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# ENFORCEMENT AND THE EVOLUTION OF COOPERATION

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## INTRODUCTION

In recent years, the increasing prevalence and robustness of multi-lateral cooperation in areas as diverse as security and human rights has inspired many international law scholars and international relations theorists to question the value of enforcement. Those in what is often referred to as the managerial school argue that formal enforcement provisions are almost irrelevant. Sanctions of any sort are rarely employed because the few compliance problems that arise are rarely deliberate attempts to defy a legal standard. Violations are more typically the result of nonvolitional factors such as treaty ambiguity and State incapacity and hence should be dealt with using managerial techniques rather than coercion. Theorists in the transformationalist tradition go even further to argue that enforcement is worse than irrelevant: its existence exerts a negative impact on the evolution of cooperation by reducing the willingness of States to join a regime and by fostering an adversarial environment among those States that do become members.

The purpose of this article is to broadly characterize the political economy or institutionalist theory of enforcement and to present data that is at least a first step toward evaluating the managerial and transformationalist critiques. The first section will present a short, schematic summary of the role of enforcement as it is currently viewed in the "new institutions" or political economy literature in international relations.<sup>1</sup> While doubtless familiar to many readers, this is an important point of departure. A notable portion of the debate about the role of enforcement continues to stem from differences in terminology and from the fact that the political economy theory of enforcement is far more complicated

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1. Political economy and new institutionalism are used interchangeably in what follows and represent the more deductive wing of international relations theory. For descriptions of this theory, see Kenneth W. Abbott, *Modern International Relations Theory: A Prospectus for International Lawyers*, 14 *YALE J. INT'L L.* 335 (1989); Anne-Marie Slaughter Burley, *International Law and International Relations Theory: A Dual Agenda*, 87 *AM. J. INT'L L.* 205 (1993); John K. Setear, *An Iterative Perspective on Treaties: A Synthesis of International Relations Theory and International Law*, 37 *HARV. INT'L. L.J.* 139 (1996). For a perspective similar to the one presented here, see Duncan Snidal, *Political Economy and International Institutions*, 16 *INT'L REV. L. & ECON.* 121 (1996).

than the normal form specification of the archetypical Prisoners' Dilemma game appears to suggest. Political economists do not argue that enforcement is always essential or even possible, or that Tit-for-Tat is always the optimal enforcement strategy. They make no prediction about the relative frequency with which different types of games underlie cooperation and make relatively few general claims about the character of the specific enforcement strategies that will be employed. What they do emphasize is that the choice of enforcement strategy will vary across contexts depending on factors such as the quality of compliance data, the nature of the good being regulated, and various kinds of uncertainty.

The second and third sections deal with the managerial and transformationalist critiques. In response to the former which questions the relevance of formal enforcement provisions, data from environmental regimes are presented that suggest that such provisions are disproportionately present in regulatory agreements that require significant changes in behavior. In a set of multilateral environmental agreements, the correlation between what is termed the depth of cooperation and the extent of enforcement is 0.74. Evidence is also presented that suggests that as multilaterals increase their level of cooperation over time (e.g., in the manner of the EU or WTO), they also increase their level of enforcement, a fact for which managerial theory provides little explanation.

In response to the transformationalist critique, case examples are presented that throw doubt on the contention that cooperative progress is primarily driven by a transformationalist dynamic of collective deliberation and intraregime information diffusion. The impact of factors such as changes in relative prices appear, as economists have long claimed, to be more important. In addition, data are presented from twenty-one environmental agreements that call into question the reliability of the process by which transformationalists regimes are supposed to move states to ever-increasing levels of cooperation, and suggest that enforcement is less of a barrier to evolution through expansion than critics contend.

## I. THE POLITICAL ECONOMY THEORY OF ENFORCEMENT

In the political economy literature, enforcement generally refers to the overall strategy that a State or a multilateral adopts to establish expectations in the minds of state leaders and bureaucrats about the nature of the negative consequences that will follow noncompliance. It is thus a deterrence strategy designed to maintain cooperation by preventing

noncompliance from ever taking place. The actual response to a violation, called the punishment phase, is only one part of that strategy.

For understandable reasons, when many international lawyers think of penalties for noncompliance they tend to think primarily in terms of a combination of those defined by provisions of an agreement, those contained in the international law relating to treaties, primarily the Vienna Convention on the Law of Treaties,<sup>2</sup> and the opprobrium that is directed via international public opinion at a party that defects from an international norm. Political economists, for equally understandable reasons, are inclined to take a somewhat broader view. They would argue that from a practical standpoint, there are important penalties not embodied in agreements or operating through public opinion that rest on tacitly established expectations regarding the consequences of noncompliance. These include things such as the ad hoc organization of economic sanctions by one or more States, the withholding of a promised positive incentive (e.g., a scheduled loan or technology transfer), the implementation of a linkage strategy such as barring a State from other cooperative endeavors, or a retaliatory defection from the agreement in question.<sup>3</sup> For better (and worse), political economists tend to view such strategies in an undifferentiated way. Any threatened action or combination of actions that the designers of an enforcement strategy believe will operate to offset the net benefit that a potential violator could gain from noncompliance qualifies as a punishment strategy.<sup>4</sup> The legitimacy of the strategy under international law is rarely an issue.

The difference in perspective regarding what constitutes an enforcement strategy is responsible for much of the descriptive tension between international lawyers and political economists.<sup>5</sup> Because political

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2. See Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331. For an extended discussion of the relationship between international law and breach of treaty, see John Setear, *Responses to Breach of a Treaty and Rationalist International Relations Theory: The Rules of Release and Remediation in the Law of Treaties and the Law of State Responsibility*, 83 VA. L. REV. 1 (1997).

3. This is not meant to suggest that there are not situations where certain kinds of punishments will be more effective than others. See Edith Brown Weiss, *Theme Plenary Session: Implementation, Compliance, and Effectiveness*, PROCEEDINGS OF THE 91ST ANNUAL MEETING OF THE AMERICAN SOCIETY OF INTERNATIONAL LAW (1998).

4. Sometimes theorists distinguish between an action that inflicts a cost (e.g., a fine or sanction) and an action that withdraws a benefit (e.g., reciprocal noncompliance). See ABRAM CHAYES & ANTONIA HANDLER CHAYES, *THE NEW SOVEREIGNTY: COMPLIANCE WITH INTERNATIONAL REGULATORY AGREEMENTS* 152-53 (1995). The political economy school does not make this distinction. A punishment/deterrent is anything that operates to lower the expected net benefit of defection. Both decreasing the benefits of defection and increasing its costs do this.

