations they have undertaken. Nevertheless, the very act of making commitments embodied in an international agreement changes the

24. Susan Strange, "Cave! Hic Dragones: A Critique of Regime Analysis," in Stephen D. Krasner, ed., *International Regimes* (Ithaca, N.Y.: Cornell University Press, 1983), pp. 337–54; the quotation is on p. 353.

25. Systems in which compliance can only be achieved through extensive use of coercion are rightly regarded as authoritarian and unjust. See Michael Barkun, *Law Without Sanctions: Order in Primitive Societies and the World Community* (New Haven, Conn.: Yale University Press, 1968), p. 62.

calculus at the compliance stage, if only because it generates expectations of compliance in others that must enter into the equation.

Moreover, although states may know they can violate their treaty commitments in a crunch, they do not negotiate agreements with the idea that they can do so in routine situations. Thus, the shape of the substantive bargain will itself be affected by the parties' estimates of the costs and risks of their own compliance and expectations about the compliance of others. Essential parties may be unwilling to accept or impose stringent regulations if the prospects for compliance are doubtful. The negotiation will not necessarily collapse on that account, however. The result may be a looser, more general engagement. Such an outcome is often deprecated as a lowest-common-denominator outcome, with what is really important left on the cutting room floor. But it may be the beginning of increasingly serious and concerted attention to the problem.

Finally, the treaty that comes into force does not remain static and unchanging. Treaties that last must be able to adapt to inevitable changes in the economic, technological, social, and political setting. Treaties may be formally amended, of course, or modified by the addition of a protocol, but these methods are slow and cumbersome. Since they are subject to the same ratification process as the original treaty, they can be blocked or avoided by a dissatisfied party. As a result, treaty lawyers have devised a number of ways to deal with the problem of adaptation without seeking formal amendment. The simplest is the device of vesting the power to "interpret" the agreement in some organ established by the treaty. The U.S. Constitution, after all, has kept up with the times not primarily by the amending process but by the Supreme Court's interpretation of its broad clauses. The International Monetary Fund (IMF) Agreement gives such power to the Governing Board, and numerous key questions—including the crucial issue of "conditionality," whether drawings against the fund's resources may be conditioned on the economic performance of the drawing member—have been resolved by this means.[26]

A number of treaties establish authority to make regulations on technical matters by vote of the parties (usually by a special majority), which are then binding on all, though often with the right to opt out. The International Civil Aeronautics Organization has such power with respect to operational and safety matters in international air transport.[27] In many regulatory treaties, "technical" matters may be relegated to an annex that can be altered by vote of the parties.[28] In sum, treaties characteristically contain self-adjusting mecha-

26. Articles of Agreement of the IMF, 27 December 1945, as amended, Article 8, sec. 5, in *United Nations Treaty Series (UNTS),* vol. 2, Treaty no. 20 (New York: United Nations, 1947), p. 39. For the conditionality decision, see decision no. 102-(52/11) 13 February 1952, "Selected Decisions of the Executive Directors and Selected Documents," p. 16.

27. Convention on International Civil Aviation, 7 December 1944, Article 90, in *UNTS,* vol. 15, Treaty no. 102, 1948, p. 295.

28. Montreal Protocol on Substances that Deplete the Ozone Layer, in *International Legal Materials,* vol. 26, 1987, p. 1541, Article 2(9) (signed 16 September 1987 and entered into force 1 January 1989; hereafter cited as Montreal Protocol) as amended, London Adjustment and

nisms by which, over a significant range, they can be and in practice are commonly adapted to respond to shifting interests of the parties.

Norms

Treaties are acknowledged to be legally binding on the states that ratify them.[29] In common experience, people, whether as a result of socialization or otherwise, accept that they are obligated to obey the law.[30] So it is with states. It is often said that the fundamental norm[31] of international law is *pacta sunt servanda* (treaties are to be obeyed).[32] In the United States and many other countries, they become a part of the law of the land. Thus, a provision contained in an agreement to which a state has formally assented entails a legal obligation to obey and is presumptively a guide to action.

It seems almost superfluous to adduce evidence or authority for a proposition that is so deeply ingrained in common understanding and so often reflected in the speech of national leaders. Yet the realist argument that national actions are governed entirely by calculation of interests (including the interest in stability and predictability served by a system of rules) is essentially a denial of the operation of normative obligation in international affairs. This position has held the field for some time in mainstream international relations theory (as have closely related postulates in other positivist social science

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Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, in *International Legal Materials,* vol. 30, 1991, p. 537 (signed 29 June 1990 and entered into force 7 March 1991; hereafter cited as London Amendments).

29. The Vienna Convention on the Law of Treaties, signed 23 May 1969 (entered into force on 27 January 1980), Article 2(1)(a), states that " 'treaty' means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation." See UN Doc. A/CONF. 39/27.

30. According to Young, " 'obligation' encompasses incentives to comply with behavioral prescriptions which stem from a general sense of duty and which do not rest on explicit calculations of costs and benefits. . . . Feelings of obligation often play a significant role in compliance choices." Moreover, "rules constitute an essential feature of bureaucracies and . . . routinized compliance with rules is a deeply ingrained norm among bureaucrats." See Young, *Compliance and Public Authority,* pp. 23 and 39. See also R. H. Fallon, "Reflections on Dworkin and the Two Faces of Law," *Notre Dame Law Review,* vol. 67, no. 3, 1992, pp. 553–85, summarizing H. L. A. Hart's concept of a law as a social rule: "From an internal point of view—that of an unalienated participant of the social life of the community—a social rule is a standard that is accepted as a guide to conduct and a basis for criticism, including self-criticism" (p. 556); Rheinstein, *Max Weber on Law in Economy and Society,* pp. 349–56; and Friedrich V. Kratochwil, *Rules, Norms, and Decisions: On the Conditions of Practical and Legal Reasoning in International Relations and Domestic Affairs* (Cambridge: Cambridge University Press, 1989), pp. 15 and 95–129.

31. We use "norm" as a generic term including principles, precepts, standards, rules, and the like. For present purposes, it is adequate to think of legal norms as norms generated by processes recognized as authoritative by a legal system. Compare H. L. A. Hart, *The Concept of Law* (Oxford: Oxford University Press, 1961).

32. The Vienna Convention on the Law of Treaties, Article 26, specifies that "every treaty in force is binding upon the parties to it and must be performed in good faith." See also chap. 30 of Arnold Duncan McNair, *The Law of Treaties* (Oxford: Clarendon Press, 1961), pp. 493–505.

disciplines).[33] But it is increasingly being challenged by a growing body of empirical study and academic analysis.

Such scholars as Elinor Ostrom and Robert Ellickson show how relatively small communities in contained circumstances generate and secure compliance with norms, even without the intervention of a supervening sovereign authority.[34] Others, like Frederick Schauer and Friedrich Kratochwil, analyze how norms operate in decision-making processes, whether as "reasons for action" or in defining the methods and terms of discourse.[35] Jon Elster, often regarded as one of the most powerful scholars of the "rational actor" school, says in his most recent book, "I have come to believe that social norms provide an important kind of motivation for action that is irreducible to rationality or indeed to any other form of optimizing mechanism."[36]

As applied to treaty obligations, this proposition seems almost self-evident. For example: in the absence of the antiballistic missile (ABM) treaty, the Soviet Union would have been legally free to build an ABM system. The exercise of this freedom would surely have posed serious military and political issues for U.S. analysts, diplomats, and intelligence officers. In due course, the United States would have responded, with either its own ABM system or some other suitable military or political move. The same act, the construction of an ABM system, would be qualitatively different, however, if it were done in violation of the specific stipulations of the ABM treaty. Transgression of such a fundamental engagement would trigger not a limited response, but a hostile reaction across the board, jeopardizing the possibility of cooperative relations between the parties for a long time to come. Outrage when solemn commitments are treated as "scraps of paper" is rooted in U.S. history.[37] It is unlikely that this kind of reaction is unique to the United States.

