Contractual Compliance and The Federal Income Tax System[†]

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I. INTRODUCTION: DEMOCRACY, COERCION, AND CONTRACTUAL COMPLIANCE IN THE AMERICAN TAX SYSTEM

In order to enhance the general welfare, democratic governments facilitate broader exchanges among citizens by elaborating the rights and associated obligations of citizenship. To contain the threat of coercive government necessary to enforce these rights and obligations, democratic institutions must be capable of ensuring the credibility of the citizen's implicit "tax contract" with the state. When democratic institutions can establish this credibility, citizens behave as adaptive contractarians, complying with state defined obligations to the extent that the state and other citizens reciprocate by respecting the citizen's own rights.¹

The income tax system has become a critical foundation for modern democracies, providing the primary means of financing the expansion of rights and obligations. Thus, the tax system provides a critical research site for understanding not only compliance with tax obligations, but also for understanding the broader relationship between democratic citizens and their government.

In this Article, I will elaborate on the *adaptive contractarian* perspective and apply it to the obligation to pay personal income taxes—the financial foundation of modern governance. The goal of

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^{1.} The adaptive contractarian perspective extends Levi's concept of contingent compliance. See MARGARET LEVI, OF RULE AND REVENUE (1988).

the forthcoming book from which this Article is taken is to empirically test the relevance of this perspective for explaining both the main features of the tax system and citizens' compliance with tax obligations. Additionally, we (the books authors) will consider the implications of this perspective for the design of tax enforcement systems and policies. We hypothesize that citizens obey tax laws to the extent that other citizens and governmental institutions meet their related obligations, and that the coercive institutions of governance, in turn, are compelled to respect citizens' rights.

In this section I discuss the basic dilemma of democratic governance—how to design and control coercive institutions capable of ensuring compliance with legal obligations without destroying citizens' basic democratic rights. Section II extends the contractual perspective developed in political economy to the general problem of democratic governance, arguing that coercive powers provide efficient means of enforcing contracts, but, ironically, also threaten the very rights they are intended to protect. Section III applies the contractual model directly to taxes, analyzing the extent to which the American tax system's institutional controls over the coercive powers in the tax system fit the contractual model. Section IV then describes the historical evolution of the Internal Revenue Service (IRS), emphasizing the tradeoffs between efficiency and control that have shaped the IRS.

The rational choice model associated with the contractual perspective appears to be an implausible basis for a model of the American taxpayer, so Section V turns to political psychology to understand how ordinary citizens can behave as adaptive contractarians without paying much attention to the state's affairs. By analyzing tax collection as a collective action problem requiring a contractual solution, we provide an integrated perspective on the role of deterrence, duty, and social controls that dominate current theories of tax compliance. Finally, Section VI discusses some policy implications of the adaptive contractarian perspective that contradict common beliefs based on the narrower deterrence perspective.

A. Income Tax, Democracy, and Contractual Compliance

The income tax system is one of the most remarkable institutional innovations of twentieth century democracies. In less than a century, the U.S. federal income tax grew from nonexistence to being the dominant source of government revenue, providing a relatively efficient revenue foundation for the dramatic expansion of government services associated with the twentieth century welfare state. While the government has made available the benefits of government services to more citizens, the federal tax system has simultaneously expanded by requiring almost the entire population to report annual incomes and to pay taxes, thus becoming one of the most extensive and intrusive of revenue systems in history.²

The historical roots of the income tax can be traced back to England, where it was imposed on a reluctant landed gentry to pay for the Napoleonic War after other forms of direct taxes had reached practical limits.³ The income tax first appeared in the U.S. to pay for Civil War debts, but was only used sporadically until a constitutional amendment clarified the legality of the tax system in 1913.⁴ Spurred particularly by the debts incurred during major wars, income tax became the primary source of government revenue.⁵ Individual income and related social security taxes accounted for over 78% of federal revenues by 1980 and continued to increase their share to 82% by 2001, when the Internal Revenue Service (IRS) collected 2.1 trillion dollars.⁶ This long-term trend also exists in most Western European democracies.⁷

As the federal government has become more dependent on the

5. See John Witte, The Politics and Development of the Federal Income Tax (1985) (providing a history of the income tax).

^{2.} For a comprehensive historical review of revenue systems, see Carolyn Weber & Aaron B. Wildavsky, A History of Taxation and Expenditure in the Western World (1986).

^{3.} See B.E.V. SABINE, A HISTORY OF INCOME TAX (1966) (describing the development of income tax in England).

^{4.} U.S. CONST. amend. XVI.

^{6.} See Internal Revenue Service, U.S. Dep't of the Treasury, Pub. No. 3385, Internal Revenue Service Accountability Report 20 (2001).

^{7.} See B. GUY PETERS, THE POLITICS OF TAXATION: A COMPARATIVE PERSPECTIVE 23-29 (1991).

income tax, the obligation to pay the tax has become more extensive and more "democratic." The first major income tax legislation in the U.S. (after the Civil War tax), enacted in 1913, charged only 1% of taxable income, and only for the small number of families with income exceeding \$4,000.8 By the 1970s, the expansion of income tax obligations exceeded for the first time the expansion of the franchise in terms of direct citizen involvement in government: in 1975 the IRS reported that 84 million taxpayers filed individual returns, while 1975 election records show that 82 million citizens (53.6% of eligible voters) voted in the presidential elections. Since that time, the number of individual returns being filed has continued to increase more rapidly than the number of votes being cast in presidential elections, with almost 130 million individual returns filed in 2002.

The simultaneous expansion of democratic rights and income tax obligations across the spectrum of democracies in the twenty-first century raises the possibility that these rights and obligations are an inherent structural feature of democratic government. In particular, the dependence of national government on small payments by a large number of citizens provides a little understood instrument for democratic control that is unrelated to the electoral system. The primary hypothesis we explore in this book is that democratic citizens behave as adaptive contractarians who fulfill their tax and other obligations as long as the government, and other taxpayers, fulfill their obligations.

By complying with these legitimate obligations, adaptive contractarians can provide the basis for the efficient provision of public goods and services. Additionally, by insisting that compliance with tax laws is contingent upon the government's behavior, adaptive

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^{8.} A progressive surcharge was included in the 1913 Tax Act on incomes over \$20,000, with rates increasing from 1% to 6% for incomes over \$500,000. WITTE, *supra* note 5. The social security tax on payrolls was introduced in 1935, but individual income tax was limited to the wealthy until 1943, when the government extended withholding from payroll to middle and lower income groups, to pay the mounting expenses of World War II. *Id.*

^{9.} See Selected Returns and Forms Filed During Specified Calendar Years, 1975-2003, at https://www.irs.gov/pubs-soi/03al22sr.xls (last visited May 12, 2003).

^{10.} See National Voter Turnout in Federal Elections: 1960-1996, at http://www.fec.gov/pages/htmlto5.htm (last visited May 12, 2003).

^{11.} See supra notes 9 & 10.

contractarians can impose democratic controls on government when they become frustrated with the lack of meaningful choice between candidates running for public office. Thus, compliance with government imposed tax, and other obligations potentially provides citizens with an alternative collective action mechanism to restrain the government's coercive powers.

This contractual compliance perspective is relatively unfamiliar to tax studies and generally strikes people as an implausible way of analyzing tax compliance. Thus, it is necessary to develop this broad argument in stages. Section II will develop the general contractual approach to democratic governance and the following sections will apply this approach to the structure of the tax system and the organization of the IRS. The basic argument is that the rights and obligations associated with the implicit tax contract are best understood in the broader context of the contractual rights and obligations that democratic governments developed to enhance citizen welfare. As with other contracts, state enforcement of tax obligations provides clear benefits only available if there are credible institutional assurances that the coercive powers necessary for efficient tax collection will not be used to exploit taxpayers. My primary task in the following section is to clarify the institutional requirements for a contractual compliance system, and to consider the compatibility of these requirements with the American tax system.

II EXCHANGE AND STATE ENFORCEMENT OF CONTRACTS.

A. Exchange and Welfare

Our approach to democracy reflects recent attempts in the political economy to analyze governance from the perspective of a welfare-enhancing exchange. The conceptual framework builds on the assumption that mutually beneficial exchange drives enhanced

12. Consider, for example, the relative impact on the government if 10% of the voting population abstained from voting in an election compared to the impact if the same 10% abstained from paying their taxes.

^{13.} See, e.g., Yoram Barzel, A Theory of the State: Economic Rights, Legal Rights, and the Scope of the State (2002); Douglass C. North, Institutions, Institutional Change and Economic Performance (1990).

welfare. Exchange encourages production specialization along the lines of natural comparative advantage, which in turn encourages the development of specialized skills and enhanced productivity, driving the growth of modern economies.¹⁴ However, specialization also introduces the problems of asymmetric information and opportunities for exploitation, which can inhibit exchange or impose considerable expenses, or "transaction costs," that reduce the value of potential exchanges.¹⁵

Direct exchange, like the textbook case of trading apples for oranges, appears to pose little problem. However, most exchanges require more complex contractual agreements involving, for both parties, various rights and obligations. Consider a buyer who would gladly pay \$5,000 for a reliable car and a seller who would gladly sell her reliable car for \$3,000. An exchange would enhance their combined welfare by \$2,000, the difference in valuation between seller and buyer.

Akerlof's analysis of the "market for lemons" among used cars illustrates the information asymmetry and opportunism that hinders this beneficial exchange. The seller presumably knows whether or not the car is reliable, but the buyer does not. In fact, the buyer knows that lemons—unreliable cars—may be more likely to be for sale than reliable cars, because current owners would like to get rid of lemons. If buyers have no way of distinguishing between reliable cars and lemons, they will only be willing to pay the value of a lemon, for example, \$2,500. In fall sellers with reliable cars will not sell their cars for less than \$3,000, only owners of lemons would be willing to sell, thus producing Akerlof's market for lemons. The opportunism of sellers and the information asymmetry between buyers and sellers can create formidable barriers to exchange.

^{14.} See, e.g., BARZEL, supra note 13; NORTH, supra note 13.

^{15.} See North, supra note 13; Oliver E. Williamson, Markets and Hierarchies: Analysis and Antitrust Implications (1975).

^{16.} George A. Akerlof, *The Market for "Lemons:" Quality, Uncertainty, and the Market Mechanism*, 84 Q.J. of Econ. 488 (1970).

^{17.} Id.

^{18.} Id. at 490.

^{19.} Id.

^{20.} Id. at 489-90.

Without some credible way of assuring potential buyers that the car is not a lemon, the owners and seekers of reliable cars are likely to forego the exchange and hence the \$2,000 in enhanced welfare.²¹

The classical prisoner's dilemma can help understand the consequences of asymmetric information and opportunism: both buyer and seller would be better off if they cooperate, but both face a dominant strategy to defect—the buyer by passing off a lemon as a good car, the seller by failing to make full payment.²² Although autonomous individuals contemplating a single transaction are unlikely to resolve this dilemma without a third party enforcer, members of a family or of a cohesive small group can readily overcome the problem by making the single exchange part of a larger series of exchanges.²³ As long as future rewards contingent on continued cooperation within the group outweigh the short-term advantages of defection, transactors have no incentive to defect and the dilemma no longer acts as a barrier to trade.²⁴ In other words, the agreement to buy a used car under these circumstances would be selfenforcing, and would need no outside authority to enforce the contract.

B. Exchange and Collective Action

A similar exchange problem exists in the tax context in which citizens exchange tax dollars for the provision of public goods and services. Consider, for example, a small homogeneous village in which all residents would be better off if the village had a way to defend itself against marauding bands of thieves. If everyone cooperates to protect the village, everyone gains security without diminishing anyone else's security. However, the problem emerges because each individual would also benefit if he or she could enjoy the benefits of protection without contributing to the village's defense. Thus, the successful provision of public goods and services requires a mechanism to overcome the temptation to be a free rider,

22. See ROBERT AXELROD. THE EVOLUTION OF COOPERATION 7 (1984).

^{21.} Id. at 499-500.

^{23.} Id. See also Francis Fukuyama, Trust: The Social Virtues and the Creation OF PROSPERITY (1995).

^{24.} See AXELROD, supra note 22.

just as a successful exchange among individuals requires a mechanism to overcome the temptation to cheat on the contractual agreement.

Again, cohesive small groups can, in theory, develop collective action mechanisms capable of supporting agreements to supply public goods. An agreement to defend the village would be self-enforcing if potential free riders would lose more by defecting than by cooperating with the agreement. For example, free riders could be ostracized or excluded from exchanging with other villagers. Of course, imposing these punishments also requires potentially costly actions from other villagers. Thus, any successful collective action mechanism would have to be *incentive compatible*—that is, villagers in a position to punish a free rider would have to benefit from inflicting rather than shirking the punishment.²⁵ The cost of establishing and maintaining this full enforcement mechanism is a part of the transaction cost of producing the public good.

"Club theory" demonstrates that incentive-compatible solutions are possible as long as the gains from the public good exceed the full costs of providing the good, including the cost of enforcing the contractual agreement. As actors and benefits become more heterogeneous, the observability of contributions becomes more difficult and the ability to single out individuals for exclusion or punishment becomes more limited, so the costs of creating fully self-enforcing, incentive-compatible contracts increase. Given the prevalence of these real-life conditions, public goods can only be produced by self-enforcing contracts in limited "club" circumstances that can minimize enforcement costs. In practice, successful independent collective action mechanisms appear to be difficult to establish and to maintain, even in homogeneous village settings.

^{25.} See Robert Axelrod, The Evolutionary Approach to Norms, 80 Am. Pol. Sci. Rev. 1095 (1986).

^{26.} See, e.g., Todd Sandler & John T. Tschirhart, The Economic Theory of Clubs: An Evaluative Survey, 18 J. ECON. LITERATURE 1481 (1980).

^{27.} See, e.g., DAVID M. KREPS, A COURSE IN MICROECONOMIC THEORY (1990) (providing a general summary of trigger strategies and alternative solutions to maintain cooperative solutions).

^{28.} See Sandler & Tschirhart, supra note 26.

^{29.} See ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990).