5. There is also considerable normative tension between the two schools. Many international lawyers appear to shift their focus away from tacit and unilateral enforcement strategies because they consider them illegitimate and inequitable, and believe that most will

economists are interested in a broader variety of enforcement strategies than are international lawyers, they almost invariably see enforcement playing a larger role in maintaining compliance both in connection with particular agreements and in the international system as a whole than do international lawyers. International lawyers, while well aware of extra-legal enforcement strategies, tend to focus on the role of formal provisions.<sup>6</sup>

A fundamental tenet of the political economy approach is that the necessity for and feasibility of enforcement varies with the nature of the underlying game.<sup>7</sup> In a coordination game like the Battle of the Sexes, for example, enforcement is not relevant because neither party can gain by unilaterally defecting from any cooperative outcome.<sup>8</sup> Typical examples involve agreements that establish international rules for interstate bank transfers, handling emergencies at sea, or notification procedures for nuclear accidents. While one party may for distributional reasons prefer one set of rules over another, the stability of any cooperative agreement is assured because both parties believe that abiding by the agreement produces better results than independent action.<sup>9</sup>

Enforcement is most relevant in connection with the well-known repeated Prisoners' Dilemma or mixed-motive game where States profit from collective cooperation relative to joint noncooperation, but where each State individually has an incentive to defect from any cooperative arrangement. This defection incentive must be offset through the use of a contingent punishment strategy. The most famous such strategy is simple reciprocity or Tit-for-Tat in which a State begins by cooperating and then retaliates for every defection with a counter-defection and

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be replaced as international law evolves. Political economists, with few exceptions, duck the legitimacy issue on the grounds that extralegal enforcement is a fact of international life that will persist into the foreseeable future. See JAGDISH BHAGWATI, *THE WORLD TRADING SYSTEM AT RISK* 48-57 (1991) (describing one of the exceptions).

6. See THOMAS O. BAYARD & KIMBERLY ANN ELLIOTT, *RECIPROCITY AND RETALIATION IN U.S. TRADE POLICY* (1994); GEORGE W. DOWNS & DAVID M. ROCKE, *TACIT BARGAINING, ARMS RACES, AND ARMS CONTROL* 10-17 (1995) [hereinafter DOWNS & ROCKE, *TACIT BARGAINING*] (describing the extra-legal enforcements during the arms race and downplaying the role of formal treaties in this process).

7. See generally JAMES MORROW, *GAME THEORY FOR POLITICAL SCIENTISTS* (1994) (introducing these types of games and their significance for cooperation).

8. This at least is true in the standard theory. One could argue that enforcement might still play a role in some coordination games in order to lend greater stability to a particular pattern of distribution. If the relative power of one or more States increased, the party that gained in power might violate the agreement in order to renegotiate its terms and thus claim a larger distributional benefit. A credible enforcement strategy would increase the costs of such a tactic.

9. See James Morrow, *Modeling the Forms of International Cooperation: Distribution Versus Information*, 48 INT'L ORG. 387 (1994) (discussing negotiation difficulties associated with coordination agreements).

matches every cooperative move with cooperation.<sup>10</sup> If the discount rate is sufficiently low, this contingent strategy creates a situation where whatever might be achieved by a defector exploiting another State during any one round of the game is more than offset by the foregone benefits of cooperation that it sacrifices during the retaliation or punishment period.

It should be clear that the frequency of enforcement depends on the distribution of games underlying agreements. This cannot be derived from game theory, and there are reasons to believe that it may well change over time. For example, the fact that defection is not a threat in coordination games suggests that coordination game-based agreements will be easier to achieve than will Prisoners' Dilemma-based agreements during the early evolution of a regime when mutual mistrust and uncertainty are likely to be highest. Evidence that this is true can be found in the fact that the agreements that emerge in the early stages of relatively new regimes such as the Association of Southeast Asian Nations (ASEAN) and the Asia-Pacific Economic Cooperation (APEC) often consist of little more than statements of principles or the establishment of negotiating forums from which there is little incentive to defect.<sup>11</sup> This suggests, in turn, that in a policy area (e.g., environmental regulation) where there are a significant number of relatively young multilateral institutions, the role and importance of enforcement will be less than it is likely to be thirty years later.<sup>12</sup>

Despite its name, the strategy of reciprocity is not designed to uphold some principle of equity-based justice. At least with respect to the standard formulation, compensation for damage suffered is not at issue. This is not because political economists are indifferent to equity justice, but because they are chiefly preoccupied with deterrence. A punishment that effectively compensates the victim State might be large enough to deter defectors, but the benefit to the defecting State could easily be greater than the cost suffered by the victim State.<sup>13</sup>

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10. See generally ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* (1984); MICHAEL TAYLOR, *ANARCHY AND COOPERATION* (1976).

11. See MILES KAHLER, *INTERNATIONAL INSTITUTIONS AND THE POLITICAL ECONOMY OF INTEGRATION* 111-16 (1995).

12. This is not to argue that the trend toward increased enforcement will go on forever, or cannot, to some extent, even be reversed. There is, for example, the suggestion that in the past ten years the diffusion of free trade ideology has made the enforcement of certain free trade standards less necessary. See KENNETH A. OYE, *ECONOMIC DISCRIMINATION AND POLITICAL EXCHANGE* 139 (1994). Similarly, one can argue that the end of the Cold War has, for the moment at least, reduced the role of enforcement in maintaining the arms control regime between the United States and Russia.

13. In a Coasean treaty equilibrium, such imbalances would never arise. See Ronald Coase, *The Problem of Social Cost*, 3 *J.L. & ECON.* 1 (1960); R.H. COASE, *THE FIRM, THE*

It follows from the nature of reciprocity that the level of threatened punishment needed to dissuade a State from violating an agreement depends on the benefits that the State would gain from defection. In a Prisoners' Dilemma these benefits are defined by what a State could gain if it defected while the other State or States continued to cooperate. The larger that amount, the greater the incentive to defect and the greater the threatened punishment that is necessary to deter it. For example, to prevent a State from violating an environmental agreement where the violation would save the State twenty million dollars in pollution abatement costs requires more aggressive enforcement and a larger penalty than is necessary to prevent a violation that would save it only two million dollars.<sup>14</sup>

The basic Prisoners' Dilemma and Tit-for-Tat are useful for illustrating the logic of cooperation, but if taken too literally they can be misleading. For example, it is important not to become too preoccupied with the "in-kind" nature of the retaliations used in simple examples. The response to defection is nothing more than a punishment that can consist of any response that is sufficiently costly to the other party. Instead, of retaliating to overfishing by overfishing themselves, other Member States might simply invoke a provision which charges a fine for non-compliance. Alternatively, they could rely on political solutions that lie outside the boundaries of the agreement such as withdrawing part of their diplomatic missions or halting negotiations on some seemingly unrelated issue. The variety of available punishment threats means that it is wrong to claim, as many do, that punishment strategies are infeasible in an area like environmental cooperation because collective pollution is not a credible deterrent to violations.<sup>15</sup>

The above should not be interpreted to imply that it is easy to devise a workable enforcement strategy in any situation that appears to have the basic characteristics of a Prisoners' Dilemma or that any enforce-

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MARKET AND THE LAW (1988); ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991). The frequency and nature of these imbalances in the international realm is an interesting topic for future research.

14. See generally GEORGE W. DOWNS & DAVID M. ROCKE, OPTIMAL IMPERFECTION? DOMESTIC UNCERTAINTY AND INSTITUTIONS IN INTERNATIONAL RELATIONS (1995) [hereinafter DOWNS & ROCKE, OPTIMAL IMPERFECTION?]; George W. Downs et al., *Is the Good News About Compliance Good News About Cooperation?*, 50 INT'L ORG. 379 (1996) (weighing the costs and benefits of enforcement and compliance).