The strongest circumstantial evidence for the sense of an obligation to comply with treaties is the care that states take in negotiating and entering into them. It is not conceivable that foreign ministries and government leaders could devote time and energy on the scale they do to preparing, drafting,

33. William Eskridge, Jr., and G. Peller, "The New Public Law: Moderation as a Postmodern Cultural Form," *Michigan Law Review* 89 (February 1991), pp. 707–91.

34. See Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990); and Robert C. Ellickson, *Order Without Law: How Neighbors Settle Disputes* (Cambridge, Mass.: Harvard University Press, 1991).

35. See Frederick F. Schauer, *Playing by the Rules: A Philosophical Examination of Rule-based Decision-making in Law and Life* (Oxford: Clarendon Press, 1991); Kratochwil, *Rules, Norms and Decisions;* and Sally Falk Moore, *Law as Process* (London: Routledge & Kegan Paul, 1978).

36. Jon Elster, *The Cement of Society: A Study of Social Order* (Cambridge: Cambridge University Press, 1989), p. 15. See also Margaret Levi, Karen S. Cook, Jodi A. O'Brien, and Howard Fay, "Introduction: The Limits of Rationality," in Cook and Levi, *The Limits of Rationality,* pp. 1–16.

37. The quotation is from German Chancellor Theobald von Bethman-Hollweg's remark to the British ambassador about the treaty guaranteeing Belgian neutrality when Germany invaded in 1914. See *Encyclopedia Britannica,* 14th ed., s.v. Bethman-Hollweg, Theobald von. For an example of the U.S. response, see the letter of ex-President Theodore Roosevelt to British Foreign Secretary Sir Edward Grey dated 22 January 1915, quoted in Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace,* 4th ed. (New York: Knopf, 1967).

negotiating, and monitoring treaty obligations unless there is an assumption that entering into a treaty commitment ought to and does constrain the state's own freedom of action and an expectation that the other parties to the agreement will feel similarly constrained. The care devoted to fashioning a treaty provision no doubt reflects the desire to limit the state's own commitment as much as to make evasion by others more difficult. In either case, the enterprise makes sense only on the assumption that, as a general rule, states acknowledge an obligation to comply with agreements they have signed.

These attitudes are not confined to foreign offices. U.S. Department of Defense testimony during the cold war repeatedly sounded the theme that arms control treaties with the Soviet Union were important in providing the stability of expectations and predictability the Pentagon needed for sound strategic planning.[38] In the United States and other Western countries, the principle that the exercise of governmental power in general is subject to law lends additional force to an ethos of national compliance with international undertakings.[39] And, of course, appeals to legal obligations are a staple of foreign policy debate and of the continuous critique and defense of foreign policy actions that account for so much of diplomatic interchange and international political commentary.

All this argues that states, like other subjects of legal rules, operate under a sense of obligation to conform their conduct to governing norms.

Varieties of noncomplying behavior

If the state's decision whether or not to comply with a treaty is the result of a calculation of costs and benefits, as the realists assert, the implication is that noncompliance is the premeditated and deliberate violation of a treaty obligation. Our background assumption does not exclude that such decisions may occur from time to time, especially when the circumstances underlying the original bargain have changed significantly.[40] Or, as in the area of international human rights, it may happen that a state will enter into an international agreement to appease a domestic or international constituency but have little

38. See, for example, the testimony of General David C. Jones, chairman of the Joint Chiefs of Staff, before the U.S. Senate Committee on Foreign Relations on the Strategic Arms Limitation Talks (SALT) II treaty, Congressional Information Service, S381-24 79, 9 July 1979.

39. It is not clear, however, that democracies are more law-abiding. See *Diggs v. Shultz,* 470 F. 2d 461 (D.C. Cir. 1972): "Under our constitutional scheme, Congress can denounce treaties if it sees fit to do so, and there is nothing the other branches of the government can do about it. We consider that is precisely what Congress has done in this case" (pp. 466–67).

40. International law recognizes a limited scope for abrogation of an agreement in such a case. See the Vienna Convention on the Law of Treaties, Article 62. Generally, however, the possibility of change is accommodated by provisions for amendment, authoritative interpretation, or even withdrawal from the agreement. See, for example, the withdrawal provision of the ABM Treaty, Article 25(2), or the Limited Test Ban Treaty, Article 4. None of these actions poses an issue of violation of legal obligations, though they may weaken the regime of which the treaty is a part.

intention of carrying it out. A passing familiarity with foreign affairs, however, suggests that only infrequently does a treaty violation fall into the category of a willful flouting of legal obligation.[41]

At the same time, general observation as well as detailed studies often reveal what appear or are alleged to be significant departures from established treaty norms. If these are not deliberate violations, what explains this behavior? We discuss three circumstances, infrequently recognized in discussions of compliance, that in our view often lie at the root of behavior that may seem prima facie to violate treaty requirements: (1) ambiguity and indeterminacy of treaty language, (2) limitations on the capacity of parties to carry out their undertakings, and (3) the temporal dimension of the social and economic changes contemplated by regulatory treaties.

These factors might be considered "causes" of noncompliance. But from a lawyer's perspective, it is illuminating to think of them as "defenses"—matters put forth to excuse or justify or extenuate a prima facie case of breach. A defense, like all other issues of compliance, is subject to the overriding obligation of good faith in the performance of treaty obligations.[42] If the plea is accepted, the conduct is not a violation, strictly speaking. Of course, in the international sphere, these charges and defenses are rarely made or determined in a judicial tribunal. However, diplomatic practice in other forums can be understood in terms of the same basic structure, reflecting, perhaps, the pervasiveness of the underlying legal framework.

Ambiguity

Treaties, like other canonical statements of legal rules, frequently do not provide determinate answers to specific disputed questions.[43] Language often is unable to capture meaning with precision. Treaty drafters do not foresee many of the possible applications—let alone their contextual settings. Issues that are foreseen often cannot be resolved at the time of treaty negotiation and are swept under the rug with a formula that can mean what each party wants it

41. Keohane surveyed two hundred years of U.S. foreign relations history and identified only forty "theoretically interesting" cases of "inconvenient" commitments in which there was a serious issue of whether or not to comply. See the chapter entitled "Commitments and Compromise," in Robert O. Keohane, "The Impact of Commitments on American Foreign Policy," manuscript, 1993, pp. 1–49.

42. See Vienna Convention on the Law of Treaties, Article 26; Lassa Oppenheim, *International Law: A Treatise,* 8th ed., ed. H. Lauterpacht (London: Longmans, 1955), p. 956; and McNair, *The Law of Treaties,* p. 465.

43. See Abram Chayes and Antonia Handler Chayes, "Living Under a Treaty Regime: Compliance, Interpretation, and Adaptation," in Antonia Handler Chayes and Paul Doty, eds., *Defending Deterrence: Managing the ABM Treaty Regime into the 21st Century* (Washington, D.C.: Pergamon-Brassey's International Defense Publishers, 1989), chap. 11. See also Young, *Compliance and Public Authority,* pp. 106–8, which discusses issues of interpretation in the context of deliberate attempts at "evasion" of obligation. We argue that alternative interpretations are frequently invoked in good faith. No doubt in practice there is often some of both.

to mean. Economic, technological, scientific, and even political circumstances change. All these inescapable incidents of the effort to formulate rules to govern future conduct frequently produce a zone of ambiguity within which it is difficult to say with precision what is permitted and what is forbidden.

