

## The Role of Reciprocity in International Law

Francesco Paris

Nita Ghei

Follow this and additional works at: <http://scholarship.law.cornell.edu/cilj>

 Part of the [Law Commons](#)

---

### Recommended Citation

Paris, Francesco and Ghei, Nita (2003) "The Role of Reciprocity in International Law," *Cornell International Law Journal*: Vol. 36: Iss. 1, Article 4.

Available at: <http://scholarship.law.cornell.edu/cilj/vol36/iss1/4>

This Article is brought to you for free and open access by Scholarship@Cornell Law: A Digital Repository. It has been accepted for inclusion in Cornell International Law Journal by an authorized administrator of Scholarship@Cornell Law: A Digital Repository. For more information, please contact [jmp8@cornell.edu](mailto:jmp8@cornell.edu).

# The Role of Reciprocity in International Law

Francesco Parisi† and Nita Gheir††

<b>Introduction</b> .....	93
<b>I. Reciprocity through the Lens of Game Theory: A</b>	
Taxonomy .....	94
A. Pure Common-Interest Situations .....	95
B. Divergent Preference Games .....	98
C. Prisoners' Dilemma Situations .....	99
D. Inessential Games .....	100
E. Unilateral Games .....	101
F. A Caveat: Absolute versus Relative Payoffs .....	102
<b>II. Defining Reciprocity</b> .....	104
A. Structural Reciprocity .....	105
B. Induced Reciprocity .....	106
C. Stochastic Reciprocity .....	108
<b>III. Reciprocity Constraints in Public International Law</b> .....	109
A. Structural Reciprocity: The Truman Proclamation .....	110
B. Induced Reciprocity: The GATT and U.S. use of Section 301 .....	111
C. Stochastic Reciprocity: The Law of the Sea .....	114
D. When Reciprocity Fails: The Comprehensive Test Ban Treaty .....	116
<b>IV. Reciprocity as a Meta-Rule for the System</b> .....	119
<b>Conclusion</b> .....	123

## Introduction

[A] man be willing, when others are too, as far forth for peace and defense of himself . . . be contented with so much liberty against other men as he would allow other men against himself.<sup>1</sup>

The concept of reciprocity assumes peculiar importance in a world where there is no external authority to enforce agreements. That is, in a world that exists in Hobbesian state of nature. Historically, norms of reci-

---

† Professor of Law and Director, International Business Law Program, George Mason University School of Law; Co-Director, James M. Buchanan Program in Economics and the Law.

†† Clerk to Hon. John C. Eldridge, Jr., Court of Appeals of Maryland. The authors would like to thank Eric Posner and participants at a workshop at George Mason University School of Law for helpful comments.

1. This is the Second Law of nature, according to Hobbes. THOMAS HOBBES, *LEVIATHAN* 110 (Liberal Arts Press 1958) (1651).

procity have been vital in escaping lives that would otherwise be "solitary, poor, nasty, brutish and short."<sup>2</sup> Reciprocity generally involves returning like behavior. In Robert Axelrod's terminology, reciprocity is a tit-for-tat strategy.<sup>3</sup> Such strategy permits cooperation in a state of nature, when no authority for enforcement of agreements exists.

International law, in this sense, exists in a state of nature, because there is no overarching legal authority with compulsory jurisdiction to enforce agreements. Inevitably, reciprocity has become an important element in relations between sovereign nations and in the body of existing international law. This paper begins with setting up a taxonomy of social interactions, in a game-theoretic framework,<sup>4</sup> to examine the role of reciprocity in the functioning of international law and whether reciprocity is, in effect, a meta-rule for the law of nations.

Part I defines the characteristics of specific types of interactions between countries in a game-theoretic framework. Part II sets out definitions for different forms of reciprocity found in international law. This Article examines the international law settings where reciprocity constraints would yield an optimal outcome, and when such constraints would be ineffective. Part III sets out specific international law examples and examines where they fit in the taxonomy of the formulated games. This makes clear that the principle of reciprocity is of vital importance in achieving efficient outcomes in many circumstances. Finally, Part IV concludes that, despite its occasional failure, reciprocity is important enough to be considered a meta-rule of the system of international law, and an essential element in its functioning.

## I. Reciprocity through the Lens of Game Theory: A Taxonomy

Game theory is a useful tool for the study of international law and the relations between sovereign states, because it focuses on interactions where parties can only determine their own strategies, and thus have no direct control of the outcome.<sup>5</sup> This Article is by no means the first to use game theory to analyze international law. For instance, Jack Goldsmith and Eric Posner have used game theory successfully to clarify the often questionable

---

2. *Id.* at 107.

3. See ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* 20 (1984). Axelrod demonstrates the superiority of a cooperative strategy, when parties undertake repeated interactions, over a strategy that would seemingly be rational in a Prisoners' Dilemma situation. For more information, see *infra* Part I.C.

4. For an earlier, somewhat different version of this taxonomy, see Francesco Parisi, *The Cost of the Game: A Taxonomy of Social Interactions*, 9 EUR. J. L. ECON. 99 (2000) [hereinafter Parisi, *Taxonomy*].

5. The general world of game theory is one where a player can control only their own strategies, but not the final outcome. See, e.g., THOMAS C. SCHELLING, *THE STRATEGY OF CONFLICT* 122 (1980) (discussing issues of war and strategy and stating that the "outcome still depends on the [other] player, over whom the first player has no direct control"). For a very brief and basic introduction to game theory, see ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 34-38 (3d ed. 2000).

assumptions made about customary law.<sup>6</sup> This Article's goal is similar, in that it hopes, by using the basic principles of game theory, to clarify the reasons why reciprocity constraints work.

In game theory, an outcome results from the joint interaction of strategies chosen by independent players. That is, parties can choose their strategies, but their activities alone cannot necessarily determine the outcome. For the purpose of this analysis, this Article distinguishes five broad categories of relevant interactions, which provide a useful taxonomy for understanding international relations.<sup>7</sup> In each case, the payoff for Player A is represented by the first number in a cell, and the payoff for Player B by the second figure. Each player has three possible payoffs. Generally, the greater the level of cooperation, the greater the combined pay-off. Strategy I represents full cooperation; Strategy II represents partial cooperation; and Strategy III represents a situation where neither party cooperates.

Imposing a reciprocity constraint means that the choice of strategy is determined mutually. Thus, if Player A chooses to cooperate, under a reciprocity constraint, Player B will have to cooperate. If Player A chooses Strategy III and does not cooperate, Player B will also choose Strategy III. Both parties know the imposition of a reciprocity constraint limits interaction, so that only the options on the diagonal, as shown in Figure 2, remain available.

#### A. Pure Common-Interest Situations

In game theory, this group of situations are represented as positive sum games with a single dominant strategy that leads to efficient outcomes. This optimal outcome is achievable by the parties in a stable Nash equilibrium.<sup>8</sup> Thomas Schelling has identified this category as a "pure common interest game."<sup>9</sup> As the optimal outcome is a Nash equilibrium—where the party's incentives are perfectly aligned—any implicit or explicit agreement between the parties becomes self-enforcing, because no party has an inter-

---

6. See, e.g., Jack L. Goldsmith & Eric A. Posner, *A Theory of Customary International Law*, 66 U. CHI. L. REV. 1113 (1999) [hereinafter Goldsmith & Posner, *Theory*]; Jack L. Goldsmith & Eric A. Posner, *Understanding the Resemblance Between Modern and Traditional Customary International Law*, 40 VA. J. INT'L L. 639 (2000) [hereinafter Goldsmith & Posner, *Resemblance*]. One interesting case they discuss, which is outside this paper's scope of reciprocity, is the possibility of the use of coercion by a powerful state to impose rules of international law.

7. Parisi, *Taxonomy*, *supra* note 4 (utilizing four of the same categories as discussed here).

8. A Nash Equilibrium is a situation where no individual player can do better by changing their strategy, so long as the other party does not change strategy. Thus, neither party has any incentive to change the choice made. COOTER & ULEN, *supra* note 5, at 37.

9. SCHELLING, *supra* note 5, at 88. This "coincidence of interest" can often explain observed regularities in behavior by states in the context of customary law. Goldsmith & Posner, *Theory*, *supra* note 6, at 1122-23. Thus, what legal theorists would call deviation from customary law are often no more than actions of rational self-interested states where the underlying interests have changed. In our terminology, this would be when the pay-offs change so that the states are no longer playing a common-interest game.

est to unilaterally deviate. A sample pay-off matrix in such a game could take the following form:

	I	II	III
I	6, 6	4, 5	2, 4
II	5, 4	3, 3	1, 2
III	4, 2	2, 1	0, 0

Figure (1): A Pure Common Interest Game

Both parties following individually rational strategies, which maximize payoffs, would choose to follow Strategy I for a payoff of 6 units each. The outcome remains unchanged if a reciprocity constraint is imposed:

	I	II	III
I	6, 6	4, 5	2, 4
II	5, 4	3, 3	1, 2
III	4, 2	2, 1	0, 0

Figure (2): A Pure Common Interest Game with Reciprocity

The cooperation outcome, with a payoff of 6 units for each player (Cell [I,I]), remains the dominant strategy even with the imposition of a reciprocity constraint. There is no incentive for either party to deviate from this outcome.

This amounts to a notion termed in economics literature as the "perfect incentive alignment."<sup>10</sup> This game's payoff structure excludes the possibility of opportunistic behavior. One could think of this ideal environment as the result of optimal contract enforcement mechanisms, institutional safeguards, relationships involving trust and reputation, or any other device which renders adversarial possibilities non-advantageous or inaccessible to the players.<sup>11</sup>

Generally speaking, solutions to this class of games are not troublesome, since all players gain through cooperation. Perfect incentive alignment guarantees the spontaneous equilibrium of the game will occur at an optimizing point.<sup>12</sup> Whether existing laws or norms endogenously or exogenously determine the incentive alignment, no additional intervention is required.

