



INSTITUTIONS AND THE SPONTANEOUS EVOLUTION OF MORALITY

by

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Morality is a multi-dimensional concept. Presumably it includes an inclination to behave ethically in the sense of respecting other people and their rights, living up to promises, and so on. Morality may also involve "charitable" behavior and various other types of altruism. Indeed, "morality" concepts such as the "Golden Rule" and the Kantian "categorical imperative" seem to require something like unconditional cooperation (Vanberg and Congleton 1992: 420). Obligations to behave ethically, cooperatively, and altruistically might be called "norms" [as in Ellickson (1991)] or "mores," but what is the source of such rules? Are they genetically "hardwired"? Are they preordained by a higher being or by the reasoning of wise men? Or do they evolve through human action as individuals respond to incentives and constraints?

Fuller (1964: 106) distinguishes between morality and law by defining law as "the enterprise of subjecting human conduct to the governance of rules." This suggests that law includes both rules such as "norms" or "mores" and institutions that create incentives to recognize the rules [as well as institutions to clarify, and change those rules (Hart 1961; Benson 1990)]. Thus, the degree to which rules are followed is influenced by the institutions that exist. The norms of moral behavior may be recognized but rationally ignored, for instance, if there is no institutionalized reasons to expect that others will behave similarly. Indeed, the nature of the rules that a group of people adopt simultaneously determines and is determined by the types of institutional arrangements that evolve to support those rules.<sup>1</sup> That is, "morality" is at least partly endogenous,<sup>2</sup> as are the institutions that support it. In essence, as Hayek (1973: 98) argues, the

"order of rules" can emerge spontaneously, just as an "order of action" does.

There are obviously many rules applied and enforced in a society that are not norms or mores, of course. Furthermore, many rules and institutions are established through deliberate design rather than evolving spontaneously. It shall be contended below that a primary motivation for developing rules and institutions, whether spontaneously or deliberately, is that individuals are attempting to find ways to expand wealth in the face of scarcity (Benson 1994a, 1994c, 1995).

An individual can expand wealth through productive activities, particularly when they are complemented by voluntary interaction with others, including economic interaction such as cooperative production (e.g., due to specialization and the division of labor) and trade. Institutions to define and support private property rights facilitate both joint (cooperative) production and voluntary interaction. Such rules and institutions can evolve spontaneously as individuals discover that their voluntary interactions are coordinated more effectively under a system or process that supports private property (Benson 1992b, 1994a, 1994c, 1995). Furthermore, the resulting "naturally evolving" social order is dominated by ethical behavior, respect for others' rights, and voluntary cooperation (often including charitable giving and other forms of altruism) - that is, by "moral" behavior in the sense described by Vanberg and Congleton (1992: 420). Indeed, the evolution of morality and of property rights are tightly intertwined (Benson 1992b), as rules of obligation supporting private property and incentives to cooperate stemming from private property "become a basic component of our sense of morality"

(Sugden 1986: 8). In a positive sense, however, what is perceived to be moral behavior within a social group changes over time, as the relative effectiveness of both rules and institutions are discovered through individual innovation as well as through observing and imitating (and migrating to) competitive alternatives.

An individual can also expand personal wealth by taking wealth from others. Theft through the use of guile or force is commonplace, after all. Such behavior is generally not consistent with widely held perceptions of morality, of course. But significantly, rules and institutions can also be designed to generate and/or enforce such a redistribution. Individuals with relatively substantial capacities to use force may extort payments, for instance, by designing rules that mandate wealth transfers to them and institutions for inducing those who are harmed to acquiesce out of fear. The fact that these rules and supporting institutions may be deliberately designed to transfer wealth does not mean that the concept of spontaneous evolution of morality does not apply, however. Deliberate efforts to institute rules simply influences the path of the spontaneous evolution of moral behavior, often in unanticipated and unintended ways. That is, even though such rules do not take on the status of moral norms (i.e., morality cannot be legislated and induced through force), it is likely that moral norms will be influenced by the imposition of such intentional "legislation." Since those who design rules are not likely to fully anticipate their consequences, deliberately made rules tend to set off spontaneous reactions. For instance, deliberate actions which take property rights away from some individuals make property rights in general less secure (Benson

1994a, 1994c, 1995b). In effect, part of the bundle of rights is placed in the "public domain," thus creating incentives to recapture them (Cheung 1974). Individuals may attempt to get the "law" changed, but they may also seek ways to circumvent or violate the law (where law is used in a legal positivist sense). Indeed, the accepted "norms" of behavior for many people in such a society may include a rule that "breaking the law is OK if you can get away with it." After all, moral behavior is not synonymous with law-abiding behavior when the rules of "law" being enforced are not widely recognized norms. In fact, "theft" in the sense of robbing the powerful (e.g., tax evasion) can become a widely accepted norm: The "outlaw" Robin Hood of legend was a figure of high moral character; Prince John and the Sheriff of Nottingham were not.

A positive analysis of legal and moral evolution must account for both the institutions which evolve spontaneously to facilitate voluntary interaction and those that are deliberately designed in order to take wealth. The purpose of the following presentation is to develop a framework for such analysis and suggest some of its implications.

## II. Sources of Rules: Consent versus Duress

Let us begin with the Hobbesian "state of nature," assuming that there is no cooperative interaction between individuals.<sup>3</sup> Further assume, as in Benson (1994a, 1994c, 1995), that while there is considerable uncertainty, and therefore high transactions costs, decisions are not made behind a Rawlsian "veil of ignorance." Thus, this analysis focuses on the rules and institutions that would emerge assuming that rational decision-makers recognize their alternatives and anticipate potential outcomes.

Because of scarcity, conflict over the use of property is inevitable. Securing property claims requires recognition of the owner's "rights" by others (Umbeck 1981: 39). Therefore, success in turning a property claim into actual ownership requires that an individual acting unilaterally must back a claim with a sufficiently strong threat of violence to induce others to abandon their conflicting claims. Umbeck (1981: 40-41) explains that "The concept of violence ... could include the actual use of guns, knives or fists, or merely the threat of their use. It could also include building a fort or other protective structures." Thus, violence is defined here as the use of resources (e.g., capital to build a fort, labor time) allocated to excluding other individuals from using claimed property. Since several individuals are likely to have similar incentives with regard to any particular scarce resource, the competitive process could consume vast amounts of resources as each invests to build a capacity for violence in order to exclude others. Property rights are never completely secure (Barzel 1989), of course, but if violence can increase the security of an individual's claims it can increase the individual's wealth, as long as the cost of violence is less than the benefits. If this is not the case, violence may not actually materialize.

Violence versus cooperation: static considerations. Skaperdas (1992) and Rider (1993) develop two-person, one-period models of cooperation, conflict, and power and deduce three possible outcomes: (1) full cooperation, (2) partial cooperation, and (3) conflict.<sup>4</sup> "Full cooperation," which implies that neither person invests in the tools or violence, occurs if it is very difficult for either person to increase the probability of winning a violent conflict and if both parties recognize this (other reasons

for cooperation arise in a multi-period game, as suggested below). That is, if the marginal product of investing in conflict is very low so that a large differential in the tools of violence produces only a small change in the probability of winning, then incentives to tacitly cooperate arise. The result is a private property arrangement as each party does not attempt to claim resources or outputs of the other (Rider 1993: 152). It also is a social order characterized by "moral" behavior in the sense suggested by Vanberg and Congleton (1992: 420), and in contrast to the Hobbesian assumptions and to prisoners' dilemma models, such cooperation can arise in a one-shot game if conflict is sufficiently difficult for both parties.

"Conflict" arises when the marginal product of violence is expected to be high for both parties: each believes that increasing investments in the capacity for violence substantially enhances their probabilities of winning. The result may be open conflict, or a stalemate enforced by mutual deterrence, depending on the relative capabilities of the two parties and their perceptions of those capabilities.