Of course, treaty language, like other legal language, comes in varying degrees of specificity.[44] The broader and more general the language, the wider the ambit of permissible interpretations to which it gives rise. Yet there are frequently reasons for choosing a more general formulation of the obligation: the political consensus may not support more precision, or, as with certain provisions of the U.S. Constitution, it may be wiser to define a general direction, to try to inform a process, rather than seek to foresee in detail the circumstances in which the words will be brought to bear. If there is some confidence in those who are to apply the rules, a broader standard defining the general policy behind the law may be more effective in realizing it than a series of detailed regulations. The North Atlantic Treaty has proved remarkably durable, though its language is remarkably general: "In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack."[45]

In the arms control field, the United States has opted for increasingly detailed agreements on the ground that they reduce interpretative leeways. The 1963 Limited Test Ban Treaty (LTBT), the first bilateral arms control agreement between the United States and the Soviet Union, consisted of five articles covering two or three pages. The Strategic Arms Reduction Treaty (START) signed in 1989 is the size of a telephone book.

Detail also has its difficulties. It is vulnerable to the maxim *expressio unius est exclusio alterius* (to express one thing is to exclude the other). As in the U.S. Internal Revenue Code, precision generates loopholes, necessitating some procedure for continuous revision and authoritative interpretation. The corpus of the law may become so complex and unwieldy as to be understandable (and manipulable) by only a small coterie of experts. The complexities of the rule system may give rise to shortcuts that reduce inefficiencies when things are going well but may lead to friction when the political atmosphere darkens.

In short, more often than not there will be a considerable range within which parties may reasonably adopt differing positions as to the meaning of the obligation. In domestic legal systems, courts or other authoritative institutions are empowered to resolve such disputes about meaning as between parties in a

44. See Duncan Kennedy, "Form and Substance in Private Law Adjudication," *Harvard Law Review* 89 (June 1976), pp. 1685–788; Ronald Dworkin, "The Model of Rules," *University of Chicago Law Review* 35 (Autumn 1967), pp. 14–16; Louis Kaplow, *Rules Versus Standards: An Economic Analysis,* Discussion Paper no. 108, Program in Law and Economics, Harvard Law School, April 1992.

45. North Atlantic Treaty, Article 3, 63 stat. 2241 (signed 4 April 1949 and entered into force 24 August 1949), in *UNTS,* vol. 34, no. 541, 1949, p. 243.

particular case. The international legal system can provide tribunals to settle such questions if the parties consent. But compulsory means of authoritative dispute resolution—by adjudication or otherwise—are not generally available at the international level.[46] Moreover, the issue of interpretation may not arise in the context of an adversarial two-party dispute. In such cases, it remains open to a state, in the absence of bad faith, to maintain its position and try to convince the others.

In many such disputes, a consensus may exist or emerge among knowledgeable professionals about the legal rights and wrongs.[47] In many others, however, the issue will remain contestable. Although one party may charge another with violation and deploy legions of international lawyers in its support, a detached observer often cannot readily conclude that there is indeed a case of noncompliance, at least in the absence of "bad faith." The numerous alleged violations of arms control treaties with which the Soviet Union was annually charged were, with the exception of the radar at Krasnoyarsk in Siberia, contestable in that sense.[48] In fact, it can be argued that if there is no authoritative arbiter (and even sometimes when there is), discourse among the parties, often in the hearing of a wider public audience, is an important way of clarifying the meaning of the rules.

In the face of treaty norms that are indeterminate over a considerable range, even conscientious legal advice may not avoid issues of compliance. At the extreme, a state may consciously seek to discover the limits of its obligation by testing its treaty partners' responses. There was speculation that the pattern of Soviet deployment of Pechora-type radars prior to the construction of the phased array radar at Krasnoyarsk was an attempt to test the limits of the radar deployment provision of the ABM treaty. The Pechora sites were located as far as four hundred kilometers from the border, arguably "on the periphery of the national territory," as required by the treaty—but also arguably not.[49] The failure of the United States to react was thought by some to have contributed to the decision to site Krasnoyarsk even further from the nearest border—some seven hundred kilometers.

46. Abram Chayes and Antonia Handler Chayes, "Compliance Without Enforcement: State Behavior Under Regulatory Treaties," *Negotiation Journal* 7 (July 1991), pp. 311–31. See also Louis B. Sohn, "Peaceful Settlement of Disputes in Ocean Conflicts: Does UN Clause 3 Point the Way?" *Law and Contemporary Problems* 46 (Spring 1983), pp. 195–200. Our work-in-progress examines signs of a recent trend toward more formal dispute resolution procedures in such areas as trade, the law of the sea, and others. The current emphasis in the United States on alternative dispute resolution suggests that international judicial settlement may not be an entirely unmixed blessing, however.

47. Oscar Schachter, "The Invisible College of International Lawyers," *Northwestern University Law Review,* vol. 72, no. 2, 1977, pp. 217–26.

48. Gloria Duffy, *Compliance and the Future of Arms Control: Report of a Project Sponsored by the Center for International Security and Arms Control* (Cambridge, Mass: Ballinger, 1988), pp. 31–60.

49. See Antonia Handler Chayes and Abram Chayes, "From Law Enforcement to Dispute Settlement: A New Approach to Arms Control Verification and Compliance," *International Security* 14 (Spring 1990), pp. 147–64; and Duffy, *Compliance and the Future of Arms Control,* p. 107.

Justice Oliver Wendell Holmes said, "The very meaning of a line in the law is that you intentionally may come as close to it as you can if you do not pass it."[50] Nevertheless, deliberate testing of the kind described above might in ordinary circumstances be thought to be inconsistent with good faith observation of the treaty obligation. On the other hand, in the early years of the Interim Agreement on Limitation of Strategic Arms (SALT I) the United States played a similar game by erecting opaque environmental shelters over missile silos during modification work, despite the treaty undertaking "not to use deliberate concealment measures which impede verification by national technical means."[51] In the context of the long cold war confrontation between the United States and the Soviet Union, a certain amount of such probing seems to have been within the expectations of the parties.[52]

Perhaps a more usual way of operating in the zone of ambiguity is to design the activity to comply with the letter of the obligation, leaving others to argue about the spirit. The General Agreement on Tarrifs and Trade (GATT) prohibits a party from imposing quotas on imports. When Japanese exports of steel to the United States generated pressures from U.S. domestic producers that the Nixon administration could no longer contain, U.S. trade lawyers invented the "voluntary restraint agreement," under which private Japanese producers agreed to limit their U.S. sales.[53] The United States imposed no official quota, although the Japanese producers might well have anticipated some such action had they not "volunteered." Did the arrangement violate GATT obligations?

Questions of compliance with treaty obligations ordinarily arise as an adjunct to activity designed to achieve an objective that the actor regards as important.[54] Lawyers may be consulted or may intervene. Decisions about how the desired program is to be carried out emerge from a complex interaction of legal and policy analysis that generates its own subrules and precedents. The process is reminiscent of that in a classic U.S. bureaucracy or corporation.

50. *Superior Oil Co. v. Mississippi,* 280 U.S. 390 (1920), p. 395.

