CN Chapter 4

CT Coercion, Taxation, and Voluntary Association

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CQ *Since that which is done under compulsion or by reason of ignorance is involuntary, the voluntary would seem to be that of which the moving principle is in the agent himself, he being aware of the particular circumstances of the action.*

Aristotle, *Nicomachean Ethics* (book III)

A 1. Introduction: Baselines and the Nature of Voluntary and Coercive Transactions

Voluntary and coercive relationships among persons play important roles in ethics, political theory, and Western law. For the most part, voluntary relationships are considered to be morally neutral or good as long as the relationships do not harm others. Coercion on the other hand tends to be considered to be a "bad," because coercion by definition tends to make at least one person worse off – namely the person(s) coerced. Consequently, contractarian, Paretian, and other natural rights-based normative theories tend to denigrate coercive relationships, as do utilitarian theories and Western law. It is partly the consensus on the repulsive nature of coercion that leads to the ever wider rhetorical use of the term coercion in public policy debates, although often with subtle shifts of meaning.

Most of the essays in this volume assume that the nature of coercion is obvious and proceed without giving the concept careful attention; however, systematically identifying the nature of coercive relationships is more difficult than one might first

imagine. For example, if a club, firm, or government can impose penalties on its members for violating their rules, can club membership, employment, or citizenship ever be truly voluntary? If so, what does coercion mean?

This chapter attempts to clarify the meanings of voluntary association and coercion using matrix representations of the consequences of various proposals. The matrices are extended versions of those developed in Wertheimer (1990), who uses matrices to clarify several properties of coercive relationships. His matrices, however, lack an explicit representation of the "baseline," which is not a minor neglect, because voluntariness is largely determined relative to a baseline of some kind. Wertheimer's neglect of the baseline is remedied in this chapter by adding a third row to his matrices.

For most of this chapter, the relevant baseline is the situation (future time series) that would have occurred had the proposal of interest not been made. In many cases, such baselines can be considered the exit option: the alternative realized when an offer is rejected; although as will be noted, the exit option is not always the *status quo ante*. Such baselines have long played (implicit) roles in normative assessments. For example, Paretian norms are relative to an initial point, often interpreted as the *status quo ante*. This chapter suggests that *ex ante* baselines also provide a systematic way to distinguish coercive proposals such as "your money or your life" from non-coercive proposals to join groups or engage in voluntary exchange.

Two settings are focused on in this chapter: The first is one in which an individual (or organization) makes proposals that another individual (or organization) can accept or reject. The second is one in which governments make explicit or implicit proposals that an individual or organization can indirectly accept or reject by emigrating to another

polity. Baselines turn out to be important aspects of relationships among persons and for those between governments and "their" citizenry, although the relevant baseline is often more difficult to identify in the governmental cases. In the case of governmental relationships (and those between individuals and other organizations with the ability to impose rules on their members), the relevant baseline differs according to whether exit is easy, difficult, or infeasible.

The next section of this essay shows how baselines can be used to classify private transactions into entirely coercive, entirely voluntary, and partly coercive subsets. In the following section, parallels are constructed between these transactions and those between governments and individuals. The analysis is necessarily abstract and incomplete but sheds light on issues of interest to economists, political scientists, and legal scholars. The last section explores rationales and uses of hypothetical and normative baselines other than the *status quo ante*. For example, rights-based arguments usually use (implicitly) an ideal baseline in which particular rights are well protected to judge both offers and outcomes. The analysis of the second half of this chapter suggests that the ideal baseline of a zero-rent-extracting government can be used to judge the degree of coercion under a given government. The rent-extraction concept is used in the Skaperdas essay on proprietary government, but its value as an index of coercion is not fully worked out in that chapter.

For the most part, this essay assumes that the Wallis problem of violence has been solved, although the analysis of coercion and voluntariness developed can also be applied to those circumstances, as well as the Hobbesian and Lockian ones. Ledyard's essay on decentralized, non-coercive solutions to public goods problems is similar in spirit to the

following analysis but focuses less attention on the nature of coercion and is less concerned with external constraints on the range of policies and degree of coercion that may be adopted by governments in the short and long run. Ledyard analyzes a broader range of institutional alternatives than analyzed in this essay, albeit somewhat abstractly. The institutional settings explored in this essay are modest refinements of ones often used by public finance and public choice scholars.

A 2. A **Matrix Representation of Voluntary Relationships**

Completely voluntary interactions among individuals and organizations can be represented with the following matrix. Consider a setting in which A approaches B with a proposal of some kind that B is free to accept or reject (see Table 4.1). Row 1 characterizes the result if B agrees to A's proposal. Row 2 characterizes the result if B rejects the offer. Row 3 characterizes the state that would have existed had no proposal been made by A. This is the *status quo ante* representation of the baseline.

The payoffs associated with the baseline have been normalized to zero, so all payoffs greater than zero are improvements over the baseline, and all payoffs less than zero are reductions in welfare relative to the baseline. The case depicted is one in which B accepts A's proposal because B's welfare is increased by A's proposal relative the baseline $(3>0)$.

Insert Table 4.1 about here

Two characteristics are associated with a completely voluntary transaction: (a) both A and B prefer the proposal to their baselines and (b) in the case in which B rejects A's offer, the consequence is a return to the *status quo ante*, that is, the *ex ante* baseline

remains feasible. Such proposals cannot make B worse off. A very wide range of proposals approximately meet this criteria, including the exchange transactions economists focus on, as well as voluntary contributions to charities, voting in (most) popular elections, and unanimous group decisions to form common enterprises. Philosophers often refer to proposals that frame or initiate voluntary transactions as "offers." (See Nozick 1974, Frankfurt 1973, or Wertheimer 1990.)

B

2.1 Transactions Costs and Voluntariness

There are also cases in which B may accept A's proposal, but the transaction is not completely voluntary, because the proposal *incidentally eliminates the baseline as a possibility*. Listening to a proposal and evaluating it nearly always consumes valuable time and attention. In such cases, rejection of the proposal yields an outcome that is not the same as the baseline, but usually somewhat below it, because evaluating the offer has consumed time and attention that could have been more beneficially employed along the baseline. A telephone call may interrupt a conversation or meal. Even if the offer thus delivered is accepted, the baseline has been affected by the call: a conversational thread was lost or a tasty hot meal became cold.