"Partial cooperation" occurs when one party's opportunity cost of investing in conflict differs substantially from the other party's. Thus, one individual invests in violence but the other does not. This "command" arrangement means that the person with a relatively low opportunity cost for violence subjugates and extracts tribute from the relatively productive individual. Such tribute is "extortion" because the payment is for "protection" from the individual receiving the payment rather than from other threats. Nonetheless, the subjugated individual chooses a cooperation strategy because yielding to subjugation and command

produces greater wealth than he expects to be able to claim through violent conflict, given his comparative disadvantage in violence.<sup>5</sup>

Dynamic considerations. These static outcomes provide the starting points for considering the dynamic evolution of morality and law under alternative conditions. When rules and institutions develop exclusively from the bottom up through voluntary cooperation, the rules support private property rights and the institutions of governance allow a reduction in investments in violence.<sup>6</sup> The resulting social order might also be described as morally based, as it is characterized by cooperation. This is but one extreme of a continuum of possible outcomes, however. At the other extreme, the rules are imposed from the top down as a powerful individual with an absolute advantage in violence makes slaves of other individuals: the result is a system of pure "coercive command." In between, many other possibilities exist. Some involve predominately private rights and high levels of cooperation, with modest payments of tribute or taxes to someone who has a comparative advantage in violence, and some involve a large degree of extortion and attenuation of property rights through a continued and possibly increasing investment in violence. All such systems "naturally" evolve under different circumstances, and all may be "contractual" of course, but in the first extreme case the contract arises through mutual consent while in the second extreme it is completely established through duress (Benson 1994c). In between, the contract may have elements of both (e.g., the specialist in violence may exclusively extort, or combine some extortion with some true protection against outside threats, or actual assistance in the enforcement of some private property rights - see Section IV). The implications of the two extreme



cases for moral behavior will be considered here, as they provide the bench marks against which to compare intermediate arrangements.

If information was costless, so that every individual knew every other individuals' capacity for violence, each individual would only claim the amount of property that he could defend (Umbeck 1981: 41). Indeed, given such knowledge, a stable property rights arrangement could arise. No enforcement mechanism other than the implicit threat of violence would be needed, and no actual investment in violence would occur. Thus, conflict and partial conflict would "look like" full cooperation. However, this hypothetical outcome is impossible. The requisite knowledge is far from costless to obtain, after all, and in more realistic dynamic situations, individuals' relative capacities for violence are not unchanging over time.<sup>7</sup> Indeed, this hypothetical is raised because it points to a second complementary reason for Hobbesian conflict; scarcity means competition but transactions costs and uncertainty can turn that competition in the direction of violence. The cost of establishing property rights in such a setting can be considerable since it includes the costs that both winners and losers incur. Furthermore, in a dynamic setting, winning is temporary unless the capacity for violence is maintained, and it may be temporary even then. After all, incentives for entry of new competitors exist if the entrants believe that they are stronger than a current successful claimant, and both potential entrants and previous losers have incentives to search for superior technology for violence. Thus, the winner also has incentives to both maintain his existing capacity for and to search for new technologies in violence, to deter existing and potential rivals' investments in violence. Wealth distributions enforced by violence

can only be made more secure by investing in a greater capacity for violence.

The Hobbesian conflict results from at least three conditions: (1) scarcity and (2) uncertainty, as noted above, and (3) absence of recognized rules. However, any subset of individuals can reduce the costs of conflict by agreeing to establish rules recognizing some subset of each others' claims (Vanberg and Buchanan 1990: 18), given that the promise each makes is credible. A sufficiently strong threat of violent retaliation can produce credible promises, but in a dynamic setting other sources of credibility discussed below, can create an environment of trust rather than fear. Given the option of employing violence as a means of securing property claims, however, any voluntary "agreement ... must ration to each individual as much wealth as he could [expect to] have through the use of his own force" (Umbeck 1981: 40). Thus, as Umbeck (1981) concludes, force determines the initial distribution of wealth rather than fairness (i.e., rather than some underlying "natural law" or preordained morality), even when that distribution is voluntarily agreed upon. Nonetheless, if wealth can be increased for everyone involved relative to what it was expected to be in the absence of such an exchange, then individuals have incentives to enter the exchange, thereby making property rights to some resources more secure without increasing investments in violence. As Umbeck (1981: 45) concludes, in an agreement to end conflicts each "individual gives up any claim he might have made (through force) on the other [persons' resources] ... in exchange for the agreement that other individuals will not exercise (through force) any claims on his assigned [property]." The substitute

"investment" is acceptance of a rule of obligation to respect others' property rights.

The degree to which individuals reduce their investments in the tools of violence after the agreement depends on how credible the promises are, and on the source of the credibility. If the agreement stems from an initial situation involving either partial cooperation or asymmetric conflict the dominant power will demand a relatively large share of the wealth arising from clarified property rights, but as explained below, he is likely to have to maintain his position of dominance in order to assure credibility on the part of the weaker party. The institutions that evolve to support credible commitments to respect the rules dictating the distribution of wealth will be those of coercion and command. After all, the incentives for a weak party to accept this contract are relatively "negative" - subjugation is expected to be better than the alternative high probability of losing everything through violent confrontation. The implications for the evolution of morality under the resulting institutions are explored in Section IV below.

On the other hand, if the agreement arises out of symmetric conflict, the parties may be able to reduce their investments in violence, perhaps even to zero, thereby producing a full cooperation outcome through contracting. The incentives to cooperate in this case are positive: individuals enter the contract because they expect to increase wealth by shifting resources into productive activities as a result of securing property rights claims through contract rather than through mutually deterring investments in violence. The resulting property rights arrangement still requires the support of institutions, but they will not rely

exclusively on coercion, because under these circumstances, sources of credibility other than violence also will evolve. Let us consider the types of rules and institutions that tend to characterize an evolving consent contract.

### III. Credibility of Commitments to Cooperate, and the Evolution of Morality

Fuller (1964: 23-24) suggests three conditions which make mutually recognized rules in the form of duties or obligations clear and voluntarily acceptable to those affected. First, the relationship from which the behavioral obligations arise "must result from a voluntary agreement between the parties immediately affected; they themselves 'create' the duty." Second, the reciprocal acceptance of the duties must be equitable in the sense that both parties must expect to gain: the exchange cannot be one-sided so that one person gains and another loses. Third, and most significantly, the parties must expect to interact on a fairly regular basis because the relationship "must in theory and in practice be reversible." That is, given reciprocal gains in a repeated-game situation, recognition of common behavioral norms becomes likely as each individual recognizes that the long-term benefits of remaining on good terms with the other party by doing so are likely to be greater than the immediate benefits of not cooperating.

Repeated-game reciprocity involves more than expected long-term benefits, however. There is also still a "reciprocity of power" (Ellickson 1991: 182). As Vanberg and Buchanan (1990: 182-183) explain, reciprocity involves both a "willingness to cooperate (that is, to comply with moral rules) ... with others who are equally willing" and "[b]eing prepared to punish defection..."The

power may be different in this case, however, than in the non-cooperative situation characterized by symmetric investments in violence: the punishment need not be in the form of physical violence. Indeed, this is the essence of the tit-for-tat strategy in repeated games [see Axelrod (1984)]: "Tit-for-tat succeeded [in Axelrod's simulated games] because it combined readiness to cooperate with readiness to punish defection" (Vanberg and Buchanan 1990: 182) by responding in kind. Therefore, if the non-cooperative action involves a taking through force, the response will involve forceful retaliation, but if the action is less violent, the response will also be less violent. For instance, if the action is simply the failure to live up to a promise, the punishment will be similar. Thus, repeated dealings adds the potential for "less violent" alternatives to an individual's arsenal then, although Umbeck's (1981) basic point that "might makes rights" still holds. The might comes from the ability to retaliate in kind, however, and therefore, not necessarily from the ability to use violence. The threat of retaliating against non-cooperative behavior is like a threat of violence in that it tends to make each players promise relatively credible: each person is more likely to be able to "trust" his counter-part's promise to cooperate.

The threatened tit-for-tat sanction is not the only source of credibility, of course, as Fuller stresses. Indeed, it is a relevant threat only because of the recognition of positive benefits - the long term benefits of remaining on good terms with the other party - which may be greater than the immediate benefits of not cooperating (e.g., violating the rules, investing in and using violence). In this light, Vanberg and Buchanan (1990: 18)

define "trust rules" to be the rules of behavior toward others which individuals have positive incentives to voluntarily recognize, and they go on to contend that the incentives associated with such rules are the basis for voluntary group formation:

By his compliance or non-compliance with trust rules, a person selectively affects specific other persons. Because compliance and non-compliance with trust rules are thus "targeted," the possibility exists of forming cooperative clusters: any subset of actors, down to two individuals, can realize cooperative gains by following those rules in their dealings with one another. Adoption of and compliance with trust rules offer differential benefits to any group or cluster, independently of the behavior of other persons in the wider community or population. Even in an otherwise totally dishonest world, any two individuals who start to deal with each other - by keeping promises, respecting property, and so on - would fare better than their fellows because of the gains from cooperation that they would be able to realize. To be sure, they could be even better off if all their fellow human beings could be trusted to act honestly; but the gains from rule compliance can be realized within any subset, however small, without any need for wider compliance.