Real life situations representing common interest games are common. Nonetheless, they are hard to illustrate with international law examples because, unlike other strategic situations, common interest situations are self-enforcing and rarely emerge to attract the attention of international actors and policymakers as relevant international legal issues. As long as the interests of all parties converge, no dispute will arise that requires resolution by resort to a treaty or other legal instruments. Nonetheless, situations do develop that ultimately reflect features of a common interest game. An example is the custom in international law regarding the Continental Shelf that developed following the Truman Proclamation of 1945.<sup>13</sup> While this is discussed in greater detail below, the lesson is that it was in the interest of all coastal states to cooperate with the United States in this

---

10. Parisi, *Taxonomy*, *supra* note 4, at 104.

11. See generally, COOTER & ULEN, *supra* note 5 (discussing the interaction of game theory and the law). They use game theory as an analytical tool to discuss contract law. *Id.* at 184-198.

12. Similarly, pure coordination problems are characterized by the perfect convergence of the players' interests, and by the additional feature of multiple equilibria. The convergence of individual and collective interests fosters an optimal outcome on the basis of a mere coordination of self-interested strategies. It has been argued, however, that the solution to coordination problems may be delayed if it relies exclusively on decentralized processes of legal and social order. The multiplicity of Nash Equilibria in a coordination game creates difficulties for decentralized solutions. For example, if everyone in a country needs to coordinate on a basic set of traffic conventions, such as driving on the same side of the road, the emergence of spontaneous—but heterogeneous—clusters of traffic customs would consolidate local equilibria that do not possess the features of universality required in a modern society. Ironically, however, the most universal traffic rules are those for water navigation, which emerged through spontaneous rule-making processes. For an interesting historical background, see John H. Wigmore, *The Maritime Legal System*, in *A PANORAMA OF THE WORLD'S LEGAL SYSTEMS* (Vol. III 1928); see generally NICHOLAS J. HEALY & DAVID J. SHARPE, *ADMIRALTY CASES AND MATERIALS* (2d ed. 1986); IAN BROWNIE, *PRINCIPLES OF PUBLIC INTERNATIONAL LAW* 180-257 (4th ed. 1990); THOMAS J. SCHOENBAUM, *ADMIRALTY AND MARITIME LAW* (1987). For more discussion on the issue of reciprocity in the Law of the Sea, see *infra* Part III.C.

13. See *infra* Part III.A. The discussion is based largely on BROWNIE, *supra* note 12, and MICHAEL BYERS, *CUSTOM, POWER AND THE POWER OF RULES* (1999). The incentive alignment is among the coastal states; in effect, non-coastal states are treated as non-participants. This is what Goldsmith and Posner would consider a "coincidence of interest." See Goldsmith & Posner, *Theory*, *supra* note 6, at 1122-23.

matter, even though the Proclamation was inconsistent with existing international law.

B. Divergent Preference Games

This class of games encompasses positive sum games with multiple Nash Equilibria. Here, the different equilibria result from differences in preferences, rather than strategic behavior. These games are characterized by mixed conflict-coordination motives. These games are often termed “Battle of the Sexes Games.”<sup>14</sup> Coordination problems in such games could be solved by permitting sequential decision-making or pre-commitment strategies. In situations where players engage in games repeatedly, a norm of fairness may sufficiently address the problem of sub-optimal conflictual outcomes, if the discount rates of the parties are sufficiently small. For a one-time game, a pay-off matrix for a Divergent Preference game might look like this:

	I	II	III
I	3, 1	0, 0	0, 0
II	0, 0	2, 3	0, 0
III	0, 0	0, 0	1, 5

Figure (3): Divergent Preference Game

In this case there are three Nash Equilibria along the diagonal, with no single dominant outcome. Additionally, if the game is played a single time, a reciprocity constraint would not improve the situation. The pay-off matrix for a Divergent Preference game with a reciprocity constraint would take the following form:

14. See Parisi, *Taxonomy*, *supra* note 4, at 100.

	I	II	III
I	3, 1	0, 0	0, 0
II	0, 0	2, 3	0, 0
III	0, 0	0, 0	1, 5

Figure (4): Divergent Preference Game under Reciprocity

The [III, III] cell would yield the highest total payoff, and is most desirable for maximizing total welfare. But player A prefers Strategy I and Player B prefers Strategy III. Imposing a reciprocity constraint would not change this preference ordering. However, it might still be possible to achieve a result with the highest total outcome. If the game involves repeat players, or if the possibility of role reversal exists, the players may choose to cooperate to maximize total payoffs in the long term.<sup>15</sup>

C. Prisoners' Dilemma Situations

This is probably the best known and most widely used set of games. The prisoners' dilemma is a game where a surplus is obtainable through mutual cooperation. However, dominant defection strategies may yield sub-optimal outcomes for both players, which occur when both follow a privately rational strategy. In such games, defection strategies dominate and the possibility of opportunistic behavior renders the Pareto optimal outcome unachievable in equilibrium. A pay-off matrix for a Prisoners' Dilemma game could have the following form:

---

15. Role reversibility, where a person can be on either side of a dispute, can lead to stable norms that yield efficient outcomes over time. This is accomplished by stochastic reciprocity. See *infra* Part II. The medieval Law Merchant provides one example. See Francesco Parisi, *Customary Law*, in THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 572-78 (Peter Newman ed., Vol. I 1988) [hereinafter Parisi, *Customary Law*]; see also ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991) (discussing mechanisms of informal dispute settlement, which have evolved among ranchers in Shasta County, California). In international law, role reversibility is at the heart of the reciprocity that is integral to the Law of the Sea as it has developed over time. See generally *infra* Part III.C.



	I	II	III
I	6, 6	2, 7	-2, 8
II	7, 2	3, 3	-1, 4
III	8, -2	4, -1	0, 0

Figure (5): A Prisoner's Dilemma Problem

Figure 5 depicts the equilibrium obtained in the absence of a reciprocity constraint. The two players are faced with a cooperation problem. Strategies I, II, and III represent successively lower levels of cooperation. Even though mutual cooperation at level I generates the highest aggregate payoff, Strategy III (zero cooperation), dominates in equilibrium, as the Nash arrows demonstrate for the two players. In this case, cell [I, I] represents mutual cooperation and is the Pareto-optimal outcome.<sup>16</sup> Nonetheless, cell [III, III], representing mutual defection, is the dominant strategy.

Parisi has pointed out that reciprocity constraints are extraordinarily well-suited for Prisoners' Dilemma situations.<sup>17</sup> International law provides plenty of illustrations depicting the power of reciprocity constraints in correcting or preventing Prisoners' Dilemma situations. For example, a reciprocity constraint, such as that established in Article 21 of the Vienna Convention of 1969,<sup>18</sup> eliminates the possibility of opportunistic behavior, and makes the Pareto-optimal cooperation outcome feasible.

#### D. Inessential Games

There are two kinds of games in this category—(i) zero-sum games and (ii) positive sum games—where all obtainable Nash Equilibria have a constant aggregate payoff. All these games are characterized by constant pay-offs, and no single outcome is mutually preferred by both players. A territorial dispute is an example of this type of game. As it will be discussed more extensively below, it is impossible to design a reciprocity constraint that

16. A Pareto optimum is achieved when it is no longer possible to make anyone better off without making at least one person worse off. See generally E. J. MISHAN, INTRODUCTION TO NORMATIVE ECONOMICS 35 (1981).

17. See Parisi, *Taxonomy*, *supra* note 4, at 101.

18. Vienna Convention on the Law of Treaties, May 23, 1969, art. 21, 1155 U.N.T.S. 331, 337 [hereinafter Vienna Convention].

could have any effect on the strategic behavior of the parties. Consider, for example, the territorial dispute between India and Pakistan over Kashmir. This is the quintessential zero-sum game, because the territory can go to only one country.<sup>19</sup> The gain to one country equals the loss to the other, since the territory is available in a fixed amount.<sup>20</sup> The winner cannot compensate the loser; there is no potential gain from mutual cooperation, and consequently, no role for reciprocity constraints in such a situation.

#### E. Unilateral Games

A fifth category of situations is termed unilateral games. These games are characterized by the fact that each player undertakes a dominant strategy, independently from the other player's actions. These dominant strategies are different for the two players. In such games, the pay-off matrix may take the following form:<sup>21</sup>

	I	II	III
I	4, 2	3, 4	2, 6
II	3, 1	2, 2	1, 4
III	2, 0	1, 1	0, 3

Figure (6): *Unilateral Game Payoff*

19. For now, we are ignoring the possibility of Kashmir as an independent country, so that neither India nor Pakistan claim it. Of course, it is possible to convert this into a non-zero sum game, by including the costs incurred by each state in maintaining the conflict into the pay-off matrix. In this particular case, these costs are not insignificant. India and Pakistan have fought two full scale wars, in 1948 and 1965, over the issue. There was also a major military encounter in 1999, and have been ongoing skirmishes for over fifty years. In addition, India claims that Pakistan is funding the ongoing insurgency, which India has had to fight. And these are only the *direct* military costs of the conflict. For an account of the 1948 and 1965 wars from the Indian perspective, see JASWANT SINGH, *DEFENDING INDIA* 155-60, 172-80 (1999) [hereinafter SINGH, *DEFENDING INDIA*]. For an Indian journalist's account of the 1999 military encounter, see generally SRINJOY CHOWDHURY, *DESPATCHES FROM KARGIL* (2000).