15. It is also true that in-kind responses are sometimes less incredible than they first appear. While members of an environmental regime are unlikely to threaten mass pollution as punishment for one State's violation of an agreement, expectations may be established within the regime that persistent violations on the part of any member will lead other members to relax the aggressiveness with which they police their own industries' compliance in order to insure that they are not competitively disadvantaged.

ment strategy can be employed in any context. One constraint involves the nature of the good being regulated. For multilaterals hoping to regulate a public good such as pollution reduction, the inability to exclude a violator from the benefits of cooperation generated by those states in compliance makes the creation of effective punishment strategies (or recruiting many members in the first place) a complicated business. This is due to both the incentive for States to "free ride" on the collective efforts of other States and to the fact that the incentive of States to punish violators falls as the number of members increases.<sup>16</sup>

Enforcement in a multilateral institution is often likely to involve more than a simple system of reciprocal punishments. One reason is because in situations like the one just described above, cooperation is often possible only if noncompliance is punished by the withholding of benefits generated by another agreement to which it is "linked" (e.g., a trade agreement) or by loss of reputation that will limit the violator's ability to participate in subsequent agreements. Another more subtle motivation for the creation of a more complicated enforcement system is that the use of ad hoc, reciprocal punishments tends to be relatively inefficient. States will invariably have different information about whether or not a violation has taken place and how serious it was. This will lead members of the multilateral to form different judgments about the punishment that is required. A formal dispute resolution system will operate to improve the accuracy of the violation assessment and coordinate the appropriate punishment.

A more elaborate system of adjudication with a variety of punishments such as fines not only constitutes a more nuanced punishment than reciprocal action that can be better calibrated to reflect the seriousness of a given instance of noncompliance, it allows States to reach a collective perception of an agreement's importance relative to other agreements. It also enables States to *signal* the degree to which they are committed to complying with a particular agreement both to each other and to their domestic constituencies. The latter is particularly important. When dealing with domestic firms that fear they will be held to standards that firms in rival States will not, it is far more convincing if proponents of an agreement can point to a provision that specifies a formal adjudication process and a strong punishment for noncompliance than for them to refer to something as nebulous as reciprocal retaliation or the principle of diffuse reciprocity.

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16. See Scott Barrett, *International Environmental Agreements as Games*, in *CONFLICTS AND COOPERATION IN MANAGING ENVIRONMENTAL RESOURCES* 11, 11-13 (Rüdiger Petrig ed., 1992).



Such considerations do not make reciprocal punishments irrelevant. Reciprocal punishments or linkages to other cooperative agreements directly or through reputation are still necessary to insure that States cooperate in the multilateral's judicial process and obey the outcome that is reached. However, by remaining in the background as the alternative of last resort, the enforcement process is able to operate far more efficiently than it could otherwise. Because these efficiency gains are likely to be the greatest in those agreements that embody the most cooperation, one suspects that over their lifetimes, multilaterals dealing with Prisoners' Dilemmas will, in general, engage in increasingly more formal and more refined compliance rulemaking as they grow more cooperative.<sup>17</sup>

Tit-for-Tat is only one of a large family of effective reciprocal strategies. Stronger punishments are also effective since they too offset the benefits of defection whenever Tit-for-Tat does, and sometimes they are necessary to offset the impact of a high discount rate.<sup>18</sup> In addition, the relative efficacy and efficiency of any strategy varies with complications that are intentionally omitted from the basic model such as the quality of information that is available about the existence of treaty violations and each party's uncertainty about the utility that it and the other party derives from violating an agreement.<sup>19</sup>

In the presence of uncertainty about whether a violation has occurred—a situation that frequently arises in connection with both arms control and trade agreements—Tit-for-Tat runs into another problem. The difficulty is not just that a violation might go undetected, but also that there will be “false positives” or apparent violations that are not real but will prompt retaliation and potentially a downward spiral of counter-retaliation.<sup>20</sup> More efficient strategies involve reducing the penalty for noncompliance or, better, increasing the penalty while employing a “trigger” that takes the expected observational error into consideration by increasing the amount of information that is required to prompt the judgment that a violation has taken place. The greater the degree of

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17. This behavior is true at least until, like any other institution, the multilaterals reach a point where the transaction costs associated with red tape and bureaucracy exceed the marginal benefit of an additional rule or penalty.

18. See MORROW, *supra* note 7, at 266 (discussing the efficacy of punishments stronger than Tit-for-Tat in high discount rate environments).

19. This omission may explain why the fit between international institutions and the prescriptions implied by the simpler versions of what Setear refers to as “optimal deterrence theory” are so unsatisfactory. See Setear, *supra* note 2, at 70.

20. See DOWNS & ROCKE, TACIT BARGAINING, *supra* note 6, at 179-90 (discussing information uncertainty connected with arms control violations); DOWNS & ROCKE, OPTIMAL IMPERFECTION?, *supra* note 14, at 93-99 (exploring uncertainty connected with trade violations).

information uncertainty, the higher the trigger level and the more evidence is required before the penalty phase of the enforcement strategy is implemented.<sup>21</sup>

Decisionmaker uncertainty about the benefits that defection would yield their own State or a rival also has an effect on the choice of enforcement strategy. Depending on circumstances, it might lead to States committing themselves to penalty levels that are either considerably less or greater than those required by Tit-for-Tat. For example, one explanation for the GATT's weak enforcement provisions which appear to contradict the precepts of game theory is that state policymakers did not want aggressive enforcement of the GATT because while they believed that a commitment to free trade would usually bring them political benefits, they also knew that periodically (e.g., during severe recessions) the demands of import-competing interest groups would be such that the political costs connected with ignoring them would be very high. While this might appear to be easily dealt with by a simple contingency clause, decisionmakers were both uncertain about the exact conditions under which they would want to violate the agreement and fearful that if they included a clause permitting violations on demand, policymakers of rival States would employ it for purposes of exploitation. Under these conditions, a sensible strategy was to agree to penalties that were high enough to discourage States from frequent violations and generally sustain an atmosphere of free trade, but not so high as to make it impossible for policymakers to reap the benefits of defection when the payoff for doing so exceeded some threshold.<sup>22</sup> The result was a system in which the expected cost of defection seemed irrationally low from the perspective of maintaining free trade, but from the perspective of politicians facing reelection and the necessity of fundraising, it provided a sensible way to cope with uncertainty about the future demands of their interest groups while still providing a disincentive to opportunistic policymakers in other States.

In sum, despite its apparent simplicity, the political economy theory of enforcement suggests that the optimal enforcement strategy in a particular case will vary depending on a number of factors such as the nature of the good being regulated, the quality of compliance data that is available, and utility uncertainty. The theory certainly does not predict that when enforcement provisions exist they will exactly embody Tit-

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21. While such trigger strategies may be the most efficient option from an economic standpoint, they are often politically problematic because they expose policymakers to charges that they ignore treaty violations by other States. To the extent that this leads to an undersupply of such strategies, cooperation will break down more frequently than is necessary, as politicians are forced to retaliate for nonexistent treaty violations.

22. See DOWNS & ROCKE, *OPTIMAL IMPERFECTION?*, *supra* note 14, at 88.

for-Tat or any other simple principle of reciprocity. As we have seen, any number of enforcement strategies are consistent with the theory depending on the conditions. This makes the underlying theory difficult to test. Data like those presented in this article represent nothing more than a small first step and should be viewed with a healthy dose of skepticism. The arduous business of trying to verify empirically the political economy theory's claims—or those of the two competing visions that are outlined below—has only barely gotten underway.