Assuming trust rules are agreed upon, the outcome of such an implicit or explicit contract is that each individual agrees to adopt a predictable behavioral norm in his dealing with the other individual. The term, "trust rule" may be more revealing than rule of obligation in this context, however, because it stresses the nature of the rules that individuals might voluntarily comply with.<sup>8</sup> Furthermore, it suggests that for one party to adopt cooperative, ethical, moral behavior, the other relevant party or parties must also be "trustworthy".

The primary source of conflict is scarcity. Thus, the security of each individual's property rights can be increased by adopting a rule of obligation - respect the other person's property - given that the other individual does the same, and given that expected wealth is enhanced. Wealth can be enhanced for everyone

by making property relatively more private and relatively more secure. Consequently, as Sugden (1986: 55) contends, given repeated dealings and reciprocity, the rules of obligation regarding property can arise as customary rules or norms which have evolved spontaneously [also see (Taylor 1987: 28)]. Indeed, as Ellickson (1993: 1366) notes,

There is abundant evidence that a ... group need not make a conscious decision to establish private property rights in land [and other resources]. People who repeatedly interact can generate institutions through communication, monitoring, and sanctioning.... Contrary to Hobbes and Locke, a property system can get going without an initial conclave.

Note in this regard that an individual has a claim to himself, so respect for the individual also constitutes respect for a property claim.<sup>9</sup> Thus, rules like "keep promises made to another person" and "tell another person the truth" are rules of obligation that increase the security and value of the other person's property claims to his person.

While under the right circumstances, "reciprocity works as a spontaneous enforcement mechanism that encourages cooperative behavior" (Vanberg and Buchanan 1990: 182), theoretically, cooperation is clearly not certain for several reasons (Taylor 1982; Tullock 1985: 1073; Milgrom 1984; Zupan 1990). For example, an individual is likely to face an immediate choice of bearing costs by recognizing another's property rights without an immediate gain in hopes of future reciprocal behavior by someone else. As Taylor (1982: 28) suggests,

Each individual act in a system of reciprocity is usually characterized by a combination of what one might call short-term altruism and long-term self-interest: I help you out now in the (possibly vague, uncertain and uncalculating)

expectation that you will help me out in the future. Reciprocity is made up of a series of acts each of which is short-run altruism (benefiting others at a cost to the altruist) but which together typically make every participant better off.

In a repeated-game situation, this "short-term altruism" can arise in reflection the expectation of long-term gains (Ellickson 1991: 156-157), but the long-term reciprocal response is uncertain, so as Taylor (1982) notes, the reciprocity arising in a repeated-game situation does not guarantee a cooperative result. Cooperation may fail to arise if the degree of uncertainty is high, or if the expected long-term payoffs are low relative to the cost of short-term altruism, or if the short-term gains from non-cooperation are large relative to the costs associated with the retaliatory threat. The dominant strategy still depends on expected payoffs, frequency of interaction, time horizons, and other considerations (Tullock 1985: 1073). Thus, if such altruistic behavior is displayed in the context of a repeated game, it arises out of self-interest as expected future benefits exceed current costs. In fact, however, the incentives to recognize a common set of behavioral norms which exist in many situations, and therefore to behave altruistically, are even stronger than those provided by reciprocity from a repeated game.

The Exit Option, Multi-Sided, Multi-Dimensional Games and Reputation Effects. Vanberg and Congleton (1992: 420) explain that most forms of interaction are not actually characterized by the typical game-theoretic models because these models, whether one-shot or repeated, assume that the individuals must play. That is,



each individual's choice is to adopt a cooperative or moral strategy by living up to promises, respecting property rights, etc., or a non-cooperative strategy by lying, not keeping promises, defrauding, stealing, exploiting, using violence, etc., but they do not have the choice of not playing. In reality, however, in most forms of interaction there is another possibility: an "exit" or "refuse to play" option. To be consistent with the Hobbesian flavor of the preceding analysis, for instance, an individual who claims a particular parcel of land in conflict with claims made by other non-cooperative individuals might be able to simply exit and establish a claim elsewhere where the conflict is less intense or where people have discovered the benefits of cooperation. By adding an exit option the non-cooperative strategy may not even be dominant even in the one-shot "prisoner's dilemma" game (Vanberg and Congleton 1992: 420), depending on other characteristics of the game. The credibility of this threat depend on several factors, however.

The exit threat may not be credible because the costs of carrying out the threat are recognized to be very high, for instance. Vanberg and Congleton (1992: 420) explain that "In practice, the net benefits of exit depend on the availability of alternatives (or more specifically, on the expected payoffs from those alternatives), whether such alternatives exist in the form of potential interactions with other players or in solitary activity." Therefore, a factor which can interact with the exit option and make it more viable, is that each individual is involved in several

different games with different players. In reality, of course, even in a very primitive setting (i.e., not far from a state of nature), individuals are generally involved in at least one "community" as described by Taylor (1982: 26-30), wherein "the relations between members are direct and ... many-sided" [also see Ellickson (1993)].

As communities, or close-knit groups, evolve, they find it beneficial to team produce a number of goods. Individuals in primitive kinship groups, for example, might be primarily concerned with cooperative production of food, shelter, religious functions, protection from outside threats, and/or taking of wealth from outsiders.<sup>10</sup> Thus, mutually beneficial interactions between individuals in the group that require cooperation in recognizing rights and obligations becomes multi-dimensional or multi-functional, including such things as trade, marriage, division of joint production, protection, insurance, charity, as well as multi-sided by involving different individuals. As the multiple-function nature of most groups of this kind evolve, the incentives to cooperate by recognizing various rules are strengthened due to the desire to enjoy the benefits of all types of intra-group interaction. The exit threat may not be credible if the costs that exit imposes on the other party are low, for instance, but multi-sided, multi-dimensional interactions or games means that a reputation for ethical (i.e., trustworthy) behavior becomes valuable. Thus, refusal to behave ethically within one game can lead to exit by the other player, and spreading information of that

the reason for exit affects the noncooperative player's reputation. After all, given the refusal-to-play option for other potential players in the community, the negative reputation can limit the non-cooperative player's ability to enter into other games to the extent that networks of information exist so reputation can travel from one game to another (Ellickson 1991: 180-182). This reputation effect raises the credibility of the exit threat. Indeed, when the exit option exists for all players in a multi-sided game and reputation effects travel throughout the group, someone who chooses to not cooperate in one game can be excluded from all future interaction within the group. That is, a combination of exit options and reputation information can lead to spontaneous social ostracism - a significant cost to bear in exchange for the gains from a single non-cooperative act.

An evolutionary process might be imagined in which individuals gradually emerge from the Hobbesian jungle as they form relatively tentative relationships based on reciprocity incentives. As more of these relationships are formed in recognition of the benefits from cooperation, and a loose knit group with intermeshing reciprocal relationships begins to develop, the potential for reputation effects will arise. When there are a sufficient number of players who value ongoing relationships within a group of other reliable players more than the potential benefits associated with refusing to follow accepted behavior in any one single game, then the potential for cooperation in the form of recognition of standard behavioral norms (including respect of property rights)

increases relative to that which exists in simple bilateral repeated games (Milgrom, et al. 1990; Schmidt 1991: 102; Gauthier 1986: 183). Indeed, Vanberg and Congleton (1992: 421) suggest that a viable exit option created by the availability of competitive alternatives adds two potential strategies to those available when only reciprocity in a repeated game is at work: a response to non-cooperative behavior can involve either "retributive morality" or "prudent morality."<sup>11</sup>

Rationality and the Evolution of Morality. If the cost of exit is extremely high, incentives still exist to attempt to "correct" a noncooperative player's behavior, perhaps with the tit-for-tat strategy, in an effort to increase the returns to future interaction.<sup>12</sup> The tit-for-tat strategy (an eye for an eye) that underlies repeated game reciprocity "does not seem to be the height of morality," as it has a "slightly unsavory taste," but according to Axelrod (1984: 137) "a moral person can't do much better." However, when the exit option is added, and in particular, when competition makes it a low cost option, then unconditional cooperation in any game actually played becomes viable. "Retributive morality" involves unconditional cooperation in any interaction, but rather than simply exiting in the face of non-cooperative behavior, some form of explicit punishment is imposed on the non-cooperative player as exit occurs.<sup>13</sup> The "blood-feud" of primitive and medieval societies provides an example of such an action. In order to threaten or carry out retributive morality, an individual will have to maintain at least some capacity for

violence within the group. Thus, the practice of retributive morality implies that while group formation may have allowed some reduction in individuals' investments in violence, these investments have not fallen to zero.