51. Interim Agreement of Limitation of Strategic Arms (SALT I), Article 5(3). See also *Compliance with SALT I Agreements,* Special Report no. 55, Bureau of Public Affairs, U.S. Department of State, July 1979, p. 4. The issue was finally resolved by Article 15(3) of the SALT II treaty, prohibiting the use over intercontinental ballistic missile silo launchers of shelters that impede verification by national technical means.

52. Unilateral assertion is a traditional way of vindicating claimed "rights" in international law. In the spring of 1986, U.S. forces engaged in two such exercises, one off the Soviet Black Sea coast in the "exercise of the right of innocent passage" (*The New York Times,* 19 March 1986, p. A1) and the other in the airspace over the Gulf of Sidra, which Libya considers its territorial waters and the United States does not. The Black Sea maneuver was concluded with nothing more than some bumping between U.S. and Soviet ships, but in the Gulf of Sidra, U.S. aircraft sank two Libyan patrol vessels that had fired antiaircraft missiles. See *Chicago Tribune,* 19 March 1986, sec. 1, p. 10; *Los Angeles Times,* 26 March 1986, p. I1; and *Los Angeles Times,* 27 March 1986, p. I1.

53. *Consumers Union v. Kissinger,* 506 F2d 136 (D.C. Cir. 1974).

54. Chayes and Chayes, "Living Under a Treaty Regime," pp. 197 and 200.

For example, the Reagan administration was bent on developing a space-based ABM system. Congress insisted that research and testing should conform to the "traditional" interpretation of the ABM treaty, which prohibited the testing of ABM "components," rather than the administration's "broad interpretation," which would have permitted full development and testing of a space-based ABM system. To ensure that it remained within the treaty constraint, the administration established a special legal unit in the Defense Department, nominally independent of the Strategic Defense Initiative (SDI) organization, to review each proposed test against an intricate set of internal rules. The unit satisfied itself that the items as tested would not be capable of performing as ABM "components," usually because of power limitations or other design characteristics known to the testers but not necessarily observable by outsiders. These rules were conscientiously applied to the testing program, and on that basis the administration maintained that it had stayed within the bounds of the traditional interpretation of the treaty.[55] No Soviet lawyer had seen or approved the rules, however (indeed, they were classified), and it is not likely that the United States would have accepted Soviet tests as compliant if the limiting design elements were not externally observable.

Even in the stark, high politics of the Cuban Missile Crisis, State Department lawyers argued that the United States could not lawfully react unilaterally, since the Soviet emplacement of missiles in Cuba did not amount to an "armed attack" sufficient to trigger the right of self-defense in Article 51 of the UN Charter. Use of force in response to the missiles would only be lawful if approved by the Organization of American States (OAS). Though it would be foolish to contend that the legal position determined President John Kennedy's decision, there is little doubt that the asserted need for advance OAS authorization for any use of force contributed to the mosaic of argumentation that led to the decision to respond initially by means of the quarantine rather than an air strike. Robert Kennedy said later, "It was the vote of the Organization of American States that gave a legal basis for the quarantine . . . and changed our position from that of an outlaw acting in violation of international law into a country acting in accordance with twenty allies legally protecting their position."[56] This was the advice he had heard from his lawyers, and it was a thoroughly defensible position. Nevertheless, many international lawyers in the United States and elsewhere disagreed because they thought the action was inconsistent with the UN Charter.[57]

55. For example, the so-called Foster box rules serve to distinguish between strategic missile reentry vehicles, which are prohibited by the ABM treaty, and tactical missile reentry vehicles, which are not, on the basis of performance characteristics such as velocity and reentry angle not mentioned anywhere in the ABM treaty. See Ashton B. Carter, "Limitations and Allowances for Space Based Weapons," in Chayes and Doty, *Defending Deterrence,* pp. 132–37.

56. Robert Kennedy, *Thirteen Days* (New York: W. M. Norton, 1971), p. 99.

57. See, for example, Quincy Wright, "The Cuban Quarantine," *American Journal of International Law* 57 (July 1963), pp. 546–65; James S. Campbell, "The Cuban Crisis and the UN Charter: An Analysis of the United States Position" *Stanford Law Review* 16 (December 1963), pp. 160–76;

Capability

According to classical international law, legal rights and obligations run between states. A treaty is an agreement among states[58] and is an undertaking by them as to their future conduct. The object of the agreement is to affect state behavior. This simple relationship between agreement and relevant behavior continues to exist for many treaties. The LTBT is such a treaty. It prohibits nuclear testing in the atmosphere, in outer space, or underwater. Only states conduct nuclear weapons tests, so only state behavior is implicated in the undertaking. The state, by governing its own actions, without more, determines whether it will comply with the undertaking or not. Moreover, there is no doubt about the state's capacity to do what it has undertaken. Every state, no matter how primitive its structure or limited its resources, can refrain from conducting atmospheric nuclear tests.

Even when only state behavior is at stake, the issue of capacity may arise when the treaty involves an affirmative obligation. In the 1980s it may have been a fair assumption that the Soviet Union had the capability to carry out its undertaking to destroy certain nuclear weapons as required by the START agreement. In the 1990s, that assumption was threatened by the emergence of a congeries of successor states in place of the Soviet Union, many of which may not have the necessary technical knowledge or material resources to do the job.[59]

The problem is pervasive in contemporary regulatory treaties. Much of the work of the International Labor Organization (ILO) from the beginning has been devoted to improving its members' domestic labor legislation and enforcement. The current spate of environmental agreements poses the difficulty in acute form. Such treaties formally are among states, and the obligations are cast as state obligations—for example, to reduce sulfur dioxide (SO_2) emissions by 30 percent against a certain baseline. Here, however, the real object of the treaty is not to affect state behavior but to regulate the behavior of nonstate actors carrying out activities that produce SO_2—generating power, driving automobiles, and the like. The ultimate impact on the relevant private behavior depends on a complex series of intermediate steps. It will normally require an implementing decree or legislation followed by detailed administrative regulations. In essence, the state will have to establish and enforce a full-blown domestic regime designed to secure the necessary reduction in emissions.

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and William L. Standard, "The United States Quarantine of Cuba and the Rule of Law," *American Bar Association Journal* 49 (August 1963), pp. 744–48.

58. Vienna Convention on the Law of Treaties, Article 2(1)(a).

59. Kurt M. Campbell, Ashton B. Carter, Steven E. Miller, and Charles A. Zraket, *Soviet Nuclear Fission: Control of the Nuclear Arsenal in a Disintegrating Soviet Union,* CSIA Studies in International Security, no. 1, Harvard University, Cambridge, Mass., November 1991, pp. 24, 25, and 108.

The state may be "in compliance" when it has taken the formal legislative and administrative steps, and, despite the vagaries of legislative and domestic politics, it is perhaps appropriate to hold it accountable for failure to do so. Quite apart from political will, however, the construction of an effective domestic regulatory apparatus is not a simple or mechanical task. It entails choices and requires scientific and technical judgment, bureaucratic capability, and fiscal resources. Even developed Western states have not been able to construct such systems with confidence that they will achieve the desired objective.[60]

The deficit in domestic regulatory capacity is not limited to environmental agreements. The nonproliferation treaty (NPT) is supported by a side-agreement among nuclear-capable states not to export sensitive technology to nonweapons states.[61] The agreement is implemented by national export control regulations. The UN–International Atomic Energy Agency (IAEA) inspections in Iraq, however, revealed that the Iraqi nuclear weapons program was able to draw on suppliers in the United States and West Germany, among others, where governmental will and ability to control such exports are presumably at their highest.