20. Indeed, all situations of conflict over a fixed resource are zero-sum games.

21. This pay-off matrix is inspired by Robert O. Keohane, *Reciprocity in International Relations*, 40 INT'L ORG. 1 (1986).

In this case, Player A will always prefer Strategy I, regardless of Player B's strategy. An interesting feature of Unilateral Games is that reciprocity constraints are actually undesirable from the standpoint of maximizing the total payoff. Remember, with a reciprocity constraint, possible payoffs are confined to the diagonal. Here, however, the outcome that maximizes social gain through a maximization of the total payoff is cell [I, III], with a total payoff of 8. With a reciprocity constraint imposed, the best the players can do is cell [I, I], with a total payoff of 6. In this case, *not* imposing a reciprocity constraint maximizes social welfare. This example is not trivial or theoretical. As Robert Keohane demonstrates, such behavior is often found in realm of international trade liberalization.<sup>22</sup> Reciprocity constraints can be useful in multilateral trade negotiations, where many of the parties are not small countries.<sup>23</sup>

	I	II	III
I	4, 2	3, 4	2, 6
II	3, 1	2, 2	1, 4
III	2, 0	1, 1	0, 3

Figure (7): Unilateral Game Payoff with Reciprocity

#### F. A Caveat: Absolute versus Relative Payoffs

Many caveats should be kept in mind when determining what kind of game is at issue. In all the above examples, the pay-off matrices presented

22. See *id.* at 3 ("reciprocity has been associated with liberal trade policies"). Unilateral trade liberalization can benefit a "small" country by reducing costs to its consumers and producers, and therefore permitting a more efficient allocation of resources. A "small" country is one that cannot influence world prices for any good or service by adjusting its own demand or supply. See generally PAUL R. KRUGMAN & MAURICE OBSTFELD, *INTERNATIONAL ECONOMICS: THEORY AND POLICY* 191 (5th ed. 2000). Thus, a small country could benefit by reducing its own barriers of trade, rather than engaging in import compression. See Nita Ghei & Lant Pritchett, *The Three Pessimisms: Real Exchange Rates and Trade Flows in Developing Countries*, in *EXCHANGE RATE MISALIGNMENT: CONCEPTS AND MEASUREMENT FOR DEVELOPING COUNTRIES* 471-80 (Lawrence E. Hinkle et al. eds. 1999).

23. See *infra* Part III.B.

only absolute payoffs, with the assumption that the players used these absolute payoffs to determine their strategy. In the world of international law this assumption may be invalid. Players, for example, might use relative pay-offs to determine their strategies. Consider the pay-off in Figure 1, a pure common interest game, which leads to a stable Nash equilibrium which is Pareto optimal, if the players use an absolute pay-off matrix.<sup>24</sup> A reciprocity constraint would be superfluous. However, where players are concerned with relative pay-offs, the game is transformed into a negative sum prisoners' dilemma.<sup>25</sup> The pay-off matrix would take the following form:

	I	II	III
I	0, 0	-2, 1	-4, 2
II	1, -2	-1, -1	-3, 0
III	2, -4	0, -3	-2, -2

Figure (8): *Relative Payoff Game*

Now, imposing a reciprocity constraint results in an improvement in welfare, by forcing both players to play Strategy I, with payoff (0, 0).<sup>26</sup> However, the players would have reached this outcome without needing a reciprocity constraint if they were simply considering absolute payoffs.

24. See Figure 1, *supra* Part 1.A.

25. One can think of this as an armament game, where the cost of each weapon to a player is 1, and the benefit (or cost) of having one more weapon than the other is +2/-2.

26. Thus, there is a credible commitment that ends the armament race.

	I	II	III
I	0, 0	-2, 1	-4, 2
II	1, -2	-1, -1	-3, 0
III	2, -4	0, -3	-2, -2

Figure (9): Relative Payoff Game with Reciprocity

Treaties that limit armament growth or experimentation, such as the Comprehensive Test Ban Treaty (CTBT), are likely to result in situations where some states look to relative payoffs when determining their strategy. However, as discussed below, treaties such as the CTBT are in reality subject to strategies formed by a complex vector of considerations. It is plausible that some countries might use a relative pay-off, while others use the absolute payoff in determining strategy. Further, in such complex treaties, one can never discount the possibility of genuine differences in presumptions, and therefore preferences, among states. Moreover, it is difficult to characterize a game as either a Prisoners' Dilemma with imperfect monitoring or varying pay-off matrices, a Divergent Preference game, or as a Unilateral game, since the game could have elements of any or all.<sup>27</sup>

Before turning to actual examples from international law, ranging from the Vienna Convention of 1969 to the CTBT, which has yet to come into force, this Article first aims to define the term "reciprocity."

## II. Defining Reciprocity

Reciprocity has many definitions in international law literature, including definitions in choice of law clauses in private international law.<sup>28</sup> This

27. See MICHAEL NICHOLSON, FORMAL THEORIES IN INTERNATIONAL RELATIONS (1989) (providing a detailed discussion on formal models on technological arms races, *id.* at 33-38, and the Richardson Arms Race Model, *id.* at 147-58). Nicholson also develops formal models for a number of issues in international relations, and discusses them in a detail that is beyond the scope of this paper. For the original exposition of the Richardson arms race model, see generally LEWIS F. RICHARDSON, ARMS AND INSECURITY (1960).

28. International private law is outside the scope of this Article, and is not addressed. For discussions on choice of law clauses in private international law, see, for example, Jay Lawrence Westbrook, *Theory and Pragmatism in Global Insolvencies: Choice*

paper follows Parisi's definitions<sup>29</sup> and relates them to Robert Keohane's definitions of reciprocity.<sup>30</sup> While the former set is quite precise and developed in a game-theoretic framework, Keohane's definitions are widely used in the literature.

#### A. Structural Reciprocity

This model assumes an ideal world where the parties' incentives are perfectly aligned, such that neither has an incentive to unilaterally defect. Such reciprocity exists in a world where the players are in a pure common interest game.<sup>31</sup> In these cases there is no need for external enforcement mechanisms, such as a legal system or a threat of coercion.

When a perfect alignment of interests does not exist, as occurs more often than not, an incentive for opportunistic behavior arises. If, as is the case in international law, the mechanisms for contract enforcement are inadequate or lacking, alternate safeguards will emerge in the system. For example, over time norms of reciprocity have emerged as meta-rules for international law in the absence of a recognized rule of law.<sup>32</sup>

Evolutionary psychologists have hypothesized that there are behavioral foundations of reciprocity, and that humans have evolved mental algorithms for identifying and punishing defectors.<sup>33</sup> There is a considerable body of literature on experimental economics in this area, as the issue of reciprocal behavior between individuals has become a matter of increasing interest in experimental economics. As Ernst Fehr and K.M. Schmidt point out—contrary to predictions based on assumptions of self-interested utility maximization—a significant body of literature has accumulated evidence suggesting that individuals are motivated by concerns of fairness and reciprocity.<sup>34</sup>

For example, Robert Axelrod found that a tit-for-tat strategy outperformed a 'rational' self-interested strategy in an iterated game. Specifically, Axelrod suggests cooperation is far more common and normal than expected, and the standard economic model of self-interest is not necessa-

---

of Law and Choice of Forum, 65 AM. BANKR. L.J. 457 (1991); Volker Behr, *Enforcement of United States Money Judgments in Germany*, 13 J. L. & COM. 211 (1994).

29. See Parisi, *Taxonomy*, *supra* note 4, at 103-10.

30. See Keohane, *supra* note 21, at 5-8 (defining reciprocity generally).

31. See Schelling, *supra* note 5, at 84 (terming this concept "the 'pure-collaboration' game"); see also *supra* Part I.A.

32. See Parisi, *Customary Law*, *supra* note 15. The classic understanding of evolution of norms outside a formal legal system remains. See, e.g., ELLICKSON, *supra* note 15, at 151-54 (discussing biological selection and norms), 173 (discussing transmission of norms with welfare maximization).

33. See, e.g., Elisabeth Hoffman et al., *Behavioral Foundations of Reciprocity: Experimental Economics and Evolutionary Psychology*, 36 ECON. INQUIRY 335 (1998).

34. Ernst Fehr & Klaus M. Schmidt, *Theories of Fairness and Reciprocity - Evidence and Economic Application*, CESifo Working Paper Series No. 403, at 1, available at <http://www.CESifo.de> (Dec. 2000). However, they also note that standard economics assumptions still work in the vast majority of cases in making predictions about behavior. Nonetheless, the empirical evidence on reciprocity and trust is robust enough that it cannot be dismissed as an aberration, and must be taken into account while modeling certain kinds of behavior, such as repeat games.

rily the best model for all circumstances.<sup>35</sup> Joyce Berg and her co-authors found reciprocity to be an essential element of human behavior, and held that this accounted for trust extended to anonymous counterparts.<sup>36</sup> While much of this evidence relates to games with repeat players, Kevin McCabe and his co-authors find support for cooperation with fully informed players even in single play experiments.<sup>37</sup>

Not surprisingly, reciprocity and fairness tend to be meta-rules in customary international law. For instance, evidence can be found in ancient customs of retaliations.<sup>38</sup> Even though practices of literal retaliation are no longer endorsed as desirable international customs, the principle of reciprocity remains critical in international law, due to the dominant role played by customary law among the sources of international law.<sup>39</sup>

### B. Induced Reciprocity

This golden rule<sup>40</sup> successfully binds each player's strategy to that of his opponent. Automatic reciprocity of this type creates a symmetric constraint for the players' strategies. Thus, when a player chooses to cooperate, he knows the other player will also cooperate. Induced reciprocity means there is no incentive left for unilateral defection, or defection as a defensive strategy.<sup>41</sup> A reciprocity constraint of this sort eliminates the off-diagonal choices on the pay-off matrix.