"Prudent morality" a la Vanberg and Congleton (1992) involves unconditional cooperation whenever an individual chooses to enter into some form of interaction, along with a refusal to interact with anyone who is known to have adopted non-cooperative behavior in the past. Given that reputation effects become known quickly within a group, however, the distinction between retributive and prudent morality narrows and individuals' investments in the tools of personal violence can be reduced. If everyone spontaneously responds to information about non-cooperative behavior by refusing to interact with the person who gains such a reputation, the individual is excluded from all interaction with any member of the community. Such ostracism can be a very significant punishment, even though it is not explicitly imposed by a single retributive individual. Thus, the individual's incentives to exact some explicit physical punishment are weak when reputation effects are significant and exit is widely practiced. Indeed, prudent morality is truly prudent. Furthermore, each individuals' incentives to invest in a personal capacity for violence is substantially reduced. Similarly, when many competitive alternatives are available, an individual's incentives to "punish" an offender's behavior through retributive morality are relatively small (Vanberg and Congleton 1992: 428-429), because "market forces" will punish

the offender. Retributive morality and continued personal investments in violence are, therefore, relatively more likely to arise when exit is costly and/or when the costs of transmitting information about reputations are high.

Vanberg and Congleton (1992: 429) conclude by pointing out that the perceptions "of what is moral vary with relevant differences in exit costs. At the high-cost end of the spectrum, moral justification for tit for tat and retributive behavior seems to be fairly common, whereas Prudent Morality gains in importance as we move to the low-cost end."<sup>14</sup> Morality can be seen as an economic concept. Moral behavior is adopted when the benefits of doing so exceed the costs. Thus, morality should evolve as the cooperative group evolves.

Solidarity rules and the evolution of altruism. Vanberg and Buchanan (1990: 185-186) explain that once a group is formed based upon trust rules, the possibility for establishing other kinds of rules also develops. They define "solidarity rules" as rules targeted at all members of the group such that compliance benefits everyone in the group, as apposed to rules targeted at particular individuals in the context of interactions that benefit only those individuals. This implies that, as Vanberg and Buchanan (1990: 185) note, "for solidarity rules it is not true, as it is for trust rules, that any two individuals can start to form a cooperative cluster that would allow them to realize differential gains from which outsiders are excluded. Solidarity rules require adherence by the whole group before they provide mutual benefits from which

noncompliant individuals are excluded." Like trust rules, solidarity rules also evolve through the interaction of individuals pursuing their own ends, but unlike trust rules solidarity rules require a predefined group, all members of which are affected when such a rule is violated or adhered to. Benefits from individual adherence to such rules "spill over" to other members of the group. As a consequence, individual sacrifices associated with obeying solidarity rules produces positive externalities; that is, these rules have public good characteristics.<sup>15</sup>

Solidarity rules are things like "do not behave recklessly and put others at risk." However, they can also involve rules about individuals' obligations in cooperative production of various legal functions. Rules like "inform your neighbors about individuals who violate trust rules," and "ostracize non-cooperative individuals," are solidarity rules in the sense that production of information and ostracism produce benefits for everyone in the group by deterring non-cooperative behavior. However, this rule need not be explicitly established at the contractual inception of a cooperative cluster. Solidarity rules such as this can evolve spontaneously, just as trust rules do, out of individual self-interest. For instance, when a small number of individuals initially begin to experiment with cooperation, perhaps due to a growing recognition of reciprocity, a tit-for-tat strategy may dominate. Competitive options may be few or non-existent, after all. However, as trust grows and property rights become more secure, wealth expands. The potential for more types of beneficial

interactions arise, and others are attracted into the cooperative cluster. Competitive alternatives may begin to develop, and the exit option may become viable. Perhaps retributive morality becomes increasingly attractive as a result. Personal investments in threats of violence remain important, so the "slightly unsavory taste" still persists. As the group continues to evolve, reputations become increasingly valuable because of the expanding numbers and types of mutually beneficial interactions that are occurring in the group. Thus, individual violence becomes less important as the spread of information regarding reputation results in the refusal of others to interact with the non-cooperative player; that is, ostracism substitutes for violence, and prudent morality becomes an increasingly attractive strategy. Personal investments in violence can be reduced, perhaps to zero. Behavior within the group takes on the flavor of such "morality" concepts as the "Golden Rule" or the Kantian "categorical imperative" as individuals unconditionally cooperate with anyone of good standing in the group (Vanberg and Congleton 1992: 420).

As the benefits of a solidarity rules of "inform your neighbors about individuals who violate trust rules" are recognized, related rules about producing low cost and valuable information might arise. Altruistic solidarity rules like "watch out for your neighbor" and "inform everyone when a rights violation occurs" could evolve, for instance. After all, transaction costs of possessing property include the devotion of resources to theft prevention. High transactions costs, particularly for an



individual, imply that protection will not be completely effective. But individual costs can fall when groups are formed because solidarity rules can create obligations to cooperate in "policing" by watching out for one another's interests and raising the "hue and cry". There clearly are economies of scale in watching to prevent theft, so team production of this policing function is advantageous. Reciprocity is also an obvious characteristic of such cooperation as every individual in a close knit group is likely to benefit to some degree from every other individuals' contributions to the watching effort. The empirical fact is that one joint product of cooperative clusters often involves the policing functions of watching to prevent theft, and cooperation in pursuit and prosecution when a theft occurs (Friedman 1979; Benson 1990, 1992a). Such cooperation means that property rights become more valuable for all members of the group. Indeed, more rights are likely to be defined.<sup>16</sup>

Since solidarity rules such as those which underlie cooperative policing produce benefits for everyone in the group, free-rider incentives arise. Individuals within the group have incentives to avoid sharing costs by not obeying solidarity rules themselves, perhaps by not cooperating in policing, while benefiting from the investments of other individuals who do obey the rules. However, free riding is successful only to the extent that a free rider cannot be excluded from consuming benefits. Thus, as solidarity rules develop, such as "cooperate in policing," which generate positive externalities, the scope of the ostracism

solidarity rule is likely to expand to include "do not interact with anyone who does not obey other solidarity rules." This means that solidarity rules such as those which require cooperation in policing are not public goods in one important sense: individuals can be excluded from many of their benefits if they free ride.<sup>17</sup> Of course, individuals may free ride by not cooperating in ostracism, but then they too will be ostracized by those who do not free ride. Thus, non-free riders are the only members of a group who are likely to retain membership.

The preceding discussion may create the impression that threats and sanctions are the primary sources of incentives to recognize rules in an evolving a cooperative group. This is not the case. In addition to ostracism and other substitute threats and sanctions, positive incentives to recognize cooperative trust and solidarity rules can also evolve.<sup>18</sup> Future events can lead to predictable changes in the opportunity cost of violence, for instance, so a cooperative group may establish insurance arrangements to encourage people to continue to recognize the cooperatively produced property rights system even when their circumstances change. That is, altruistic behavior in the form of wealth transfers can be made voluntarily by rational self-interested individuals in order to induce others to continue to behave in predictable ways.

Johnsen's (1986) analysis of the potlatch system of the Southern Kwakiutl Indians provides an insightful example. Johnsen (1986: 42) explains that "In order to provide the incentives of

would-be encroachers to recognize exclusive property rights, and thus to prevent violence, those Kwakiutl kinship groups whose fishing seasons were relatively successful transferred wealth through the potlatch system to those groups whose seasons were not successful.... Although potlatching thereby served as a form of insurance, the relevant constraint in its adoption and survival was the cost of enforcing exclusive property rights rather than simple risk aversion." In effect, a Kwakiutl group with a poor harvest had property rights to some portion of the harvest of a relatively successful group. If the flow of payments is always in the same direction it is analogous to a tax induced by the threat of violence, of course, even though no actual investment in the tools of violence need be made. But in many cases such transfers can be reciprocal. One Kwakiutl kinship group may have a poor harvest of salmon in one year, and therefore receive a transfer from another group, but the next year the other group could have the poor harvest so the transfer goes in the opposite direction. Thus, insurance is a more appropriate description. This suggests that the institutions and property rights arrangements supported by cooperative groups can be relatively complex.