Exchange agreements for both private (e.g., used cars) and public (e.g., national defense) goods can enhance welfare, and self-enforcing agreements that make exchange possible are plausible in at least some small group settings. However, the greatest gains from exchange in modern economies are generally attributed to the expanded scope of anonymous exchanges in the marketplace, which allows various groups and individuals to exploit their comparative advantage and, more importantly, encourages enhanced productivity through specialization. However, this expanded exchange involves greater transaction costs in establishing credible commitments, particularly because greater specialization also leads to greater potential for exploitation. Thus, specialized third party services that reduce transaction costs play an increasingly important role in the global expansion of the marketplace, accounting for a large and increasing proportion of the total productivity in most modern economies.³⁰

C. The Advantages of State Contract Enforcement

The state, among specialized contract enforcers, plays a critical role in expanding the ability of citizens to benefit from exchange, particularly because it alone monopolizes the legitimate use of violence and physical coercion.³¹ According to Barzel's theory, once the state is powerful enough to effectively enforce property rights and contracts, individuals can minimize private investments in self-defense.³² The state's monopoly of legitimate coercion is particularly well suited to enforce contracts for autonomous market exchanges among strangers because this is where private enforcement is most difficult.³³ Specialized state enforcers are motivated to expand and refine citizens' property rights and duties in order to enhance the value of state-guaranteed contract exchange. Furthermore, citizens as "transactors" are motivated to switch to standardized state-guaranteed contracts whenever feasible because these contracts avoid the incentive compatibility costs involved in more customized third party

^{30.} See NORTH, supra note 13.

^{31.} See BARZEL, supra note 13.

^{32.} *Id*.

^{33.} Id. at 80.

or self-enforced exchange agreements.³⁴

In Barzel's evolutionary scenario, legal delineation of property rights, court authority, specialized enforcement authorities of the state, and all other developments associated with the "rule of law" pave the way for the expansion of market transactions and the enhancement of wealth. 35 Libecap provides a vivid example of the transition from inefficient self-enforced exchanges to a state-enforced market economy that occurred when silver was discovered in Nevada.³⁶ The initial violence among claimholders enforcing their ownership rights was gradually replaced by the development of state institutions capable of delineating and enforcing property rights involving claims.³⁷ This, in turn, created the conditions for the rapid development of the market.³⁸ State-enforced property rights developed only after the value of the property made this delineation of rights worthwhile, but once they developed, state-enforced contracts dramatically increased the level of specialization and economic exchange.³⁹

By mediating contracts for private as well as public goods, specialized state mechanisms can craft refined property rights to improve the efficient resolution of collective problems resulting from the positive and negative externalities of existing exchanges. For private goods, the Coase Theorem on property rights demonstrates that the market inefficiencies associated with externalities would be resolved efficiently if one assigned property rights to minimize the transaction costs that would otherwise prevent the parties from negotiating an efficient contract. For public goods, the state could collect an efficient single tax to pay for an array of public goods, thereby minimizing the need for separate contracts and separate enforcing authorities for each public good. The income tax system provides an important example of this type of development. To the

^{34.} Id. at 147-50.

^{35.} Id. at 79.

^{36.} Gary D. Libecap, Economic Variables and the Development of the Law: The Case of Western Mineral Rights, 38 J. ECON. HIST. 338 (1978).

^{37.} Id.

^{38.} Id. at 343-47.

^{39.} Id. at 348-58.

^{40.} Ronald Coase, The Problem of Social Costs, 3 J. LAW & ECON. 1 (1960).

extent that the state can successfully create and enforce standardized contracts for private and public goods, the resulting expansion of exchange and the increase in welfare would be accompanied by the expansion of state-enforced citizen rights and the related obligations necessary to gain these benefits.

D. The Democratic Dilemma of Coercive State Enforcement

Barzel's theory of the state emphasizes that state monopolization of legitimate coercion brings not only potential gains in efficiency and wealth, but unfortunately also imposes a greater risk that the state will exploit citizens and threaten the very rights and enhanced welfare that the state was intended to ensure. An enforcement authority powerful enough to guarantee compliance of all contracting parties is also powerful enough to seize the property of any individual party. The problem of controlling coercive state powers is perhaps the major reason that private third party enforcers continue to play the dominant role in developing, monitoring, and enforcing contracts in modern economies, although their ability to function is predicated on the existence of a state-enforced system of property rights.

For Barzel's citizens, the willingness to allow this dangerous concentration of coercive powers in the hands of specialized enforcers comes only because of the threat from other societies that have their own specialized enforcers. In small-scale societies,

joint wealth is maximized when *all* abstain from specialized protection. But when all so abstain, it pays for some to revert to specialization in violence. Each predatory group benefits from the existence of peaceful ones . . . [Peaceful groups] can do better by having some of their members specialize in protection and then face their adversaries on nearly equal terms. Groups without specialized protectors are not viable in the long run when not isolated from other groups.⁴³

^{41.} BARZEL, supra note 13.

^{42.} See NORTH, supra note 13.

^{43.} BARZEL, *supra* note 13, at 201-02.

Of course, even dictators have a strong incentive to develop and enforce efficient property rights. A Roving bandits that simply plunder the wealth of stable populations would discourage specialization and require all communities to invest heavily in self-defense. As a stationary bandit, however, a dictator has an incentive to encourage some level of economic development in order to extract the greater wealth that specialization in production provides. Bandits capable of extracting greater wealth to support a stronger coercive force replace those less competent in creating efficient property rights. It is the dictator, rather than the citizens, who captures the greatest gains from exchange and development.

Citizens would be best off in a state in which they could effectively defend themselves from roving and stationary bandits. Barzel argues that citizens support the development of state power out of necessity, only doing so after they develop some "collective action mechanism" sufficiently powerful to prevent the specialized protector from exploiting them. Without doing so, citizens would gain no advantage from the specialized protector, because a protector powerful enough to force all parties to abide by a contract would also have sufficient power to not only seize the gain from the protected exchange, but also to seize dictatorial power over all property. Barzel emphasizes that citizens will rationally support the expansion of state enforcement powers only to the extent that they have some credible collective action mechanism that is capable of defending them against the enforcement authority. 51

Thus, the evolution of the specialized state enforcement authorities noted above links directly with the coevolution of collective institutions capable of controlling the coercive powers of these authorities. At every stage of the expansion of obligations and

^{44.} See Mancur Olson, Dictatorship, Democracy, and Development, 87 Am. Pol. Sci. Rev. 567 (1993).

^{45.} Id. at 568.

^{46.} *Id*.

^{47.} Id. at 568-69.

^{48.} *Ia*

^{49.} BARZEL, *supra* note 13, at 113-37.

^{50.} Id. at 238.

^{51.} Id. at 113-24.

enforcement institutions, powerful groups willingly support the expansion of state powers that enhance their benefits from exchange. However, these groups only support state power expansion to the extent that they remain capable of preventing state powers from being used against them. The development of state authority in Libecap's Nevada example clearly benefited corporate mining interests, but did little to define and enforce property rights protecting the interests of those with little political influence.⁵² In short, the evolution of democratic institutions both limits and shapes the development of property rights and related specialized enforcement authorities.

E. The Coevolution of Democracy, State Enforcement, and Exchange

Theorists note that democracies, compared to dictatorships, have several potential advantages that tend to accelerate the wealth enhancing aspects of specialized enforcement. First, Olson argues that the most efficient system of property rights inevitably requires rights that defend individual wealth from the greatest predatory threat—the state.⁵³ Thus, democratic rights defending the citizen against state coercion closely relate to economic rights protecting against confiscation, which provide the greatest security and hence the greatest incentive for specialization, exchange, and creation of wealth. It is tempting to explain the current dominant role of western democracies in general, and the U.S. in particular, in terms of the compatibility of democratic rights and property rights in the market economy.⁵⁴

Second, electoral competition within democracies may also drive policies toward efficient outcomes to the extent that electoral systems translate the increased wealth from efficiency gains into political influence. ⁵⁵ In Becker's model, dominant political groups attempt to define rights and utilize state enforcement in order to favor their own

54. However, Olson also emphasizes the offsetting adverse consequences of institutionalized interest groups that constrain growth. *Id.* at 571.

^{52.} See Libecap, supra note 36.

^{53.} Olson, supra note 44.

^{55.} Gary Becker, Public Policies, Pressure Groups, and Dead Weight Costs, 28 J. Pub. Econ. 329 (1985).

interests.⁵⁶ Electoral competition, however, drives these political groups to utilize more efficient means of transferring and increasing wealth.⁵⁷ The controversy surrounds whether the resulting policies do more to increase wealth or simply to transfer wealth. The argument in favor of government wealth enhancement parallels the market wealth enhancement argument. Political entrepreneurs or parties can potentially gain the support of those who are better off due to policies that increase the net surplus of consumers, producers, and all third parties affected by the exchange.⁵⁸

Politicians have a special motive to create property rights. Unlike money transfers (subsidies, entitlements) and the deadweight losses of pork barrel and regulatory cartels, property rights increase efficiency by encouraging owners to use assets most productively. Efficiency makes for prosperity, which rebounds to politicians' credit.⁵⁹

Thus, political actors gain competitive advantages over others by resolving the problems of externalities, public goods, and other collective problems that inhibit the expansion of specialization and exchange. This evolutionary process might explain the historical expansion of the democratic franchise; as the state resolves the most pressing barriers to wealth expansion for mobilized sectors of the population, it can also make greater gains in economic efficiency by tackling the problems of previously unmobilized groups whose interests it has not previously addressed. Of course, the expansion of rights would be difficult without a coevolution of expanding obligations to comply with the rights of others and to pay for the enforcement of new rights. The income tax system and its obligations play a critical role in providing a means to support the expansion of rights. The income tax system also provides a critical arena for understanding the relationship between citizens and modern

^{56.} *Id.* at 331-33.

^{57.} Id. at 335.

^{58.} See James Q.Wilson, The Politics of Regulation (1980).

^{59.} William H. Riker & Itai Sened, A Political Theory of the Origin of Property Rights: Airport Slots, 35 Am. J. OF POL. SCI. 951, 966 (1991).

democratic governments' dramatically expanded enforcement powers.

F. Summary: The Contract Perspective and Income Tax

Thus far, the theoretical arguments emphasize the role that government plays in expanding welfare by broadening the scope of contracts. State enforced rights and obligations directly expand the basis for wealth enhancing contractual exchange of public and private goods. These rights and obligations provide the necessary foundation for the development of other specialized third party enforcers and services that further reduce transaction costs and increase exchange.

Ironically, the very concentration of coercive powers that makes state enforcement so efficient also poses the greatest potential threat to the welfare of the citizens seeking the advantages from state enforcement of rights and duties. As exchange flourishes under the expanded state enforcement of rights and obligations, enforcement power becomes increasingly concentrated in state, rather than communal or private, institutions. This concentration of power increases the threat that specialized state enforcement agencies will exploit the contractarians who sought the enforcement of expanded rights and obligations. Consequently, the contract perspective implies that the structure of enforcement institutions will reflect not only citizens' quest for efficiency gains through minimized enforcement costs, but also their often contradictory quest for controls and guarantees against the specialized state enforcer.

The federal income tax system provides perhaps the most interesting laboratory for investigating how these contradictory quests influence the evolution of governance in general, and of specialized enforcement agencies in particular. As noted earlier, the tax system has rapidly expanded as an efficient means of financing public goods, including the creation and enforcement of rights and obligations that allow politically influential groups to benefit from expanded markets. The implicit tax contract allows the citizen to exchange taxes in return for public goods. Given the problem of free riding in modern democracies, however, a credible contract requires a powerful tax collector to assure each citizen that others will fulfill their obligations. Despite this requirement, tax obligations have become the most

widespread and onerous of all state imposed obligations, prompting citizens' concerns that the powerful tax collector will exploit them.

The contract perspective's elaboration of control problems may be self-evident in the United States, where citizens have always been wary of government power. However, the contract perspective is useful to emphasize that the forces shaping the state's enforcement institutions are part of a broader problem of governance extending beyond the specific evolution of constitutional rights in the United States. This contract perspective also emphasizes that our analysis of income tax compliance focuses on a small, but critical, component of the overall citizen response to the full array of state imposed rights and obligations. Most importantly, the contract perspective provides a framework for analyzing the institutional structure of the tax system from the perspective of the taxpayer as the critical contracting party. Given the trade-off between efficiency and control that lies at the heart of the democratic dilemma, one must ask what kind of institutional framework a rational contractarian would require to ensure the credibility of the tax contract. The next section considers this question in the broadest context of democratic institutions, and the ensuing section will focus more specifically on the IRS.

III. DEMOCRATIC CONTROLS OVER THE TAX COLLECTOR

Barzel describes three primary mechanisms that contractarians in "rule of law" societies use to protect themselves from potential exploitation: separation of powers, ⁶⁰ transparency of enforcement and adjudication, ⁶¹ and political controls over enforcement authority. ⁶²

A. Separation of Powers

Barzel argues that the well-established separation of powers principle provides the most critical aspect of control.⁶³ This principle disperses coercive power among multiple institutions in order to

^{60.} BARZEL, supra note 13, at 131.

^{61.} Id. at 45.

^{62.} Id. at 130.

^{63.} Id. at 131.

minimize the threat of concentrated power under a single authority.⁶⁴ For example, the separation of powers principle functions by dividing military powers between the army, navy, and air force, decentralizing control over localized police forces, developing independent bureaucracies to regulate and enforce different aspects of the economy, and fragmenting the power of functionally specialized bureaucracies by creating separate, and often competing, jurisdictions at the federal, state, and local level.⁶⁵ The general structure of government in the United States, as well as the specific structure of federal tax enforcement, appears to follow Barzel's design principle, reflecting the common observation that U.S. citizens are more concerned with controlling government authority than with making it efficient.

Given the general concern with separation of powers, it is surprising that federal tax enforcement authority is concentrated exclusively in a single agency. Of course, IRS authority is limited to tax matters, with very limited involvement in other forms of police functions. Nontheless, efficiency concerns at least partially trump control concerns in the design of the federal tax system, suggesting the central importance of tax revenues for the federal government.