The payoffs to such cases are illustrated in Table 4.2. In Case 2A, the proposal is accepted, and the final result is better for both players than the baseline – that which would have happened without the proposal $(3>0)$. In Case 2B (with the bracketed payoffs), the proposal is rejected and each person is worse off than they would have been in the absence of the proposal $(0>-1)$.

Insert Table 4.2 about here

If A can make costly proposals to B without B's consent, it is clear that A has the ability to make B worse off by doing so. Beggars in public streets often have such an ability, as do salespeople of various kinds, whether in stories, on the phone, or through Internet ads and other interruptions.

In general, B will allow A to make proposals – will listen to and evaluate them – only if B anticipates that A's solicitations are more likely to produce gains than losses, on average. In such cases, B "wins" on some occasions and "loses" on others, as in Case 2A and Case 2B. Listening to such proposals may be said to be voluntary insofar as B could have rejected such proposals out of hand (by, for example, disconnecting or turning off the telephone during supper, although this too has a cost).

However, this is not true of all solicitations. Here we may consider proposals by telephone salespeople made to persons eating dinner, between beggars and passersbys, or lonely men and pretty women. Offers that are always refused often make the person receiving the proposal worse off.[1] If B cannot costlessly limit A's ability to make a proposal, then the resulting negotiations can be said to be voluntary (or not) based on *the average net return* from listening to and evaluating such proposals. If the average outcome of a series of offers makes the person solicited better off, then the series may be regarded to be voluntary; if not, then the solicitations are not entirely voluntary and may, in some cases, be coercive.

Matrices similar to Cases 2A and 2B can also be used to characterize the overall net benefits of relatively complex proposals, which may take considerable time and attention to evaluate. For example, A might offer B a job or membership in an organization that requires accepting a variety of rules, rewards, and punishments. If B

accepts, she (he or they) must abide by the organization's rules or face punishments of various kinds. B may carefully weigh the benefits and costs of accepting the proposal, including both the opportunity cost of doing so and the likelihood that he or she will be wrongfully punished by the organization's management or government. In such cases, a whole series of future decisions are contrasted with those that would have occurred in the absence of the offer.

B will voluntarily take a job, join a club, or enter into a society, when the anticipated time stream of (risk-adjusted) net benefits are greater than those associated with the baseline. Note that if B's membership in such organizations is voluntary, so is her subsequent rule-bound and punishment-encouraged behavior within the organization, unless she is unpleasantly surprised by the operation of the organization. The mere use of punishments, fines, fees, or taxes does not imply that membership in a club or society is not voluntary.

It bears noting that most organizations have systems of conditional punishments and transfer resources among members. This is, after all, largely what makes them organizations. If joining a club correctly anticipates the day-to-day benefits and costs associated with membership, and the baseline is not affected by the offer of club membership, those joining the club have relative payoffs similar to those of Case 1. Voluntary membership resembles Case 2A, if evaluating the offer takes time.

The same logic applies to insurance policies under which "transfers" are made to those harmed by chance events from those that are not. The mere existence of "transfers" does not necessarily imply that the relationship is coercive.

It also bears noting that most settings in which offers are made and evaluated can be factored into a series of sub-transactions. However, it is the net result of the overall series that is relevant when a course of action is adopted, particular game entered, or organization joined.

Complex cases analogous to 2B also exist in which complex proposals may be regarded as coercive or partly coercive. Opportunities to purchase poorly made products, join expensive or unattractive clubs, or accept poorly paying jobs or enlist in demanding religions are almost routinely rejected, but the process of listening to such offers and rejecting them absorbs time and attention that could be better used elsewhere. Listening to such offers is not always a voluntary activity, because the "offers" predictably worsen the baseline. Fraudulent transactions are not voluntary undertaken insofar as losses are ultimately realized by B, rather than the benefits implied by B's offer.

B **2.2** Coercive Proposals

Coercive proposals are analogous to those of Case 2B, in that a coercive proposal eliminates the baseline as an alternative and would otherwise be rejected. Coercive proposals, however, differ from Case 2B in that the person making the offer *intentionally* manipulates (or at least substantially determines) both the payoffs that B obtains by accepting the proposal and those associated with rejecting the proposal. Controlling the baseline allows A to induce B to accept offers that he or she would otherwise have rejected. Faced with "your money or your life," most rational persons will hand over their wallet or purse, yet it is clear that this is not voluntary action, nor a voluntary relationship.

When a thief says "your money or your life," he or she is determining both the payoff associated with accepting the proposal (your money) and with rejecting it (your life). A return to the *ex ante* baseline is ruled out by the conditional punishment (assuming that the threat is credible). The recipient of a coercive proposal cannot simply walk away after answering "neither."

Table 4.3, Case 3, illustrates the essential properties of coercive proposals for the case in which a punishment, *P*, is associated with rejecting the offer.

Insert Table 4.3 about here

Coercive proposals have three characteristics: (a) the person making the proposal (A) controls (or influences) the payoffs associated with accepting and rejecting the proposal; (b) rejection of the proposal leads to a penalty imposed by A that is worse than the baseline; and (c) acceptance of A's proposal also generates a result that is worse than the baseline, although normally greater than that associated with rejection. Returning to the *ex ante* baseline, exit is not an option, because a (credible) threat of punishment rules out the *status quo ante*.

A coercive proposal succeeds when the punishment for rejecting the offer is sufficiently large. Such offers are "accepted" even though doing so makes the person worse off than under the baseline. For example, if *P* equals −4, B will accept A's proposal, because B is better off accepting it than rejecting it. However, given a choice between a coercive proposal and the baseline, the recipient will always prefer the baseline $(0 > -3 > -4)$. He or she would be better off if such proposals were never made. Note that the person making the coercive offer may actually gain more from B's acceptance

than the B loses, although this is not always, or very often, the case. The offer is coercive because the punishment for rejecting the proposal, *P*, has been manipulated by A to increase the likelihood that B accepts an offer that would otherwise make B worse off.

"Your money or your life," clearly differs from "your money or continue your pleasant walk." The new exit option is worse than the original one.