Individuals need not actually anticipate reciprocal treatment in the future to voluntarily establish an insurance arrangement. As a cooperative group develops and property rights are increasingly privatized, for instance, everyone may recognize that some individuals are likely to gain considerable wealth while others, due to their lack of skills, mistakes, bad luck, or the

harshness and uncertainty of the weather, natural disasters, man-made disasters (e.g., fires), and disease, may not enjoy the same kinds of gains. Thus, a class of relatively poor people can be expected to develop, and their opportunity cost for violence in the form of theft or other takings may be relatively low. Indeed, without help, they could be forced into thievery to survive. No one may expect to be in this class, but if they expect it to develop they recognize that the transactions cost of law enforcement could rise in the future. Ostracism or violent eradication of this class would involve a never-ending "war" between the wealthy and the poor, so a peaceful solution to the problem becomes desirable. A voluntary "mutual insurance" arrangement with ostracism of free riders may therefore be a low cost alternative (Solvason 1990: 72). Solvarson (1990) discussed such an arrangement in medieval Iceland that provided for those who became poor because they lost their crops or property due to uncontrollable events. The members of voluntary neighborhood groups also helped rebuild and restore property destroyed by fire. Similarly, orphans or individuals who were destitute were taken in by others who were able to provide for them. Those able to work could be given work by those wealthy enough to be in a position to employ others' labor. Revenues were even collected to provide for the poor directly. This kind of mutual insurance arrangements might be based on kinship, but as a group evolves and expands they may be contractual while taking on several functions that traditionally had been performed by families under kinship customs

(Solvason 1990: 34-35). Such an arrangement has the ring of "charity" of course, but again, there is also a very straightforward self-interest explanation for the development of such altruistic behavior: property rights are made more secure. Once again, a private property rights system creates incentives to adopt moral behavior.

At the same time that solidarity rules evolve, such as "do not interact with noncooperative players," "exclude free riders," "cooperate in policing," and "support those in distress," and the benefits of these rules begin to be recognized, similar incentives to improve other institutional arrangements also arise. For instance, incomplete knowledge, scarcity, and transactions costs mean that even cooperative policing is imperfect, so alleged offenders may not be guilty and "disputes" over guilt or innocence arise. Similarly, Demsetz (1967) explains that property rights will be defined when the benefits of doing so cover the costs of defining and enforcing such rights. Such benefits may become evident because a dispute arises, implying that existing rules do not adequately cover some new situation. Such disputes can be resolved by violent "prosecution" and exclusion of the loser, but in a close knit group, such violence can have significant negative spill overs, particularly if the opinions of individuals in the group are mixed with regard to guilt. The cost of dispute resolution can be reduced by developing non-violent means of solving disputes and clarifying property rights, and again, property rights are made more secure, and therefore, more valuable.

For instance, a mutually acceptable mediator or arbitrator might be chosen from among the reputable members of the community, or from a pool of competitive dispute resolution specialists. Indeed, the arbitrator/mediator will often have to clarify those rules about which differences of opinion exist, and at times even supply new rules because no generally recognized rules exist to cover a new situation (Hayek 1973: 99). Thus, dispute resolution is a potential source of new rules.<sup>19</sup> Since this third party must be acceptable to both disputants, "fairness" is embodied in the dispute-resolution process. As Buchanan emphasizes (1975: 68), "Players would not consciously accept the appointment of a referee who was known to be unfair in his enforcement of the rules of the game or at least they would not agree to the same referee in such cases." Given that the chosen arbitrator/mediator convinces individuals in the group that a judgement should be accepted, the ruling can be backed by a threat of ostracism, although in general, dispute resolutions are likely to be accepted in consensual groups because individuals recognize the benefits of behaving in accordance with members' expectations, not because they fear ostracism (or violence). Solidarity rules like "arbitrate disputes," accept fair resolutions proposed by arbitrators," and "ostracize anyone who does not abide by a fair dispute resolution," will evolve.

No central "authority" with coercive powers is necessary to produce the trust rules that characterize a morally based social order. Ethical behavior, respect for others, cooperation, and

altruism all tend to evolve spontaneously. Voluntarily produced obligations are largely self-enforcing because it pays for each party to live up to them. Coercive threats (e.g., tit-for-tat, retribution, ostracism) generally are important only at the margin. The evolution of such trust rules are further encouraged and supported, however, by the simultaneous evolution of the solidarity rules of voluntary, participatory governance. These evolutionary processes are driven by self-interest incentives. Voluntary interaction and the resulting cooperatively based social order are positive-sum games in that they expand individual wealth in the long run through mutually beneficial interaction, including reciprocal reductions in personal investments in violence.<sup>20</sup> However, individuals have vary different incentives when gains from non-cooperation appear to outweigh long-run benefits of cooperation.

#### IV. Coercion, Redistribution, and the Evolution of Morality

If power is asymmetrically distributed an individual with a significant comparative advantage in the use of violence may choose to take property rather than cooperating in a group that recognizes each individual's property claims. The result is a negative sum game since the transfer process itself consumes resources that have opportunity costs (Tullock 1967). Nonetheless, the individual with a comparative advantage in violence expects to be better off than he could be by cooperating. Given that information about such takings spreads, the specialist in violence is likely to develop a reputation for using violence to take wealth from others. Indeed,

such a reputation can be quite valuable as increasingly, the threat of violence alone may be sufficient to extort transfers; actual violent acts may not be necessary. Thus, the extortionist has incentives to spread such information. Once such a reputation is in place, however, incentives to behave cooperatively in the future become very weak, because the cost of building a reputation for cooperative, moral behavior becomes extremely high (Tullock 1985: 1079).

Since the act of taking tends to permanently undermine the potential for entering into the kinds of cooperative institutions described above, the decision to become an extortionist tends to involve a long-term commitment. Therefore, the specialist in violence has incentives to establish an environment that will produce a steady stream of transfers from those subjected to his threats, rather than simply forcing one-shot transfers. That is, someone intent on developing and employing a long-term comparative advantage in violence will attempt to design rules and institutions that minimize the transactions costs associated with the continual extortion. Among other things, this implies that the extortionist will attempt to establish a monopoly in violence. This will include an effort to legitimize a claim of exclusive sovereignty in the creation and execution rules. After all, an individual cannot guarantee the transfer of wealth if the potential losers might be in a position to either: (1) resist by joining a cooperative group that agrees to jointly produce defense of members' property against the extortionist threat;<sup>21</sup> or (2) find another powerful individual



with whom they might exchange relatively less wealth for protection against the extortionist. A system of rules and institutions based on a monopoly in violence means that the commitment of the subjects to obey the ruler arises exclusively out of fear, and that the ruler will be the ultimate (final) source of all rules.

In reality, no single individual will be powerful enough to establish such an undisputed monopoly. A claimant to sovereignty will have to compete with other systems of rules and institutions, some of which will also employ violence and claim sovereignty, and some of which will consensual arrangements whose members jointly resist extortion. The monopolized system alluded to above is what a claimant to sovereignty strives to establish, even though it is never is fully achieved.

Even if a particular claimant to sovereignty wins a "war", the result is not likely to be permanent. In contrast to consensual arrangements wherein the internal dynamics tend to support its maintenance,<sup>22</sup> stability is likely to be threatened in a transfer system based on violence. A weak person might acquiesce to the demands of the strong but with the intention of breaking the agreement whenever possible, and given high transactions costs of policing, those possibilities will arise. After all, "while there is usually little need for external force to uphold the [cooperative rules discussed above], the authoritarian law [i.e., top down commands that dictate transfers] ... needs for its enforcement the prestige and influence or even the intimidation and physical force of the authority and his supporting minority"

(Pospisil 1971: 344). Therefore, a weak individual's promises may not be credible, suggesting that the ruler will have to be forever vigilant in policing his claims. Opportunistic breaches may involve simple defiance of the rules, but organized revolt is also possible as numerous weak individuals form a cooperative group to take property from the powerful individual.<sup>23</sup> Since power is a relative concept, the probability of winning in a conflict is a function of the strategies of both parties. Given diminishing marginal productivity in violence, it is easier to increase one sides' power when it is lower than the other sides, than when it is higher (Skaperdas 1992: 724). The transactions costs of enforcing rules in a command-based transfer system are likely to be high and rising then, relative to those of a consensual legal arrangements. Thus, the internal dynamics of the transfer system tend to be relatively unstable.