This equilibrium should be contrasted with the outcome induced by a reciprocity constraint, as illustrated in Figure 3, reproduced below.

Figure 3 shows the effect of a reciprocity constraint on the equilibrium obtained in Figure 2 under the Prisoners' Dilemma.<sup>42</sup> By eliminating the accessibility of asymmetric outcomes, golden rule type reciprocity compels the parties to take into account the effect of the opponent's reciprocal choice when selecting their optimal strategy. In this way, the dominance of Strategy III obtained in Figure 2 is transformed into a dominance of Strategy I, with optimal levels of cooperation for the two players. Now, the only options remaining for the players are mutual cooperation under strategies I or II, or zero cooperation under Strategy III. The players will now choose the mutual full cooperation outcome as the dominant Strategy—the Nash equilibrium is also the Pareto-optimal outcome.

This is akin to, though not identical with, what Keohane terms specific

35. See AXELROD, *supra* note 3, at 27-54.

36. Joyce Berg et al., *Trust, Reciprocity and Social History*, 10 GAMES & ECON. BEHAV. 122, 124 (1995).

37. Kevin A. McCabe et al., *Game Theory and Reciprocity in Some Extensive Form Experimental Games*, 93 ECON. SCI. 13421, 13428 (1996).

38. Francesco Parisi, *The Genesis of Liability in Ancient Law*, 3 AM. L. & ECON. REV. 82, 86-91 (2001) [hereinafter Parisi, *Genesis of Liability*].

39. See, e.g., Statute of the International Court of Justice, June 26, 1945, art. 38, para. 1, 59 Stat. 1033, 1060, available at <http://www.icj-cij.org/icjwww/ibasicdocuments/ibasictext/ibasicstatute.htm> (stating that customary law is a source of international law) [hereinafter ICJ Statute].

40. See Parisi, *Taxonomy*, *supra* note 4, at 105-08.

41. Defection in this context means choosing Strategy III, and not cooperating.

42. See *supra* Part I.C.

	I	II	III
I	6, 6	2, 7	-2, 8
II	7, 2	3, 3	-1, 4
III	8, -2	4, -1	0, 0

Figure (10): A Prisoner's Dilemma Problem with a Reciprocity Constraint

reciprocity, in that it has an equivalence element.<sup>43</sup> In Keohane's terminology, specific reciprocity is bargained for and has fairly precise terms for an exchange that is approximately equivalent. Though he does not explicitly make this assumption, specific reciprocity would seem to be more applicable in bilateral situations.<sup>44</sup> A golden-rule type induced reciprocity is easily applied in a multilateral situation, and it relates to strategy, not to the content of negotiation.<sup>45</sup>

A rule of reciprocity that is very close to Keohane's specific reciprocity, and identical with Parisi's induced reciprocity, is recognized as a rule governing all treaty law within the system of public international law. The Vienna Convention of 1969 explicitly incorporates such an induced reciprocity constraint in Article 21(1)(b), which states: "A reservation established with regard to another party . . . modifies those provisions to the same extent for that other party in its relations with the reserving State."<sup>46</sup>

This provision of the Vienna Convention effectively removes all incentive for unilateral defection and substantially reduces the probability of hold-outs during treaty negotiations as a desirable strategy.<sup>47</sup>

An induced reciprocity rule is sufficient to get the players out of a prisoners' dilemma. However, induced reciprocity constraints are effective

43. See Keohane, *supra* note 21, at 8-19.

44. Alan Swan reads specific reciprocity in this bilateral sense. See Alan C. Swan, "Fairness" and "Reciprocity" in *International Trade: Section 301 and the Rule of Law*, 16 ARIZ. J. INT'L. & COMP. L. 37, 39-47 (1999).

45. Obviously, sometimes the distinction between negotiating strategy and content may not be that clear cut.

46. Vienna Convention, *supra* note 18, at art. 21.

47. The GATT (and now the WTO) has a similar reciprocity constraint through the use of the 'most-favored-nation' clause. See *infra* Part III.C.



only when there is an incentive for unilateral defection by the parties.<sup>48</sup> Such a rule is not a solution when the conflict occurs along the diagonal possibilities of the game, as in a Divergent Preference game, as it will not alter the dynamics of the game. A different form of reciprocity constraint is needed for interactions that take a form other than the Prisoners' Dilemma.

### C. Stochastic Reciprocity

Stochastic reciprocity can be a successful arrangement between two or more players in a Divergent Preference game. The players must undertake repeated transactions in a stochastic game. The source of randomness in the game could be role reversibility of the players, or a random distribution of asymmetric payoffs to the players over the repeated plays of the game.<sup>49</sup> Stochastic reciprocity requires a pre-commitment by each player to a meta-strategy for the duration of the game.<sup>50</sup> In situations of stochastic reciprocity cooperative strategies are likely to dominate if there is a relatively high probability of future interaction and a relatively low discount rate of the players.<sup>51</sup> A higher probability of future interaction is more likely to increase the expected payoff from cooperation; a lower discount rate means the future payoff is valued relatively highly in present value terms. Thus, both increase the present value of cooperation.

Stochastic reciprocity is similar to Keohane's 'diffuse reciprocity,' where an agent cooperates not in expectation of a specific reciprocal reward, but rather for some general reciprocal return in the future.<sup>52</sup> Either definition matches the environment in international law. The players are nations who engage in repeated interactions with each other. Thus, the condition of a high probability of future interaction is satisfied. It is reasonable to assume that states have low discount rates because, in general, nations have long lives and therefore long time horizons.

It is important to keep in mind that while stochastic reciprocity may solve the problem of divergent preferences in certain cases, it will not solve the problem of a prisoners' dilemma. If the players were in a prisoners' dilemma, even in an iterated game, stochastic reciprocity would not change the usual results obtained in the Chain-Store Paradox and the Folk

---

48. Ernst Fehr and Simon Gächter use different terminology. They term reciprocal tendencies towards cooperation "positive reciprocity," while retaliatory aspects are called "negative reciprocity." See Ernst Fehr & Simon Gächter, *Fairness and Retaliation: The Economics of Reciprocity*, CESifo Working Paper No. 336 at 1, available at <http://www.CESifo.de> (Mar. 2000). Parisi shows negative reciprocity can also be ex ante efficient. While ex post negative retaliation can be regarded as punitive and destructive in nature, a credible pre-commitment to negative retaliation can be an effective deterrent against socially undesirable behavior. See Parisi, *Genesis of Liability*, *supra* note 38, at 103.

49. See Parisi, *Taxonomy*, *supra* note 4, at 108-09.

50. Parisi terms this "silver-type reciprocity." See *id.* at 108.

51. *Id.*

52. See Keohane, *supra* note 21, at 19-24.

Theorem.<sup>53</sup>

Thus, an induced reciprocity constraint will result in higher levels of cooperation in a Prisoners' Dilemma. Stochastic reciprocity will encourage cooperation in a situation where the players have divergent preferences. Structural reciprocity exists when players' interests are perfectly aligned and there is no need to impose any additional conditions, as the players will choose to cooperate in any case. Reciprocity constraints are ineffective, and might even have adverse effects, in inessential games where the aggregate payoff is constant; or in the case of a unilateral game, where a player has a dominant strategy regardless of other player's strategy.

### III. Reciprocity Constraints in Public International Law

This section considers some examples from international law, and examines the role of reciprocity constraints in each. Reciprocity has powerful implications for many important domains in international law. First, this Article examines the Truman Proclamation as an example of a pure common interest game, which required no external reciprocity constraint. The custom that developed following the Truman Proclamation could be considered an example of structural reciprocity. Second, this Article considers the General Agreement of Tariffs and Trade (GATT), and the United States' use of Section 301 of its Trade Act of 1974<sup>54</sup> as a tool to obtain reciprocal trade liberalization. The GATT regime is one of induced reciprocity, with some exceptions for developing countries and regional trading blocs. The United States has often used the threat of unilateral sanctions under Section 301 to obtain trade liberalization measures from its partners—liberalization that the partner was in fact obligated to undertake under GATT. Third, this Article considers the case of the Law of the Sea as an example of stochastic reciprocity. Lastly, this Article considers the complex case of the Comprehensive Test Ban Treaty (CTBT). Depending on the players included, this is treated as a different game: a Prisoners' Dilemma with

---

53. The so-called Chain-Store Paradox was first pointed out in, Reinhard Selten, *The Chain Store Paradox*, in *THEORY AND DECISION* 127, 127-29 (1978) (describing the paradox). The paradox points out that in a repeated Prisoners' Dilemma game with a finite horizon, mutual defection is likely to dominate the game from the very first round of players' interaction. The result is logically derived through backward induction: since the last game is likely to be dominated by mutual defection, the one-to-the-last game will also induce defection (since there is no future cooperation to preserve). The same logic thus applies to all previous rounds of the game, all the way up to the first round. The so-called Folk Theorem, instead suggests that in the case of infinitely repeated games, cooperation may (but will not necessarily) exist. Without a last period game, the backward induction logic of the Chain-Store Paradox cannot be applied. The Folk Theorem tells us that in an infinitely repeated game, any pattern of behavior can be observed over a finite number of periods. The Folk Theorem has no paternity (hence, the name of the theorem, as part of the "folk wisdom" of game-theory). Contributions and mathematical elaborations of this theorem however include, Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981). For an accessible presentation of these concepts, see ERIC RASMUSEN, *GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY* 121-25 (2d ed. 1989).