## II. THE MANAGERIAL CHALLENGE

The first of two interrelated challenges to the political economy vision of the role that enforcement plays in maintaining cooperation comes from what I will refer to as the “managerial school.” While much of the managerial argument is consistent with the message of political economists, the breadth of its attack on the realist school of international relations spills over as an implicit critique of the political economy school of enforcement as well. In particular, the managerialists assume that the majority of treaty violations are neither premeditated or deliberate but are caused instead by three factors: “(1) ambiguity and indeterminacy of treaty language, (2) limitations on the capacity of parties to carry out their undertakings, and (3) the temporal dimensions of the social, economic, and political changes contemplated by regulatory treaties.”<sup>23</sup>

Under these circumstances, what best ensures compliance is not the threat of punishment, but “a plastic process of interaction among the parties concerned in which the effort is to reestablish, in the microcontext of the particular dispute, the balance of advantage that brought the agreement into existence.”<sup>24</sup> Given the sources of most noncompliance, this can most effectively be done by (1) improving dispute resolution procedures, (2) providing technical and financial assistance, and (3) increasing transparency.<sup>25</sup> The latter is especially important.<sup>26</sup>

Managerialists are certainly well-aware of the fact that cooperation is sometimes driven by mixed-motive games, but in such cases they appear to believe that enforcement is handled primarily by either social opprobrium or reciprocal defection rather than by invoking an agree-

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23. CHAYES & CHAYES, *THE NEW SOVEREIGNTY*, *supra* note 4, at 10.

24. Abram Chayes & Antonia H. Chayes, *Adjustment and Compliance in International Regulatory Regimes*, in *PRESERVING THE GLOBAL ENVIRONMENT* 280, 303 (Jessica Tuchman Mathews ed., 1991) [hereinafter Chayes & Chayes, *Adjustment and Compliance*].

25. See CHAYES & CHAYES, *THE NEW SOVEREIGNTY*, *supra* note 4, at 22-25.

26. See *id.* at 152-53.

ment's formal enforcement provisions. They tend to emphasize the former since they believe that as a practical matter reciprocal enforcement can be problematic: "Retaliatory non-compliance often proves unlikely because the costs of any individual violation may not warrant a response, and it cannot be specifically targeted, imposing costs on those that have consistently complied without hurting the targeted violator enough to change its behaviour."<sup>27</sup>

The bottom line is that for managerialists better management rather than the design and implementation of more effective enforcement strategies holds the key to the future of regulatory cooperation in the international system.<sup>28</sup> As Oran Young puts it, "arrangements featuring enforcement as a means of eliciting compliance are not of much use in international society."<sup>29</sup> Moreover, "[t]he crucial point is that it is virtually impossible to achieve high levels of implementation and compliance over time through coercion."<sup>30</sup>

It is interesting to examine the managerialist critique in light of the theory of enforcement outlined in the first section. Neither the managerial theory's emphasis on coordination nor its evidence that, in general, enforcement plays a small role in maintaining treaties are by themselves inconsistent with the political economy theory. Political economists make no general claims about the relative frequency of coordination games and mixed-motive games or about the proportion of mixed-motive games that is shallow and the proportion that is deep. It only contends that *if* agreements relate to mixed-motive or Prisoners' Dilemma games, they will require some kind of enforcement and that the more deeply cooperative such agreements are, the more important the role of enforcement will usually have to be. In order to present evidence counter to these contentions, one must demonstrate that the level of enforcement is unrelated to the type of agreement and its depth or that the degree of compliance associated with deep mixed-motive agreements is unrelated to the level of enforcement.

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27. Ronald B. Mitchell, *Compliance Theory: A Synthesis*, 2 REV. EUR. COMMUNITY & INT'L ENVTL. L. 327, 330 (1993).

28. For a discussion of the role of deliberation and premeditation, see CHAYES & CHAYES, *THE NEW SOVEREIGNTY*, *supra* note 4, at 9-10.

29. ORAN R. YOUNG, *INTERNATIONAL GOVERNANCE: PROTECTING THE ENVIRONMENT IN A STATELESS SOCIETY* 74 (1994).

30. *Id.* at 134. A political economist might argue that the equation of enforcement with coercion is dubious when the enforcement provision is part of a multilateral agreement freely entered into as well as in connection with the strategy Tit-for-Tat. In the case of the former, enforcement seems analogous to the exercise of a contingency clause for nonperformance that is part of a contract. In the case of Tit-for-Tat, enforcement amounts to nothing more than the refusal to cooperate in the face of noncooperation.

The claim that the political economy model is suspect because most treaty violations are caused by factors such as the ambiguity of treaties and capacity limitations rather than the product of premeditated exploitation is problematic because the former does not necessarily preclude the latter. This makes determining the issue of which school is correct more difficult than it first appears. For example, the *ex post* claim that a particular treaty provision is ambiguous would not surprise many political economists. Not only do they recognize that every agreement is, to some extent, incomplete and ambiguous, but they would suspect that it is often a sensible strategy to claim ambiguity as a cover for noncompliance—a strategy that the managerialist proposals would seem to encourage. They also suspect that ambiguity is often built into the agreement intentionally as a device that negotiators can use strategically to reap the political benefits of reaching an agreement when one might otherwise not be achieved.

For slightly more complicated reasons, deliberation is also not necessarily unrelated to noncompliance that appears to be caused by capacity limitations. Capacity limitations, whether we are talking about the extent and quality of administrative oversight or the financial resources devoted to implementing an agreement's provisions, are only partly exogenous. They also involve different varieties of the principal-agent problem.<sup>31</sup> For example, unless oversight is perfect, the top level policymakers responsible for their States signing an agreement have imperfect control over the administrators in charge of implementing its many details. When this is the case, as it invariably is to some degree, problems can arise in implementation that are not directly the product of deliberate calculation on the part of the top-level policymaker, but are the product of deliberation on the part of the implementing official who may find it more profitable or simply easier to do a less vigorous job of implementation than he might be capable.

Another problem springs from the fact that the energy that the top policymaker puts into oversight is also invariably a function of that official's incentives, and these are tied to the principal agent relationship that exists between her and her political constituency. This is one reason why both politicians and business executives frequently develop more oversight capacity when their respective constituencies become animated by a fiscal crisis or a serious scandal.

Tying ambiguity and capacity limitations to premeditation and deliberation may appear to be nothing more than an academic exercise, but it bears on the questions of how effective the managerial solutions are

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31. For an accessible discussion of the principal-agent problem and moral hazard, see ERIC RASMUSEN, *GAMES AND INFORMATION* 165-222 (2d ed. 1994).

likely to be. If, for example, the managerialists are correct that the ambiguity and indeterminacy of treaty language is unrelated to deliberation or premeditation, we would expect that if a compliance problem was discovered States would be eager to commence negotiations to clarify matters and would be able to resolve the problem in most cases fairly easily. If the political economy school is correct, this is unlikely to occur because it was the inability of the States to successfully resolve the issue through negotiation that led to the creation of the ambiguity in first place.