There are a number of institutional developments that can help insure the stability of a transfer system, however. In all likelihood, for instance, the scale of violence required to compete for and maintain power, and then to enforce transfer rules, is greater than a single individual can produce. Therefore, in order to expand the scale of violence, an entrepreneur in extortion may attempt to establish a "firm" for the cooperative production of violence: others who have a comparative advantage in violence but less entrepreneurial skills, sell their services to the entrepreneurial extortionist as inputs (e.g., army or police personnel) in return for part of the wealth that is transferred.<sup>24</sup>

Expanding the scale of operations in the production of violence is one way to insure against effective resistance and/or competitive alternatives, but it can be a relatively costly source of insurance. Indeed, like members of a consensual group who use wealth transfers to insure against disruption in the stability of property rights, an entrepreneur in extortion also has incentives to transfer some wealth to others in order insure against disruption of the stability of the property rights to wealth distribution that has been established through force. Since the extortionist has incentives to reduce the cost of violence where it is profitable to do so, he is likely to buy acquiescence by transferring some wealth to potentially powerful individuals in exchange for an agreement not to oppose his extortion efforts directed at others who are less likely to be able to resist (or as noted above, the extortionist may exchange wealth transfers for direct inputs into the production of violence).<sup>25</sup> Such exchanges may even involve the use the ruler's institutions of violence to grant to and protect property rights for those who are relatively strong, thereby focusing the tools of violence on relatively weak individuals. As a result, the "protection racket" involves a mix of rules supporting extortion of the weak and protection of the relatively powerful.

In order to maintain his hold on power, the ruler has incentives to redistribute wealth as the relative power of subgroups within his sphere of influence changes, much as the consensual systems mutual insurance arrangements do when the

incentives to cooperate change. In this case, however, the redistribution involves an effort to obtain the support of the sub-groups whose comparative advantage in violence appears to be developing, in order to hold onto power (i.e., protect his source of income). Thus, while consensual systems tend to transfer to the poor or the temporarily disadvantaged, command systems tend to transfer to those who are becoming wealthy and/or powerful. Of course, there is a potential danger of the poor organizing effectively and revolting too, so some transfers also will flow in their direction as well, if they are perceived as a developing threat, but in a relative sense, transfers to the wealthy and/or powerful will dominate. To facilitate this redistribution process, a ruler will develop institutions whose primary functions are (1) taking wealth from some and transferring it to others, and (2) obtaining information about the changes in the relative power among sub-groups in order to discriminate among them to determine who gains and who loses in the transfer process (Benson 1990).

Because the resulting transfer process is a negative sum game,<sup>26</sup> sub-groups have incentives to compete for favorable treatment from the ruler. Indeed, the ruler may encourage such competition, since by keeping sub-groups divided into adversarial camps, the possibility of a strong coalition forming to overthrow his rule is reduced. The ruler's efforts to gather information about the relative power of groups means that institutions should develop through which the competition for transfers can be channeled and observed. By focusing such competition in

"representative assemblies," for instance, the transactions cost of interacting with various powerful groups is lowered (North 1990: 49-51), and as the transactions costs of determining appropriate transfers are lowered, wealth transfers through rights attenuation are likely to increase. In addition, the fact that factions are explicitly "represented" in the "decision-making process" (actually, the exchange process that directs transfers to groups agreeing to either directly support the ruler or to not oppose him) can also tend to "legitimize" the ruler's claim to sovereignty. Powerful groups may feel that their interests are linked to the interests of a "sovereign" as they have a more direct say in the decision-making process, and therefore, they may be less likely to resist violently if they are losers.<sup>27</sup> As relative power changes, the amount of representation can be changed (e.g., the "franchise" can be extended to new groups and perhaps taken away from others).

An effective ruler might also be able to simultaneously lower the cost of ruling and legitimize his claim to sovereignty by setting up institutions to solve disputes between competing interest groups in "adversarial" forums (e.g., courts) with outcomes determined on the basis of the relative power of the groups involved and backed by threats of violence by the ruler.<sup>28</sup> Such a "service" provided by the ruler "obviously" requires (legitimizes) some taxes. This can also reduce the incentives of powerful factions to invest in violence themselves, however, as they substitute threats by the ruler for their own threats. It may

also divert at least part of the animosity towards the transfer process away from the ruler himself, toward the court.

To the degree that the ruler is successful in legitimizing its claims then the result is a perception that there is a single legitimate source of rules. The widespread belief that the "state" is the source of all "law," suggests that many claimants to sovereignty have been relatively successful: as Fuller (1981: 156-157) suggests, "instead of being perceived as distinctive interactional processes, [law is] seen as unidirectional exercises of ... power. Contract is perceived, not as a source of "law" or social ordering in itself, but of something that derives its whole significance from the fact that the courts of the [ruler] stand ready to enforce it." As a result, the link between "law" and morality that typifies and evolving consent contract is severed. "Law" simultaneously serves many functions. Nader and Todd (1978: 1) explain that "the law"

serves to educate, to punish, to harass, to protect private and public interests, to serve as a fund-raising institution, to distribute scarce resources, to maintain the status quo, to maintain class systems and to cut across them, to integrate and disintegrate societies - all these things in different places, at different times, with different weightings... Law may be a cause of crime; it plays, by virtue of its discretionary power, the role of definer of crime.

Law (in the positivist sense) and justice are clearly not synonymous. When law is used to take from some and transfer to others, it obviously cannot be described as just. Indeed, such law clearly encourages disrespect and defiance, undermining morality.

Evolving property rights and morality in a coercive transfer system. At any point in time, an extortionist ruler is clearly

constrained in regard to how much can be transferred, both to himself and to powerful subgroups. After all, since wealth must exist for it to be transferred, it follows that some private property rights must be maintained even for most of those who are the victims of extortion, in order to induce wealth creation. Slavery, with all property rights, including those to a person, assigned to the ruler and/or his supporters is an option, but it requires a very high level of violence and of monitoring, as incentives to resist and shirk are very strong. Thus, the ruler faces a trade off. Large levels of extortion in the short-term, including widespread slavery, reduce the potential for transfers over the long run. The actual degree of transfers in any period, therefore, depend in part on the ruler's time horizon. If the ruler is relatively short sighted, perhaps because there are significant competitive threats to his claim of sovereignty, more transfers can be expected. However, a long time horizon implies fewer transfers in any particular period. Other constraints exist as well. For instance, the greater the takings the more likely are the prospects for resistance and even revolution. In fact, the changes in laws and institutions are often slow, or marginal, because if the ruler imposes costs on some group that are relatively large, that group may organize for resistance and threaten the ruler's position of dominance. Even a short-sighted extortionist cannot disrupt property rights so quickly or completely that revolution results. Therefore, the ruler is constrained to a degree and must recognize some private property rights. Nonetheless, property rights are never "given": they are permanently "in play" (Jasay 1995).<sup>29</sup>

Tullock (1967) explains that wealth transfer through a coercive "legal" system are completely analogous to theft in their economic effects: individuals will invest resources and efforts in seeking transfers, whether through theft or through changes in the rules dictating the allocation of wealth; potential victims will invest resources and effort in an attempt to avoid losses. Transfers through theft or through changes in the rules dictated by an extortionist also have similar moral standing. Of course, to the degree that an extortionist can legitimate a claim to sovereign rule, transfers through "law" are also legitimized. Such legitimization implies that morality in the form of ethical behavior and cooperation is replaced by a rhetoric of "social values" that serve to justify transfers: "transfers are desirable in order to aid the poor, or the elderly poor, or small family farmers, or..." even though most of the actual transfers in these categories go to the wealthy, or the elderly wealthy, or the large corporate farmers, and so on. Of course, when coercive transfers are "legitimized" in this fashion, incentives to provide voluntary "charity" and exhibit other "altruistic" behavior are weakened - after all, the ruler is claiming to be providing for the poor and the destitute. Indeed, much of the "moral" behavior that arises through consent contracts and the development of private property rights, are undermined when "law" is designed to transfer wealth.

The success of legitimization efforts will be limited, however. Transfer recipients may see such laws as legitimate, but victims are not likely to. Indeed, rules that mandate transfers rather than facilitating voluntary interaction, and that discriminate between groups on the basis of their power, tend to lead to disrespect for rules and even open tolerance of "illegal"



acts by large portions of the populous. But this adversarial process also undermines the potential for cooperation. As Fuller (1964: 153) concludes: "legal morality is seriously affected. There is no way to quarantine this contagion against a spread to other parts of the legal system."

Nonetheless, the fact that enforcement is imperfect and legitimization is incomplete means that individuals' incentives to establish institutions that facilitate voluntary interaction, and the moral behavior that accompanies them, are not entirely eliminated. The transactions costs of establishing such institutions and supporting such behavior can be very high, however. For instance, individuals who are attempting to clarify their voluntary rules of behavior will often prefer to take disputes to arbitrators or mediators, rather than to the adversarial courts specializing in negative sum disputes over the distribution of wealth. However, extortionists will attempt to eliminate these alternatives if they can, in an effort to legitimize their claim to be the sole source of rules (Benson 1989, 1990, 1995b). If enforcement costs are too high, they can still raise the expected costs of using arbitration or mediation, perhaps by declaring them "illegal" and driving them "underground," or perhaps by recognizing them but allowing appeal to the ruler's courts, mandating procedural changes, and so on, and this effort will alter the consensual process (Benson 1989, 1990, 1995b).