54. 19 U.S.C. § 2411 (1994).

monitoring problems; a state considering relative pay-offs; a divergent preference game; or a unilateral game. Not surprisingly, the reciprocity constraint in the treaty provides insufficient incentive for many of the key states to ratify, or even sign, the CTBT.

#### A. Structural Reciprocity: The Truman Proclamation

The Truman Proclamation is an illustration of a pure common interest game with structural reciprocity.<sup>55</sup> In 1945, President Harry Truman issued a Proclamation with Respect to the Natural Resources of the Subsoil and Seabed of the Continental Shelf, which stated: "[T]he government of the United States regards the natural resources of the subsoil and the seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control."<sup>56</sup>

At the time this claim was made, it was not only novel, but "inconsistent with pre-existing international law," since "[n]o state had ever made a general claim to control over all of the seabed resources of its continental shelf beyond twelve nautical miles."<sup>57</sup> Nonetheless, other states quickly followed the lead of the United States and made similar claims regarding their own continental shelves.<sup>58</sup> Within a few years the claim assumed the form of a custom, which is a primary source of international law. By 1951 the International Law Commission included the right of coastal states over their continental shelves in a set of Draft Articles.<sup>59</sup> By 1958, the codification in the Geneva Convention on the Continental Shelf confirmed the claim's customary status.<sup>60</sup> Thus, it took less than fifteen years for this claim to ripen into custom.

In our framework, the explanation is quite straightforward. The claim by the United States concerned its continental shelf. It did not preclude other coastal states from making the same claim. In fact, it allowed other coastal states to make similar claims with respect to their own continental shelves.<sup>61</sup> Further, as the claim did not require actual occupation or prescriptive use, all other coastal states could make the claim, without regard to the amount of their resources or strength. All coastal states stood to gain from making the claim, and no state lost anything because the United States made the claim. Thus, there was no reason for any coastal state to object to the United States' initial claim. In this case, the incentives of all coastal states were perfectly aligned, as in a pure common interest game,

55. For an analysis of the Truman Proclamation in terms of reciprocity, see also BYERS, *supra* note 13, at 90-92; BROWNLIE, *supra* note 12, at 214-17, 219.

56. Reproduced in 40 AM. J. INT'L L. SUPP. 45, 46 (1946); see also BYERS, *supra* note 13, at 91.

57. See BYERS, *supra* note 13, at 91.

58. These included Mexico, Argentina, Brazil and Australia, among others. *Id.* at 91 n.18.

59. Draft Articles on the Continental Shelf and Related Subjects, reprinted in 2 Y.B. INT'L L. COMM'N 123, 141 (1957).

60. Convention on the Continental Shelf, Apr. 29, 1958, 499 U.N.T.S. 311.

61. See BROWNLIE, *supra* note 12, at 215.

described in Section II above. There was no need for an external enforcement mechanism because the alignment of the parties' incentives was sufficient to transform the Truman Proclamation into binding custom.<sup>62</sup>

#### B. Induced Reciprocity: The GATT and the U.S. use of Section 301

Article 21(1)(b) of the Vienna Convention is the prime example of induced reciprocity, and thereby, also a meta-rule for treaty law. Titled, "Legal Effects of Reservations and of Objections to Reservations," it reads: "[a] reservation established with regard to another party . . . modifies those provisions to the same extent for that other party in its relations with the reserving State." A variant of induced reciprocity is found in GATT in the form of the most-favored nation (MFN)<sup>63</sup> and national treatment clauses.<sup>64</sup> This counters the fact that trade liberalization often takes the form of a Prisoners' Dilemma.<sup>65</sup>

For economists, the welfare and efficiency gains from free trade are clear, particularly in a full employment model. The analysis of free trade gains date back to Adam Smith<sup>66</sup> and David Ricardo.<sup>67</sup> A country specializes in goods it has a comparative advantage in, and trades these goods with other countries. In the basic model, gains from specialization make international trade a positive-sum game, and free trade is a Kaldor-Hicks welfare gain.<sup>68</sup>

---

62. In the parlance of Goldsmith and Posner, the rule of customary law that emerged would be no more than a "coincidence of interest." See Goldsmith & Posner, *Theory*, *supra* note 6, at 1122. It is worth keeping in mind that Goldsmith and Posner are questioning theories of international law, rather than basing custom on some sense of exogenous obligation by the states. From our perspective, coincidence of interest, that is, a pure common interest game, can result in a rule of customary law. We make no claims with respect to the stability of the rule that emerges. In fact, our analysis is perfectly consistent with that of Goldsmith and Posner, who argue that the behavioral regularity will disappear if the interests of the nations change. *Id.*

63. General Agreement on Tariffs and Trade, Oct. 30, 1947, art. 1, para. 1, 55 U.N.T.S. 194 [hereinafter GATT]. (stating in part: "any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.").

64. *Id.* art. III, para. 2 (stating: "[t]he products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess to those applied, directly or indirectly, to like domestic products.").

65. Sometimes trade liberalization can take the form of a unilateral game. See, e.g., Keohane, *supra* note 21, at 13-15 (discussing why it was optimal for Great Britain to reduce its tariff levels, regardless of France's treatment of its own tariffs).

66. See ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS* (Edwin Cannan ed., 1976).

67. See DAVID RICARDO, *THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION* (1963).

68. The models that explain gains from specialization and international trade are well-known and widely available. Therefore, a detailed explanation is not provided here. A simple exposition of the basic models of international trade based on the notions of absolute advantage (from Smith), comparative advantage (from Ricardo), and specific factors (also known as the Heckscher-Ohlin model) that remain the basis of much of the analysis of international trade can be found in, KRUGMAN & OBSTFELD, *supra* note 22, at 66 - 85. A Kaldor-Hicks gain is obtained by a move where the winners can compensate the losers. See generally MISHAN, *supra* note 16, at 303-04.

However, there are political and social costs to trade liberalization. Import-competing industries lose as a result of trade liberalization. These groups will lobby the government against trade liberalization.<sup>69</sup> Further, if one state lowers trade barriers, and the other state does not, the liberalizing state stands to lose politically. In any case, mercantilist sentiment is alive and well in most states, and the incentive to unilaterally defect—that is, maintain trade barriers—is always strong. Thus, trade liberalization begins to take the form of a Prisoners' Dilemma. Both parties would be better off under a free trade regime, but each has a dominant strategy that results in maintaining trade barriers.

The MFN and national treatment clauses, though not in line with Keohane's definition of reciprocity<sup>70</sup> or Swan's interpretation of Keohane's definition,<sup>71</sup> nonetheless, fits Parisi's definition of induced reciprocity. Swan's definition of reciprocity requires Country A to extend the same treatment to imports from Country B that Country B extends to its imports from Country A. This is specific reciprocity as Keohane defines it. However, Swan's concern is more mirage than reality. The MFN clause<sup>72</sup> requires each nation to treat imports of goods, services and capital from all countries equally. The national treatment clause<sup>73</sup> requires imports of goods, services and capital receive the same treatment as those of national origin.<sup>74</sup> These clauses, coupled with the multilateral nature of GATT, are sufficient to create an induced reciprocity constraint that will provide an incentive to countries to liberalize trade regimes, since all signatories reduce trade barriers equally with respect to all parties. In effect, the MFN clause will yield reciprocity of the sort that Swan defines, but through a route of multilateral obligations.

By creating a regime of induced reciprocity GATT eliminates the "sucker's payoff" in the Prisoners' Dilemma.<sup>75</sup> That is, it makes sure a state will not find itself in a position where it has lowered its trade barriers,

---

69. See MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965) (discussing the workings of interest groups). According to Olson, a small cohesive group faces lower organization costs and can lobby more effectively. *Id.* at 53-65. Further, if costs are concentrated in a small group, while benefits are dispersed over a large group, such that the average loss is greater than the average gain (but total gain is greater than total loss), the small group could effectively lobby to prevent the action that would benefit the large group. *Id.* Thus, in terms of trade liberalization, costs are borne by the import-competing industries, while gains are dispersed over all consumers. The average cost to each producer is greater than the average benefit to each consumer. But total gains are greater than total losses, as consumers vastly outnumber producers. Nonetheless, the producers could effectively lobby to maintain trade barriers. *Id.*

70. See Keohane, *supra* note 21, at 5-8.

71. See Swan, *supra* note 44, at 42-43.

72. GATT, *supra* note 63, art. 1.

73. *Id.* art. III.

74. There are exceptions to this rule for developing countries, regional trading blocs, and free trade zones. See *id.* art. XXIV (discussing customs unions and free trade zones), art. XXXVI (discussing developing countries).

75. The "sucker" is the player who cooperates while the other player defects. In terms of Figure 2, *supra* Part I, this would be Player A choosing Strategy I and Player B choosing Strategy III. Player A will then receive a payoff of -2, while Player B gets 8. That

but its trading partners have not. However, in the real world, this may not be sufficient to get players to the Pareto optimal outcome of free trade. First, the reciprocity constraint does not change the incentive of the import-competing groups to seek protection; public choice dynamics in this aspect remain unchanged. However, the reciprocity constraint does provide a counter balance, and the possibility of access to world markets through GATT provides an incentive for exporters to lobby legislators against protection.