Although there are surely differences among developing countries, the characteristic situation is a severe dearth of the requisite scientific, technical, bureaucratic, and financial wherewithal to build effective domestic enforcement systems. Four years after the Montreal Protocol was signed, only about half the member states had complied fully with the requirement of the treaty that they report annual chlorofluorocarbon (CFC) consumption.[62] The Conference of the Parties promptly established an Ad Hoc Group of Experts on Reporting, which recognized that the great majority of the nonreporting states were developing countries that for the most part were simply unable to comply without technical assistance from the treaty organization.[63]

The Montreal Protocol is the first treaty under which the parties undertake to provide significant financial assistance to defray the incremental costs of compliance for developing countries. The same issue figured on a much larger

60. Kenneth Hanf, "Domesticating International Commitments: Linking National and International Decision-making," prepared for a meeting entitled Managing Foreign Policy Issues Under Conditions of Change, Helsinki, July 1992.

61. Treaty on the Non-proliferation of Nuclear Weapons, 21 U.S.T. 483 (1970) (signed 1 July 1968 and entered into force 5 March 1970), in *International Legal Materials,* vol. 7, 1968, p. 809.

62. See Report of the Secretariat on the Reporting of Data by the Parties in Accordance with Article 7 of the Montreal Protocol, UNEP/OzL.Pro.3/5, 23 May 1991, pp. 6–12 and 22–24; and Addendum, UNEP/OzL.Pro3/5/Add.1, 19 June 1991.

63. For the establishment of the Ad Hoc Group of Experts, see Report of the Second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, UNEP/OzL.Pro.2/3, Decision 2/9, 29 June 1990, p. 15. At its first meeting in December 1990, the Ad Hoc Group of Experts concluded that countries "lack knowledge and technical expertise necessary to provide or collect" the relevant data and made a detailed series of recommendations for addressing the problem. See Report of the First Meeting of the Ad Hoc Group of Experts on the Reporting of Data, UNEP/OzL.Pro/WG.2/1/4, 7 December 1990.

scale in the negotiations for a global climate change convention and in the UN Conference on Environment and Development, held in Brazil in June 1992. The last word has surely not been spoken in these forums, and the problem is not confined to environmental agreements.

The temporal dimension

The regulatory treaties that are our major concern are, characteristically, legal instruments of a regime for managing a major international problem area over time.[64] Significant changes in social or economic systems mandated by regulatory treaties take time to accomplish. Thus, a cross section at any particular moment in time may give a misleading picture of the state of compliance. Wise treaty drafters recognize at the negotiating stage that there will be a considerable time lag after the treaty is concluded before some or all of the parties can bring themselves into compliance. Thus modern treaties, from the IMF Agreement in 1945 to the Montreal Protocol in 1987, have provided for transitional arrangements and made allowances for special circumstances.[65] Nevertheless, whether or not the treaty provides for it, a period of transition will be necessary.

Similarly, if the regime is to persist over time, adaptation to changing conditions and underlying circumstances will require a shifting mix of regulatory instruments to which state and individual behavior cannot instantaneously respond. Often the original treaty is only the first in a series of agreements addressed to the issue-area. Even the START agreement to reduce nuclear arsenals contemplates a process extending over seven years, by which time it is expected that new and further reductions will have been mandated.[66]

Activists in all fields lament that the treaty process tends to settle on a least-common-denominator basis. But the drive for universality (or universal membership in the particular region of concern) may necessitate accommodation to the response capability of states with large deficits in financial, technical, or bureaucratic resources. A common solution is to start with a low obligational ante and increase the level of regulation as experience with the regime grows.

64. The now-classical definition of an international regime appears in Krasner, "Structural Causes and Regime Consequences," p. 2: "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." Regime theorists find it hard to say the "L-word" but "principles, norms, rules, and decision-making procedures" are what international law is all about, and it is apparent from their work that formal legal norms, most often embodied in treaties, are an important structural element in most of the phenomena of interest to them.

65. See Articles of Agreement of the International Monetary Fund, Article 14, in *UNTS,* vol. 2, 1945, p. 1501; and Montreal Protocol, Article 5.

66. Under START, the agreed reductions in strategic nuclear weapons are to take place over a seven-year period divided into three phases of three, two, and two years. See U.S. Congress, Senate, *Treaty Between the United States and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms,* 102d Cong., 1st sess., 1991, S. Treaty Doc. 102-20, Article 2.

The convention-protocol strategy adopted in a number of contemporary environmental regimes exemplifies this conception.

The Vienna Convention on the Protection of the Ozone Layer, signed in 1985, contained no substantive obligations but required only that the parties "in accordance with the means at their disposal and their capabilities" cooperate in research and information exchange and in harmonizing domestic policies on activities likely to have an adverse effect on the ozone layer.[67] Two years later, as scientific consensus jelled on the destructive effect of CFCs on the ozone layer, the Montreal Protocol was negotiated, providing for a 50 percent reduction from 1986 levels of CFC consumption by the year 2000.[68] By June 1990, the parties agreed to a complete phaseout by the above date and to regulate a number of other ozone-destroying chemical compounds.[69]

A similar sequence marks the Convention on Long-Range Transboundary Air Pollution (LRTAP).[70] It began with a general agreement to cooperate signed in 1979, was followed by a protocol imposing limits on SO_2 emissions in 1985,[71] and then by another imposing limits on nitrogen oxides, which was signed at Sofia in October 1988.[72] The pattern has a long pedigree, extending back to the ILO, the first of the modern international regulatory agencies, whose members agreed in 1921 only to "bring the recommendation[s] or draft

67. Vienna Convention for the Protection of the Ozone Layer (signed 22 March 1985 and entered into force 22 September 1988; hereafter cited as Vienna Ozone Convention), Article 2(2), in *International Legal Materials,* vol. 26, 1986, p. 1529.

68. Montreal Protocol, Article 2(4).

69. London Amendments, Annex 1, Articles 2A(5) and 2B(3).

70. Convention on Long-Range Transboundary Air Pollution (signed 13 November 1979 and entered into force 16 March 1983), in *International Legal Materials,* vol. 18, 1979, p. 1442.

71. Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Percent (signed 8 July 1985), UN Doc. ECE/EB.AIR/12, reproduced in *International Legal Materials,* vol. 27, May 1988, pp. 698–714; see especially p. 707.

72. Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes (signed 31 October 1988 and entered into force 14 February 1991), UNEP/GC.16/Inf.4, p. 169. Additional protocols to the original convention are the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Long-Term Financing of the Co-operative Program for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (signed 28 September 1984), UN Doc. EB.AIR/AC.1/4, reproduced in *International Legal Materials,* vol. 27, March 1988, pp. 698–714 (see especially p. 701); and the Protocol Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluxes (signed November 1991), reproduced in *International Legal Materials,* vol. 31, May 1992, pp. 568–611. See also the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution, in *International Legal Materials,* vol. 15, 1976, p. 290, which was accompanied by the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, UNEP/GC.16.Inf.4, p. 130, and the Protocol Concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and Other Harmful Substances in Cases of Emergency, UNEP/GC.16/Inf.4, p. 132. The Protocol for the Protection of the Mediterranean Sea Against Pollution for Land-based Sources, UNEP/GC.16/Inf.4, p. 134, followed in 1980; the land-based sources protocol contemplates that pollution will be eliminated in accordance with "standards and timetables" to be agreed to by the parties in the future (see Article 5[2]). The Protocol Concerning Mediterranean Specially Protected Areas (UNEP/GC.16/Inf.4, p. 136) was signed at Geneva in 1982.

convention[s] [prepared by the organization] before the authority or authorities within whose competence the matter lies, for the enactment of legislation or other action."[73] The ILO then became the forum for drafting and propagating a series of specific conventions and recommendations on the rights of labor and conditions of employment for adoption by the parties.