Threats (promised punishments) are always associated with coercive proposals, although as noted, the use of punishments may also be associated with a subset of voluntary transactions such as joining an organization with demanding rules that are well enforced.

B **2.3** Subjective Nature of Coercive Proposals

The payoffs associated with voluntary and coercive proposals are subjective, so it is not always possible for an observer to know whether a transaction falls into Cases 1, 2, or 3. However, net benefits are often correlated with observable (substantive) phenomena, which allow many coercive proposals to be distinguished from non-coercive ones by outsiders observing them. C sees A show B a gun, at which point B hands over her purse to A, and A takes both the purse and the gun away with him. The gun implies a threat, and the fact that A did not exchange the gun for B's purse is consistent with that interpretation. Voluntary transactions do not require the threat of bodily harm associated with the gun. This allows C to infer that a coercive transaction has taken place between A and B.

There is, however, often some chance of error, because one can imagine scenarios under which the gun was involved, but the transaction was completely voluntary. Perhaps A knew that B enjoyed role playing, and B gave A her purse because it belonged to D

who A would see later that day. The subjectivity of the payoffs implies that misinterpreting the nature of a transaction is nearly always possible, although some cases are very clear, as when A shoots B and takes B's purse. (It is unlikely that this transaction was B's preferred method of suicide.)

B **2.4** Natural Baselines: Hard Choices Can Be Voluntary Transactions

It is important to keep in mind that baselines are not always attractive, and so many voluntary transactions yield outcomes that are unattractive. For example, nature generates low baselines during natural disasters, essentially by definition. Aristotle discusses a case in which a storm at sea induces a captain to propose throwing valuable merchandise overboard to avoid even worse results.

> Ext Something of the sort happens also with regard to the throwing of goods overboard in a storm; for in the abstract no one throws goods away voluntarily, but on condition of its securing the safety of himself and his crew any sensible man does so. Such actions, then, are mixed, but are more like voluntary actions; for they are worthy of choice at the time when they are done, and the end of an action is relative to the occasion.
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> Ext Both the terms, then, "voluntary" and "involuntary," must be used with reference to the moment [*baseline*] of action (Aristotle, *Nicomachean Ethics*, book III, 1908: sec 1).

Throwing valuable merchandise overboard during a storm is voluntary in the sense used in this essay. Those adopting this strategy – accepting this proposal by the captain or fellow shipmates – benefit relative to the baseline produced by nature (drowning at sea).

Many centuries later, similar arguments were used to characterize legitimate forms of governments, given violent, unattractive, baselines that might be produced by human nature. The best known of these arguments is the one developed by Thomas Hobbes in the seventeenth century, a time of civil warfare in England and colonization in North America. Hobbes (1651) postulated a gruesome baseline – a war of every man against every other.

> Ext Whatsoever therefore is consequent to a time of War, where every man is Enemy to every man; the same is consequent to the time, wherein men live without other security, than what their own strength, and their own invention shall furnish them withal. In such condition, there is no place for Industry, because the fruit thereof is uncertain, and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by Sea, no commodious building, no Instruments of moving, and removing such things as require much force, no knowledge of the face of the Earth, no account of Time, no Arts, no Letters, no Society; and which is worst of all, continual fear, and danger of violent death. And the life of man [is] solitary, poor, nasty, brutish, and short.

> Ext To this war of every man against every man, this also is consequent; that nothing can be unjust; the notions of right and wrong, justice and injustice have there no place. Where there is no common Power, there is no Law: where no Law, no Injustice. Force, and Fraud, are in war the two Cardinal virtues. (I have updated the spellings to their modern form. Hobbes [1651/ 2011]: 71.)

Hobbes argued that the only possible escape is the acceptance of a largely unconstrained government that would have sufficient power to assure peace. He concludes that the order

that emerges from an irrevocable transfer of rights to the sovereignty is always better than nature's anarchy, although he acknowledges that the result is not always the best that can be imagined.

> Ext [T]hey that have already instituted a commonwealth, being thereby bound by covenant, to own [obey] the actions, and judgments of one [the sovereign], cannot lawfully make a new covenant, amongst themselves, to be obedient to any other, in anything whatsoever, without his permission. And therefore, they that are subjects to a Monarch, cannot without his leave cast off Monarchy, and return to the confusion of a disunited multitude; nor transfer their person from him that beareth it, to another man, or other assembly of men: for **they are bound**, every man to every man, **to** own, and be reputed author of all, that **he that already is their Sovereign, shall do, and judge fit to be done.** (Hobbes 1651/ 2011: 95–96)

A few decades later, Locke (1689), perhaps inspired by the Dutch and American experiences, challenged Hobbes' conclusions with respect to sovereignty by arguing that the baseline (the natural state) is not as bad as Hobbes' war of every man against every other. Given a better baseline, some authorities would never be transferred to a sovereign. The members of a commonwealth might prefer the natural state to rule by an unconstrained tyrannical sovereign. Moreover, Locke suggests that sovereignty may be revoked when the bounds of proper authority are overstepped. Given a better baseline, only more limited social contracts would be accepted by freemen.

A few decades later, Montesquieu (1748) and Madison, Hamilton, and Jay (1788) suggested several institutional solutions that freemen might prefer to Leviathan. Constitutions that include checks and balances, representative chambers of government,

and decentralized authority might be adopted, even if one accepted Hobbes' characterization of the baseline for human society. If the interests of Leviathan can be better aligned with those governed through institutional design, those institutions may be voluntarily adopted.

3. **Voluntary and Coercive Governance**

At this point, we shift the analysis from the formation and limits of voluntary agreement and organization to cases in which anarchy has been left behind and several polities, each with their own government and rules, exist. Because all governed societies have a broad range of rules and punishments – essentially by definition – it is important to distinguish between rules and punishments that are voluntarily accepted and those that are not. Rules and punishments may be voluntarily accepted when they increase net benefits for the person (or group) of interest, as emphasized by contractarians from Hobbes (1651) to Buchanan (1975). Membership is coerced when an organization's rules produce net benefits that are below the relevant baseline.