B. Judicial and Procedural Safeguards

In addition to dividing coercive powers, Barzel suggests that "rule of law" societies impose incentive compatibility constraints on specialized state enforcement institutions. ⁶⁶ In particular, Barzel notes the need to ensure that the enforcer's adjudication procedures are transparent and that adjudication principles are clear. ⁶⁷ Without clear and open adjudication procedures for when citizens disagree with the actions of the enforcer, the enforcer could expropriate one citizen at a time in the name of enforcing obligations. Thus, the collective action mechanism would have no clear grounds upon which to constrain the enforcer until after the enforcer had already gained considerable

^{64.} Id. at 131-33.

^{65.} Id. at 133.

^{66.} Id. at 168.

^{67.} Id. at 45.

resources. Incentive compatibility constraints ensure that the enforcer knows that stealthy expropriation will be detected and punished well before the enforcer can gain sufficient power to dominate the collective action mechanism.

Given the concentration of extensive enforcement authority in the IRS, procedural constraints are of even greater significance than in most other enforcement authorities.

The basis of IRS constraints, as for all federal enforcement agencies, begins with the basic guarantees of individual rights, equal treatment, and due process set forth in the Bill of Rights. The independent judicial system clarifies and enforces these guarantees when it renders judgment for cases in which taxpayers accuse the IRS of arbitrary or capricious actions that infringe on taxpayer rights. Given the large number of taxpayers and the complexity of tax laws, Congress developed a specialized tax court to supplement the federal district, appellate, and Supreme courts.

The Administrative Procedures Act (APA), which clarifies the due process standards that all federal agencies must meet, supplements the Bill of Rights' basic constitutional guarantees. 68 The APA requires agencies to promulgate formal rules to govern their decisionmaking processes and to provide internal review procedures allowing taxpayer appeals.⁶⁹ Essentially, the APA requires agencies to establish procedures ensuring that the principles of legislative. executive, and judicial functions also govern the authority delegated to agencies. The IRS, for example, has developed numerous enforcement and collections manuals formalizing the tax code and the specialized guidelines for different categories of taxpavers. The IRS publishes letter rulings in response to taxpayers' law interpretation auestions.⁷⁰

^{68.} Administrative Procedures Act, ch. 324, 60 Stat. 237 (1946) (codified as amended at 5 U.S.C. §§ 551-559, 701, 1305, 3344, 4301, 5335, 5870, 7521).

^{70.} These rulings do not establish binding precedents like federal court rulings do.

C. Political Controls over Enforcement Authority

Barzel emphasizes two important mechanisms that are necessary to control the coercive powers of state enforcement agencies, but unfortunately create less efficient state institutional structures compared to private third party enforcers. First, third party enforcers in the private sector are generally "residual claimants" who can claim their gains from enforcement as profit, while coercive state enforcers are generally salaried employees restricted by limited budgets. Although the resulting bureaucratic incentives are inevitably less efficient than entrepreneurial incentives, budgetary control over state enforcers reduces the temptation for the agency to exploit taxpayers because the fruits of exploitation would not remain with the agency. Both the President and Congress scrutinize the IRS budget and specify not only the amount of money devoted to enforcement activities, but also the number of personnel positions necessary to carry out enforcement.

Second, third party enforcers are generally free to develop their own contractual rules. Because they are residual claimants, the system motivates private enforcers to develop contractual rules that provide the greatest gains for contracting parties and, hence, the greatest potential profit for the enforcer. To control the coercive powers of the state, on the other hand, elected officials develop the rules and the acceptable means of enforcing those rules. Although elected officials have some incentive to create efficient rules to benefit their electoral constituency, as noted earlier, this incentive is considerably weaker than would be the case for private enforcers.

Given the extensive coercive potential in the power to tax, tax legislation is considerably more detailed than most other congressional legislation, leaving the IRS with less rulemaking discretion than that granted to most other federal agencies.⁷⁴ The IRS

^{71.} BARZEL, supra note 13, at 69.

^{72.} Id.

^{73.} Id.

^{74.} See JOHN F. MANLEY, THE POLITICS OF FINANCE: THE HOUSE COMMITTEE ON WAYS AND MEANS (1970). The complete Internal Revenue Code contained in Title 26 of the Code of Federal Regulations has more than 2.8 million words; printed 60 lines to a page. It would fill more than 6,000 letter size pages. See U.S. Tax Code, at http://www.fourmilab.ch/

plays a surprisingly minor role in developing the tax code. The Department of Treasury and the Joint Congressional Committee on Taxation provide the primary sources of legislative proposals and official analyses, while the IRS's role is generally limited to producing requested data files from its immense information archives. As a consequence, tax legislation rarely considers administrative and enforcement efficiency.

To ensure effective budgetary and statutory controls over the IRS, the Department of Treasury, acting on behalf of the President, oversees the IRS. Both houses of Congress also actively oversee the IRS via the Joint Committee on Taxation. Complaints from constituents and the annual 20-40 IRS evaluation studies performed by the Congressional General Accounting Office also trigger congressional oversight.

The next section considers in greater detail the coevolution of the IRS and the institutions that oversee and control its coercive powers, focusing specifically on the continuing tensions between control and efficiency that have affected the structure of the tax system.

IV. THE EVOLUTION OF THE INTERNAL REVENUE SERVICE

Of all of the specialized enforcement agencies, the IRS is arguably the most sheltered from direct political influence at all levels. Burnham, for example, argues that the IRS, "[t]he single most powerful agency in the federal government[,] has been mostly free of tough, informed congressional oversight" due to the congressional "fear of retaliation, the concern about upsetting the money machine, and the demands for special services by the well-financed PACs." Long contends that IRS enforcement procedures primarily reflect the idiosyncratic internal concerns of the agency, tax practitioners, and

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ustax/ustax.html (last visited Mar. 26, 2003). The on-line version of the tax code measures more than 21 megabytes in length and the table of contents alone contains more than 108 pages with 2,467 sections, each pertaining to a different tax subject. *Id.* The CCH *Standard Federal Tax Reporter*, which contains a compilation of the Internal Revenue Code with case annotations, fills 25 volumes.

^{75.} See John T. Scholz, The Compliance Research and the Political Context of Tax Administration, in 2 Taxpayer Compliance: Social Science Perspectives (Jeffrey A. Roth & John T. Scholz eds., 1989); see also Thomas J. Rees, The Politics of Taxation (1980).

^{76.} DAVID BURNHAM, A LAW UNTO ITSELF. POWER, POLITICS, AND THE IRS 305 (1989).

former IRS employees.⁷⁷ Long claims that the IRS has little motivation from political oversight or elsewhere to correct abusive, unjust, or erroneous procedures. Scholz and Wood provide empirical evidence that IRS enforcement is less subject in particular to local political influence than other federal agency enforcement.⁷⁸

The tax collection system was not always sheltered from political pressures. The Bureau of Internal Revenue, one of the oldest federal agencies, handled tax collection prior to the reforms in the 1950s. Under the Bureau of Internal Revenue, state district directors had considerable enforcement discretion. Centralized systems to control local discretion, like those described by Kaufman regarding the forestry service, ⁷⁹ were not as developed in the IRS. This local autonomy enabled each office to develop procedures and interpretations of the federal statutes specifically tailored to the local economy and political interests. This decentralization also reduced the concentration of national power. As local economies became integrated into a national economy during and after World War II, however, the local variability in national standards became increasingly problematic. The political influence and corruption that accompanied local idiosyncrasies led to extensive national scandals in the early 1950s, the King Commission's highly-publicized investigations, and the complete reorganization of the tax code and the Bureau of Internal Revenue. The tax collection agency was renamed the "Internal Revenue Service," emphasizing the responsibility of the agency to provide a politically neutral, competent, and standardized national tax collection service.

These reforms, combined with an extensive revision of the tax code in 1954, set the stage for four decades of IRS development. The IRS became an autonomous, functionally specialized, and centralized organization controlled primarily by career civil servants within the agency. Over time, Congress has increasingly codified enforcement

^{77.} Susan Long, The Internal Revenue Service: Measuring Tax Offenses and Enforcement Response (1980). *See also* Diogenes, The April Game: Secrets of an Internal Revenue Agent (1973); Paul N. Strassels, All You Need to Know about the IRS: A Taxpayer's Guide (1979).

^{78.} John T. Scholz & B. Dan Wood, Controlling the IRS: Principals, Principles, and Public Administration, 42 Am. J. Pol. Sci. 141 (1998).

^{79.} HERBERT KAUFMAN, THE FOREST RANGER (1960).

procedures in statutes. Official IRS guidelines have further codified standard procedures and review processes that reduce individual auditors' discretion and the procedural variations between the district offices. This internal codification process has been isolated from external influences, as the IRS has jealously resisted tax practitioners' attempts to obtain codified enforcement guidelines. Additionally, the few political appointees to the agency are limited to the Commissioner's office, with career civil servants performing the dominant role in shaping IRS enforcement decisions.

The response to the Nixon administration's attempt to use the IRS to harass political enemies and gather information on their activities demonstrates the intentional separation of the IRS's enforcement powers from political influence. The agency and congressional supporters successfully opposed the administration's attempt to create a political surveillance unit within the IRS. The Senate hearings investigating this surveillance unit affirmed that "the IRS is charged with the even-handed administration of the tax laws, and not with collecting files on political activity. To do so endangers not only the First Amendment, but public faith in the IRS and the integrity of its work" "80"

Concerns that elected officials might misuse the coercive powers of the agencies they oversee limit the efficacy of electoral controls to safeguard citizens from abuse. The interest in isolating the IRS from political influence continues to be a major factor in IRS reforms. To oversee IRS enforcement practices, the IRS Restructuring and Reform Act of 1998 established an independent board consisting of three administrative officials and several tax specialists, but no elected officials. Thus, it appears the American tax system relies heavily on judicial and procedural safeguards to control enforcement activities, isolating the IRS more so than other agencies from the political arena and its potential to exploit the agency. However, even IRS enforcement responds systematically to partisan shifts in the

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^{80.} Investigation of the Special Service Staff of the Internal Revenue Service, Political Intelligence in the Internal Revenue Service Hearings Before the Committee on the Judiciary, 93rd Congress 50 (1974).

^{81.} See Pub L. No. 105-206, 112 Stat. 685.

national political system.⁸² Furthermore, elected officials play a major role in determining the scope of enforcement authority and the size of the enforcement staff. I will next discuss the limitation placed on electoral control of the IRS due to the government's dependence on the IRS to provide funding for all government activities.

A. The Continuing Quest for Efficiency

Given the importance of government revenues to elected leaders and the central role of the IRS in collecting those revenues, IRS efficiency has remained a critical concern for the President and congressional committees dealing with tax issues, particularly since the reforms of the 1950s. To cope with the increasing size and complexity of the national economy, the IRS's primary functions—processing forms, examining tax returns, and collecting taxes—evolved into three centralized divisions, each concerned with creating its own efficient rules, training programs, and standard operating procedures. Decades of political demands have reinforced the need for efficiency, and have shaped IRS management systems, standard routines, and cultures, from the national headquarters to the individual auditors in local field offices.

Among the relatively autonomous divisions, the IRS has continued to emphasize tax return examinations. The IRS introduced sophisticated enforcement techniques in the 1960s that became models for other agencies. Perhaps the most famous was the "DIF score" method of selecting tax returns for audit based on what became known as the Taxpayer Compliance Measurement Program (TCMP). Sophisticated analyses of enforcement productivity played a dominant role in the IRS's allocation of enforcement resources to district offices and enforcement tasks. IRS audits automatically

^{82.} Scholz & Wood, supra note 77.

^{83.} See Scholz, supra note 75, at 13.

^{84.} See John T. Scholz, Managing Regulatory Enforcement in the United States, in HANDBOOK OF REGULATION AND ADMINISTRATIVE LAW (David H. Rosenbloom & Richard Schwartz eds., 1994).

^{85.} See Eugene C. Steuerle, Who Should Pay for Collecting Taxes? Financing the IRS 25 (1986).

^{86.} Id. at 23-24.

generate a measure of the additional taxes collected directly from audit activities, thus providing the IRS with a clear task performance measure that enhances the potential role of efficiency in agency decisions. The Audit Management Information System (AMIS) allows national and regional offices to compare dollars generated per hour of enforcement from different programs and district offices. At field offices, supervisors know the amount of taxes recovered by each auditor, thus exerting pressure on auditors regardless of whether any formal 'quota' system exists.

Efficiency pressures are so embedded in the organizational culture of the IRS that even strong external pressures have limited ability to change them. For example, a 1973 directive from the IRS Commissioner⁸⁸ and a provision of the 1988 Taxpayer Bill of Rights⁸⁹ specifically prohibited managers from evaluating employee performance based on the amount of revenue collected because such evaluations encouraged unduly zealous enforcement. 90 Despite these repeated prohibitions, in 1998, twelve top managers and one hundred thirty-two other officials were reprimanded for continuing to evaluate employees in this manner. 91 The Senate strongly condemned the practice in the 1997-98 Senate hearings. 92 The IRS Restructuring and Reform Act of 1998 again specified that IRS employee performance measures could not be based on enforcement results, dollar goals for assessments of collections, or any other standard that would undermine the fair treatment of taxpavers. 93 Ironically, the combined impact of the Senate hearings and the IRS Restructuring and Reform Act of 1998 altered the culture of efficiency to the point that more recent press reports have expressed concern that enforcement and the credibility of deterrence were being undermined.94 In 2002.

^{87.} See James Q. Wilson, Bureaucracy 160 (1989).

^{88.} See, e.g., David Cay Johnston, Tax Professionals See Pitfalls in the New IRS, N.Y. TIMES, July 18, 1999, at 21.

^{89.} Taxpayer Bill of Rights, Pub. L. No. 104-108, 110 Stat. 1452 (1996).

^{90.} Johnston, supra note 86.

^{91.} Id.

^{92.} IRS Restructuring Hearing Before the Committee on Finance, 105th Congress (1998); Internal Revenue Service's Methods Special Hearing Before the Committee on Appropriations, 105th Congress (1998).