The effort to protect human rights by international agreement may be seen as an extreme case of time lag between undertaking and performance. Although the major human rights conventions have been widely ratified, compliance leaves much to be desired. It is apparent that some states adhered without any serious intention of abiding by them. But it is also true that even parties committed to the treaties had different expectations about compliance than with most other regulatory treaties. Indeed, the Helsinki Final Act, containing important human rights provisions applicable to Eastern Europe, is by its terms not legally binding.[74]

Even so, it is a mistake to call these treaties merely "aspirational" or "hortatory." To be sure, they embody "ideals" of the international system, but like other regulatory treaties, they were designed to initiate a process that over time, perhaps a long time, would bring behavior into greater congruence with those ideals. These expectations have not been wholly disappointed. The vast amount of public and private effort devoted to enforcing these agreements—not always in vain—evinces their obligational content. Moreover, the legitimating authority of these instruments was an important catalyst of the revolutions of the 1980s against authoritarian regimes in Latin America and Eastern Europe and continues to spark demands for democratic politics elsewhere in the world.

Acceptable levels of compliance

The foregoing section identified and advanced a range of matters that might be put forward by the individual actor in defense or excuse of a particular instance of deviant conduct. From the perspective of the system as a whole, however, the central issue is different. For a simple prohibitory norm like a highway speed limit, it is in principle a simple matter to determine whether any particular driver is in compliance. Yet most communities and law enforcement organizations in the United States seem to be perfectly comfortable with a situation in which the average speed on interstate highways is perhaps ten miles above the limit. Even in individual cases, the enforcing officer is not likely to pursue a driver operating within that zone. The fundamental problem for the

73. Constitution of the International Labor Organization, 11 April 1919, Article 405, 49 stat. 2722.

74. Conference on Security and Cooperation in Europe, Final Act (1 August 1975), Article 10, in *International Legal Materials,* vol. 14, 1975, p. 1292.

system is not how to induce all drivers to obey the speed limit but how to contain deviance within acceptable levels.[75] So, too, it is for international treaty obligations.

"An acceptable level of compliance" is not an invariant standard. The matter is further complicated because many legal norms are not like the speed limit that permits an on–off judgment as to whether an actor is in compliance. As noted above, questions of compliance are often contestable and call for complex, subtle, and frequently subjective evaluation. What is an acceptable level of compliance will shift according to the type of treaty, the context, the exact behavior involved, and over time.

It would seem, for example, that the acceptable level of compliance would vary with the significance and cost of the reliance that parties place on the others' performance.[76] On this basis, treaties implicating national security would demand strict compliance because the stakes are so high, and to some extent that prediction is borne out by experience. Yet even in this area, some departures seem to be tolerable.

In the case of the NPT, indications of deviant behavior by parties have been dealt with severely. In the 1970s, U.S. pressures resulted in the termination of programs to construct reprocessing facilities in South Korea and Taiwan.[77] Recently, a menu of even more stringent pressures was mounted against North Korea, which ultimately signed an IAEA safeguard agreement and submitted to inspection.[78] The inspection and destruction requirements placed on Iraq under UN Security Council resolution 687 are, in one sense, an extreme case of this severity toward deviation by NPT parties.

Although over 130 states are parties to the NPT, the treaty is not universal, and some nonparties have acquired or are seeking nuclear weapons capability.[79] Despite these important holdouts, compliance with the NPT by the parties remains high. In fact, in recent years prominent nonparties—including Argentina, Brazil, and South Africa—have either adhered to the treaty or announced that they will comply with its norms.[80] Even the recalcitrant nonparties have not

75. Young, *Compliance and Public Authority,* p. 109.

76. Charles Lipson, "Why Are Some International Agreements Informal," *International Organization* 45 (Autumn 1991), pp. 495–538.

77. See Joseph A. Yager, "The Republic of Korea," and "Taiwan," in Joseph A. Yager, ed., *Nonproliferation and U.S. Foreign Policy* (Washington, D.C.: Brookings Institution, 1980), pp. 44–65 and 66–81, respectively.

78. See David Sanger, "North Korea Assembly Backs Atom Pact," *The New York Times,* 10 April 1992, p. A3; and David Sanger, "North Korea Reveals Nuclear Sites to Atomic Agency, *The New York Times,* 7 May 1992, p. A4. The initial U.S. response included behind-the-scenes diplomatic pressure and encouraging supportive statements by concerned states at IAEA meetings. See L. Spector, *Nuclear Ambitions: The Spread of Nuclear Weapons, 1989–1990* (Boulder, Colo.: Westview Press, 1990), pp. 127–30. Japan apparently has refused to consider economic assistance or investment in North Korea until the nuclear issue is cleared up.

79. Countries that have not ratified the NPT include Argentina, Brazil, China, France, India, Israel, and Pakistan. See Spector, *Nuclear Ambitions,* p. 430.

80. Reuters News Service, "Argentina and Brazil Sign Nuclear Accord," *The New York Times,* 14 December 1991, p. 7; "Brazil and Argentina: IAEA Safeguard Accord," U.S. Department of State

openly tested or acknowledged the possession of nuclear weapons. Thus, despite some significant departure from its norms, the NPT and the nonproliferation regime built around it have survived.

The U.S. emphasis on the importance of verification of arms control agreements seems to portend the application of a strict compliance standard.[81] However, at least since the Reagan administration, presidential reports to Congress, mandated by the Arms Control and Disarmament Act, listed a long series of alleged Soviet violations without igniting any serious move to withdraw from the applicable treaties.[82]

One of these violations, the phased array radar constructed at Krasnoyarsk, was widely regarded as a deliberate and egregious breach of the ABM treaty. Article 6 requires that early-warning radars be sited "along the periphery of [the] national territory and oriented outward." Krasnoyarsk was seven hundred kilometers from the Mongolian border and pointed northeast over Siberia. The issue was repeatedly thrashed out between the two governments over a period of years, sometimes at the highest levels. The United States linked its resolution to progress on future arms control agreements. The Soviets maintained that the installation was a space-tracking radar system and thus not subject to the prohibition, but ultimately they acknowledged the breach and agreed to eliminate the offending installation. Nevertheless, throughout this entire period the ABM treaty regime continued in full force and effect, and the U.S. administration never seriously pursued the option of withdrawal or abrogation.[83] Even in connection with its cherished SDI, the Reagan administration preferred to attempt to "reinterpret" the treaty rather than accept the more serious domestic political costs of abrogation.

Dispatch, 23 December 1991, p. 907; Reuters News Service, "South Africa Signs a Treaty Allowing Nuclear Inspection," *The New York Times,* 9 July 1991, p. A11; and "Fact Sheet: Nuclear Non-proliferation Treaty," U.S. Department of State Dispatch, 8 July 1991, p. 491.

81. The 1977 Congress enacted a requirement for "adequate verification" of arms control agreements. This was described by Carter administration officials as a "practical standard" under which the United States would be able to identify significant attempted evasions in time to respond effectively. See Chayes and Chayes, "From Law Enforcement to Dispute Settlement," pp. 147–48. It should be noted that when the Soviet Union in 1987 finally agreed to substantially unlimited on-site inspection, the United States drew back from its earlier insistence on that requirement, as it has in chemical warfare negotiations.