Second, induced reciprocity is not perfect since GATT permits exceptions, particularly for developing countries. Specifically, GATT permits them to maintain higher tariff barriers for longer periods of time. The exceptions are interesting, because they make the induced reciprocity constraint imperfect. Thus, for the efficient outcome to occur a collateral sanction may have to be provided. Swan suggests that threat of unilateral action by the United States, under Section 301 of the 1974 Trade Act,<sup>76</sup> provided a collateral sanction that furthered trade liberalization goals.<sup>77</sup> Under Section 301, the President of the United States can impose tariffs and other trade sanctions unilaterally on imports of a country he had determined had committed any one of several transgressions, which restricted access of U.S. goods and was "unjustifiable"<sup>78</sup> or "unreasonable."<sup>79</sup> Swan claims that much of the United States' use of Section 301, which has been denounced by other countries as unilateral action, occurred where the sanctioned state had failed to abide by its obligations and lower its trade barriers.<sup>80</sup> Swan looks at forty-three instances where Section 301 cases were submitted for international dispute resolution between August 1988 and June 1998.<sup>81</sup> Of these, thirty-one cases had outcomes favorable to the United States, with two outcomes unfavorable, four incomplete, and six that could not be classified.<sup>82</sup> In virtually all instances the American position rested on either or both of the following charges: the named foreign country had violated the terms of, or denied the benefits under, WTO (GATT) or other international agreement (terms that found their ultimate justification in a trade liberalization philosophy); or, the foreign country maintained unreasonably restrictive access to its economy against American and other foreign nations.<sup>83</sup> Both charges support freer trade. Thus, according to Swan, the use of Section 301 advanced global trade liberalization.<sup>84</sup>

---

is, Player A is the sucker. An induced reciprocity constraint of the form imposed by the MFN clause eliminates this possibility.

76. 19 U.S.C. § 2411 (1994).

77. See Swan, *supra* note 44, at 37.

78. 19 U.S.C. § 2411(a)(1)(B)(ii) (1994).

79. *Id.* § 2411(b)(1).

80. See Swan, *supra* note 44, at 39.

81. *Id.* at 58-67.

82. *Id.*

83. *Id.*

84. *Id.*

Collateral sanctions act to balance domestic interest groups in favor of protection. Arguably, only a big country could have the power to use such a sanction effectively, since access to its markets (the reciprocal condition) is a valued resource. Nonetheless, the potential for abuse is obvious. Swan makes no claim that the United States has not engaged in trade protection in its own right.<sup>85</sup> The most encouraging aspect of the entire regime is that, despite these imperfections, the successive rounds of GATT, and now the WTO, have succeeded in lowering global average tariff rates. Even the imperfect induced reciprocity of the GATT regime has assisted the global move toward trade liberalization, without relapses into tariff wars.

### C. Stochastic Reciprocity: The Law of the Sea

Customary law, as discussed earlier, typically provides the best examples of stochastic reciprocity.<sup>86</sup> The Law of the Sea offers a striking example of custom in international law, even though the International Law Commission has codified much of the customary law.<sup>87</sup> We consider two examples: the right of innocent passage and the right of hot pursuit.<sup>88</sup>

All states currently exercise some degree of sovereignty over a belt of sea adjacent to their coast-lines comprising the "territorial sea" of their nation.<sup>89</sup> However, customary law gives foreign vessels the right of innocent passage through territorial sea.<sup>90</sup> The Law of the Sea Convention states: "[p]assage is innocent as long as it is not prejudicial to the peace,

---

85. One of the more troubling facets of protectionist sentiment is the attempts to redefine reciprocity to trade balance with each trading partner. Such a definition clearly will not assist in getting nations out of the Prisoners' Dilemma of trade liberalization.

86. The medieval Law Merchant (*Lex Mercatoria*) also provides an example of stochastic reciprocity, based on the possibility of role reversibility of the parties. During medieval times, the body of law that eventually came to be known as the Law Merchant evolved as a response to the need of traveling merchants for a set of meta-rules that would govern their interactions in commerce with each other. The merchants acted as both buyers and sellers at this point in time, since the main form of business undertaken was a form of arbitrage. Merchants traveled from one town to another in order to exploit price differentials between the markets in the various towns. The merchants needed rules that would apply to their business transactions, as a means of increasing certainty in their transactions. The result was the Law Merchant, a body of private law that applied uniformly to commercial contracts entered into by professional merchants. The merchants had a strong incentive to create laws that were 'fair,' in that they favored neither the buyer nor the seller in any systematic manner, since each merchant could be either a buyer or a seller in any given transaction. Of course, in the case of the Law Merchant, there was also a reputational cost to opportunistic behavior which violated the norm of reciprocity and provided a collateral sanction for such behavior. See Parisi, *Customary Law*, *supra* note 15, at 574 - 76.

87. See BROWNIE, *supra* note 12, at 180-257; see also KAROL WOLFKE, CUSTOM IN PRESENT INTERNATIONAL LAW 29-40, 139-41 (2d ed. 1993).

88. For a discussion of other rules of customary law with respect to the Law of the Sea, which were not necessarily respected over time, see Goldsmith & Posner, *Resemblance*, *supra* note 6, at 647-54 (discussing evidence suggesting certain rules of customary international law are not followed during times of war).

89. BROWNIE, *supra* note 12, at 180.

90. *Id.* at 194-95.

good order or security of the coastal State.”<sup>91</sup> An earlier declaration held: “[s]ubject to the provisions of these articles, ships of all States, whether coastal or not, shall enjoy the right of innocent passage through the territorial sea.”<sup>92</sup> Brownlie considers the codification in the Conventions to correspond to customary law.<sup>93</sup>

Similarly, the Convention on the High Seas codifies customary law.<sup>94</sup> Consider one example—the right of hot pursuit. According the Convention on the High Seas:

The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated the laws and regulations of that State. Such pursuit must be commenced when the foreign ship . . . is within . . . the territorial sea or the contiguous zone of the pursuing State, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted. . . .

The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own country or of a third state.<sup>95</sup>

These rules apply to all countries impartially. When it comes to either innocent passage, or the right of hot pursuit, a state can be on either side of the transaction. That is, the state could be the one exercising sovereignty over the territorial sea, or it could be the state represented by the flag on the ship. Thus, the state can both seek innocent passage through another’s state’s territorial sea, and provide innocent passage. Similarly, the state could engage in hot pursuit, or be the state of the flag on the ship being pursued. Further, the right of hot pursuit ceases at another state’s territorial sea. While this prevents continued pursuit, it also prevents other states from encroaching on other nation’s territorial sea under the justification of hot pursuit.

The Law of the Sea seems to have the two essential elements for a successful stochastic reciprocity condition—role reversibility and repeat interactions.<sup>96</sup> Each State can be on either end of the transaction and undertakes similar transactions repeatedly. Thus, any attempt to cheat today is likely to rebound tomorrow when the State finds itself on the other side of the transaction. For example, if State A limits innocent passage through its territorial sea, other states are then likely to limit innocent passage to ships flying State A’s flag. This role reversibility is why all nations respect the customs that have developed into binding legal practice. Similarly, role reversibility, in a multi-period game, also provides a sufficient incentive against systematically biasing the laws in favor of any one out-

---

91. Convention on the Law of the Sea, Dec. 10, 1982, art. 19, para. 1, 1833 U.N.T.S. 397, 404.

92. Convention on the Territorial Sea and the Contiguous Zone, Apr. 29, 1958, art. 4, para. 1, 516 U.N.T.S. 205, 214.

93. BROWNIE, *supra* note 12, at 195.

94. Convention on the High Seas, Apr. 29, 1958, 450 U.N.T.S. 82, 94.

95. *Id.* art. 23, paras. 1-2.

96. See *supra* Part II.C.



come. Thus, the element of role reversibility is akin to Rawls's "veil of ignorance."<sup>97</sup> Just as a Rawlsian "veil of ignorance" yields an outcome where the parties refrain from opportunistic behavior, role reversibility in a repeated game will yield fair laws, in so far as they do not contain systemic biases.

#### D. When Reciprocity Fails: The Comprehensive Test Ban Treaty

After two years of often contentious negotiations, the United Nations General Assembly adopted the CTBT, on September 10, 1996.<sup>98</sup> The treaty prohibits members from performing any nuclear weapons testing, or allowing any nuclear explosion to occur in their jurisdiction.<sup>99</sup> These obligations are absolute. The CTBT is not subject to reservations.<sup>100</sup> Additionally, the CTBT sets forth a verification regime under Article IV, and compliance measures under Article V.<sup>101</sup> On September 24, 1996, over fifty countries, including the United States, Great Britain, France, China and Russia, signed the CTBT. The signature and ratification of at least forty-four countries is required for the CTBT to go into force.<sup>102</sup> However, as of March 30, 2002, India and Pakistan have not signed the CTBT. Moreover, the United States, China and Russia have not ratified the CTBT. Ratification by these five nations, as well as eight others, is required for the CTBT to go into force.<sup>103</sup>

The CTBT has a built in reciprocity condition, in that all members undertake a reciprocal obligation to end nuclear testing. Typical disarmament treaties can be treated as Prisoners' Dilemmas, with the additional problem of monitoring.<sup>104</sup> If the monitoring problem can be solved, a reci-

---

97. JOHN RAWLS, A THEORY OF JUSTICE 12 (1971). Rawls begins with postulating what he calls the original position, where all persons are equal. *Id.* at 11. Then imagine that all persons choose together, in a single act, all the principles which are to assign basic rights and duties, and to determine the division of social benefits. *Id.* However, this determination is made behind "the veil of ignorance," before any person knows their true position in society. *Id.* at 12. According to Rawls, the principles that will emerge will be just, based on a notion of "justice as fairness." *Id.* Since no-one knows what their position will be, there is no incentive to choose an assignment that favors any particular group. In the sense that the principles chosen will be fair, the social order that emerges will be just. *Id.*

98. Comprehensive Test Ban Treaty, Sept. 24, 1996, 35 I.L.M. 1439.

99. *Id.* art. I, 35 I.L.M. at 1444.