^{93.} Pub. L. No. 105-206, 112 Stat. 685.

^{94.} See Johnston, supra note 86.

congressional concern with efficiency reemerged in General Accounting Office reports that confirmed the declining effectiveness of audits and collections since the 1998 legislation. 95

Efficiency remains a dominant concern both inside and outside the agency, although constrained by a growing demand for procedural justice. Personnel and budget cuts at all agencies during the last two decades of the twentieth century sharpened concerns with efficiency because politicians called for delivery of higher quality services by fewer personnel. 6 The IRS's reorganization plan for the new century. Compliance 2000, features productivity enhancing strategies devised to improve compliance with fewer IRS employees—a clear recognition by the IRS that its resource base is unlikely to grow in the near future 97

B. The Growing Demand for Procedural Justice

Judicial and procedural safeguards have always provided some counterbalance to IRS coercive powers, as noted previously. Judicial review by federal courts expanded with the creation of special tax courts, and the APA codified procedural constraints for all federal agencies. 98 Although relatively few taxpayers go to federal court, court decisions nonetheless shape IRS actions.99

Concern with adverse responses from voters and taxpavers to more vigorous enforcement tempers presidential and congressional interest in revenue maximization. This produces an IRS budget far short of the efficient revenue maximizing level that a private agency would use—every additional dollar spent on auditing would bring an

97. See supra note 92.

^{95.} General Accounting Office, Potential Audit Revenues Lost While Training New Revenue Agents (GGD-90-77 April 6, 1990): General Accounting Office. IRS Needs More Reliable Information on Enforcement Revenues (GGD-90-85 June 20, 1990); General Accounting Office, Impact of Compliance and Collection Program Declines on Taxpavers (GAO-02-674 May 22, 2002).

^{96.} See DAVID OSBORNE & TED GAEBLER, REINVENTING GOVERNMENT: HOW THE ENTREPRENEURIAL SPIRIT IS TRANSFORMING THE PUBLIC SECTOR (1992).

^{98.} Administrative Procedures Act, ch. 324, 60 Stat. 237 (1946) (codified as amended at 5 U.S.C. §§ 551-559, 701, 706, 1305, 1344, 4301, 5335, 5872, 7521).

^{99.} For example, the IRS decreases audit intensity in federal districts where judges are most aggressive in safeguarding taxpayer rights.

estimated \$4–\$15 dollars in revenues. 100 In the 1970s, Democrats supported the development of taxpayer assistance services within the IRS, showing a concrete commitment to the fair treatment of taxpayers. During the Reagan era, Republicans initially increased enforcement resources at the expense of taxpayer services to help pay for tax cuts. However, Republican attacks on big government and the tax system that supported it soon refocused attention to what they claimed to be an overzealous IRS, developing a "Taxpayer's Bill of Rights" intended to restrain IRS enforcement practices. 101 In the mid-1990s Congress, for the first time in 30 years, refused to budget for the dreaded TCMP audits. Republican efforts eventually culminated in the IRS Restructuring and Reform Act of 1998 which imposed several major changes intended to minimize the excessive use of coercion and to enhance enforcement agents' responsiveness to taxpayers' needs. 102

The IRS has responded slowly but persistently to these increasing demands for improved procedural justice, although earlier responses tended to avoid any interference with enforcement. In response to the IRS Restructuring and Reform Act of 1998, more fundamental reorganizations began emphasizing taxpayer satisfaction as much as, if not more than, efficient tax collection, as suggested by the newly adopted mission statement: "[The mission of the Service is to p]rovide America's taxpayers top quality service by helping them understand and meet their tax responsibilities and by applying the tax law with integrity and fairness to all." By 2002, the Appeals Division and the Taxpayer Advocate Service Division reported directly to the IRS Commissioner. In addition, the Taxpayer Advocate Service must report directly to Congress—the only office in

^{100.} STEUERLE, supra note 85, at 23-34.

^{101.} Pub. L. No. 104-168, 110 Stat. 1452.

^{102.} Pub. L. No. 105-206, 112 Stat. 685.

^{103.} The Taxpayer Services Division was introduced in the 1970s to assist taxpayers in filing their returns. Although it gradually expanded, it remained isolated from the primary revenue producing branches of examination and collections, and stood first in line for budget cuts. The Problem Resolution Program was created over a decade ago to help resolve taxpayer problems with the bewildering number of independent subunits involved in tax disputes and has become better integrated with the revenue collection functions.

^{104.} IRS Mission Statement, *at* http://www.irs.gov/pub/ors-pdf/p3385.pdf (last visited May 12, 2003).

the IRS that does not report via the Department of Treasury. Within the IRS, new procedures, training programs, and reorganizations attempt to provide clearer responsibilities and incentives for resolving taxpayer problems.

Given the complexity of controlling any large-scale organization, broad reforms intended to enhance procedural justice for taxpayers generally have had adverse consequences on tax collection efficiency. As noted above, recent attempts to constrain tax examiner and revenue agent coerciveness have considerably reduced the amount of tax cheating detected and collected per agent, thereby soliciting greater congressional concern with efficiency. As a result, TCMP, which Congress cancelled in the 1990s, was reintroduced as the "National Research Program." This program's information has been central to efficient allocation of enforcement resources. The National Research Program, however, does not reintroduce old procedures. Rather, it introduces a range of new techniques designed to gain the same level of compliance measurement using less intrusive methods to gather information from the randomly audited taxpayers. The program intended to the randomly audited taxpayers.

In summary, the evolution of the American tax system continues to display the tension between efficiency and control central to Barzel's contractual image of the citizen and state. On the one hand, the coercive powers of the IRS are critically important to ensure efficient collection of the income and payroll taxes that fund most government activities and are therefore valuable to citizens. On the other hand, the coercive powers that ensure effective collection also pose problems of exploitation and abuse that counterbalance citizens' benefits. Now that we have completed our discussion of the institutional framework that has expanded the scope of rights and obligations in modern democracies, we next consider how modern citizens cope with the expanded rights and obligations of democracies, and particularly with the obligation to pay taxes.

^{105.} General Accounting Office, Tax Administration: New Compliance Research Effort Is on Track, but Important Work Remains (GAO-02-769 June 27, 2002).

^{106.} Id.

^{107.} Id.

^{108.} See BARZEL, supra note 13.

V. THE TAXPAYER AS ADAPTIVE CONTRACTARIAN

Even if the American tax system reflects an institutional structure capable of supporting an implicit tax contract, can one really expect citizens to behave as rational contractarians? The contractarian analysis of institutions makes heroic assumptions of rationality that appear to be unrealistic for the analysis of taxpaying behavior. In this section, I develop an adaptive contractarian model based on less heroic assumptions of rationality as developed in political psychology. In this perspective, adaptive cognitive mechanisms that evolved to cope with the rights and obligations from other exchange relationships now provide the basis for coping with the rights and obligations in the implicit contracts between the government and its citizens

In particular, I suggest that a *trust heuristic* has evolved that facilitates individual exchange, and that in contemporary societies it provides the cognitive basis for adaptive contractarians to pursue contingent compliance with obligations imposed by the state and other institutions. Citizens respond to negative information relevant to an implicit contract by lowering trust, which, in turn, lowers the probability of compliance with contractual obligations. Thus, the trust heuristic provides safeguards on the individual level that complement the institutional safeguards discussed in the previous sections.

I apply this adaptive contractarian perspective to the literature on tax compliance to show that the contrasting deterrence and duty explanations of tax compliance can be categorized as special cases of this more generalized approach. Fulfilling the obligation to pay taxes involves the same mechanisms of coercion and normative self-enforcement involved in other contractual exchanges. I then consider several implications of this model for the coevolution of state institutions and citizen strategies, noting the functional and dysfunctional aspects of interactions between citizens and the government relating to tax compliance. Finally, I lay out research questions on tax compliance behavior.

A. The Evolution of Adaptive Contractarians

To develop this argument, I move beyond the rational models of exchange generally associated with the political economy approach emphasized up to this point. The bounded rationality models associated with political psychology provide more relevant bases for analyzing the nature of citizens' choices and behaviors in conditions associated with low information and limited attention. Under such circumstances, the analysis of cues and simplified heuristic processes provide better predictions and explanations of citizens' behavior than do optimization models based on full information. ¹⁰⁹ I will begin with the evolutionary model of adaptive contractarians involved in basic exchange. I will then extend this model to exchange with groups, and then consider formal institutions, where rights and obligations become increasingly important elements of the implicit contract.

1. Exchange and Evolution

Cosmides and Tooby argue that exchange relationships require extensive cognitive tasks even in the simplest of human societies. 110 Simultaneous, equally valued exchanges (e.g., apples for oranges) are of limited utility since the needs and abilities of potential exchange partners are seldom so neatly matched. Most exchange relationships involve uneven exchanges that impose up-front costs in return for greater benefits at a later date. 111 Those who master the skills required for such cooperative exchange relationships gain considerable survival benefits. The resulting increase in fitness provides evolutionary pressures that select special cognitive mechanisms

^{109.} See, e.g., Samuel L. Popkin, The Reasoning Voter: Communication and Persuasion in Presidential Campaigns (1991); Paul M. Sniderman et al., Reasoning and Choice: Explorations in Political Psychology (1991); Milton Lodge et al., An Impression-driven Model of Candidate Evaluation, 83 Am. Pol. Sci. Rev. 399 (1989); Arthur Lupia & Mathew D. McCubbins, The Democratic Dilemma: Can Citizens Learn What They Need to Know? (1998).

^{110.} Leda Cosmides & John Tooby, *Better than Rational: Evolutionary Psychology and the Invisible Hand*, 84 AM. ECON. REV. 327 (1994). *See also* DAVID M. BUSS, EVOLUTIONARY PSYCHOLOGY: THE NEW SCIENCE OF THE MIND (1999).

^{111.} For example, a successful family member may provide assistance when another member is in need, with the expectation that the favor will be returned if fortunes are reversed at some future date.

devoted to the resolution of exchange problems. The ability to recognize trading partners, to evaluate and keep track of the costs and benefits of trades over time, and to communicate and recognize the needs or preferences for both trade partners are all critical skills required for successful exchange.

The vulnerability of exchange relationships to cheating is perhaps the greatest impediment to exchange, thus the ability to judge whether the exchange partner is trustworthy is a critical aspect of exchange related skills. Cosmides and Tooby focus on cognitive capacities that detect cheating to demonstrate how strong an effect exchange relationships have had in shaping cognitive processes. ¹¹² In laboratory experiments, individuals consistently demonstrate a considerably greater ability to solve logical problems when these problems are placed in the context of social exchange and presented in terms of receiving benefits or rights and of meeting obligations. ¹¹³

Based on a series of experiments, Cosmides and Tooby argue that specialized cognitive capabilities to deal with exchange problems are "better than rational" in the sense that these specialized mechanisms can solve recurrent social contract problems involving rights and obligations of exchange much more reliably than can more generic processes. These problem solving mechanisms provide the cognitive equivalent of the institutions modern society developed to facilitate exchange—they expand the potential for exchange while reducing the problem of credibility that threatens exchange relationships.

Frank, from an economist's perspective, explains how emotions or "moral sentiments" can play an important strategic role in resolving

^{112.} Cosmides & Tooby, supra note 110, at 329.

^{113.} *Id.* For example, consider the problem of testing the following rule: if a person is drinking alcohol, then he or she must be 21 or older. Which of the following four people do you have to check to appropriately test the rule for cheating: someone drinking beer, someone drinking soda, a twenty-five year old, or a sixteen year old? When this logical problem is presented in more abstract terms, few people can correctly specify the appropriate test. However, when presented in this social contract mode, most people correctly choose the beer drinker, who may be under 21, and the sixteen-year-old, who may be drinking beer, as the critical tests for failure to obey the rule. Individuals choose the correct test even when cultural contexts are changed and the tested rule is unfamiliar to the individual.

^{114.} *Id*.

the problem of credible commitment that is critical to exchange. 115 Recall from the previous section that the sellers' opportunism and the information asymmetry between buyer and seller created formidable barriers to exchange in the used car example. If the seller could provide sufficient evidence of his or her trustworthiness, the buyer might trust the seller enough to proceed with the exchange. Emotions provide one means of judging trustworthiness. If the seller were endowed with emotional commitments to honesty and to fulfilling obligations, and if the buyer were confident that he or she could detect these sentiments, the buyer is more likely to believe the seller's assurances that the car is not a lemon. These emotions provide costly signals, as they require the seller to forgo short-term gains that less scrupulous individuals would enjoy. Of course, emotions can only enhance exchanges if potential exchange partners have developed reliable capabilities to detect opportunistic attempts to mimic emotion. Frank, like Cosmides and Tooby, emphasizes that welldeveloped capabilities can detect cheating and deception in others. which ensures that moral sentiments become "better than rational" when short-term interests lead to undesirable outcomes. 116

Orbell and Dawes report an experiment that demonstrates the potential evolutionary power of the cognitive capacities for trust and trustworthiness. ¹¹⁷ Subjects chose either to play a prisoners' dilemma game with an unknown player or receive a fixed payoff that was not as high as the cooperative payoff in the prisoners' dilemma. ¹¹⁸ This captured the critical element of choosing whether or not to exchange with an unknown individual. In the experiment, a large proportion of those who chose the exchange option also cooperated rather than trying to take advantage of their exchange partner. ¹¹⁹ Orbell and Dawes suggest that individuals were "cognitive misers" who used a very simple mechanism to determine their choice—they simply

115. Robert Frank, Passions within Reason: The Strategic Role of the Emotions (1988).

117. John Orbell & Robyn M. Dawes, A 'Cognitive Miser' Theory of Cooperators' Advantage, 85 AM. POL. SCI. REV. 515 (1991).

^{116.} Id.

^{118.} Id. at 517.