Individuals will voluntarily join organizations and societies that use punishments to solve social dilemmas whenever the value added by solving coordination, shirking, and public goods problems exceeds the expected cost (including costs associated with being punished). Being a member of such organizations produces payoffs that are larger than the baseline. Indeed, Hobbes argued that civilization is a consequence of solutions to such problems. However, the benefits of continued association must be greater than the costs, including costs associated with efficiency-enhancing punishments (duress, wrongful conviction, etc.).

Again, it is important to distinguish between unattractive settings and coercive proposals. A club or government that rescues someone from very unattractive settings may charge high fees or taxes without engaging in coercion. However, few baselines are as bad as posited by Hobbes, so there are clearly cases in which laws and taxes are coercive.

In civilized societies, the *status quo ante* is not usually anarchy or some similar setting but rather the set of rules, fees, procedures, and punishments already in place. Shifts between societies are possible, and both continued residence and exit can be said to be the result of implicit proposals made by the governments that an individual or family is free to choose among. When shifting between polities is costless, continued membership is always voluntary in the sense of Case 1 and implies that residents find their particular communities to be at least as good as all others.

When shifting among communities is easy, but not costless, the choices resemble those of Cases 2a and 2b. In cases in which the persons occupying offices of authority in government – "the state" – drive up the cost of exit to induce its residents to accept otherwise unattractive "proposals," the relationships may be coercive in the sense of Case 3. The iron curtain of the old Soviet Union is only one of many clear instances in which exit costs were manipulated by governments to induce acceptance of "offers" that reduced citizen welfare below their previous baselines.

B **3.1** On the Appeal of Liberal Societies and Limits to Coercion

To make the preceding analysis somewhat less abstract, consider locational choices among several preexisting polities. First, consider transactions that are analogous to those of Cases 1 and 2. Suppose that a person or family is free to exit from a somewhat

disorganized baseline society, *S*, and enter one of two more organized societies. One of the alternatives is a rent-extracting society, country *R*, in which privileged families (the elite) use lump-sum taxes to transfer resources (extract rents) from the non-privileged families (the non-elite) to the privileged families. The other is a liberal society, country *U*, which has adopted rules and procedures that maximize a Benthamite social-welfare function, subject to various constraints, which may include bounds on threats and punishments, and civil law. By assumption, no rent extraction takes place in the liberal society, so there are no "elite" families that receive unearned privileges (rents).

To simplify analysis, countries *R* and *U* are both assumed to use punishments efficiently to solve their internal coordination and social dilemma problems. This is a somewhat strong assumption for a rent-extracting society, but it allows us to compare outcomes more easily in countries *R* and *U* and to draw conclusions about policies that may be coercive in the sense of Case 3. The assumption that only efficient methods of taxation are used does not affect many of the conclusions drawn from the analysis, but it does sharpen the results.[2]

To further simplify the analysis, notation, and discussion, all payoffs are expressed in dollar value or additive utility terms, and a single social dilemma is assumed to be solved with Pigouvian fines, *F*, that are imposed on "social shirking." The fines are used to encourage team production or free riding, and the revenues are used to fund the associated monitoring and enforcement institutions. Shirking would otherwise produce a payoff of $P + L$ (income and leisure) that is individually greater than that of not shirking, *M*. The fine reduces this to $P + L - F < M$, with *M* greater than the payoff realized when everyone shirks, as in the disorganized society. Average collections are assumed to be

just sufficient to solve the problems of interest and to pay for the monitoring and enforcement systems required.[3]

In the rent-extraction country, additional revenues are generated through lump-sum tax, *T*, which is imposed on non-elites. Political elites in rent-extraction societies extract some or all of the benefits that non-elites gain from solutions to social dilemmas in their society. The elite profits from the "extraction taxes" and are assumed to be exempt from the shirking fines, which implies that members of the political elite may choose to simply live off their share of the extraction tax receipts without working (non-shirking), with $P + L + T > M + T$, although this is not critical for the present analysis.

Society *S* plays the role of the "state of nature" or natural baseline in the present analysis. In the relatively disorganized community, it is assumed that few social dilemmas are addressed ($F = 0$), but rates of rent extraction are low ($T = 0$). In that society, property rights and other public goods that increase marginal productivity are underprovided, which implies that the marginal product of working and shirking is individually and collectively less than that in the rent-extraction and liberal states $M > M'$ and $P > P'$. Moreover, because problems of social shirking are not addressed, the normal behavior in society *S* is shirking, with payoff $S = P' + L < P + L < M'$.

The efficiency-enhancing fines of countries *U* and *R* are assumed to reduce the payoffs associated with social shirking to levels less than that associated with the baseline, $S > P + L - F$. This allows persons to avoid the Pigouvian fines by working in or by emigrating to society S. However, solving social dilemmas allows resources to be used more efficiently, and thus the payoff from both working and shirking in *U* or *R* are higher than they are in the disorganized society, *S*. These payoffs vary among individuals,

although identifying subscripts are not used, because the focus is, for the most part, on a "typical" person's choice.

The matrices of Table 4.4 characterize payoffs for typical elite and non-elite persons who are free to choose among the three communities. The matrix can be used to analyze a person's choice of society and, by providing alternative notions of baselines, to shed light on the extent to which government policies in the three states are coercive or not.

Insert Table 4.4 about here

Note that elites and non-elites tend to rank the three societies differently. A non-elite person who places relatively little value on leisure and believes that fines are accurately applied in the liberal society, prefers the liberal society to the baseline of the disorganized society and also to the rent-extracting society ($M > M - T$ *and* $M > S$). Non-elite persons living in either society *R* or society *S* would, thus, tend to emigrate to country *U*. For non-elites, the extraction of rents, even via non-distorting lump-sum taxes, is analogous to the "your money or your life" proposal of the robbery case and is a proposal to be avoided rather than embraced. Members of the elite, however, prefer the rent-extraction society to the liberal and disorganized societies as long as significant rents are harvested and shared.