As the transactions costs associated with using alternative (competitive) arrangements rise, they become relatively less attractive and their effectiveness is gradually undermined. The transfer institutions discussed above create an adversarial environment, for instance, undermining the potential for

cooperation. Indeed, the insecurity of property rights tends to "chill" commitment-making. Furthermore, time horizons are important determinants of the strength of potential reputation effects, as they are for discount rates in repeated-dealing reciprocities. The incentives to invest in building a reputation are significantly weakened when the decision maker's time horizon is short, and the uncertainty regarding the security of property rights that results from the fact that rights are always "in play," tends to shorten time horizons. Therefore, it undermines the incentives to behave ethically and in a cooperative manner. Indeed, as Leoni (1961: 17) explains, "the very possibility of nullifying agreements and conventions through supervening legislation tends in the long run to induce people to fail to rely on any existing conventions or to keep any accepted agreements." The potential opportunistic behavior by ruler, including changes in tax policy to capture the quasi-rents that arise with investments in reputation and in various kinds of cooperative joint-production efforts, also undermines the potential for moral behavior. The legitimization of coercive rules and institutions actually tends to further stifle the development of trust relationships that provide the basis for voluntary cooperation, as the honoring of any commitment tends to be perceived as arising primarily because of the deterrent effect of threatened sanctions from the sovereign.

Even in a society with a very strong ruler, however, some cooperative groups always remain. These groups may still be able to enforce some of their own rules, even when doing so violates the ruler's "law." In fact, Ellickson (1991: 213-214) suggests that within such groups, "informal" (perhaps so they cannot be easily observed by the ruler) institutions to support the groups' rules

often still exist. An offender might be informed of an "informal debt" because of some violation of the groups rules, for example, so that it can be resolved voluntarily by making a "side-payment." If the debt is not paid, "truthful negative gossip" is spread about the unpaid debt, and once the members of the group have been informed of the offense and refusal to pay the debt, some appropriate amount of the offender's assets can either be seized or destroyed. Gossip itself can destroy an important asset: the offender's reputation. Indeed, the group may simply ostracize an offender, refusing to allow interaction with them in any way. Of course, if the ruler does not recognize privately imposed restitutive punishment and attempts to prevent it (perhaps because the offender has more political power), or if the offense is too severe to warrant restitution, or if the offender is not a member of the group so the threat of gossip is not viable, the victim will not be satisfied until the completion of the final step in the sequence outlined by Ellickson. Cooperative clusters may still aid the victim in the "criminal" exaction of retribution. "Vigilante" actions that result in lynchings, tar and feathers, stonings, beatings, destruction of the offender's property, and so on, may result. Indeed, under such circumstances, a considerable amount of "crime" may be "undertaken to exercise social control" (Ellickson 1991: 213). Even if cooperative group actions are not forthcoming because of the breakdown in reciprocities, demand for retribution remains. Self-help may be the only option, however. The result need not be violent or destructive: it could involve the seizure of an asset, for instance. However, this may not be a possibility because such a seizure might be treated as a "theft" by the legal authority. Thus, self-help may take the form of destruction of an

asset (vandalism) belonging to an offender, which is likely to be easier to cover up than a seizure (Ellickson 1991: 217), or even physical punishment (assault). This may imply that "retributive morality" reemerges, but that is true only in a very limited sense. The "unconditional cooperative" behavior of the victim may simply be a strategy of nonaggression, with no other form of cooperative interaction with the offender whatsoever before the offense. Retribution then arises in response to a noncooperative player's aggression. It seems that Axelrod's (1984: 137) suggestion that tit-for-tat is something less than the "height of morality" is even more relevant to the limited cooperation and reliance on retribution that characterizes a transfer system dominated by a strong ruler, but Axelrod's point that "a moral person can't do much better" still holds. Such a system does not emerge very far from the Hobbesian jungle.

#### IV. Conclusions

Philosophers may explore the "moral foundations of property rights." However, the suggestion made here is that there is a property rights foundation to morality, or at least, that private property rights and the institutions which evolve to induce the recognition of and secure those rights also create incentives to behave "morally." As private property rights and their supporting institutions evolve, incentives are created for individuals to behave cooperatively, ethically, and altruistically. On the other hand, institutions designed to produce involuntary transfers of wealth, and which, therefore, undermine the security of private property rights, also undermine the incentives to behave morally. Cooperation becomes less likely, as does ethical and altruistic behavior.

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## ENDNOTES

1. The term "institutions" is used in a variety of ways. As Vanberg and Kerber (1994) note, it frequently means a "configuration of interconnected rules," for instance, so the set of rules of conduct might be thought of as an institution. Here the term is used to describe the organizations or collections of institutions that supports the rules of conduct (i.e., the configuration of organizational rules) as in Vanberg and Kerber, although it will be maintained that these institutions can evolve spontaneously, much as the configuration of general rules of conduct do.
2. This argument does not necessarily reject the idea that at least some dimensions of morality are somehow "hardwired". Furthermore, it does not reject the idea that through reason people might be able to determine what moral behavior "should" be. Normatively, there may well be a "natural law." In a positive sense, however, the moral behavior that reason suggests should be adopted may not be. Rather, much like the concept of "moral hazard," it is argued that, at least at the margin, the degree to which moral behavior is actually adopted is a function of institutions.
3. This section draws from Benson (1995a). the basic analysis is presented in more detail in Benson (1994a, 1994c).
4. Rider (1993) divides partial cooperation and conflict into two separate possibilities each, but a continuum of possibilities actually arises - see Benson (1994c) and Endnote 5.
5. It may be that the person choosing to pay the tribute could effectively produce a sufficient counter-force to over-throw the subjugator, but if the tribute demanded is not too great, the opportunity cost of producing this counter-force is too high to make it worthwhile. Thus, the subjugator is constrained in how much he can extract. In this light, a continuum of "tributes" is possible, ranging from "slavery" (Rider, 1993) when one person has an absolute advantage in violence, to modest taxes for individuals who could also produce effective violence if pressed. See Benson (1994c) for discussion of this continuum of possible outcomes.
6. Note that the term "private property rights" is used here in a relative sense rather than an absolute sense. Rights are private relative to what might exist under other circumstances (e.g., in the Hobbesian jungle or under an authoritarian legal regime). See Benson (1994a, 1994c) for detailed discussion.
7. Umbeck's (1981) conclusion also appears to involve an assumption of no strategic kinds of behavior on the part of the players; e.g., even with full knowledge of capacities for violence,

if everyone believes that no one else is going to invest in violence, then everyone actually may have incentives to do so, given that the marginal product of violence is relatively high and/or a preemptive strike could win the conflict. This assumption might be very appropriate in Umbeck's case study of California gold camps, because the opportunity costs of violence was probably expected to be very high (sacrificing of mining activities). However, in a more generalizable setting, the likelihood of strategic interplay suggests that such a stable equilibrium is highly unlikely, reinforcing the arguments made below.

8. "Trust rule" and "rule of obligation" are not synonymous. A trust rule arises through voluntary exchange, and this is one source of rules of obligation, but there are other sources of rules as well: coercive threats of violence.

9. Property rights are often conceived of as applying to material assets such as land, natural resources, tools, animals, etc.. However, non-material assets can also be valuable. Things like honor, pride, prestige, power, discretion, valor, and reputation can all be important and valuable assets under specific circumstances. A businessman's "good name" may be worth a great deal, for instance. It follows that recognition of private property rights includes recognition of the rights of individuals, with rules against violence, malice and fraud.

10. Many people attribute moral rules to deities rather than to spontaneous evolution in the face of self interests motives to facilitate cooperation. Even though a system of rules and institutions can evolve spontaneously to maintain internal order, group members may not fully recognize the importance of this function for facilitating interaction, attributing the results instead to some mystical source. As Mises (1985: 240) notes, "Where people did not know how to seek the relation of cause and effect, they looked for a teleological interpretation. They invented deities and devils to whose purposeful action certain phenomena were ascribed. A god emitted lightning and thunder. Another god, angry about some acts of man, killed the offenders..." In other words, mythology and religion functions interact with legal functions, providing important sanctions. The legal functions of religious institutions can also include dispute resolution (Benson 1994c).