^{119.} Id. at 524-26.

projected their own intentions onto their potential partners.¹²⁰ Trustworthy individuals were willing to trust their partner and therefore chose to play, while less trustworthy individuals believed that the partner was not trustworthy and therefore avoided the exchange.¹²¹ This selection mechanism ensured that trusting individuals primarily encountered trustworthy partners, and hence gained the advantages of cooperation that were lost to those unwilling or unable to trust others.¹²² In this setting of voluntary exchange, trustworthy partners did better than more exploitative or skeptical ones.¹²³

2. Evolution and Collective Action

Extending the evolutionary argument to broader exchange in collective situations. Lubell and Scholz developed a simple cognitive model to explain subjects' behavior in laboratory experiments in a repeated eight-person prisoner's dilemma in which the subject played against seven hypothetical partners that actually were computergenerated strategies. 124 In this setting, cooperation was the optimal strategy for the subject when the computer-simulated partners reciprocated the subject's play, but defection was optimal if the partners did not respond to the subject. 125 The critical task for maximizing the subject's payoff was to judge whether or not the other players were reciprocating, based solely on the record of how they played the game. 126 Given the multiple possibilities from seven players responding to the subject, reciprocity testing requires intense cognitive effort. Extending the evolutionary arguments of Cosmedes and Tooby, Lubell and Scholz suggest that detecting reciprocity has been such an important aspect of human existence that specialized facilities have been developed specifically to test for

^{120.} Id. at 515.

^{121.} Id. at 524-26.

^{122.} Id.

^{123.} Id.

^{124.} Mark Lubell & John T. Scholz, *Cooperation, Reciprocity, and the Collective-Action Heuristic*, 45 Am. J. Pol. Sci. 160 (2001).

^{125.} Id. at 162.

^{126.} Id. at 164.

^{127.} Id. at 162.

reciprocity. 128

The collective choice model they developed assumes that subjects conserve on costly cognitive effort by calling on this specialized cognitive facility only when they are surprised by the play of others. 129 Subjects enter the game with expectations about the reciprocity of others in the group, and choose the optimal strategy of cooperation or defection in the first round based on whether or not they expect reciprocity. 130 Subjects expecting reciprocity choose to cooperate and expect others to do so as well, while those expecting no reciprocity choose to defect and expect others to do so. If most other players make the expected choice in the first round, the subject is not surprised and continues with the initial play. 131 If the subject observes others playing unexpected strategies, surprise triggers a reciprocity testing strategy over the next several rounds. 132 Surprised subjects then test whether or not other players respond to their actions and adopt the optimal strategy, cooperating with reciprocating players or defecting with non-reciprocating players. 133

This simple model correctly predicted the observed pattern of play, including the two critical cases in which subjects systematically deviated from optimal play. First, initial cooperators continued to cooperate in altruistic environments where other players always cooperate regardless of the subject's choice, even though the optimal strategy is to defect. Second, initial defectors continued to defect in reciprocal environments, where skeptical cooperators defected in the first round but would cooperate in response to the subject's cooperation, even though the optimal strategy is to cooperate. The failure of optimal outcomes to predict observed collective exchange behavior underscores our need to specify the cognitive processes of our adaptive contractarian. Furthermore, the success of this very simple model in predicting behavior suggests the benefits of focusing

^{128.} Id. at 161.

^{129.} Id. at 165.

^{130.} Id. at 164.

^{131.} *Id*.

^{132.} Id.

^{133.} Id. at 162-63, 167.

^{134.} Id.

^{135.} Id.

on a succinct model to understand compliance behavior.

The adaptive contractarian model extends this basic collective action model to the broader collective action problem facing individuals involved in the exchange relationship with larger collectives, particularly modern democracies. In particular, we assume that "hard-wired" cognitive capacities relating to exchange, including collective exchange, developed prior to the current period in which modern institutions have increasingly superceded individuals as the primary partner in exchange. Citizens now maintain a set of expectations about institutions as well as about individuals, and continue their compliance or noncompliance with exchange obligations as long as those expectations are met.

Both individual and historical influences shape these hard-wired capacities into individuals' cognitive structures and related complex patterns of behavior. Consider first an individual's experiential learning. Parents and kin who teach and respect family traditions of rights and responsibilities can nurture, or leave underdeveloped a child's capacity for trusting and trustworthy responses. Individuals learn not only the basics of trust, rights, and obligation that are essential for exchange, but also learn when to trust and when to distrust others. Expectations and evaluations change over time in response to experience. In the Lubell and Scholz experiment, for example, subjects playing a series of games systematically changed their expectations in response to the reciprocity encountered in past games. Different life histories shape different cognitive structures and heuristic patterns, resulting in different initial expectations and propensities to cooperate among subjects.

Of course, an individual's social and cultural milieu shapes his or her life history, and the society's historical development process shapes the shared experiences that determine the society's repertoire of citizen's strategies. For example, most subjects in prisoner's dilemma experiments tend to cooperate far beyond what game theory

^{136.} See, e.g., ROBERT BOYD & PETER RICHERSON, CULTURE AND EVOLUTIONARY PROCESS (1985); DAVID M. BUSS, EVOLUTIONARY PSYCHOLOGY: THE NEW SCIENCE OF THE MIND (1999); Cosmedes & Tooby, *supra* note 110.

^{137.} See James S. Coleman, Foundation of Social Theory 175-96 (1990).

^{138.} See Lubell & Scholz, supra note 124.

^{139.} See Dawes & Orbell, supra note 117; Lubell & Scholz, supra note 124.

predicts, suggesting that subjects share a background rich in encounters with trustworthy strangers. 140 Life histories may produce very different strategies in societies stressed by drought, increased poverty, ethnic violence or extended civil war.

In sum, hard-wired cognitive capacities may provide a basis for developing reciprocal strategies that enhance exchange, while historical experiences help determine the ability to generalize reciprocity beyond family and small kinship groups. To better understand citizen responses to the rights and obligations associated with the state and other large-scale institutions of contemporary life. it is necessary to consider the coevolution of institutions and citizen behavior

B. The Coevolution of Citizens and Governing Institutions

In the evolutionary argument, it is presumed that institutions and the heuristic patterns of citizenship behavior coevolve. Familiar patterns of rights and obligations governing simple exchanges provide a basis for slightly more complex patterns of rights and obligations developed by early institutions. These in turn provide4 a basis for further expansion of obligations under the state and modern institutions. Given the cognitive limits of citizens, a relatively small set of basic heuristics governs a citizen's relationships with multiple individuals and institutions at each stage of this development. In order for citizens to cope with the growing array of governmental and other institutions, each of which plays a relatively small role in the citizen's life, heuristics must be capable of broad generalization. Given the society's repertoire of heuristics, those institutions more capable of enhancing the benefits of exchange tend to expand and replace less capable institutions. Similarly, given the society's institutions, those

^{140.} See Dawes & Orbell, supra note 117; Lubell & Scholz, supra note 124. Robert Putnam argues that the expanding array of voluntary organizations in northern Italy helped shape a generalized reciprocity that accounts for its enhanced economic development. ROBERT PUTNAM, MAKING DEMOCRACY WORK: CIVIC TRADITIONS IN MODERN ITALY (1993). Experiences in one voluntary organization established patterns of reciprocity that other organizations could then exploit. Id. The more authoritarian traditions in southern Italy did not develop the same level of "social capital," thus creating a less fertile ground for the development of economic organizations. Id.

individuals whose heuristics are best suited to the dominant institutions will prosper compared to those individuals less suited. 141

The result is that institutions and citizen behavior are intricately interrelated in what North has called a *path-dependent* development. To understand the heuristics involved in a citizen's decision whether or not to comply with obligations associated with these institutions—specifically tax obligations—I will begin with the better developed analysis of the heuristic basis for a citizen's voting behavior

1. Voting Heuristics and Institutional Evaluations

The adaptive contractarian perspective argues that attitudes toward institutions play the same efficient cognitive role in compliance behavior that attitudes toward candidates play in voting choice. Laboratory experiments demonstrate that subjects assimilate information about candidates into their basic "affect," or liking for the candidate, and increase their liking for candidates who are more sympathetic to their concerns. 143 The assimilation process is based on the well-developed theory of cognitive consistency in adaptive attitude change, in which exposure to positive stimuli causes positive adaptation in the most closely related sets of attitudes, and exposure to larger stimuli causes greater changes in these attitudes. 144 Thus, voting choice is based on the subject's liking of the candidate which reflects the resulting aggregation of information: the more likeable the candidate, the more likely the subject is willing to exchange his or her vote for the candidate's promised performance. This voting heuristic provides a potentially efficient cognitive mechanism for making "rational" voting choices for relatively insignificant exchanges because this mechanism minimizes the initial need to store information and to consciously recall and process stored information when making the voting choice. Voters evaluate candidates by using attitudes about candidates to store information "on line," and then use

^{141.} See BOYD & RICHARDSON, supra note 136.

^{142.} See NORTH, supra note 13.

^{143.} See Lodge et al., supra note 109.

^{144.} See Anthony R. Pratkanis, The Cognitive Representation of Attitudes, in ATTITUDE STRUCTURE AND FUNCTIONS (A. R. Pratkanis et al. ed., 1989).

the summary evaluation when required to vote or answer survey questions about the candidates. 145

Widespread evidence exists that evaluations play a similar role in mediating the exchange between citizens and institutions in society, providing a basis for conditional compliance with obligations relating to institutions. ¹⁴⁶ Individuals respond to adverse impacts by lowering favorable attitudes, commitments, and willingness to obey obligations to these institutions ¹⁴⁷

2. Distributive and Procedural Evaluations of Institutions

A particularly important dimension emerges from these and similar studies that is central to the hierarchical nature of citizens' relationships with institutions. In hierarchical contracts between individuals and complex institutions, individuals agree to give the institution the right to interpret the implicit contract when disagreements arise. In the context of employer-employee relations, for example, ambiguities and uncertainties about the future may limit the ability of workers and firms to completely specify a useful employment contract. Since negotiating costs would be prohibitive if every decision about an employee's job had to be negotiated, employees accede authority to the employer to interpret the contract. Employees will meet their obligations under such hierarchical contracts only as long as they believe the employer will serve the employees' long-term interests.

Kreps argues that employees' assessments of long-term interests

^{145.} See Lodge et al., supra note 109.

^{146.} See Joel Brockner & Phyllis Siegal, Understanding the Interaction Between Procedural and Distributive Justice: The Role of Trust, in TRUST IN ORGANIZATIONS: FRONTIERS OF THEORY AND RESEARCH 393 (Roderick M. Kramer & Tom R. Tyler eds., 1996) (reviewing empirical studies of citizen responses to orders from police and courts, and of employee responses to layoffs, pay freezes, relocations, drug-testing policies, and smoking bans; and finding the impact of these policies affected the individual's citizenship behavior, organizational commitment, job performance, and turnover intention).

^{147.} Id.

^{148.} David Kreps, Corporate Culture and Economic Theory, in Perspectives on Positive Political Economy 90-143 (James E. Alt & Kenneth A. Shepsle eds., 1990).

^{149.} See KREPS, supra note 27, at 581-614.

^{150.} *Id*.

^{151.} Id.

are based on the "corporate culture" that defines the expected employment benefit as well as the procedures and principles to be used in adjudicating disputes over these benefits. 152 This corporate culture constrains managerial decisions and provides consistent decision-making by multiple specialized managers that the employee may encounter in complex organizations. 153 In evaluating a corporate decision, distributive justice refers to the congruence between observed benefits and expectations based on the corporate culture. Similarly, procedural justice refers to the congruence between observed procedures and principles and expectations based on the corporate culture. Because employees cannot expect every disputed benefit to be decided in their favor, the evaluation of decision lacking distributional justice relies heavily on the evaluation of procedural iustice. 154 For the rational contractarian implicit in Kreps's approach, procedural justice can mitigate the inevitable disappointments with distributional justice, maintaining the hierarchical contracts that the employee would otherwise abandon.

Empirical studies confirm that procedural justice plays as strong a role as distributional justice in determining a participant's willingness to comply with a given organizational decision. Absent procedural justice, favorable outcomes significantly increase compliance with organizational decisions. However, high procedural justice scores may compensate for adverse outcomes when assessing decision compliance. Many studies indicate that favorable evaluations of procedural justice lead to smaller and more insignificant differences in compliance between favorable and unfavorable outcomes. Iss

In these studies, procedural justice evaluations included: determinations of whether the individual was allowed to participate in or was adequately represented in the process; whether decisions were clearly explained, adequately justified, and implemented consistently; and whether the process treated the individual with respect and

^{152.} Kreps, supra note 148, at 90-143.

^{153.} Id.

¹⁵⁴ Id

^{155.} See Brockner & Siegel, supra note 146.

^{156.} Id.

^{157.} Id.

^{158.} Id.

dignity.¹⁵⁹ The values reflected in these determinations appear to be widespread in modern societies. From the adaptive contractarian perspective, they provide a set of widely-accepted expectations governing hierarchical contracts between citizens and large-scale public and private organizations. Given the difficulties in accurately assessing the relative costs and benefits of exchanges with such organizations, procedural justice evaluations provide a proxy for evaluating whether long-term benefits exceed the costs of complying with obligations imposed by the organization. Assessing the benefits and costs the tax system imposes on individuals is particularly difficult, even for economists. Particularly when the expected costs and benefits associated with distributional justice are too difficult to track, procedural justice provides an alternative means of evaluating whether or not an institution is performing to expectations, and hence provides an additional contingency in deciding whether or not to fulfill related obligations.

One puzzling feature of procedural justice studies is the weight given to personal encounters between citizens and individual police officers and judges in determining citizens' perceptions about the police and the court system as institutions. It appears that the personal traits of a police officer are more important than the police officer's authority in influencing an individual's compliance with obligations to these institutions. 160 Although from a rational perspective this influence appears puzzling, it is not particularly surprising when examined from the adaptive contractarian evolutionary perspective. Hierarchical relationships are not new to modern societies. 161 As a holdover from earlier face-to-face forms of hierarchical contracts, it is not surprising that contemporary individuals' heuristics continue to emphasize individual encounters when evaluating institutions. This evolutionary argument explains more generally why people tend to overlook statistical information about organizations and focus instead on concrete stories that they can more readily evaluate. 162

159. Id.

^{160.} Id.