Note that relative to the baseline of the liberal state, rent extraction is a coercive enterprise. No non-elite person will voluntarily join a rent-extracting society when a liberal society is available. In contrast, members of the privileged families of country R will prefer society *R* to both *S* and *U*, because $M + T > M$. Members of the elite would

regard a forced move to country *U* to be coercive, because it reduces their welfare by eliminating their rents.[4]

Persons who greatly value leisure (with relatively high L) would tend to rank the societies differently. Such persons may find that $S = P' + L > M$ and choose to stay in (or emigrate to) country *S*. Although they would rank the liberal (utilitarian) society over the rent-extracting one, people work "too hard" in the liberal society. For such persons, a forced move from *S* to *U* would be coercive. Even efficiency-enhancing fines may be coercive, although this depends on the person and the extent to which their productivity is increased by such fines and the value placed on leisure.[5]

In the long run, emigration pressures imply that rent-extracting societies are not viable, if liberal states exist and exit costs are low. Freedom of exit and entry implies that all non-elites emigrate from *R* to *U*, whereupon privileged families would find themselves with no one to extract rents from. Society R is not viable in such circumstances. Only productive forms of punishment are viable in settings in which persons are free to choose among societies that include liberal ones, although not everyone emigrates to *U* or prefers the liberal society to rent-extracting or disorganized societies.[6]

B **3.2** Settings in Which Ideal Alternatives Do Not Exist: Competition among Rent-Extraction Societies without Exit Costs

C **Extraction Societies without Exit Costs**

A similar logic, perhaps surprisingly, applies to cases in which liberal utilitarian societies initially do not exist. In such cases, migration will also favor relatively efficient societies (those with more nearly optimal levels of *F* and relatively low rates of rent extraction).

The relevant baseline for determining whether rent extraction is coercive is less obvious in this setting than in the case in which country *U* exists. A move from *S* to a rent-extraction society makes the migrant better off, as long as $M - T > P' + L$. Thus, relative to society *S*, membership in the rent-extracting society for many non-elite individuals is voluntary, and the rent extraction is unpleasant, but not coercive.

In such cases, residence in a rent-extracting state is analogous to purchasing goods from a monopoly supplier that charges more than the competitive price for a desirable product. Many persons will voluntarily pay a monopoly price rather than do without. Both Apple and Microsoft currently profit from such choices by consumers. Similarly, many persons will voluntarily pay a monopoly price for governmental solutions to social dilemmas. Indeed, the use of a disorganized state as the baseline may yield conclusions that are similar to those of the pessimistic contractarians, such as Hobbes, who use an unpleasant "state of nature" as their baseline.

Within rent-extracting societies, changes in rates of rent extraction can also be evaluated using their own *status quo ante* as the baseline. Given that baseline, it is clear that an increase in the rate of rent extraction is coercive for non-elites. Non-elites are "forced" to pay higher taxes (to "give" more money to privileged families) or to pay penalties for tax evasion, without any compensating improvement in their collective productivity and personal incomes. The effects of an increase in rent-extraction are thus similar to Case 3 for non-elites. However, only if extraction taxes are increased to the point at which all the surplus generated from solutions to social dilemma is extracted would hardworking non-elites emigrate to the disorganized society.

However, community *S* is not the only alternative or constraint in the setting being analyzed. Non-elites may also emigrate to other rent-extracting states. This may induce competition among elites in different states for non-elites to extract rents from. Such competition tends to generate reductions in rent-extracting taxes – "a race to the bottom." A polity that reduces its rate of rent extraction implicitly or explicitly makes an offer analogous to Cases 1 or 2 for non-elites in other countries who decide to emigrate. When exit costs are zero or low relative to differences in rates of rent extraction, non-elite members of society will tend to move to the efficient state with the lowest rate rent extraction. In such cases, a small decrease in rent-extraction lump-sum tax *T* may induce a sufficiently large increase in the number of non-elites, *N*, that it increases the rents of the polity's elite.

Thus, in cases in which migration is easy, competition for non-elite persons tends to induce a race to the bottom in which rent extraction, *T*, is gradually reduced in each country until the limit of zero is reached. In the long run, competition causes liberal states to emerge.

Reductions in rent-extraction possibilities for elites in other polities induced by tax competition are analogous to Case 2b, rather than Case 3. The reduction in elite rents in other countries is not accomplished by an intentional manipulation of penalties to induce changes in elite behavior. Indeed, a government that reduces its own extraction rates would prefer that no other government changes its rate of extraction. Extractive tax competition is thus not coercive, although it is inconvenient for elites.

B **3.3** Competition among Rent-Extracting States with Exit Costs

The previous Tiebout-like analysis suggests that only punishments and taxes that enhance efficiency are sustainable in the long run if the persons taxed or punished are completely mobile. Truly coercive governments can persist in the long run only if there are significant exit costs. Unfortunately, exit costs are significantly greater than zero in most real world settings.

We now turn to the case in which significant exit costs exist. When exit costs are significant, members of the non-elite move from one polity to another only in response to relatively large differences in rates of rent extraction. In our illustration, an individual will move from community 1 to community 2 only if $T_1 - T_2 > E$, where E is the individual's exit cost.[7] Consequently, community 2 may have rent extraction rates, T_2, less than T_1, yet attract few emigrants from community 1. To attract additional persons from whom to extract rents will require a significant reduction in extraction rates.

In this case, there is no necessary race to the bottom in rent extraction. Whether it pays to reduce rates of rent extraction varies with the distribution of exit costs in other communities, as well as the levels of rent extraction and public services in the communities of interest.

Consider the case in which a continuum of exit costs among residents exists in all relevant communities, with some persons (or other sources of rent payments) having high exit costs, others low, and others in between. Suppose there are two efficient rent-extracting states and elites cannot engage in "price discrimination" because exit costs cannot be directly observed. It is clear that competition for non-elite immigrants may take place. If there are different rates of rent extraction in the two rent-extracting

communities, with $T_1 > T_2$, all persons with exit costs less than $E = T_1 - T_2$ will leave community 1 and take up residence in community 2. Moreover, all the emigration from the disorganized society *S* now goes entirely to the organized society with the lowest rate of rent extraction. Emigration from *S* will take place for all residents with $M - E > S$. Others will stay at home.