The political economy school would also predict that the managerial solutions to noncompliance like capacity building, resolving ambiguity, and negotiation will also be less successful in reducing noncompliance than the managerialists hope because they will be unable to resolve the principal agent problem(s) that were at least partly responsible for the treaty violation. The capacity building solution would have to be handled with particular care in order to avoid the generation of moral hazard problems. When the response to noncompliance is the infusion of resources, it can be all too easy for the violator and other States that might not presently be violators to conclude that noncompliance is, if not profitable, not as urgent a concern as they may previously have believed.

While the managerial critique may not have presented evidence that challenge the theory of enforcement's validity in connection with mixed-motive games, it does challenge its relevance by claiming that enforcement is unimportant.<sup>32</sup> Two prominent pieces of evidence marshaled in support of this claim is that punishments of any sort are rarely meted out by multilateral agencies and that the dispute resolution mechanisms that are in place are rarely employed.

The problem with these statistics, however, is that neither can serve as a reliable basis for evaluating a deterrence strategy. If an enforcement strategy is successful, it will deter States from violating the agreement and punishment either will never take place or such violations will take place only rarely either as the result of low-quality information about compliance or credibility problems. This means that the fact that punishments are rare can just as easily be interpreted as evidence that enforcement is operating effectively as that it is irrelevant. The data are simply indeterminate. Some other test is needed.

Estimating the importance of formal enforcement provisions by the incidence of an enforcement-related behavior such as the initiation of dispute resolution proceedings is usually vulnerable to similar inference

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32. See CHAYES & CHAYES, *THE NEW SOVEREIGNTY*, *supra* note 4, at 152.

problems. Suppose, for example, that one were to look at the percentage of compliance problems that were settled by bilateral negotiation outside the context of the formal dispute resolution system. While it might appear that a high number indicates that enforcement is irrelevant, it is impossible to know (as in the case of plea bargaining) how important it was that the negotiation took place in the shadow of a more formal enforcement process to which the case might be referred if a settlement were not reached. This indicator also suffers from the shortcoming of assuming that the set of violations settled informally is representative of the set of all violations when it is always possible that they have been settled informally because they are the least serious and involve the lowest stakes.

If it is next to impossible to estimate the relative importance of formal enforcement and the validity of the political economy theory of enforcement by looking at the incidence of punishments or the frequency with which the formal dispute resolution system is employed, how can it be evaluated? No strategy is fully satisfactory, but one potentially helpful approach is to let the actions of States speak for themselves. In a recent paper, two colleagues and I tried to assess the extent to which States believe enforcement is important in the area of environmental regulation. We reviewed the treaty texts for the fifty multilateral environmental agreements listed in the United Nations Environmental Programme Register of International Treaties and Other Agreements in the Field of the Environment that are currently in force and to which the United States is a signatory<sup>33</sup> and discovered that thirty-five had no enforcement provisions at all or refer only to non-binding arbitration. Five others describe a response to violations such as other States taking "appropriate action" that is too ambiguous to categorize with any confidence and might, in any event, be designed to deal with managerial issues such as uncertainty reduction or capacity building. However, ten agreements, or twenty percent of the total, refer explicitly to a specific sanction or sanctioning procedure, fines, or domestic enforcement.

Another test of the extent to which States perceive enforcement to be important involves the political economy theory's contention that the level of enforcement formally specified in a multilateral agreement will be related to its "depth of cooperation." Depth of cooperation has been variously defined in the literature, but as used here it refers to an estimate of either (1) the amount of behavioral change that an agreement

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33. George W. Downs et al., *Designing Multilaterals: The Architecture and Evolution of Environmental Agreements*, Presented at the 1997 Annual Meeting of the American Political Science Association (Aug. 14, 1997) [hereinafter Downs et al., *Designing Multilaterals*].

requires of signatories or (2) the magnitude of the behavioral change that an agreement *has actually brought* about among signatories.<sup>34</sup> The relevance of depth of cooperation to the political economy theory of enforcement stems from the fact that in the context of a Prisoners' Dilemma game it can function as an indirect estimate of the benefit that the States could gain by defection because, *ceteris paribus*, the larger the departure a treaty requires from previous practices, the more that it will cost a State to comply with it. The political economy theory predicts that this increase in the incentive for defection will have to be offset by increases in the size of the threatened punishment. If state policymakers believe the same thing, there should be a positive relationship between the strength of enforcement and the depth of cooperation.

To evaluate this prediction, each of the fifty environmental agreements was assigned a depth of cooperation score and a level of enforcement score. We chose to employ the second of the above definitions because it most directly relates to the actual rather than anticipated impact of enforcement. Depth of cooperation was estimated by calculating the behavioral change that a treaty has brought between the time an agreement was created (i.e., the counterfactual was estimated to be the status quo at the time the agreement was first signed) and recent published descriptions of the impact that the agreement has had on Member States.<sup>35</sup> Consistent with the expectations generated by the political economy theory of enforcement, the correlation between this admittedly crude depth of cooperation and the level of enforcement is 0.74, which is significant at the 0.01 level. At least among this set of environmental agreements, the agreements that require the deepest cooperation also have the strongest enforcement provisions.

If the enforcement theory is true, the level of enforcement should also track the evolution of cooperation within a given agreement—at least within a mixed motive agreement—as well as in a cross-sectional sample of agreements. I know of no data set that can be used to address this question systematically, but the history of some prominent trade agreements, where the most cooperative evolution has taken place and where many agreements are suspected (at least by political economists) to be solutions to Prisoners' Dilemma games, is suggestive. Commentators argue, for example, that the Uruguay Round's progress in

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34. Estimating depth of cooperation can be impossible when the provisions of an agreement require qualitative changes in behavior, such as installing a hotline between Washington and Moscow. However, it is usually possible to do this when the agreement's requirements are described quantitatively (e.g., a reduction in tariffs by 4%, a rollback in emissions to 1990 levels), as is the case in many trade, arms control, and environmental agreements.

35. See Downs et. al, *supra* note 33, at 25.



substantially reducing "many of the most egregious trade barriers around the world" was matched by an enhanced ability of the WTO to punish trade violations more promptly and reliably.<sup>36</sup> The principle of consensus voting, where both parties to a dispute possessed a veto in the adoption of panel reports, has been reversed and a new system has been adopted that provides for the automatic adoption of panel reports, including retaliation, unless a unanimous consensus rejects it. In addition, retaliation is now authorized automatically in the absence of a withdrawal of the offending practice or compensation by the defendant. Such provisions are no accidental accompaniment to greater trade cooperation. The negotiating history of the Uruguay Round gives every indication that without these provisions there would have been no agreement.

The deepening of European integration exhibits a similar pattern. Ann-Marie Burley and Walter Mattli point out that simultaneous with the increased cooperation embodied in the Maastricht Treaty, Member States chose to strengthen the European Court of Justice's power to monitor and punish defection.<sup>37</sup> In the European case, increased enforcement took the form of penetration of EC law into the domestic law of its Member States, but it nonetheless took place and the expansion was a formal one.<sup>38</sup>

It is possible, of course, that the demands of States that deeper agreements be accompanied by stronger enforcement provisions are real but somehow misconceived. That is, States may believe, contrary to the advice of managerialists but consistent with the advice of political economists, that enforcement is useful in connection with a certain important category of agreements but they are simply wrong. This is not an easy argument to counter because the cleanest way to test such a claim would be to examine the compliance histories associated with a substantial number of relatively deep agreements that were identical in every respect except that some were enforced and some were not enforced. Managerialists would expect the compliance histories of the two types of agreements to be relatively similar; political economists would expect them to be different. Unfortunately, the very feasibility of such an experiment on any substantial scale requires that the political economy theory be more descriptively incorrect than it appears to be in the case of our set of environmental agreements where the correlation between depth of agreement and the presence of enforcement provisions tells us

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36. BAYARD & ELLIOTT, *supra* note 6, at 336.