^{161.} Family structures impose an obligation on followers to obey family leadership in return for the rights that are protected by the leader. Patron-client relationships in agricultural societies demonstrate a similar hierarchical exchange pattern.

^{162.} See Martha S. Feldman & James G March, Information In Organizations As Signal

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While the heavy emphasis individuals place on personal characteristics of police officers may be a dysfunctional vestige in some circumstances, holding the institution accountable for its employee's action has a clear functional benefit distinct from the overall cost and benefit balance associated with the institution. Contingent compliance based on overall costs and benefits associated with an institution provides the rational contractarian with a primary defense against institutional exploitation. Procedural justice concerns, on the other hand, provide a secondary defense for adaptive contractarians by giving enforcement agencies an incentive to minimize exploitative tactics. As noted, the general solution to countering exploitation by fragmenting power into multiple agencies shifts the control problem to these secondary agencies. Without a method of control, agencies are tempted to shift much of the enforcement burden onto citizens. To the extent that adaptive contractarians hold agencies accountable for procedural justice, the resulting contingency provides a counterincentive to agencies and their judicial and elected oversight institutions—if enforcement techniques clash with procedural justice expectations, willingness to comply with the agency will decline. Thus, the greater problem in gaining compliance from adaptive contractarians will offset the agency's desire to shift greater burdens to citizens. Because individuals will respond adversely to negative encounters. contingency based on procedural justice would also reward organizations that could best reduce these negative encounters.

3. Cognitive Structure and the Adaptive Contractarian

The model of the citizen as an adaptive contractarian suggests that people fulfill obligations to institutions that provide long-term benefits in excess of the short-term costs. As with individual exchanges, the adaptive contractarian monitors the exchange relationship through adaptive attitudes toward the institution and the obligations it imposes. Good outcomes or positive evidence of procedural justice provide positive increases in these attitudes, while poor outcomes or negative evidence lead to negative changes in

And Symbol, 26 ADMIN. SCI. Q. 171 (1981).

attitudes. These attitudes, in turn, affect the likelihood that the individual will fulfill his or her obligations to the organization. Attitude monitors produce a contingency strategy in which the fulfillment of obligations depends on how well the institution upholds the individual's rights and produces the expected benefits.

The evolutionary approach assumes that adaptive contractarians use cognitive mechanisms, but does not assume that these mechanisms provide optimal controls over all coercive enforcement agencies. There are limits to the range of adaptations any individual can undertake to optimize exchange with every potential institution. Indeed, adaptive attitudes are likely to lead to systematic errors, just as adaptive expectations led to suboptimal choices for individuals in the Lubell and Scholz model. Gains in cognitive efficiency generally involve losses in accuracy for specific decisions, because decisions that are right under most circumstances can, occasionally, be wrong. 163

One approach to understanding the limited ability of adaptive contractarians to control coercive enforcement agencies is based on the widely accepted principle that cognitive structures consist of both relatively stable, generalized core values that affect very broad realms of behavior, and more adaptive, specialized beliefs and attitudes associated with specific behaviors and institutions. 164 Core values change relatively slowly, in part because they provide the basis for interpreting new experiences. The cognitive consistency hypothesis suggests that information inconsistent with core values will have relatively less impact on, and will be interpreted in ways more consistent with, existing beliefs. 165 Thus, core values provide stable behavior. As Frank argued, it is this stability of moral commitments that provides credibility for exchange relationships—an individual who keeps his or her word in one relationship is likely to do so in other relationships. 166

Although core values adapt to unexpected experiences very slowly, adaptation takes place more rapidly for specialized beliefs

^{163.} See JOHN. W. PAYNE ET AL., THE ADAPTIVE DECISION MAKER 72-75 (1993).

^{164.} Pratkanis, supra note 144.

^{165.} *Id*.

^{166.} FRANK, *supra* note 115, at 64-65.

and attitudes. 167 The more important the behavior or institution to the individual, the more nuanced the specialized set of beliefs and attitudes addressing that behavior or institution will be. 168 These specialized beliefs and attitudes enable individuals to monitor relationships with different institutions and respond appropriately to each institution. 169 Thus, individuals who comply with obligations to many government agencies may not comply with a particular agency that has treated them poorly. Specialization comes at a price if cognitive capability is limited; the greater the resources spent monitoring one agency, the fewer that remain to monitor others. To conserve monitoring resources, an individual could aggregate experiences from one agency into his or her attitudes affecting the entire set of agencies. For inconsequential obligations to unknown agencies, core values might suffice as a behavioral guide. Efficient cognitive mechanisms balance the costs of developing more specialized monitors with the potential risks and benefits involved in the exchange relationship. For example, taxpavers confronting a greater range of choices that have greater variance in expected costs and benefits would presumably have more specialized monitoring attitudes that differ substantially from the core values and attitudes they hold for other agencies.

Unfortunately, we know very little about individuals' cognitive structures for state obligations. Understanding these structures will provide insight about several important issues relating to citizens and their state obligations. For example, it would clarify the question of the extent to which negative experiences with one government agency destroy the legitimacy of other government agencies and ultimately of the government itself.¹⁷⁰ Understanding the stability versus adaptability of specialized attitudes is particularly important in understanding the stability of contractual compliance. An adaptation that is too slow will provide too little restraint on an aggressive state agency. In Barzel's scenario discussed in section II, a slow response

^{167.} John T. Scholz et al., Will Taxpayers Ever Like Taxes? Responses to the 1986 Tax Reform Act, 13 J. ECON. PSYCH. 625 (1992).

^{168.} Id.

^{169.} Id.

^{170.} See DAVID EASTON, A FRAMEWORK FOR POLITICAL ANALYSIS (1965).

by citizens to minor exploitation would lead to excessive exploitation, and eventually to the emergence of a dictatorship. An adaptation that is too rapid, on the other hand, would not allow the state sufficient time to correct unpopular changes in tax laws or administration before the cooperative equilibrium would collapse.

C. Tax Compliance and the Adaptive Contractarians

The literature on tax compliance has generally ignored the potential role of the adaptive contractarian, focusing instead on the role of deterrence or social influences in explaining compliance behavior. To clarify how these different approaches are related and why there is considerable skepticism about a contractual approach to tax compliance, consider again the basic problem of the provision of public goods. If no one pays for community activities, the benefits of community life and government will be forfeited. Despite this, all taxpayers would individually be better off free riding. Even if all taxpayers recognized the disastrous consequences of free riding, no single individual's decision not to free ride could change other individuals' free riding incentives because an individual choice not to free ride appears only to increase the benefits of free riding for others in the community. One must ask what an intelligent taxpayer should do when faced with this conflict between individual and collective rationality, and how government can help create for taxpayers a credible commitment allowing them to resolve this problem.

Figure 1 presents this problem graphically, using the display introduced by Schelling.¹⁷¹ Figure 1 depicts a society in which everyone pays the same tax, and benefits equally from government expenditures.¹⁷²

171. THOMAS C. SCHELLING, MICROMOTIVES AND MACROBEHAVIOR 110-15 (1978).

^{172.} The horizontal axis represents the proportion of the population that pays taxes, which ranges from 0% on the left when nobody pays to 100% on the right when everyone pays. The vertical axis represents the taxpayer's utility or payoff, with higher values being more preferred. We assume in this diagram that a taxpayer pays either the full tax or free rides and pays no tax, and that the benefits from government services are the same whether the taxpayer pays or not. The upper line in Figure 1 gives the payoffs for free riding, while the lower line gives the payoffs for those who pay their taxes. Schelling notes that the strategy of free riding guarantees at least the minimal payoff the citizen could receive if there were no government to collect taxes, which is represented by the zero point on the payoff axis. *Id.* This is where the free rider

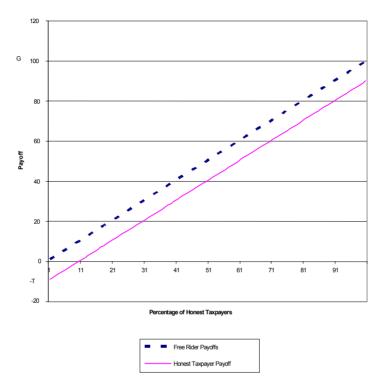


FIGURE 1: Payoffs for Free Riders and Honest Taxpayers in the Tax Dilemma

This diagram shows that the benefits of paying or not paying taxes depend primarily on how many other citizens pay their taxes. The classic free rider problem is evident from the diagram: no matter how many other people pay, the payoff for free riding is always greater than the payoff for paying taxes. Without additional incentives, free riding would be the dominant choice and the government would be unable to provide a public good. As noted previously, there are many

payoff line crosses the horizontal axis. The taxpayer receives the same public good as the free rider but pays tax "T." If nobody else pays taxes, the lone taxpayer would lose the amount of tax he paid, represented by -T in the figure, because he paid his taxes but received no public good in exchange. On the other hand, if everyone pays taxes, the payoff for those paying taxes rises to "G," the average value of the public good resulting from paying taxes. As indicated, free riders are better off because they receive the public good although they did not have to pay for it.

collective action mechanisms that resolve this problem in a continuing game. For example, if all taxpayers will pay their taxes as long as everyone else pays, but will never again pay taxes if any single taxpayer free rides, then an equilibrium strategy would be to always pay taxes. The short-term advantage of free riding would be overshadowed by the loss of future benefits. Of course, this scenario would be implausible in modern societies, particularly for an income tax system that involves millions of diverse taxpayers filing complex and private tax returns.¹⁷³

Thus, the tax system resembles the marketplace in that it establishes exchange relationships among autonomous individuals with little basis for self-enforcing agreements. Like the marketplace, it appears that the coercive enforcement powers of the state are critical for enforcing any agreement to provide public goods. Thus, the tax compliance literature has largely ignored the possibility of self-enforcing contractual conditions in favor of two exogenous solutions: the *deterrence approach*, which relies on the coercive powers of the state; and the *duty approach*, which relies on moral or social obligations to the state.

1. The Deterrence Approach

The deterrence approach emphasizes the state provision of coercive enforcement to ensure compliance with legal obligations. Tax collection agencies such as the IRS use coercive powers to impose fines and, ultimately, to seize salaries and property, in order to counterbalance the temptation to free ride. As long as the expected penalty for free riding outweighs the gain from not paying taxes, rational taxpayers will meet their legal obligations.

Figure 2 portrays an optimal deterrence outcome in which society has invested in a tax collection agency to the extent that deterring one additional taxpayer from free riding would cost more than the tax collected ¹⁷⁴

^{173.} See RUSSELL HARDIN, COLLECTIVE ACTION (1982). Hardin argues that the belief that one individual's free riding behavior can influence the behavior of the rest of society is logically implausible. *Id.*

^{174.} If taxpayers make up x percent of the population, then taxpayers receive g(x)-e-t, the value of public goods g(x) minus the enforcement cost e per capita and the tax t. Free riders

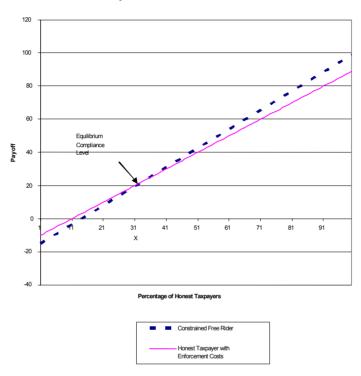


FIGURE 2: Payoffs in Tax Dilemma with Enforcement Costs

Figure 2 assumes that taxpayers in different economic circumstances differ in their ability to cheat without getting caught and therefore face different expected penalties. Taxpayers are ranked by expected penalty, with those expecting the highest penalty located to the left of those expecting lower penalties. Figure 2 also assumes that at optimal levels of deterrence, taxes will still exceed the expected penalty for free riding for some taxpayers, who will consequently choose to free ride. Thus, at equilibrium, X on the

now receive g(x)-e-p, the same g(x)-e that taxpayers receive minus the expected penalty p.

^{175.} Thus, the payoff for constrained free riders will be lowered more on the left that on the right in comparison with the unconstrained free rider payoffs. Note that the fixed positions for different taxpayers differs from the original Schelling diagrams.

^{176.} If x > X then t > p(x).

horizontal axis represents the percentage of taxpayers who will comply because of the deterrence threat. The payoff for taxpayers just equal the payoff for the constrained free-riders, since both will receive the public goods provided by tax service, and the expected penalties just equal the tax to be paid. This payoff is better than the zero payoff associated with the complete lack of government services in the society portrayed in Figure 1, although the cost of the enforcement agency reduces the total public goods produced.

Deterrence studies provide empirical evidence that the probability of detection is significantly related to compliance with legal obligations. However, the evidence is surprisingly inconsistent, particularly in the tax compliance arena. The clearest evidence in the tax arena is that compliance is highest among individuals whose income is reported directly to the IRS, giving these individuals little opportunity to cheat. Reporting wage income dates back at least to the early withholding laws introduced during World War II. In the last two decades, Congress has mandated new reporting systems for interest, rental, and other forms of income. At the same time, the IRS has improved the computer matching systems to verify that tax return information is consistent with third party reports.

Even with broader authority and better computer capabilities, however, third parties fully reported to the IRS only about three-fourths of the total income that taxpayers reported in the large sample of taxpayers we studied. Auditing tax returns remains the primary enforcement tool for ensuring full reporting of this remaining income,

^{177.} See, e.g., Richard Lempert, Organizing for Deterrence: Lessons From A Study of Child Support, L. & Soc. Rev. 511 (1982); John T. Scholz & Wayne B. Gray, OSHA Enforcement and Workplace Injuries: A Behavioral Approach to Risk Assessment, 3 J. RISK & UNCERTAINTY 283 (1990).

^{178.} See, e.g., JEFFREY A. ROTH ET AL., TAXPAYER COMPLIANCE: AN AGENDA FOR RESEARCH (1989); James Andreoni et al., Tax Compliance, 36 J. ECON. LIT. 818 (1998). For more recent research see Mihri Mete, Bureaucratic Behavior in Strategic Environments: Politicians, Taxpayers, and the IRS, 64 J. OF POLITICS 384 (2002).