Let function *f* characterize the fraction of all persons who live in community 1, given the distribution of exit costs that exists in the three communities and their initial populations, N^0_1, N^0_2, and N^0_S, respectively. That fraction falls when $T_1 - T_2 > 0$ and increases when $T_1 - T_2 < 0$. If the distribution of exit costs is continuous and differentiable for the communities of interest, function *f* will also be continuous and differentiable and will be monotone decreasing in $T_1 - T_2$. The number of non-elites in community 1 can be represented as

$$N_1 = f(T_1 - T_2)(N^0_1 + N^0_2 + N^0_S) \qquad (1)$$

and per capita elite rents as

$$R_1 = [f(T_1 - T_2)(N_1 + N_2 + N^0_S)]T_1 / H_1 . \qquad (2)$$

The rent-maximizing member of the elite in community 1 will prefer the tax that satisfies

$$R_T = [f'(T_1 - T_2)]T_1 / M_1 + [f(T_1 - T_2)]T_1 / H_1 = 0 , \qquad (3)$$

which is satisfied when

$$f' + f(T_1 - T_2) = 0 . \qquad (4)$$

Together equation (4) and the implicit function theorem imply that elite 1's ideal rent-extraction rate can be written as

$$T_1^* = g(T_2) \,. \quad (5a)$$

A similar best reply function can be derived for community 2:

$$T_2^* = h(T_1) \,. \quad (5b)$$

The Nash equilibrium occurs when both communities are simultaneously on their best reply functions:[8]

$$T_1^{**} = g(T_2^{**}) \quad (6a)$$

$$T_2^{**} = h(T_1^{**}) \,. \quad (6b)$$

Competition among rent-extracting states for mobile non-elites tends to produce convergence in the levels of rent extraction, whenever the relevant societies are similar. Whether this entails high or low rates of rent extraction varies with the distribution of exit costs and the extent to which solving social dilemmas increases marginal products.

If communities 1 and 2 have no other distinguishing characteristics, the Nash equilibrium will tend to be a symmetric one, with $T_1^{**} = T_2^{**}$, and each of the rent-extracting communities will have

$$N_1^* = f(0)(N^0{}_1 + N^0{}_2 + N^0{}_S) \, residents \,, \quad (7a)$$

and members of their elites will each receive rents equal to

$$R_1^* = N_1^* T_1^{**} / H_1 \,. \quad (7b)$$

The extent to which competition limits rent extraction varies with the implied population flows among communities. (There may be multiple equilibria.)

If rent extraction was reduced on the way to the Nash equilibrium, persons may emigrate from community *S* to one of the rent-extracting states. In that case, the marginal resident of community *S* is indifferent between staying and leaving for one of the rent-extracting states, $M - T - E = S$, at the Nash equilibrium. That is to say, community *S*'s most mobile resident is indifferent between the disorganized society and the least extractive alternative, given his or her exit costs and productivity gains in the rent-extraction societies.

If, however, rent extraction has increased on the way to the Nash equilibrium, there may be migration from the *R*s to *S*. In that case, the marginal member of the rent-extraction societies is indifferent between staying and leaving for $S : M - T = S - E$.

Exit costs, perhaps surprisingly, imply that rent extraction may exceed the social surplus from solving social dilemmas for some or all non-elites. Exit costs imply that migration occurs only if, $S - E > M - T$, only if net of exit cost benefits exceed the net of extraction benefits of the rent-extracting society. If $S > M - T$, it can be said that all non-elite members of the rent-extracting societies would have emigrated to the disorganized society, but for their exit costs.

Although beyond the scope of this essay, it bears noting that exit (and entry) costs may also be adjusted by rent-extracting states in much the same manner that a thief may adjust the baseline with greater threats. An increase in exit costs in combination with an increase in T tends to be coercive in exactly the same manner as Case 3. Such policies are

clearly coercive, because they combine offers that make persons worse off with changes in their baselines designed to induce acceptance of the offer.

Overall, the preceding analysis suggests that the term coercion can be applied to governments whenever we use a baseline that is more attractive than the one suggested by Hobbes. It also suggests that governments can be regarded as more or less coercive according to the degree of rent extraction present, which in turn varies with exit costs and the extent of tax competition among states for residents.

A 4. Baselines and Distinctions among Volition, Voluntariness, and Coercion

It should be kept in mind that coercive proposals do not literally force a result, as when the police physically carry a person to a jail cell and lock the door. Instead coercion normally involves the creation of strong incentives that induce particular choices, as when threats induce a person to walk "voluntarily" into a jail cell and close the door or induce a person to "tip" his or her executioner. The characterization of coercive offers developed in Section I allows us to distinguish among settings in which behavior is volitional, but is coerced rather than voluntary. The matrices also allow us to distinguish between settings in which conditional punishments are used to solve social dilemmas and those in which threats are used to extract rents. There are no efficiency-coercion tradeoffs once this distinction is recognized.

Generalizations of the matrices imply that the existence of conditional punishments does not necessarily imply that a proposal is coercive. Individuals freely join clubs, firms, and societies in which conditional punishments are used, because they value the results achieved by the behavior induced by those systems more than their

status quo ante. For example, a firm's conditional punishment system solves a wide variety of team production, coordination, and public goods problems that allow it to pay higher wages than available in atomistic market alternatives. Similarly, a government that effectively solves social dilemmas increases productivity and the incomes of its resident-citizens by, among other things, reducing losses from externalities, theft, and fraud. (That efficiency is increased in the preceding illustrations: $M > M'$, is the reason that Pigouvian fines, *F*, are preferred by the residents of *U* to their absence in society *S*.) In contrast, individuals never voluntarily subject themselves to entirely extractive organizations or governments, because such practices reduce individual net benefits relative to their baseline.

In the real world, all governments use conditional punishment systems, but not all such punishments are coercive. The use of violence or threats of violence may simply be a means to advance ends that benefit a broad cross section of a country's residents. Residents may be attracted rather than repelled by such policies.

Coercive governments use similar tools, but in a different manner. They are extractive even if they are also productive organizations. Citizens who exit after a new policy is announced demonstrate the coercive nature of a new fiscal or regulatory package. Others who do not exit may also be worse off but fail to leave because their exit costs are relatively high. It is the propensity to exit, not the existence of threatened punishments, that provides the best evidence of whether a new policy or reform is coercive or not.