37. See Ann Marie Burley & Walter Mattli, *Europe Before the Court: A Political Theory of Legal Integration*, 47 INT'L ORG. 41, 74 (1993).

38. See *id.* at 43.

that States usually choose (whether wisely or naively) to attach enforcement provisions to the deep agreements that they create.

Nonetheless, isolated examples of mismatches between depth and enforcement do exist, and such agreements often appear to suffer from the kinds of compliance problems that the political economy theory of enforcement leads us to expect. One such mismatch occurred in connection with the long series of ambitious but weakly enforced fishing agreements issued under eleven international fisheries commissions.<sup>39</sup> Another is the GATT where for many years its lofty aspirations with regard to reducing or eliminating numerous barriers to free trade were hopelessly mismatched with a dispute resolution system that operated at a ponderous pace and issued rulings that could be vetoed by the losing party. The result was numerous violations such as quantitative restrictions by the United States on the importation of sugar, Japanese restrictions on beef and citrus, and Canadian export restrictions on unprocessed salmon and herring.<sup>40</sup>

To summarize, the managerialists have made an important contribution to our knowledge of the ecology of international agreements by emphasizing that the majority of agreements require little enforcement and that the compliance problems that emerge in connection with these agreements are often best handled by joint problem solving rather than by the application of some formal sanction. What they have failed to do is to show that enforcement provisions are largely irrelevant. States include enforcement provisions in a significant minority of the some of the most substantively important multilateral agreements and these provide a potentially important part of the background in which negotiations take place. More importantly, at least in connection with a significant number of environmental agreements there is every indication that States demand that the role of enforcement and formal enforcement provisions increase before they will agree to increase the level of cooperation. The relatively low compliance rates associated with these deep agreements that do not possess substantial enforcement provisions suggests that this demand is not misconceived.

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39. See M.J. Peterson, *International Fisheries Management*, in INSTITUTIONS FOR THE EARTH 249, 280 (Peter M. Haas et. al. eds., 1993).

40. See BAYARD & ELLIOTT, *supra* note 6, at 233; ROBERT E. HUDEC, ENFORCING INTERNATIONAL TRADE LAW 217-19, 568-69 (1993).

### III. THE TRANSFORMATIONALIST CHALLENGE

The second challenge to the political economy conception of enforcement comes from the transformationalist school.<sup>41</sup> Although related to managerialism in a variety of ways and advocated by some of the same authors, the transformationalist critique is worth treating separately because it focuses less on the role that enforcement plays in maintaining current levels of cooperation than on its potentially counterproductive impact on the *evolution* of a cooperative regime. Transformationalists believe that by inducing States to participate in collective deliberation and exposing them to new information, participation in a regime often produces a series of mutually reinforcing shifts in their policy preferences that leads them to prefer ever-increasing levels of cooperation. The preferences and even underlying values of States are changed as they are, in effect, socialized by the regime to the potential benefits of an increasingly ambitious regulatory agenda.<sup>42</sup>

To best facilitate this transformational process, advocates often recommend the adoption of four design principles: (1) the number of Member States participating in the institution should be universal or nearly so; (2) the nature of initial commitments and obligations should be as soft and unthreatening as possible, consisting of few, if any, specific performance targets or timetables; (3) rules for decisionmaking should require near unanimity; and (4) processes employed to maintain compliance should emphasize dispute avoidance and negotiated compliance management to the exclusion of more coercive enforcement mechanisms.<sup>43</sup>

It is not difficult to appreciate the connection between these design prescriptions and the transformationalist belief in progress through orchestrated preference change. If regimes are instruments of preference change, it makes sense to include as many States as possible even those—or perhaps especially those—States that presently have little interest in interstate cooperation. The other three prescriptions help foster this goal of maximum inclusion. The absence of demanding initial obligations minimize up-front costs, while a unanimity standard or a

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41. See George W. Downs et al., *The Transformational Model: A Triumph of Hope or Experience?* (unpublished manuscript, on file with author) (analyzing the transformational model) [hereinafter Downs et al., *The Transformational Model*].

42. Other examples of the impact that participation in regimes and institutions can have on State preferences can be found in Eyal Benvenisti, *Collective Action in the Utilization of Shared Freshwater: The Challenges of International Water Resources Law*, 90 AM. J. INT'L L. 384 (1996); Jutta Brunnée & Stephen J. Troope, *Environmental Security and Freshwater Resources: Ecosystem Regime Building*, 91 AM. J. INT'L L. 26 (1997); Marc A. Levy et al., *The Study of International Regimes*, 1 EUR. J. INT'L REL. 267, 283-85 (1995).

43. See Downs et al., *The Transformational Model*, *supra* note 41, at 9-20.

demanding supermajoritarian voting rule (e.g., requiring a three-fourths majority of participating States to alter the agreement) assures members that the level of cooperation required by the agreement will not increase without their consent. Weak or nonexistent enforcement standards assure prospective members that they will not be forced to abide by a rule or standard that they do not agree with, even if it manages to survive the protective gauntlet established by the second and third prescriptions.

For transformationalists strong enforcement provisions are detrimental to more than the inclusiveness of a regime in its initial stages. Their adversarial and coercive character also operates to sabotage the transformational process by alienating States from the open-ended dialogue and information sharing that drive the transformational process.<sup>44</sup> Brunnée and Troopé even suggest that the nature of enforcement mechanisms promotes the exclusion of intergenerational interests from regime dialogues.<sup>45</sup>

Terms like noncompliance should be eliminated from regime discourse lest they precipitate an unraveling of the consensus-building process. Even the terminology of "compliance," it is argued, promotes the crystallization of such issues as disputes. It makes more sense transformationalists believe to focus on the less value-laden term of "implementation," which is "broad enough to encompass the progressive development of norms and, when necessary, issues of adherence to established norms."<sup>46</sup>

In the place of strong enforcement, transformationalists recommend a softer approach that "is likely to facilitate the confidence building necessary for the creation of a regime, as well as encourage broader participation by States."<sup>47</sup> This soft alternative is simply an elaboration of the managerial strategy already described and emphasizes the role of negotiation and consultation within iterated, regime-sponsored negotiating rounds. If self-reporting and monitoring reveal that a State is not meeting its obligations, other Member States will confront the recalcitrant party and cajole it back into compliance.

The transformationalist assertion that strong enforcement impedes the cooperative evolution of a multilateral or a regime is provocative,

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44. See Patrick Széll, *The Development of Multilateral Mechanisms for Monitoring Compliance*, in SUSTAINABLE DEVELOPMENT AND INTERNATIONAL LAW 106-109 (Winfried Lang ed., 1995).