^{179.} See Robert A. Kagan, On the Visibility of Income Tax Law Violations, in Taxpayer Compliance: Social Science Perspectives 107 (Jeffrey A. Roth & John T. Scholz eds., 1989).

^{180.} See Scholz, supra note 75.

^{181.} ROTH ET AL., supra note 178.

^{182.} John T. Scholz & Neil Pinney, *Duty, Fear and Tax Compliance: The Heuristic Basis of Citizenship Behavior*, 39 AM. J. POL. SCI. 490 (1995).

and the relationship between tax audits and compliance is relatively weak and inconsistent.

Perhaps more problematic from the deterrence perspective, taxpayers have very inaccurate beliefs about the likelihood that the IRS will audit them. Scholz and Pinney found that only some taxpayers with considerable opportunity to cheat knew anything about their likelihood of getting caught. If audits do have some deterrent effect on the average taxpayer, deterrence clearly does not work through a conscious compliance calculus. The inconsistent impact of audits, coupled with the general lack of knowledge taxpayers possess about audit probabilities, suggest that deterrence is limited to a relatively small population of taxpayers who have no sense of contractual obligation.

Despite the deterrence approach's empirical weakness, it enjoys considerable popularity and influence because of its logical appeal and clear advice regarding efficient enforcement systems and policies. For example, deterrence theory indicates that enforcement agency reaches its optimal size when the increase in tax revenue from one additional dollar invested in enforcement will raise one additional dollar in collected revenue.¹⁸⁴ Similarly, an optimal allocation of enforcement resources to all taxpaver groups should ensure equal marginal returns from each group, even though this may require concentrating enforcement activities on taxpaver groups with relatively high compliance levels if it is more expensive to deter tax payer groups with low compliance levels. Furthermore, the most efficient tax system would minimize enforcement costs by taxing only income for which cheating is readily observable, thereby providing the maximum probability of detection per investment in enforcement and the best ratio of revenue per dollar invested.

However, important features of the American tax system are incongruous with these deterrence solutions. First, Congress has never been willing to invest in enforcement activities to the level at which one additional dollar expended would bring in one additional dollar in revenue. Estimates suggest that every dollar invested in additional audits would bring in ten to twelve dollars in direct

^{183.} *Id*

^{184.} See STEUERLE, supra note 85, at 24-25.

collections, in addition to any added deterrence effect the audits would generate. Second, audits are not allocated efficiently across audit classes. Finally, the U.S. Tax Code is horribly long and complicated, and clearly not designed to address efficient enforcement. While the government has paid considerable attention to simplifying the taxpaying process and lowering compliance costs to taxpayers, there have been no serious proposals to only tax readily observable income. Far from canceling taxes on unobservable income, as efficient enforcement might suggest, the IRS focuses considerable attention on maintaining enforcement mechanisms in this area, despite its high costs and difficulties.

One reason that deterrence theory appears ineffective for predicting the shape and concerns of the tax system is that it completely ignores both the problem of controlling enforcement authorities and the concern with fairness and the production of public goods that are critical to the adaptive contractarian. In fact, the deterrence perspective appears more appropriate for a dictator interested in maximal extraction of taxes than for a democracy concerned with the enforcement of rights and obligations intended to expand the welfare of its citizens.

2. The Duty Approach

The major alternative to deterrence theory argues that contemporary societies resolve the collective action problem by internalizing social norms and legal obligations in the form of a duty to obey. ¹⁸⁷ If during childhood, individuals are socialized to obey parents, school, and the state, then the guilt an individual would feel and the resulting social approbation for breaking the law could offset the noncompliance gain. ¹⁸⁸ The pleasure and social approval

186. *Id. See also* Scholz & Wood, *supra* note 78.

^{185.} Id. at 25.

^{187.} See, e.g., ROTH ET AL., supra note 178.

^{188.} Democratic enfranchisement and effective political participation enhances the likelihood that a society will develop strong norms of citizenship duty. *See* GABRIEL A. ALMOND & SIDNEY VERBA, THE CIVIC CULTURE: POLITICAL ATTITUDES AND DEMOCRACY IN FIVE NATIONS, AN ANALYTIC STUDY (1965). Thus, countries with supportive civic cultures in which citizens are willing to grant legitimacy to the government and its laws presumably have a higher equilibrium. X. and hence a greater capacity to provide collective goods than in countries

individuals derive from performing their duties provides an additional positive motive for individuals to comply with legal obligations. ¹⁸⁹ As noted, the duty to obey consists of two components: externally imposed social approbation and internalized guilt or pride. Because it requires no external monitoring, internalized guilt is the more efficient component. It is also the most relevant for income tax compliance behavior, as tax information and the results of IRS audits are legally protected from public disclosure.

Assuming that the socialization process varies in effectiveness, the dashed line in Figure 2 could also portray the affect of guilt and social approbation on free rider payoffs. ¹⁹⁰ As with the deterrence theory, an equilibrium level X of compliance results with taxpayers to the left of X choosing to comply because guilt and social approbation would be more costly than the tax they might otherwise be tempted to avoid. Taxpayers to the right of X would still free ride, as guilt would not be sufficient to overcome the temptation to avoid tax.

In this interpretation of Figure 2, the system does not incur the cost of maintaining an enforcement authority, but instead incurs the cost of developing a duty to obey tax laws through the socialization process. This long term investment in socialization may be more or less costly than maintaining an enforcement agency. It is, however, of considerably greater value because a sense of duty is likely to affect other non-tax legal obligations that would be unaffected by tax enforcement. However, the relative effectiveness of guilt, as compared to deterrence, in encouraging compliance with legal obligations is of considerable debate.

On a practical level, taxpaying provides perhaps the most critical arena for testing the role that duty plays in resolving the free rider problem. Few observers are willing to believe that even the most patriotic citizens will pay their taxes out of a sense of civic duty alone. Duty might be a more plausible motivation for obeying laws that have clear, desired outcomes and relatively low obedience

in which citizens have not developed this internalized motivation for obeying legal obligations. *Id.*

^{189.} *Id*.

^{190.} For this interpretation taxpayers are sorted such that those with the greatest inhibition are placed to the left.

costs.¹⁹¹ The benefits derived from tax supported government activities may be substantial, but the costs of paying income tax are so clear and concrete compared to these diffuse, distant, and abstract benefits that the benefits probably appear irrelevant to most taxpayers.¹⁹²

Tax studies consistently find that both internalized guilt and social approbation are highly correlated with self-reported compliance behavior, which supports the duty perspective. ¹⁹³ Of course, critics of the duty approach generally argue that this relationship reflects self-justification rather than motivation. ¹⁹⁴ Critics contend that taxpayers decide whether or not to cheat based on the self-interested compliance calculus, and then adjust their beliefs to be consistent with their decision. ¹⁹⁵ Thus, cheaters report that they feel little guilt, while compliers report that they would feel very guilty if they cheated. However, Scholz and Pinney's study demonstrates that deterrence related beliefs are shaped more by the taxpayers' sense of guilt than by their objective risks of being caught cheating. ¹⁹⁶

The socialization theory of duty, like the deterrence theory, ignores the problem of controlling the authority that imposes legal obligations, particularly in dynamic modern societies in which governments constantly revise legal obligations. If duty is simply a stable personality trait, then blindly obedient citizens will still obey laws that usurpers, who exploit democratic institutions to gain power, impose. Furthermore, free riders could easily exploit such honest citizens. In societies populated by duty-bound citizens, electoral controls would have to be much stronger than those that exist in electoral systems. ¹⁹⁷

195. *Id.* This argument reflects, in part, the well-established sociological literature on deviant behavior and cognitive consistency in which association with other like-minded individuals is considered an important ingredient in maintaining deviant behavior.

^{191.} For example, recycling laws have successfully reduced solid waste despite the lack of enforcement agencies. A.E. Carlson, *Recycling Norms*, 89 CAL. L. REV. 1231 (2001). Tax laws, however, have little of the direct positive value that individuals may possess when they obey environmental laws.

^{192.} See David O. Sears & Jack Citrin, Tax Revolt: Something for Nothing in California (1982).

^{193.} See ROTH ET AL., supra note 178.

^{194.} *Id*.

^{196.} See Scholz & Pinney, supra note 182.

^{197.} See Charles E. Lindblom, Politics And Markets: The World's Political

D. Taxpayers as Adaptive Contractarians

The adaptive contractarian model integrates the concerns of deterrence and duty theories, but emphasizes the problem of simultaneously controlling other taxpayers and the state's coercive powers. The adaptive contractarian will meet obligations to pay taxes. but only if other taxpayers and the state also meet their obligations to the implicit tax contract. It shares with the deterrence perspective the assumption that some taxpavers require coercion to meet their obligation. It also shares with the duty perspective the assumption that compliance, in democracies, is driven primarily by a moral commitment to meet social and legal obligations. This moral commitment is like the concept of duty, except that for the adaptive contractarian the commitment is contingent on both the performance of the state and of other taxpavers. In short, under the adaptive contractarian approach, Figure 2 can still be used to analyze compliance, but all the lines are interdependent. By focusing on these interdependencies, the resulting model becomes considerably more relevant both as a behavioral and a normative theory of taxpaying and enforcement

1. Contingent Compliance and the State

The most important and most obvious implication of the adaptive contractarian model is that the population's willingness to obey tax obligations can significantly reduce the need for coercive enforcement techniques if the associated benefits justify conditional compliance. Consider, for example, the difference between democracies and dictatorships. The democratic citizens would receive more benefits from tax revenue than would citizens in a dictatorship because dictators are unlikely to use tax revenues to benefit the public. Since duty is proportionate to benefits, citizens in democracies would also have a greater sense of duty. Thus, contingent compliance based on duty should be substantially higher in democracies. Indeed, levels of duty are likely to be low enough in dictatorships that no portion of the population would comply without a deterrence

ECONOMIC SYSTEMS (1977).

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mechanism.

In short, contingent compliance provides a second line of defense, after elections, to minimize the problem of state exploitation and to increase wealth enhancing policies. To the extent that democracies produce higher public benefits that translate into higher levels of commitment, democracies will sustain higher levels of tax compliance with less expenditure on enforcement. By minimizing investment in coercion, a society of adaptive contractarians lowers the coercion problem and, hence, the reliance on other collective action mechanisms to control state enforcement agencies. Because dictatorships produce fewer public goods in exchange for tax payments, they have little alternative other than investing heavily in a coercive tax collection system.

Furthermore, contingency based on procedural justice provides the tax collector and the oversight institutions with a direct motivation to be concerned about tax collection's intrusiveness and taxpayers' attitudes about the collection agency. The evolutionary mechanisms that generate concerns with procedural justice may be more important for the tax collector than for most other specialized enforcement agencies. Given the considerable difficulty in tracking the benefits received from all income tax supported policies, willingness to comply with income tax may be considerably more responsive to changes in procedural justice than to changes in tax costs and benefits. ¹⁹⁸

This discussion suggests that several questions must be answered to confirm the adaptive contractarian's approach to tax compliance. Most importantly, one must ask if American taxpayers track policy benefits versus costs by altering their attitudes about tax obligations and if these attitudes also track procedural issues. Given the relevance

^{198.} Consider, for example, the problem of controlling deductions for the business use of an automobile. This deduction provides a strong temptation for salesmen to deduct mileage actually used for personal use, a well-known compliance problem. When Congress directed the IRS to promulgate rules limiting this abuse, the IRS enacted cumbersome recordkeeping requirements. The deterrence approach would suggest that these recordkeeping requirements would be relatively effective in controlling abuse. However, many taxpayers felt these requirements were overly intrusive and cumbersome. To the extent that adaptive contractarians respond to such procedural justice issues, overall compliance with this and other tax issues would have also declined, thereby increasing enforcement costs and providing the IRS with incentives to avoid imposing costly bookkeeping requirements on taxpayers.

and observability issues in cognitive processing, one would expect changes in procedural issues to account for much of the variance in obligation, with tax changes taking a close second and policy benefit changes a distant third. Furthermore, one would expect that the contractual constraints on enforcement powers discussed in section II have coevolved with individual's cognitive structures. Although the purpose of these constraints is clear from the contractual perspective, it is less clear how these constraints connect to citizens' assessments of the tax collection system. One must ask to what extent, and through which mechanisms, these constraints directly enhance contingent compliance.

Another important question is raised concerning the rate of adaptation when individuals have adverse experiences. A slow response by taxpayers produces less effective controls over the general government as well as over the tax collector's actions. A rapid response, on the other hand, may leave insufficient time for the elected and oversight institutions to respond. After all, electoral and oversight mechanisms are relatively clumsy and lumbering devices to correct perceived governmental excesses likely to trigger noncompliance—excesses such as an erosion of policy benefits, illadvised tax increases, or unduly aggressive tax collection actions. Cooperative equilibria supported by contingent compliance can be very fragile and difficult to recover once destroyed. A critical question, then, is whether adaptive contractarians can react rapidly enough to control government excesses without bringing about a collapse in the tax system.

2. Contingent Compliance and Other Citizens

As in all other contractual arenas, the critical function of the state's tax enforcement power is to assure adaptive contractarians that other citizens will meet their contractual obligations, assuring the adaptive contractarian that he or she is not foolish in meeting these same obligations. Thus, for the average adaptive contractarian in a society where most people pay their taxes, the state's deterrence power is more important for the assurance it provides about the behavior of others than it is for the fear it inspires in the contractarian.

This relationship between deterrence and duty is perhaps best

reflected in Bowles's observation about compliance with wartime price control regulations. He noted that five percent of regulated businesses would comply regardless of whether or not the agency did anything, because they had a deep sense of obligation. Approximately another ten percent will not comply despite the agency's best enforcement efforts. The remaining businesses will comply only if the agency makes a serious effort to find and punish the ten percent who will not comply.