B **4.1** Using Ideal Baselines to Measure Coercion

When real baselines are used, coercion is context dependent. In a nasty circumstance, an offer might be accepted that would be rejected in less nasty circumstances. Thus, whether a given change in policy is coercive or not varies with the baseline of every individual in the society of interest. Do new policies alter incentives (payoffs for accepting and rejecting offers) in a manner that makes a given citizen-resident worse off or better off than the previous policy?

For the purposes of assessing policies without having to examine choice settings in detail, it is often useful to use an ideal or hypothetical baseline and measure coercion relative to that imaginary baseline, rather than to the actual baseline. For example, the use of an ideal baseline of zero rent extraction or zero exit costs allows a relatively simple index of coerciveness to be constructed by measuring the (total) rents extracted per non-privileged member of society. This measure is bounded at zero and has an upper bound at $M - S$, whether S ensures only subsistence levels of consumption (as might be true in a Hobbesian jungle) or S is well above subsistence (as in a Lockeian or Nozickian natural state).

Rent extraction, as demonstrated, is nearly always coercive, and one government can be considered more coercive than another – other things being equal – if it engages in more rent extraction. Of course, it is not always easy to measure rents extracted, but rent extraction can often be estimated. In contemporary dictatorships this can be approximated by the personal budgets and secret bank accounts of the ruling elite. In medieval Europe it can be approximated by the size and décor of royal palaces. Within democracies, the rents of the political elite are less obvious than in medieval systems where formal titles

separated nobles from commoners, but implicit and explicit transfers to relatively wealthy rent seekers might serve as a first approximation.[9]

To the extent that rent extraction is accomplished by designing rent-seeking contests, rent-seeking expenditures can also be used to estimate the extent of rent extraction and coercion (Tullock 1967, Hillman and Katz 1984, Congleton, Hillman, and Konrad 2008). Laband and Sophocleus (1992) attempted to measure all rent-seeking expenditures in the United States and estimated that up to 25 percent of gross domestic product (GDP) is devoted to rent-seeking activities. However, not all rent extraction is undertaken by governments, so society-wide estimates tend to be greater than appropriate for an indicator of government coercion. If all governments had the same interest and ability to maximize their rents, exit costs could also serve as an indicator of the extent of the rents extracted.

B **4.2** A Digression on other Ideal Baselines, "Unacceptable" Baselines, and Voluntariness

Universal baselines have two quite different applications. The first, as noted earlier, is pragmatic. An ideal baseline can be used to simplify analysis in a manner that allows governments to be more readily compared and critiqued. This essay suggests that rent-extraction can be used as such an index; other essays in this volume use other ideal baselines. For example, the Winer, Hettich, and Tridimas essay uses Lindahl taxes as their idealized baseline, in part because it facilitates analysis of fiscal systems.

The second use is a related, but different, one. A universal normative baseline can also be used to assess the normative properties of choice settings themselves. It may be argued, for example, that some voluntary proposals "should not be made" and when

made “should be” refused, because they are unfair or exploitative. Such idealistic baselines can be derived from a variety of normative frameworks, including religious norms for behavior, natural rights theories, and modern welfare economics.

Such normative baselines, like coercion itself, play a role in ethics and Western law. For example, B may have to make a choice under duress or in a setting that is reprehensible in some sense (B might be starving, a slave, or in prison). Contracts made under duress are normally deemed invalid under civil law. Such normative analyses do not attempt to assess coercion by individuals or governments but rather the existing baseline relative to what it should be.

As a consequence, a subtle shift in the meaning of the term *voluntary* occurs when idealistic baselines are used. Idealistic baselines are often used to argue that a particular transaction is not “truly” voluntary behavior – even though an offer is not coercive in the sense used in this essay – because in an “ideal world,” B would never receive or confront such choices. A’s proposal may make B better off, relative to his or her baseline but only because the baseline is so low, indeed “improperly” so.

Case 5 in Table 4.5 illustrates the essential logic of this use of baselines. The first three rows are the same as those of Case 1; the fourth is the ideal baseline. Note that under the “normatively acceptable” baseline, the offer should be rejected if made, and because this would be known, such offers would unlikely be made in the first place.

Insert Table 4.5 about here

Under this norm, the status quo (baseline) should be sufficiently attractive that many potentially voluntary transactions (selling oneself into slavery or indentured service for

many years) cease being voluntary. Such baseline analyses do not characterize coercion per se but rather whether the society or situation is in some sense "morally unacceptable," "unfair," or "unreasonable." (It was this type of reasoning that Aristotle's storm example was meant to challenge.)

A slightly different but similar line of reasoning occurs in settings in which B does not understand the full implications of the offer or the baseline, because he or she is ignorant of relevant details or is misled about them. In such cases, B may accept an offer that turns out to be worse than the baseline. Such proposals may be fraudulent, but they are not coercive, because B is free to reject them and return to the status quo before the proposal was made, but they are not entirely voluntary either. B would have been better off if such fraudulent proposals were never made. There are also innocent mistakes in which B accepts a "well-intentioned" offer from A that nonetheless makes B worse off, because B misunderstands the offer made. In a world with irreducible uncertainty or ignorance, some bargains will always turn out to be less attractive than they appeared. There will be mistakes. (See the Ledyard essay for more on informational problems and voluntariness.)

The use of idealized "knowledge baselines" is found in Western law and ethics. Contract law presumes a common understanding of the agreement (a meeting of the minds). Fooling a person into accepting offers that actually make him or her worse off implies that a meeting of the minds has not taken place. Moreover, fraud is subject to criminal sanctions. Many products cannot be sold, because it is believed that most persons buying such products make mistakes in their purchases, as with highly addictive drugs. Such considerations are also often evident in bills of rights and civil liberty

sections of constitutional documents, which attempt to outlaw some kinds of government policies as mistakes to be avoided.

A 5. Minimizing Coercion as an Alternative to Maximizing Per Capita GDP and Other General Conclusions

Relative to many normative theories, the use of *status quo ante* baselines and rent extraction as foundations for measuring coercion may seem a bit crude. However, this approach provides a more practical and universally acceptable index of governmental quality than other idealistic baseline approaches, which tend to rest on particular norms and are often idiosyncratic in their application. The use of coercion, as defined in this essay, does not require committing to a specific normative framework, because coercion as defined in this essay is "bad" from the perspective of a broad cross section of normative theories. The analysis also suggests that coercion can be operationalized at the level of society by focusing on rent extraction and/or exit costs, which provide evidence of and constraints on governmental coercion, if coercion itself is difficult to measure.