45. See Brunnée & Troopé, *supra* note 42, at 46.

46. *Id.* at 45; The argument that the terminology used to characterize "less than full compliance" is critical to the evolution of cooperation is not new. See Martti Koskenniemi, *Breach of Treaty or Noncompliance? Reflections on the Enforcement of the Montreal Protocol*, 3 Y.B. INT'L ENVTL L. 145 (1992).

47. Brunnée & Troopé, *supra* note 42, at 57.

but how valid is it? Before trying to answer this question directly, it makes sense to begin by examining whether the transformationalist claims about the nature of state preference change and regime evolution are themselves correct. In particular, it would be helpful to consider the strength of the evidence for believing that processes such as collective deliberation and the diffusion of information among regime members are the major engines of state preference change and regime evolution that they are believed to be. If these processes are relatively unimportant or if they are important only under limited conditions, the argument that enforcement may jeopardize the future evolution of a regime because it undermines these properties loses much of its force.

A considerable body of empirical research, much of it by economists, suggests that changes in state (as well as individual) preferences are much more likely to come about as the result of relative price changes that often take place in the wake of technological innovation than as the result of a shift in normative values.<sup>48</sup> Certainly there are a number of environmental agreements for which this appears to be the case. The Paris Commission's (PARCOM) decision to ban the use of oil-based "muds" in drilling new oil and gas wells appears to have been greatly facilitated by the development of substitute water-based "muds."<sup>49</sup> Similarly, one of the reasons that the United States, the largest producer and consumer of chlorofluorocarbons (CFCs) in 1985, was able to assume an important leadership role in promoting and then strengthening the Montreal Protocol was that its major producers had quickly responded to mounting evidence about the dangers of CFCs by developing acceptable substitutes.<sup>50</sup> This provided large and politically powerful chemical firms like Dupont and Allied Signal with a strong incentive to lobby for rather than against the creation of a regime that would oversee their elimination.

Relative prices and the rate of technological change have also played a central role in arms control. The development of the reconnaissance satellite, for example, played a key role in the evolution of arms control by increasing transparency and reducing the necessity of costly and controversial on-site inspections.<sup>51</sup>

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48. See George J. Stigler & Gary S. Becker, *De Gustibus Non Est Disputandum*, 67 AM. ECON. REV. 76, 89 (1977).

49. See Peter M. Haas, *Protecting the Baltic and North Seas*, in INSTITUTIONS FOR THE EARTH 164 (Peter M. Haas et al. eds., 1993).

50. TODD SANDLER, GLOBAL CHALLENGES 113 (1997).

51. See John Lewis Gaddis, *The Evolution of the Reconnaissance Satellite Regime*, in U.S.-SOVIET SECURITY COOPERATION 353, 365 (Alexander L. George et al. eds., 1988); see also Steven Weber & Sidney Drell, *Attempts to Regulate Military Activities in Space*, in U.S.-SOVIET SECURITY COOPERATION, *supra*, at 373.

Economic trends not directly connected with changes in relative prices can also have a significant impact on preferences. For example, the growing tension between the North and the South over a host of environmental issues suggests that per capita income and economic development are major determinants of environmental consciousness. If environmental consciousness were primarily determined by collective deliberation or the diffusion of cost information, we would not expect per capita income and environmentalism to be so highly related. The growth in international trade is another economic trend that also appears to have affected state policy preferences. The exact mechanism by which it does this is not clear but one suspects that as export-oriented firms and industries flourish relative to import-competing firms, this reduces the political power of the import-competing firms and changes the balance of political power. This leads the government to become increasingly sympathetic to still higher levels of economic cooperation.<sup>52</sup>

Not only is there reason to believe that the major determinants of State preference change are economic, but there is also reason to believe that the impact of intra-regime information diffusion and collective deliberation is less clear cut than transformationalists imply. With regard to the former, there is no reason to believe that in an era of aggressive NGOs and mass media the diffusion of information will be restricted to those States that are members of a regime or multilateral. Multilaterals may function to provide information somewhat more quickly to members, but any relevant information should eventually reach nonmembers as well. Certainly, no evidence has been presented that nonmembers fail to embrace more aggressive environmental, human rights, or intellectual property regulatory goals because they have less information about the underlying problems than do regime members.

With regard to the impact of collective deliberation, the issue is not so much whether it can be important—it clearly can—but how frequently it is effective and under what circumstances. These are important questions because while the fact tends to go unnoted in the transformationalist literature, collective deliberation often leads nowhere. Indeed, international politics is littered with collective deliberations that appear to have had little or no impact on the preferences of the negotiating parties. The negotiations between Taiwan and the People's Republic of China over integration, between the two Koreas regarding consolidation, and between

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52. For a more subtle argument focusing on the demand for liberalization resulting from the negotiation of reciprocal trade agreements, see MICHAEL J. GILLIGAN, *EMPOWERING EXPORTERS* 135 (1997).

Greece and Turkey over Cyprus are only a few of the hundreds of examples.

The highly uncertain success rate of collective deliberation in inspiring preference change is no reason not to engage in it, but it does raise the issue of opportunity costs. This is because, as we have seen, in the transformationalist vision collective deliberation is almost invariably linked with inclusiveness. If collective deliberation always succeeds in changing state preferences, this makes sense. By increasing the number of States that are involved in the collective deliberation process, greater inclusiveness will produce more preference change and more cooperation in the international system. However, if collective deliberation operates more effectively on some States than others, a policy of inclusiveness might seriously obstruct the rate of collective progress that could otherwise have been achieved by a smaller multilateral.

The potential opportunity costs of inclusive collective deliberation play virtually no role in the transformationalist literature, but there is good reason to believe that they are often real enough. Suppose instead of going ahead with the original Coal and Steel Agreement or the first European Community, Germany and France had been persuaded to embrace collective deliberation as a transformation strategy and had incorporated Britain in the kind of weak agreement that it would have found unthreatening. How long would it have taken collective deliberation to alter British preferences in favor of integration? How much more slowly would the EC have evolved?

The European Community is not an isolated example. The Nuclear Nonproliferation Treaty (NPT) was formalized and ratified without the participation of India and China and other States that were unwilling to agree to the very modest constraints it represented. Was this a miscalculation? Were the States in favor of NPT wrong in concluding that the costs of pursuing extended collective deliberation with these States and doing nothing in the meantime were too high?

The most prominent recent example of the same trade-off is the recent land mine agreement, which is far more stringent than the one currently in force. Iran, Iraq, Russia, China, India, and Pakistan have all refused to take part, and the United States is insisting on a number of changes that many States believe will significantly dilute the agreement.<sup>53</sup> From a transformationalist perspective, the best strategy for the one hundred plus nations that are ready to sign the new agreement would be to return to negotiations with the States that were not willing sign until collective deliberation succeeded in changing the latter's

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53. See David E. Sanger, *U.S. In Shift, Says It May Sign Treaty to Ban Land Mines*, N.Y. TIMES, Sept. 15, 1997, at A1.

preferences. This is especially true in this case because we are not taking about just a few recalcitrant States—a contingency for which transformationalists occasionally allow—but about a substantial number of the world's major military powers. Yet, States ready to sign the agreement have rejected this logic apparently concluding that in this case the costs of the delay associated with further collective deliberation were too high.<sup>54</sup>

The trade-off between waiting until inclusive collective deliberation has adequately socialized nearly every state before preceding to create a more demanding agreement and creating an initially smaller but more demanding agreement is relevant to the enforcement debate. It suggests a novel strategy for dealing with what transformationalists quite rightly see as a kind of collective action problem with the enforcement model; that is, while it might be true in theory that States could achieve deeper cooperation with higher levels of enforcement, States often do not want more enforcement. The opportunity costs discussion suggests that if the problem is not so much that *all* of the States are against more enforcement but that a *minority* of States do not want it, a solution may lie in forming an initially smaller, less inclusive agreement and then expanding it over time through a process of sequential admissions as States (or the agreement itself) attains some property that they did not possess at the time the agreement was initially constructed. For example, after having created such an agreement Member States might wait for changes in relative prices or the evolution of some other factor to change the preferences of nonmembers who initially found strong enforcement provisions unpalatable.