100. *Id.* art. VII, 35 I.L.M. at 1455.

101. *Id.* art. IV, 35 I.L.M. at 1449-55 (outlining verification); *id.* art. V, 35 I.L.M. 1455 (outlining compliance measures).

102. See *id.* Annex 1, 35 I.L.M. at 1458 (listing participating countries); *id.* Annex 2, 35 I.L.M. at 1458 (listing whose ratification is essential to the CTBT).

103. The following countries have not ratified the CTBT: Algeria, China, Colombia, North Korea, Congo, Egypt, India, Indonesia, Iran, Israel, Pakistan, the United States, and Vietnam. Of these, North Korea, India, and Pakistan have not signed the CTBT. See *Status of Signature and Ratification*, at <http://www.ctbto.org> (last visited Jan. 10, 2003). Ratification by all these countries is required under CTBT. See CTBT, *supra* note 98, art. XIV.

104. See NICHOLSON, *supra* note 27, at 93-98. William Aceves took this approach by analyzing the CTBT in an institutionalist framework. See William J. Aceves, *Institutionalist Theory and International Legal Scholarship*, 12 AM. J. INT'L L. & POL'Y 227 (1997).

prociprocity constraint, which creates induced reciprocity, should suffice for achieving cooperation.<sup>105</sup> However, the reciprocity constraint has been insufficient for some states to sign the CTBT. Both India and Pakistan have refused to sign the CTBT.<sup>106</sup> The United States Senate has refused to ratify the CTBT. European nations, on the other hand, have embraced the CTBT, and most have ratified it. These different responses can largely be explained by examining the nations' different perspectives. In effect, the participants are playing different games. For those nations which have ratified the CTBT, it reflects the solution to a prisoners' dilemma based on relative payoffs. For those nations which have either not signed or ratified the CTBT, it could be a matter of divergent preferences, or a unilateral game based on absolute payoffs.

The CTBT is not a typical disarmament treaty. First, there are two classes of states: those with nuclear weapons, and those without. This consideration is important when examining the strategies of nations; nations considering absolute payoffs versus nations looking at relative payoffs. Second, the disarmament element attaches the problem of monitoring. The different reactions of the states can be viewed along these lines.

The European states, and possibly nations in Latin America and Africa, could be considered as nations looking at relative pay-offs. The non-nuclear states in Western Europe are protected under NATO, while the others face no immediate threat of nuclear war. For these states, the reciprocity constraint is sufficient to induce their signature. The United States can be considered a nation in a Prisoners' Dilemma with a monitoring problem. There is some evidence, from official statements, that a major concern of the United States in ratifying the CTBT are the problems of monitoring and compliance.

The truly interesting case is that of India. As India has evolved it has persistently objected to the CTBT and refused to sign it. Jaswant Singh said the CTBT imposed a regime of "nuclear apartheid."<sup>107</sup> In fact, India is looking at absolute pay-offs when making its decision. In this case, the pay-off has to take into account the nuclear arsenals of both Pakistan and China;<sup>108</sup> both states currently occupy territory that India claims. These concerns were made clear in the Official Response of India to the June 12

---

This view fails to recognize the peculiar nature of the CTBT, in that the reciprocity constraint applies only to relative pay-offs, and thus maintains two classes of states: those with nuclear weapons and those without such weapons.

105. See NICHOLSON, *supra* note 27, at 98.

106. India, which has persistently objected to the CTBT in its current form, was an original proponent of the CTBT in the 1950s, under its first Prime Minister Jawaharlal Nehru. See Jaswant Singh, *Against Nuclear Apartheid*, FOREIGN AFF., Sept. - Oct. 1998, at 41-42 [hereinafter Singh, *Apartheid*].

107. See *id.* at 48. While the article cited expressed his personal views, it is worth mentioning that Singh, at the time of writing of this paper, was a cabinet member in the current Indian government. *Id.* at 41.

108. India and Pakistan are long term military rivals, and have fought three full-scale wars in 1948, 1965, and 1971. See SINGH, *DEFENDING INDIA*, *supra* note 19, at 155-60, 172-95. China invaded India in 1962. *Id.* at 160-72.

Communique by the "Group of Eight" Countries.<sup>109</sup> China, in particular, has a nuclear arsenal that is much larger than India's. As long as India is looking at absolute pay-offs, the reciprocity constraint of the CTBT will be insufficient to allay India's concerns about its national security, since the CTBT eliminates relative, not absolute, discrepancies in nuclear power. From India's perspective, one of relative payoffs, the CTBT is a unilateral game. Thus, the reciprocity constraint will be insufficient to induce India's cooperation.

The other interesting aspect of the CTBT was the global response to India's nuclear tests in 1998.<sup>110</sup> India is not a signatory to the CTBT and could even qualify as a persistent objector. Even though India had not violated any treaty obligations, the Indian nuclear tests resulted in a chorus of condemnation, exemplified by the June 12 Communique of the "Group of Eight."<sup>111</sup> The statements at the 2000 meeting of the Preparatory Commission of the CTBT Organization, which met at the third anniversary of its establishment, suggest an answer: the CTBT has perhaps established a global norm against nuclear testing, even though it was not in force.<sup>112</sup> However, if such a norm had been established in the absence of reciprocity, it has to be in the nature of *jus cogens*, a peremptory norm, which over-rode India's objections. This seems implausible in view of the fact that such important players, like the United States and China, have failed to ratify the CTBT.<sup>113</sup>

Even though a reciprocity constraint was not sufficient to achieve cooperation in the case of the CTBT, different forms of reciprocity play a critical role in international law. Reciprocity can be structural or primary, as was the case in the Truman Proclamation. In such cases, there is no need for an external enforcement mechanism. Reciprocity can be induced, that is imposed externally, as in the GATT regime. Reciprocity can be treated as an obligatory condition, where the sense of obligatoriness is internal, as was the case of the Law of the Sea. Reciprocity emerges as a key element in many interactions between states.

---

109. Press Release, Ministry of External Affairs, New Delhi External Publicity Division, Statement by Official Spokesperson of the Government of India in Response to the June 12 Communique by the "Group of Eight" Countries, June 13, 1998, at <http://www.clw.org/pub/clw/coalition/india0613.htm> (last visited Jan. 10, 2003); see also Comprehensive Test Ban Treaty Site: Coalition to Reduce Nuclear Dangers, G8 Foreign Ministers Communique on Indian and Pakistani Nuclear Tests, June 12, 1998, at <http://clw.org/pub/clw/coalition/g80612.htm> (last visited Jan. 10, 2003) [hereinafter *G8 June 12 Communique*].

110. Pakistan conducted nuclear test shortly afterwards.

111. See *G8 June 12 Communique*, *supra* note 109.

112. Preparatory Commission for the Comprehensive Test Ban Treaty Organization (CTBTO) Provisional Technical Secretariat, *Summary Report of Panel Discussion: CTBT Three Years On - Significance, Achievements, The Way Forward*, Apr. 4, 2000, at <http://www.clw.org/coalition/ctbto040400.htm> (last visited Jan. 10, 2003) [hereinafter *Panel Report*]. The Panel called the CTBT the "second pillar of the non-proliferation regime." See *id.* ¶ 9.

113. For a list of countries that still have to ratify, see *supra* note 103.

#### IV. Reciprocity as a Meta-Rule for the System

To repeat the obvious, there is no overarching legal authority governing the law of nations. Why then do nations generally follow this law?<sup>114</sup> There is war, indisputably, but war and raw power are not what determine the vast majority of dealings between nations. Cooperation and peaceful resolution of disputes are what one generally observes.<sup>115</sup> From the discussion in Parts II and III, it is clear that reciprocity is an important element in dealings between states. Is it possible to claim that reciprocity is a meta-rule for international law?<sup>116</sup>

The normative case for reciprocity is relatively easy to make. Nation-states can be regarded as repeat players that accumulate institutional knowledge, a reputation, and presumably trust over time. International law can be regarded as an iterated game, played by these repeat players, with low discount rates. Cooperation fostered by reciprocity is likely to yield higher return outcomes for these players than a strategy of conflict.<sup>117</sup>

We can make a positive case for reciprocity as well. A considerable body of evidence suggests that scholars, and states, accept reciprocity as a basic rule of international law. Start by considering the limits of authoritative sources of international law. According to the International Court of Justice, there are four sources:

- a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations;
- d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.<sup>118</sup>

In effect, the three major sources are treaties, custom and general principles of law. Treaty law is subject to reciprocity, under Article 21(b) of the Vienna Convention. Before turning to custom, let us consider the case of the general principles. Some of these were laid out in the Draft Declaration on the Rights and Duties of States of the International Law Commission. The theme of reciprocal recognition runs strongly through the Declarations. Consider Articles 2, 3, and 5, respectively:

---

114. See generally Jianming Shen, *The Basis of International Law: Why Nations Observe*, 17 DICK. J. INT'L L. 287 (1999).

115. See *id.* at 289.

116. The discussion here is not about the validity of international law, or the source of international law. Thus, there is no discussion of the natural law school or the positivist school. The sole issue addressed is whether the notion of reciprocity is a basic rule of the system. For an excellent discussion of the historical development, see *id.* at 290-325. Shen reaches the conclusion that international law is ultimately the expression of the "compromised will" of sovereign states, which is why they comply with the law more often than not. *Id.* at 354-55.

117. That is, in situations akin to the Prisoners' Dilemma or Divergent Preferences, reciprocity constraints can be designed to foster cooperation.