82. Withdrawal from all U.S.–Soviet arms control agreements is permitted on short notice if "extraordinary events related to the subject matter of the treaty jeopardize the supreme interests" of the withdrawing party. See, for example, Treaty Between the United States and the Soviet Union on the Limitation of Antiballistic Missile Systems, 26 May 1972, Article 15(2), 23 U.S.T. 3435 (1972). The law of treaties also permits the suspension of a treaty in whole or in part if the other party has committed a material breach. See the Vienna Convention on the Law of Treaties, Article 60(1),(2).

83. The closest approach to such an initiative was the mildly comic bureaucratic squabble in the closing years of the Reagan administration about whether the Krasnoyarsk radar should be denominated a material breach of the ABM treaty. See Paul Lewis, "Soviets Warn U.S. Against Abandoning ABM Pact," *The New York Times,* 2 September 1988, p. A9; and Michael R. Gordon, "Minor Violations of Arms Pact Seen," *The New York Times,* 3 December 1988, p. 5.

In the last analysis, the long list of asserted "violations" presented no threat either to the U.S. security interests that the treaties were designed to safeguard or to the basic bargain that neither side would deploy ABM systems. American political and military leaders were more than willing to tolerate nonperformance at the margin as the price of continuing constraint on a meaningful Soviet attempt to shift the strategic balance.

If national security regimes have not collapsed in the face of significant perceived violation, it should be no surprise that economic and environmental treaties can tolerate a good deal of noncompliance. Such regimes are in fact relatively forgiving of violations plausibly justified by extenuating circumstances in the foreign or domestic life of the offending state, provided the action does not threaten the survival of the regime. As noted above, a considerable amount of deviance from strict treaty norms may be anticipated from the beginning and accepted, whether in the form of transitional periods, special exemptions, limited substantive obligations, or informal expectations of the parties.

The generally disappointing performance of states in fulfilling reporting requirements is consistent with this analysis.[84] It is widely accepted that failure to file reports reflects a low domestic priority or deficient bureaucratic capacity in the reporting state. Since the reporting is not central to the treaty bargain, the lapse can be viewed as "technical." When, as in the Montreal Protocol, accurate reporting was essential to the functioning of the regime, the parties and the secretariat made strenuous efforts to overcome the deficiency, and with some success.[85]

The Convention on International Trade in Endangered Species (CITES) ordinarily displays some tolerance for noncompliance, but the alarming and widely publicized decline in the elephant population in East African habitats in the 1980s galvanized the treaty regime. The parties took a decision to list the elephant in Appendix A of the treaty (shifting it from Appendix B, where it had previously been listed), with the effect of banning all commercial trade in ivory. The treaty permits any party to enter a reservation to such an action, in which case the reserving party is not bound by it. Nevertheless, through a variety of pressures, the United States together with a group of European countries insisted on universal adherence to the ban, bringing such major traders as Japan and Hong Kong to heel.[86] The head of the Japanese Environment

84. U.S. General Accounting Office, *International Environment: International Agreements Are Not Well-Monitored,* GAO, RCED-92-43, January 1992.

85. See Report of the Secretariat on the Reporting of Data by the Parties in Accordance with Article 7 of the Montreal Protocol, UNEP/OzL.Pro.3/5, 23 May 1991, pp. 6–12 and 22–24; and Addendum, UNEP/OzL.Pro.3/5/Add.1, 19 June 1991.

86. For a report of Japan's announcement of its intention not to enter a reservation on the last day of the conference, see United Press International, "Tokyo Agrees to Join Ivory Import Ban," *Boston Globe,* 21 October 1989, p. 6. Japan stated that it was "respecting the overwhelming sentiment of the international community." As to Hong Kong, see Jane Perlez, "Ivory Ban Said to Force Factories Shut," *The New York Times,* 22 May 1990, p. A14. The Hong Kong reservation was

Agency supported the Japanese move in order "to avoid isolation in the international community."[87] It was freely suggested that Japan's offer to host the next meeting of the conference of parties, which was accepted on the last day of the conference after Japan announced its changed position, would have been rejected had it reserved on the ivory ban.

The meaning of the background assumption of general compliance is that most states will continue to comply, even in the face of considerable deviant behavior by other parties. In other words, the free-rider problem has been overestimated. The treaty will not necessarily unravel in the face of defections. As Mancur Olson recognized, if the benefits of the collective good to one or a group of parties outweigh the costs to them of providing the good, they will continue to bear the costs regardless of the defections of others.[88]

It seems plausible that treaty regimes are subject to a kind of critical-mass phenomenon, so that once defection reaches a certain level, or in the face of particularly egregious violation by a major player, the regime might collapse.[89] Thus, either the particular character of a violation or the identity of the violator may pose a threat to the regime and evoke a higher demand for compliance. This analysis would account for both the similarities and differences between the Krasnoyarsk and CITES cases. In the first case, although core security values were at stake and the violation was egregious, it did not threaten the basic treaty bargain. The United States responded with a significant enforcement effort but did not itself destroy the basic bargain by abrogating the treaty. In the second case, involving relatively peripheral national interests from the realist perspective, a reservation permitted under the treaty threatened the collapse of the regime. A concerted and energetic defense resulted.

Determining the acceptable compliance level

If, as we argue above, the "acceptable level of compliance" is subject to broad variance across regimes, times, and occasions, how is what is "acceptable" to be determined in any particular instance? The economists have a straightforward answer: invest additional resources in enforcement (or other measures to

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not renewed after the initial six-month period. Five African producer states with effective management programs did enter reservations but agreed not to engage in trade until at least the next conference of the parties. See Michael J. Glennon, "Has International Law Failed the Elephant," *American Journal of International Law* 84 (January 1990), pp. 1–43, especially p. 17. At the 1992 meeting they ended their opposition. See "Five African Nations Abandon Effort to Resume Elephant Trade in CITES Talks," *Bureau of National Affairs Environment Daily,* electronic news service, 12 March 1992.

87. United Press International, "Tokyo Agrees to Join Ivory Import Ban," *Boston Globe,* 21 October 1989.

88. Mancur Olson, *The Logic of Collective Action* (Cambridge, Mass.: Harvard University Press, 1971), pp. 33–36.

89. For a discussion of critical-mass behavior models, see Thomas Schelling, *Micromotives and Macrobehavior* (New York: Norton, 1978), pp. 91–110.

induce compliance) up to the point at which the value of the incremental benefit from an additional unit of compliance exactly equals the cost of the last unit of additional enforcement resources.[90] Unfortunately, the usefulness of this approach is limited by the impossibility of quantifying or even approximating, let alone monetizing, any of the relevant factors in the equation—and markets are not normally available to help.

In such circumstances, as Charles Lindblom has told us, the process by which preferences are aggregated is necessarily a political one.[91] It follows that the choice whether to intensify (or slacken) the international enforcement effort is necessarily a political decision. It implicates all the same interests pro and con that were involved in the initial formulation of the treaty norm, as modified by intervening changes of circumstances. Although the balance will to some degree reflect the expectations of compliance that the parties entertained at that time, it is by no means rare, in international as in domestic politics, to find that what the lawmaker has given in the form of substantive regulation is taken away in the implementation. What is "acceptable" in terms of compliance will reflect the perspectives and interests of participants in the ongoing political process rather than some external scientific or market-validated standard.