Whether this strategy will work depends on the number of States that are initially driven away from the more strongly enforced agreement, how much deeper it is than the larger agreement would be, and what is expected to happen over time. Obviously, if a large number of states initially refuse to join the deeper and better enforced multilateral and then continue to refuse to become members because they feel alienated from an institution that they played no role in creating, the trade-off could well be a poor one.<sup>55</sup> This is what the transformationalists contend

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54. Signatory states may also have decided, in contrast to the tenets of transformationalism, that the existence of an agreement will operate to put more social pressure on nonsignatories than could be directed at them in the context of further collective deliberation.

55. This is not to suggest that this kind of alienation is the only reason why states that are initially excluded from an agreement might choose to remain outside it. As noted in the last section, there are also a host of incentive compatibility issues rising from the costs and benefits of multilateral membership that will vary depending on any number of factors (e.g., the good being regulated). See George W. Downs et al., *Managing the Evolution of Multilateralism*, 52 INT'L ORG. (forthcoming Spring 1998).



will invariably happen. If, however, there is reason to believe that the smaller, deeper agreement will grow larger faster than the rate at which the broader more shallow agreement grows deeper, it may be the better choice.

In order to begin to evaluate the relative merits of the transformational strategy and this sequential alternative, we took the same set of fifty environmental agreements previously described and identified fourteen agreements that at the time of their signing possessed each of the structural attributes prescribed in the transformationalist literature, and seven agreements that were created sequentially with much higher levels of enforcement.<sup>56</sup> We found that, the median transformational agreement has achieved a level of cooperation that is significantly less than the median sequential agreement and nearly a third of the transformational agreements appear to have achieved nothing.<sup>57</sup>

The difference in depth between the two types of agreements would be of no more than passing interest if it were simply a function of size. One expects that the Scandinavian states acting alone will often be able to formulate a more demanding agreement than will a large multilateral made-up of every Western and East European country. Fortunately, this does not appear to be a problem. The difference between the two types of agreements is still significantly different after controlling for the effect of size.

Most notably, the sequential agreements were able to expand their membership by an average of 308 percent over the history of the agreements. This suggests that the transformationalist claims that enforcement interferes the ability of regimes to evolve productively and that states are reluctant to join agreements that they did play a role in creating are exaggerated. In fact, the ability of sequentially created agreements with a high level of enforcement to grow combined with the findings about relative depth raise the prospect that the capacity of sequential agreements to expand may well be greater than the capacity of transformationalist agreements to grow deeper.

These results should not be interpreted to suggest that the sequential approach to regime design is always better or even always feasible. One important precondition for effectiveness is that the benefits that will stem from the smaller, deeper, and better enforced agreement have to be substantial. This will not always be the case in areas such as human rights or security where an agreement that excludes a subset of "recalcitrant" States may accomplish next to nothing. The land mine

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56. See Downs et al., *Designing Multilaterals*, *supra* note 33, at 17-19.

57. On our relatively crude depth scale the median sequentially constructed agreement is fifty-three percent deeper than the median transformational agreement. See *id.* at 19.

agreement passes this test because land mines are a significant problem among many of the signatory States in Asia and Africa and the benefits of a less than universal agreement are believed to be considerable.<sup>58</sup> However, an agreement among European states to outlaw female circumcision or an agreement among developing States to ban research on anti-ballistic missile systems would generate few such benefits. Under such circumstances an inclusive approach or a mixed strategy that initially omits no more than a handful of difficult States may be better alternatives.

### CONCLUSION

Doubtless motivated partly by decades of realist charges that international law was largely irrelevant to the conduct of international relations because it could not be enforced, international lawyers have joined forces with an increasing number of regime theorists to argue that the role of enforcement in sustaining the ever-increasing level of cooperation present in the international system is extremely small and that enforcement can actually operate to inhibit the growth of cooperation. Without denying that enforcement is, in general, neither a necessary nor a sufficient condition for institutionalized cooperation, this essay has attempted to provide a cautionary note regarding these claims.

The group that I have termed managerialists do not argue that the political economy theory of enforcement is invariably invalid, but they do suggest that enforcement is usually inappropriate because most violations are unrelated to deliberation and premeditation. In response to this the argument was made that many of the compliance violations that arise out of ambiguity or capacity problems may not be as disconnected from deliberation as they often appear to be because both ambiguity and incapacity are to some extent endogenous. While it is true that some ambiguity problems are inevitable and capacity limitations are often very real, it is also true that ambiguity in treaty language and claims of incapacity are often instrumentally useful for States. Within certain bounds, States deliberately *choose* how ambiguous to make treaties and how much oversight capacity they will employ in connection with a given agreement.

Managerialists also charge that formal enforcement provisions and unilateral sanctions are essentially irrelevant. States, however, appear to

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58. Cambodia is believed to contain more than ten million land mines, Angola more than nine million. See Jody Williams, *Peace Prize Goes to Land-Mine Opponents*, N.Y. TIMES, Oct. 11, 1997, at A1.

believe differently. Data were presented from fifty environmental agreements that corroborate the political economy theory of enforcement's prediction that States will be reluctant to create ambitious agreements unless they have more elaborate enforcement provisions than the typical agreement. The histories of cooperative agreements such as the European Union also suggests the theory's prediction that the evolution of cooperation will necessitate the evolution of an increasingly elaborate, and increasingly formal enforcement apparatus is correct.

The transformationalist argument that enforcement interferes with the evolution of a cooperative multilateral received no more substantiation. State preferences unquestionably do change over time and often in the direction of preferring higher levels of cooperation, but there is little evidence that such changes are invariably or even usually brought about by transformational forces. This suggests that the extent to which the transformational dynamic is dampened by strong enforcement provisions may be less relevant to the evolution of interstate cooperation than is often supposed. Beyond this, there is reason to believe that the transformationalist prescriptions that collective deliberation should be inclusive and that decisionmaking in multilaterals should be consensual can tie the fate of a regime to the slow transformation rates of states that are very resistant to change. This may be one reason why environmental multilaterals that are inclusive tend to evolve more slowly than those that use more enforcement but strategically omit conservative states in the early years of their development.

In short, while it may be appropriate to dismiss realism for its wrongheaded (and tireless) adherence to the claim that enforcement must be the cornerstone of any significant international cooperation, it is premature to dismiss enforcement as largely irrelevant or to claim that it acts as a major impediment to the evolution of cooperation. Like collective deliberation or any other strategy for promoting cooperation, it has strengths and limitations that both international lawyers and political economists have only begun to unravel.