11. Note that the exit option combined with multi-sided, multi-dimensional reputation effects can mitigate the consequences of asymmetries in power discussed above. If one individual is very powerful he may wish to force others to grant him the preponderance of property rights and privileges, but if everyone has the ability to simultaneously exit, thereby ostracizing the powerful individual, his demands may have to be tempered considerably. Indeed, if the long-term benefits of such multi-dimensional multi-sided interactions are significant, even a potentially powerful

individual may choose to cooperate rather than demand short-term gains through the use of force. Furthermore, the relatively weak individuals in an evolving close knit group might well be relatively strong if they team produce defense.

12. Hirschman (1970) makes a similar point in distinguishing between "exit" and "voice" - noting that the higher the cost of exit the greater the incentives to use voice in an effort to improve the relationship.

13. Note that this is probably a more effective threat than the tit-for-tat strategy of responding in kind, and therefore, it is "potentially more effective than tit-for-tat in supporting 'general' morality in a community" (Vanberg and Congleton 1992: 421). For more detailed examination of these strategies, see Benson (1994a).

14. In addition, as Vanberg and Congleton (1992: 429) note, "Another implication is that contrary to a common perception, markets are not parasitic on moral attitudes that have to rely, for their nourishment, on other social settings. Instead, the more the essential features of markets (coordination by voluntary contract) is applicable, the more the market reinforces the virtues of honest behavior that in turn, make them work effectively."

15. The term "public good" does not necessarily have a unique meaning. For example, it is frequently suggested that public goods involve two elements: nonexcludability and indivisibility or nonrivalrous consumption [e.g., Cowen (1988: 3) and Taylor (1987: 5)]. Demsetz (1970) distinguishes between public goods and collective goods, however, with a public good involving nonrivalrous consumption and a collective good involving nonexcludability as well (i.e., Demsetz' collective good is Cowen's and Taylor's public good). Samuelson's (1969) delineation of the domain of public goods is much broader: "A public good is one that enters two or more persons' utility. What are we left with? With a knife-edge pole of the private good case, and with all the rest of the world in the public good domain by virtue of involving some consumption externality." In other words, a public good is any good which, in production or consumption, generates external benefits. Solidarity rules are public goods under Samuelson's definition and perhaps under Demsetz', but as indicated below, they are not public goods under the Cowen/Taylor definition in contrast to Taylor's contentions - see Endnote 17.

16. There are actually many potential evolutionary paths for the development of such solidarity rules. See Benson (1994a) for discussion.

17. See Vanberg and Buchanan (1990: 187) and Benson (1994b) for similar points. Osterfeld (1989) also rejects the characterization of "law" as a public good, but by making a different argument;

essentially, he demonstrates that security as evidenced by laws, policing, court services, is divisible so it can be broken down and either sold in a free market or provided in a non-monopolized, non-coercive way. Also see Benson (1990) for a similar argument. Indeed, Demsetz (1970) contends that when exclusion is possible indivisibility will not stand in the way of private production of "public goods" as he defines them (see Endnote 15). And following the publication of Demsetz' 1970 article, "many economists concluded that nonexcludability is generally the only serious problem in the provision of public goods" (Cowen 1988: 9). But as Goldin (1977) explains, there are actually no goods which are inherently public goods because there are always institutional choices available that can be used to exclude; that is, to create a situation of selective access. Furthermore, even if Goldin is wrong, given the multiplex relationship that exists in customary law groups, if the group does produce some non-excludable public goods, free rider incentives are relatively weak. Hardin (1982: 178-179) points out that if the group also produces some goods from which an individual can be excluded, then these "auxiliary" goods can be used to create incentives for cooperation in the production of any true public goods that might exist. Such tying arrangements characterize the private provision of lighthouses in Coase's (1974) famous counter-example to the public goods argument, for instance, and the private provision of policing and roads in Benson (1994b).

18. See Benson (1994a) for discussion of the evolution of economic sanctions (e.g., restitution) to replace retribution, for example.

19. Dispute resolution is not the only source of evolving rules. Individuals may simply observe that others are behaving in a particular way in light of a new situation, and adopt similar behavior themselves, thereby creating an obligation to continue the behavior. Alternatively, a new contract form may improve on existing forms. Others see the benefits and adopt it as well. Fuller (1981: 224-225) explains that "the term contract law, therefore, refers primarily not to the law of or about contracts, but to the 'law' a contract itself brings into existence."

20. This discussion and others that have preceded it may imply that an "efficient" system of property rights evolves under consensual law. Indeed, this may be a reasonable inference to draw, although it is not proven nor claimed here. At one level it is a trivial issue, of course. Given a consensual legal system, survival of a rule implies that is efficient because the transactions cost of changing it exceed the benefits. However, in the context of a comparative institutions analysis, the issue is not so trivial. To make such a claim, factors like the potential outcome of alternative institutional arrangements, the extent of experimentation, competition and emulation, the ease of exit and entry, the size of consensual law groups and the extent of network externalities would all have to be addressed (Benson 1994a). For example, Vanberg (1986: 96) maintains that "in large groups of

highly mobile individuals ... organized enforcement will be required in order to make cooperative behavioral regularities viable, whether such organized enforcement is based on some deliberate social contract entered into by the relevant group, or whether it is imposed by some sufficiently powerful (internal or external) party." Similarly, Hayek (1973: 47) contends that an extensive spontaneous order will not be self-regulating and that it will have to be supplemented by "an organization" which is typically called a government, and Ellickson (1993: 1400) points out that while the results of spontaneously evolving law may well be efficient for those in the group, it may still be inefficiently small in the sense that there may be "significant extraterritorial spill over effects that harm outsiders so much that the regime is undesirable from a broader social perspective. This suggests that in some instances a government [i.e., coercive authority] might usefully act to overcome the selfish practices of subgroups within its control." However, while not explicit, Ellickson goes on to suggest that the ideal against which such a system must be compared in order to draw a conclusion that the system is inefficient, is, in general, unobtainable. The fact is that such ideals generally are modeled by assuming zero transactions costs and no uncertainty and a benevolent or tightly constrained authority, after all.

21. Since a key function of cooperative clusters is the cooperative establishment and recognition of private property rights, and such rights are insecure if other groups are able to "invade" and take the property, one function of such cooperative clusters is likely to be mutual defense against such outside aggression (Benson 1994a).

22. As the wealth enhancing gains from voluntary interaction begin to materialize, repeated dealings and reputation effects develop, and incentives to maintain the arrangement and improve upon it become stronger. See Endnote 22. However, a significant threat to consensual legal arrangements arises from external sources (Benson 1994c; 1995).

23. Opportunistic breaches of consent contracts are also possible, of course. This incentives issue is a relative one rather than an absolute one. Under a consent contract, everyone is likely to be relatively better off than they would be if the contract brakes down and the group returned to the state of nature. A risk averse individual, recognizing this and considering the expected outcome given the probabilities of a successful and an unsuccessful opportunistic breach, relative to the status-quo, is less likely to breach. On the other hand, a slave or someone subject to heavy extortion could well be better off in a state of nature, given that the master is successfully overthrown, and the status quo is clearly relatively undesirable. Thus, the incentives to find a way to successfully breach are relatively strong. See Gauthier (1986: 190-232) for related arguments.

24. Such an organization may become a source of competition for power, however, so there are incentives to keep the organizations of police and military decentralized (i.e., to raise the cost of collusion by these potential competitors, and to create an adversarial competition between them for portions of the wealth being transferred).

25. Another possibility is an alliance (collusion among rulers, recognizing each others domains and pledging not to compete), although such an alliance is inherently unstable as none of the parties have reputations for cooperation. promises are not likely to be credible - no one will trust anyone else.

26. This is not simply a restatement of the "rent-seeking" theory of the state. For instance, powerful entities other than geographically defined nation-states, like the medieval Roman Church (Benson 1990, 1994a) and modern organized crime (Gambetta 1993; Benson 1994a), compete for sovereignty and attempt to develop and employ such institutions.

27. Of course, by creating such institutions, the authority can create potential sources of rivalry for legal authority (rivalry between the parliament, the courts, and the king shaped important parts of English legal history, for instance).

28. Disputes in a consensual system will also be adversarial, of course, as the immediate decision causes one party to gain and another to lose, but this short-term adversarial issue is only part of the outcome. Another part is that solution of the dispute maintains or reestablishes long-term interactions for mutual gain. Furthermore, it can clarify property rights so that future disputes are avoided and the potential for wealth-enhancing interactions expand.

29. Of course, if a ruler incorrectly predicts the response of the loosing groups in the transfer process, revolution can result, and since no ruler is likely to be able to accurately predict the consequences of every change in rules or institutions, revolution may not be uncommon. Thus, both gradual evolution which keeps the potential for violent revolt low, and revolution which arises when the ruler moves to fast in transferring wealth, shape the development of rules and institutions (Berman 1983).