If the treaty establishes a formal organization, that body may serve as a focus for mobilizing the political impetus for a higher level of compliance. A strong secretariat can sometimes exert compliance pressure, as in the IMF or ILO. The organization may serve as a forum for continuing negotiation among the parties about the level of compliance. An example of these possibilities is the effort of the International Maritime Consultative Organization (IMCO)—and after 1982 its successor, the International Maritime Organization (IMO)—to control pollution of the sea by tanker discharges of oil mixed with ballast water.[92] IMCO's regulatory approach was to impose performance standards limiting the amount of oil that could be discharged on any voyage. From 1954, when the first oil pollution treaty was signed, until the 1978 revisions, there was continuous dissatisfaction with the level of compliance. IMCO responded by imposing increasingly strict limits, but these produced only modest results because of the difficulty of monitoring and verifying the amount of oil discharged by tanker captains at sea. Finally, in 1978 IMO adopted a new regulatory strategy and imposed an equipment standard requiring all new

90. See Gary Becker, "Crime and Punishment: An Economic Approach," *Journal of Political Economy* 76 (March/April 1968), pp. 169–217; and Stigler, "*The Optimum Enforcement of Laws,*" p. 526. Also see Young, *Compliance and Public Authority,* pp. 7–8 and 111–27.

91. Charles E. Lindblom, *Politics and Markets* (New York: Basic Books, 1977), pp. 254–55. At the domestic level, the decision whether to intensify enforcement of the treaty implicates a similar political process, as the continuous debates in the United States over GATT enforcement testify. Our work-in-progress includes a consideration of second-level enforcement.

92. Ronald Mitchell, "Intentional Oil Pollution of the Oceans: Crises, Public Pressure, and Equipment Standards," in Peter M. Haas, Robert O. Keohane, and Mark A. Levy, eds., *Institutions for the Earth: Sources of Effective International Environmental Protection* (Cambridge, Mass.: MIT Press, forthcoming).

tankers to have separate ballast tanks that physically prevent the intermixture of oil with the discharged ballast water. The new requirement was costly to tanker operators but easily monitored by shipping authorities. Compliance with the equipment standard has been close to 100 percent, and discharge of oil from the new ships is substantially nil. The sequence reflects the changing configuration of political strength between domestic environmental and shipping constituencies in the members of IMO (and IMCO) which was originally referred to as a "shipping industry club." At the same time, the major oil companies, which in the earlier period were shipping industry allies, shifted political allegiance under environmentalist pressures.

Since the international system is horizontal rather than hierarchical, if one state or a group of states is willing to commit enforcement resources, it may be able to short-circuit cumbersome organizational procedures and pursue improved levels of compliance by its own decision. The U.S. deployment of trade sanctions under Section 301 of the Tariff Act against violators of GATT obligations reflects a unilateral political decision (1) that existing levels of compliance were not acceptable and (2) to pay the costs of additional enforcement.[93] In that case, however, gains in compliance with substantive obligations must be weighed against losses attendant on departure from the procedural norms mandating multilateral dispute settlement.[94]

Again, after a considerable period of fruitless exhortation in the International Whaling Commission, Japan finally agreed to participate in a temporary moratorium on whaling that had been proclaimed by the organization when the United States threatened trade sanctions under the Marine Mammal Protection Act.[95] The Japanese ban on ivory imports shows a mixture of economic and reputational threats. The United States hinted at trade sanctions, and the conference of the parties of CITES threatened not to schedule its next meeting in Kyoto if Japan remained out of compliance.

If there are no objective standards by which to recognize an "acceptable level of compliance," it may be possible at least to identify some general types of situations that might actuate the deployment of political power in the interest of greater compliance. First, states committed to the treaty regime may sense that a tipping point is close, so that enhanced compliance would be necessary for regime preservation. As noted above, the actions against Japan on the ivory

93. *United States Code,* Title 19, Section 2411. Section 301, however, has been widely criticized as itself a violation of GATT. See A. O. Sykes, "Constructive Unilateral Threats in International Commercial Relations: The Limited Case for Section 301," *Law and Policy in International Business* 23 (Spring 1992), pp. 263–330; and Thomas O. Bayard and Kimberly A. Elliott, "Aggressive Unilateralism and Section 301: Market Opening or Market Closing," *The World Economy* 15 (November 1992), pp. 685–706.

94. GATT, Articles 22 and 23, 30 October 1947, as amended. See "GATT Basic Instruments and Selected Documents," in *UNTS,* vol. 55, no. 814, 1950, p. 194.

95. See Steinar Andresen, "Science and Politics in the International Management of Whales," *Marine Policy,* vol. 13, no. 2, 1989, p. 99; and Patricia Birnie, *International Regulation of Whaling* (New York: Oceana, 1985).

import ban may have been of this character. After the high visibility given to the CITES moves to ban the ivory trade, there would not have been much left of the regime if Japan had been permitted to import with impunity.

Second, states committed to a level of compliance higher than that acceptable to the generality of the parties may seek to ratchet up the standard. The Netherlands often seems to play the role of "leader" in European environmental affairs both in the North Sea and Baltic Sea regimes and in LRTAP.[96] Similarly, the United States may be a "leader" for improving compliance with the NPT, where its position is far stronger than that of its allies.

Finally, campaigning to improve a compliance level that states concerned would just as soon leave alone is a characteristic activity for NGOs, especially in the fields of the environment and of human rights. NGOs increasingly have direct access to the political process both within the treaty organizations and in the societies of which they are a part. Their technical, organizational, and lobbying skills are an independent resource for enhanced compliance at both levels of the two-level game.

Conclusion

The foregoing discussion reflects a view of noncompliance as a deviant rather than an expected behavior, and as endemic rather than deliberate. This in turn leads to de-emphasis of formal enforcement measures and even, to a degree, of coercive informal sanctions, except in egregious cases. It shifts attention to sources of noncompliance that can be managed by routine international political processes. Thus, the improvement of dispute resolution procedures goes to the problem of ambiguity; technical and financial assistance may help cure the capacity deficit; and transparency will make it likelier that, over time, national policy decisions are brought increasingly into line with agreed international standards.

These approaches merge in the process of jawboning—an effort to persuade the miscreant to change its ways—that is the characteristic form of international enforcement activity. This process exploits the practical necessity for the putative offender to give reasons and justifications for suspect conduct. These reasons and justifications are reviewed and critiqued in a variety of venues, public and private, formal and informal. The tendency is to winnow out reasonably justifiable or unintended failures to fulfill commitments—those that comport with a good-faith compliance standard—and to identify and isolate the few cases of egregious and willful violation. By systematically addressing and eliminating all mitigating circumstances that might possibly be advanced,

96. See Peter M. Haas, "Protecting the Baltic and North Seas," in Haas, Keohane, and Levy, *Institutions for the Earth.*

this process can ultimately demonstrate that what may at first have seemed like ambiguous conduct is a black-and-white case of deliberate violation. The offending state is left with a stark choice between conforming to the rule as defined and applied in the particular circumstances or openly flouting its obligation. This turns out to be a very uncomfortable position for even a powerful state. The Krasnoyarsk story represents an example of this process in action. Perhaps another is the repeated Iraqi retreat in showdowns with the UN–IAEA inspection teams.[97]

Enforcement through these interacting measures of assistance and persuasion is less costly and intrusive and is certainly less dramatic than coercive sanctions, the easy and usual policy elixir for noncompliance. It has the further virtue that it is adapted to the needs and capacities of the contemporary international system.

97. For an account of the Iraqi response, see Sean Cote, *A Narrative of the Implementation of Section C of UN Security Council Resolution 687.*