118. ICJ Statute, *supra* note 39, art. 38, para. 1.

Article 2. Every State has the right to exercise jurisdiction over its territory and over all persons and things therein, subject to the immunities recognized by international law.

Article 3. Every State has the duty to refrain from intervention in the internal or external affairs of any other State.

Article 5. Every State has the right to equality in law with every other State.<sup>119</sup>

These rights and duties are clearly reciprocal, even though the word itself never appears in the Declaration. Article 12 of the Declaration states that every state has the right to self-defense.<sup>120</sup> The reciprocity in this right is obvious; war, as Theodor Meron points out, is “paradigmatically interstate law, driven by reciprocity. . . .”<sup>121</sup>

Michael Byers holds that the principle of reciprocity is fundamental to the system of international law.<sup>122</sup> International law itself emerges from a complex of bilateral relationships based on the consent of states. Reciprocity is a fundamental aspect of bilateralism, since bilateral relationships inevitably involve some element of *quid pro quo*.<sup>123</sup> However, bilateral relationships make up a general rule, which is given added weight by customary practice. As rules are generalized, reciprocity is important as a background rule in view of the legal equality of states. In the context of customary international law, any state claiming a right has to accord the same right to all other states.<sup>124</sup> Thus, reciprocity is needed to maintain the generalized principle of sovereignty. Therefore, Byers treats reciprocity as a separate principle of international law.<sup>125</sup>

Jianming Shen also considers reciprocity a basic principle of international law, but uses a different framework.<sup>126</sup> According to Shen, consent alone is an insufficient basis for international law. Instead, international law is the compromised expression of the will of states, with gains and concessions taken into account.<sup>127</sup> However, reciprocity remains an essential element in maintaining this compromise.

Reciprocity as a fundamental concept underlying international law appears over and over again, particularly in the context of customary law. Customary law is typically subject to reciprocity constraints, as demonstrated by the Law of the Sea.<sup>128</sup> Karol Wolfe points out that customary

119. Draft Declaration on the Rights and Duties of States, May 12, 1949 of the International Law Commission, available at <http://www.un.org/law/ilc/texts/declar.htm> [hereinafter Draft Declaration].

120. *Id.* art. 12 (“[E]very State has the right of individual or collective self-defense against armed attack.”).

121. Theodor Meron, *The Humanization of Humanitarian Law*, 94 AM. J. INT’L L. 239, 243 (2000).

122. See BYERS, *supra* note 13, at 88-89 (“reciprocity may be fundamental to bilateralism”).

123. See *id.* at 89.

124. *Id.*

125. *Id.* at 90.

126. See Shen, *supra* note 114.

127. *Id.* at 354-55.

128. See *supra* Part III.C.

law remains a important source of legally binding practice in international law.<sup>129</sup> While treaties are an expensive and difficult way to create rules, custom remains more flexible.<sup>130</sup> In virtually all cases where custom can be identified, the reciprocal nature of the practice is clear. As the International Court of Justice (ICJ) said: "[an] essential requirement for the practice of States to acquire the status of customary law is that such State practice must be common, consistent and concordant."<sup>131</sup>

Conventions grow into custom and then are applied on a reciprocal basis, as was the case in the Nuremberg trials following World War II. At that point, the issue arose whether aggressive war had been illegal and criminal under international law prior to 1945.<sup>132</sup> The "Counsel for the defendants claimed that the principles laid down in the four-power London agreement" were treaty law, to which Germany was not a signatory.<sup>133</sup> The tribunal reasoned that wars of aggression were illegal under customary international law, citing the Kellog-Briand Pact,<sup>134</sup> to which Germany was a signatory, and further ruled the Hague conventions had grown into customary law.<sup>135</sup> Thus, the law could be applied on a reciprocal basis to Germany.<sup>136</sup>

Violations of norms of reciprocity can be considered violations of the law. Unilateral defections from a norm are viewed with disapprobation, and typically have at least reputational consequences. In the modern context, the defecting state can sometimes be subject to sanctions that exceed more than mere disapprobation. For instance, if a state has chosen to submit itself to ICJ jurisdiction, it can be haled before the ICJ. Of course, the matter of ICJ jurisdiction itself has an element of reciprocity.

Consider the case of *United States v. Nicaragua*.<sup>137</sup> Both countries had declarations subjecting them to the jurisdiction of the ICJ.<sup>138</sup> On April 6, 1984, hearing that Nicaragua was going to bring suit, the United States deposited a declaration with the United Nations purporting to exclude United States acceptance to ICJ jurisdiction over any dispute with a Central American state for two years. It did this despite its 1946 Declaration, which contained no such reservation, and was expressed to be terminable only upon six months notice.<sup>139</sup> The United States based its claim on a

---

129. See WOLFKE, *supra* note 87.

130. *Id.* at xiv.

131. The Fisheries Jurisdiction (F.R.G. v. Ice.), 1974 I.C.J. 175, 222 (July 25).

132. See Oscar Schacter, *In Defense of International Rules on Use of Force*, 53 U. CHI. L. REV. 113, 114–15 (1986).

133. See *id.* at 115.

134. Kellog-Briand Pact (General Treaty for Renunciation of War as an Instrument of National Policy), Aug. 27, 1928, 46 Stat. 2343, T.S. No 796, 94 L.N.T.S. 57.

135. Schacter, *supra* note 132, at 115.

136. *Id.* at 115–16.

137. Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.), 1984 I.C.J. Rep. 392 (Nov. 26).

138. See Herbert W. Briggs, *Nicaragua v. United States: Jurisdiction and Admissibility*, 79 AM. J. INT'L L. 373, 376–78 (1985).

139. *Id.* at 377; see Anthony D'Amato, Comment, *Modifying U.S. Acceptance of the Compulsory Jurisdiction of the World Court*, 79 AM. J. INT'L L. 389 n.10 (1985).

reading of reciprocity of Nicaragua's declaration that contained no notice provision. That meant, the United States argued, that Nicaragua could terminate at will, and therefore the United States' obligation could not be held to be any greater.<sup>140</sup> By a vote of 15 to 1, the ICJ decided on November 26, 1984, it had "jurisdiction to entertain the case brought by Nicaragua against the United States . . . charging the United States with violations of international law through use of military force."<sup>141</sup> The ICJ decided that reciprocity was a jurisdictional requirement under Article 36, paragraph 2, and applied to declarations made without reservations of reciprocity.<sup>142</sup> The ICJ rejected the United States' argument, saying that the legal consequence of the condition of reciprocity was that the parties were placed on an equal footing, and identically phrased declarations were not required.<sup>143</sup>

Inevitably, there was talk of modifying the United States' obligation following this decision by the ICJ. In considering possible modification, Anthony D'Amato cautioned against restrictions that were too broad and pointed out:

A declaration accepting the World Court's compulsory jurisdiction is as much an offensive weapon against the legal delicts of other states as it is a defensive weapon. . . . Because of the principle of reciprocity, any substantive exception from compulsory justification will reduce opportunities to use the [International] Court [of Justice] offensively against other states . . . .<sup>144</sup>

D'Amato is pointing to the possibility of role reversal, and repeated interactions—a situation where reciprocity constraints are effective in inducing cooperation. He lists a number of areas where international law has grown from custom, including "boundaries of nations at land and at sea," "succession of . . . governments," "slavery," "diplomatic . . . privileges and immunities," "validity of international treaties," and "enforcement of foreign judgments," among many others.<sup>145</sup> He continues:

The rules of international law . . . were not imposed on states from on high, but rather grew out of their interactions over centuries of practice and became established as customary international law. Thus the rules, almost by definition, are the most efficient possible rules for avoiding international friction and for accommodating the collective self-interest of all states.<sup>146</sup>

A basic principle of customary law, as discussed above, is reciprocity. Further, the Vienna Convention imposes reciprocity on all international law created by treaty.<sup>147</sup> The Draft Declaration demonstrates that generalized principles of international law do the same.<sup>148</sup> Therefore, reciprocity

---

140. See Briggs, *supra* note 138, at 377.

141. See *id.* at 373.

142. See *id.* at 376.

143. See *id.* at 378.

144. D'Amato, *supra* note 139, at 386.

145. *Id.* at 401.

146. *Id.* at 402.

147. Vienna Convention, *supra* note 18, art. 21(1), 1155 U.N.T.S. at 337.

148. See Draft Declaration, *supra* note 119.

remains a key meta-rule in maintaining a reasonably well-functioning system of international law.<sup>149</sup>

### Conclusion

This paper examined the role of reciprocity in international law, which is a system without overarching legal authority to enforce rules. Using a game theoretic approach, this Article delineated several classes of games. Three different types of reciprocity constraints were defined and applied to problems identified. Reciprocity constraints can resolve many issues in international law, but are not a panacea. However, given the nature of international law, with a fairly small number of repeat players, low discount rates and institutional memory, it is reasonable to consider whether reciprocity can become an underlying principle of the international legal system. This Article concludes there is some evidence for the hypothesis that reciprocity is a meta-rule for the system of international law.

---

149. One aspect of customary law is its continuing evolution. Thus, it is plausible that new norms develop over time. The case of India's nuclear tests in 1998 could also be seen as a violation of a developing international norm. See *supra* Part III.D. Similarly, the Hague conventions and other declarations have helped influence the formation of humanitarian law. *Opinio juris*, in the form of verbal statements by government officials; the content of resolutions and declarations, and the consent of states to instruments will clearly influence the development of this law. It is worth noting Meron has an underlying belief that these customs will be reciprocal. See Meron, *supra* note 121. This belief is shared by the panelists of the CTBTO with respect to nuclear testing, regardless of whether the CTBT comes into force as a treaty. See *Panel Report, supra* note 112.