Per capita GDP is often argued to provide an analogous rough estimate of utilitarian social welfare. However, GDP does not distinguish rent seeking from productive activities, values government services at cost, and neglects nonpecuniary transactions and environmental degradation. It also fails to take account of diminishing marginal utility of income (especially among privileged families), which plays a role in both utilitarian and contractarian normative theories of distributive justice.[10] An efficient rent-extracting society may maximize gross national product (GNP) and elite rents without producing an attractive society for non-elites.

Such societies might have been rejected from behind the veil of ignorance, because the risk of being a "loser" (target of rent extraction) was too great. Indeed, non-privileged families would all emigrate to other polities with lower rates of rent extraction, were it not for high exit costs, even if per capita GNP is lower in the destination country. (Such an emigration, for example, took place from Sweden during the late nineteenth century.) For all of these reasons, per capita GNP tends to overstate Benthamite social welfare and is at best only a very rough first approximation of average welfare. Migration patterns provide more direct information about the distribution of welfare within a given society, although it tends to understate coercion (and governmental inefficiency), because exit costs are often very high.

If minimizing coercion is accepted as a policy or constitutional norm, the analysis of this essay has several general implications. First, policies and institutions that reduce exit costs tend to improve governance directly and/or indirectly by increasing the mobility of non-elites and thereby increasing rent-extraction competition and reducing coercion. Second, institutions that curtail rent extraction, of which there are many, tend to produce more attractive societies. For example, civil law and takings clauses by defining and protecting property rights tend to reduce the scope for governmental and private rent extraction. Third, institutions such as federalism that promote tax and service competition tend to reduce coercion by reducing exit costs. Federalism also tends to encourage governmental efficiency (in the Pigouvian and Lindahl senses of inducing more nearly ideal fees, F in the preceding models), which tends to produce more attractive societies for both elites and non-elites.

Other baselines have other implications for the degree and optimal manner of curtailing coercion, as evidenced in several of the other essays in this volume. The zero rent-extraction baseline, however, may be more broadly applicable and useful insofar as it provides measureable indices of government coercion and institutional quality that are relevant for a broad range of non-utilitarian and utilitarian normative analysis.

A

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Table 4.1. *Case 1: Completely voluntary relationships*

	A	B
B accepts A's proposal	4	3
B rejects A's proposal	0	0
Baseline	0	0

Table 4.2. *Case 2: Less than completely voluntary relationships*

	A	B
B accepts A's proposal	4 [4]	3 [−3]
B reject A's proposal	−1	−1
Baseline	0	0

Table 4.3. *Case 3: Coercive proposals*

	A	B
B accepts A's proposal	4	−3
B rejects A's proposal	1	$-P$
Baseline	0	0

Table 4.4. *Case 4: Choosing among societies*

Rent-extracting society			Utilitarian society		
Payoffs by social status				Payoffs by social status	
	Non-elite	Political elite		Non-elite	Political elite
Work	$M - T$	$M + T$	Work	M	M
Shirk	$P + L - T - F$	$P + L + T$	Shirk	$P + L - F$	$P + L - F$
Baseline	S	S	Baseline	S	S

The cell entries are utilities, the rank order of subjective payoffs for the members of the society. It is assumed that $M > S > P - F$.

Table 4.5. *Case 5: Unreasonable proposals*

	A	B
B accepts A's proposal	4	1
B rejects A's proposal	−1	0
Actual baseline	0	0
Proper or ideal baseline	2	2

Footnotes

[1] There are also cases in which simply receiving an offer makes one feel better off even if one rejects the offer, as when fine dancer A asks lonely B for a dance at a local dance club.

[2] For the purposes of this essay, the possibility that the residual claimant status of the elite may induce a less than completely encompassing interest is ignored. A less than fully encompassing interest in maximizing national income is quite likely when the rent-extracting individual or group cannot use lump-sum taxes (Olson 1993; Congleton and Lee 2009). Such problems are neglected here to focus on essential features on coercive and voluntary uses of conditional punishments and the importance of baselines.

[3] Fines can be used to solve essentially all social dilemmas; however, the analysis could have been conducted using Lindahl fees instead. These could be collected and used to subsidize the desired behavior, rather than to punish the undesirable (shirking) behavior as in the Pigouvian fine case. The analysis can be generalized by considering F to be a vector of fines that address a variety of dilemmas.

[4] Note that even lump-sum taxes cannot be entirely neutral if emigration is possible, because they influence a variety of locational decisions at the margin.

[5] Many academics may be said to make similar choices in their decision to teach in universities rather than work in the private sector or in a governmental bureaucracy, although of course not all academics are shirkers.

[6] This argument is not exactly the same as that developed by Tiebout (1956), although it is very similar. A rent-extracting regime may be completely efficient, but the rent extraction necessarily reduces net benefits for its non-elite residents relative to other communities without rent extraction. See Congleton (2000) for models of how mobility limits rent seeking and rent

extraction in settings in which less efficient methods of transfer are used. See Epstein, Hillman, and Ursprung (1999) for an analysis of how privileges may be assigned given exit possibilities.

[7] By exit costs, I mean both the total cost of moving from country 1 and settling in country 2. In this it could be said that *E* includes both exit and entry costs. Both costs tend to vary among countries and persons within countries.

[8] Recall that function *f* is continuous and bounded at 0 and 1. This implies that a fixed point exists.

[9] Transfers to the poor may also be examples of rent extraction, insofar as the poor are able to organize effective political parties. However, many transfers to the disadvantaged appear to be instances of social insurance, rather than rent extraction. As noted earlier, individuals voluntarily purchase insurance policies in the private sector (Congleton 2007).

[10] Diminishing marginal utility plays an important role in contractarian theories that rely on the veil of ignorance or uncertainty to analyze social compacts, because diminishing marginal utility implies risk aversion and that persons choosing societies are not indifferent about the distribution of income and/or other rewards.