The adaptive contractarian model suggests that both duty and deterrence determine the equilibrium level of compliance in Figure 2. The higher the resulting equilibrium, the greater the payoff will be from public goods, and hence the greater the likelihood that obligation, rather than fear, will provide the adaptive contractarian's primary motivation. Thus, in societies with high percentages of citizens who pay tax primarily because of duty, deterrence will make up only a small portion of the inhibitors illustrated in Figure 2. Indeed, as suggested by Bowles, the prime focus for deterrence would only be on those taxpayers close to the equilibrium point X.²⁰³ By targeting noncompliers and those near the margin for enforcement, the state can expect considerable returns from modest enforcement expenditures. This not only reduces the cost of collecting taxes, but, perhaps most importantly, reduces the problem of controlling more extensive use of the state's coercive powers. Thus, the apparent underinvestment in audit resources discussed previously is more consistent with the adaptive contractarian model—an optimal investment would need to be calculated based on the marginal increase in assurance rather than in taxes collected by the audits.

In a society of adaptive contractarians, while the assurance function of deterrence considerably reduces the cost of enforcement, it also exacerbates the problem of the unstable compliance levels that result if adaptive contractarians respond too rapidly. In particular, declines in either the cost-benefit calculus or in the perceived

^{199.} Chester Bowles, Promises to Keep: My Years in Public Life, 1941-1969 (1971).

^{200.} Id.

^{201.} Id.

^{202.} Id.

^{203.} Id.

effectiveness of deterrence have a multiplier effect, because resulting reduced compliance levels will induce a secondary reduction in obligation. As compliance declines, government benefits and the duty to obey would also decline, leading to a renewed cycle of declining compliance. If adaptation is sufficiently rapid, the government's legitimacy could completely collapse, leading adaptive contractarians to comply only to the extent that remaining deterrence threats force compliance. Consider, for example, adaptive contractarians who comply only until a trigger condition is reached. Add to this model a democratic government with controls that keep a rough equilibrium between public opinion and elected officials' policies. 204 Such a mismatch between citizens' behavior and institutions would lead to frequent trigger conditions followed by long periods noncompliance.

This problem of sustaining equilibrium in uncertain environments is not well understood. The analytic game theory approach is not very useful. On the one hand, Hardin points out that the logical argument for self-enforcement is untenable, because no "rational" citizen would believe that his or her actions could have any impact on the millions of other taxpayers. It is implausible that one person's cheating will induce enough noncompliance to make cheating unattractive. Perhaps of greater importance for an adaptive contractarian, the effects of one person's cheating is insufficient punishment to convince other taxpayers not to cheat. In short, for the logician, the tax contract cannot create incentives without also having coercive forces. On the other hand, Hardin suggests that what appears implausible for a rational analyst may still be plausible enough to provide the basic belief needed to sustain a cooperative equilibrium.

Evolutionary game theory has some relevant results that illustrate the problem. Bendor noted that in two person games, the rapid vengeance that made the "tit for tat" strategy a winner in Axelrod's prisoners dilemma tournaments became an obstacle in tournaments

^{204.} LINDBLOM, supra note 197.

^{205.} HARDIN, supra note 173.

^{206.} *Id.* (reporting the difficulty Hardin had in getting his well-instructed college students to understand the impossibility of contingent actions).

where players made occasional mistakes.²⁰⁷ By punishing players who accidentally defected, the tit-for-tat strategy imposed more punishment cycles than other, less vengeful strategies.²⁰⁸

Similarly, a citizenry that responds too rapidly to a democratic government's occasional inappropriate responses would spend more time in unproductive punishment cycles, particularly if the punitive response of a small set of disgruntled citizens triggered a cascading sequence of defections in the larger population. A citizenry with slower adaptation might avoid the unproductive punishment cycles, but may lose some control over the state.

Hirschman's analysis of consumer strategies to control product quality illustrates this trade off.²⁰⁹ Hirschman notes that consumers can change corporate behavior when a product's quality falls below expectations either by not buying the product (exit) or by complaining to the corporation (voice).²¹⁰ If all consumers exited immediately, the corporation would not have time to correct the quality problem before it collapsed.²¹¹ On the other hand, if no consumers exited, choosing instead to complain about the product, the corporation has little incentive to correct the problem.²¹² Thus, an efficient error correction mechanism requires a sufficient number of loyal customers who complain but continue to buy products, giving the corporation a sufficient cushion to correct the mistake.²¹³

In the tax arena, the consumer's exit option corresponds to the rapid decline in contingent compliance resulting from failing policies, excessive taxes, and overly stringent enforcement. The consumer's voice option corresponds to complaints filed with the IRS and the court system as well as the constituency services and oversight actions of elected officials. It takes considerable time and effort to change tax and enforcement policies. Finally, a relatively slow

^{207.} John Bendor, *In Good Times and Bad: Reciprocity in an Uncertain World*, 31 AM. J. POL. SCI. 531 (1987).

^{208.} Id.

^{209.} ALBERT O. HIRSCHMAN, EXIT, VOICE, AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATIONS, AND STATES (1970).

^{210.} Id.

^{211.} Id.

^{212.} Id.

^{213.} Id.

adjustment process in an individual's heuristics corresponds to "loyalty," a willingness to give institutions a chance to correct the problems before exiting. Of course, the adaptive contractarian's willingness is not a conscious decision, but is rather the result of the heuristic processes applied to exchanges with institutions. While these processes are undoubtedly quite different for public and private institutions, reflecting the greater concern with the public sector's use of coercive controls, the basic problems of developing workable controls through voice and exit mechanisms and determining the appropriate loyalty level are quite similar for both citizen and consumer sovereignty theories. Given the assumptions of cognitive limitations in the adaptive contractarian perspective, similar cognitive structures and heuristic patterns are likely to govern exit and voice relating to public as well as private institutions.

In sum, the IRS's role in assuring taxpayers that others will pay is more important than the direct deterrence threat in sustaining existing levels of compliance. At the same time, maintaining assurance in dynamic contexts is the least understood aspect of compliance. It is clear that a sense of obligation is directly related to compliance. It is not clear, however, how quickly an individual's sense of obligation responds to positive and negative experiences and information about the government. Nor does a strong theoretical foundation exist for predicting appropriate rates of adaptation for institutional conditions.

VI. DESIGNING A TAX ENFORCEMENT SYSTEM FOR ADAPTIVE CONTRACTARIANS

Our primary argument in the forthcoming book is that the adaptive contractarian perspective provides the best model for explaining tax compliance. In this section, I will consider the implications of this model for enforcement policy, because the policy implications of the adaptive contractarian perspective differ significantly from the implications of the deterrence or the duty models. We (the book's authors) believe that the adaptive contractarian model provides a more practical and comprehensive perspective than duty or deterrence alone and serves as a more intelligent basis for the discussion of several important issues.

A. Balancing Assurance and Procedural Justice

Enforcement policy is considerably more complex for the adaptive contractarian perspective than it is for either the deterrence or the duty perspective. Too little coercion can lead to a failure in assurance, while too much coercion can adversely affect perceptions of procedural justice. The impact coercion has on an a citizen's commitment to meet tax obligations could dramatically reduce compliance, particularly if the amount of coercion exceeds a threshold beyond which cooperation collapses. Thus, optimal enforcement requires a balancing act. In particular, an agency's coercive activities must be carefully targeted toward taxpayer activities that are the most threatening to the cooperative equilibrium and targeted away from inadvertent or sporadic noncompliance by otherwise honest taxpayers.

Consider first the assurance problem, which becomes particularly acute when changes affecting a subpopulation induce noncompliance. Credible commitment to the social contract requires that the government's coercive response be perceived as sufficient to counter a noticeable growth in noncompliance. If other taxpayers can get away with cheating, the adaptive contractarian is unlikely to maintain his or her commitment to obey.²¹⁴

Insufficient coercion against tax evaders may reduce assurance, but excessive coercion can also cause a decline in duty that threatens the stability of compliance. Excess coercion induces the procedural justice problem. Incentive compatibility requires sufficient deterrence

214. For example, consider wage earners who pay directly to the IRS through withholdings. When wage earners perceive that the IRS is doing nothing to stop widely reported cheating by self-employed businessmen, the wage earners are likely themselves to seek unreported sources for extra income or claim questionable deductions.

Levi describes the assurance problem that threatened to undermine the Australian tax system after a Supreme Court decision rendering impossible the enforcement of a business tax. LEVI, *supra* note 1. Amidst widely reported decreases in tax payments, the legislature and tax office were required to undertake bold actions to shore up the tax system. *Id.* The legislature closed the main loopholes the Supreme Court decision caused, while the tax office was reorganized and enforcement activities aimed at those taking advantage of the loopholes were dramatically expanded in order to assure Australian taxpayers that everyone would be required to pay their fair share of taxes. *Id.* The newly invigorated agency increased the deterrence threat to cheaters, but the critical purpose was to restore the assurances necessary to maintain the contingent compliance of the average taxpayer. *Id.*

against evaders, but it also requires safeguards against "coercive confiscation" by the government. As discussed above, maintaining citizens' control over the government's coercive powers is the central problem of democracy. The problem for the adaptive contractarian is to differentiate between an efficient enforcement agency required for assurance and an overly stringent agency that uses excessive force to extract more taxes than are legitimate. As Barzel notes, the difficulty in distinguishing legitimate complaints of harassment from protests by detected evaders exacerbates the problem.²¹⁵

The previous discussion argued that procedural justice was the most critical aspect of the institutional behavior that adaptive contractarians monitor, so it is not surprising to find procedural justice is a major issue for the IRS. When an agency uses extremely coercive tactics on the wrong population, it risks alienating adaptive contractarians concerned with limiting government excesses. Given the inherent difficulty in identifying tax cheats before the audit, the procedures used during the audit become very important in determining the impact on taxpayer attitudes. Professional treatment that respects a taxpayer's rights allows a taxpayer to present evidence, and explains the reasons for audit decisions that lead to positive evaluations, even when audit outcomes were adverse to the taxpayer.

While individual impacts may be limited to the affected taxpayers and their social network, widespread media reports of abusive treatment may be a greater threat to the cooperative equilibrium. The IRS has the power to seize an individual's assets and even to collect the individual's wages, which is necessary to collect from clever tax evaders. Agency supervisors live in constant fear that one of their more aggressive agents will abuse these powers. Newspapers seek headlines about IRS employees abusing their power. Political parties want to be champions for the taxpayer who is treated unfairly by the IRS. The Republican-sponsored hearings on taxpayer abuse in 1998, for example, led to extensive changes in the orientation of the IRS.

Although procedural justice reforms need not always lead to

^{215.} BARZEL, supra note 13.

^{216.} For example, when honest taxpayers are subjected to audits that treat them as if they were criminals, attitudes toward the agency are adversely affected.

^{217.} See supra note 92.

diminished enforcement efficiency, public attention at a given moment has a tendency to focus more on one than the other, and collection agencies respond by gravitating toward one extreme or the other. For example, the IRS Restructuring and Reform Act of 1998 led to a substantial shift in emphasis toward procedural justice.²¹⁸ Within a few years, the General Accounting Office reported that improvements in procedural justice resulted in falling collection and audit rates, and worried that deterrence was falling to excessively low levels ²¹⁹

The seemingly suboptimal investment in deterrence provides perhaps the strongest indicator that the American political system is more concerned with procedural justice than with assurance. The President and Congress consistently refuse requests to increase the IRS enforcement budget to the optimal deterrence point, even when every additional dollar was expected to increase collections by at least twelve dollars. Procedural justice problems inevitably accompany an increase in enforcement actions and adverse responses would presumably change the taxpayers' sense of duty as much as it changes the voters' electoral preferences.

In sum, assurance and procedural justice reflect the contingent response of taxpayers. Insufficient coercion can lead to assurance problems for adaptive contractarians, while excessive coercion can lead to procedural justice problems. Maintaining a high compliance equilibrium among adaptive contractarians requires a delicate balance between these extremes. More importantly, it requires careful targeting of enforcement actions on suspected evaders to maximize deterrence while minimizing intrusive monitoring of compliant taxpayers. At present, our theoretical tools and empirical analyses can only warn us of the kinds of conditions that might induce failure. A more detailed understanding of the adaptive processes of both citizens and state tax institutions is critical not only for our understanding of democratic governance, but also for maintaining the current tax system and the democratic government it supports.

^{218.} IRS Restructuring and Reform Act of 1998, Pub. L. No. 105-206, 112 Stat. 685 (codified as amended at 26 U.S.C. \S 8022 (2002)).

^{219.} GAO 2002, supra note 95.

^{220.} See Scholz, supra note 75.

B. Interpreting the Contract: Enforcement, Ambiguity, and the Underground Economy

For the adaptive contractarian, enforcement has less to do with deterrence and more to do with the interpretation of the implicit tax contract. The U.S. Tax Code allows taxpayers to minimize their taxes through all legal means and assumes that professional tax preparers represent the taxpayers' rather than the state's, interests when conflicts arise. This appears to be a reasonable method of encouraging the adaptive contractarian to remain satisfied with the system, and, hence, to comply with his or her obligations.

However, aggressive tax avoidance can threaten the assurance that others are meeting their respective tax obligations. The dynamic nature of economic relations, combined with the opportunism of individuals wishing to make the best of a given contractual relationship, ensures that aggressive tax evaders and tax preparers will continuously seek loopholes to avoid tax obligations. This could undermine the intended impact of the tax code. In most instances, it is only through the enforcement process that the IRS discovers and corrects self-serving interpretations. Thus, as noted in the discussion of the hierarchical contract, it is in the taxpayers' long-term interest to grant the state the ultimate authority to monitor and interpret the contract. Enforcement maintains the boundary between creative, opportunistic accounting and illegal, underground activities.

Enforcement officials inevitably confront ambiguities as they apply statutes to the complex realities of dynamic economic relationships. The IRS's prosecutorial decisions redefine the terms of the taxpayer contract by determining how statutory rules will be applied in new circumstances.²²¹ To effectively reinterpret the

221. Robert Kagan describes the review process through which frontline officials enforcing the Nixon administration price freeze referred problematic cases to higher levels when they involved new and potentially controversial interpretations. ROBERT A. KAGAN, REGULATORY JUSTICE: IMPLEMENTING A WAGE-PRICE FREEZE 33 (1978). The agency then confronted the assurance versus procedural justice issue when devising an interpretation that could be understood by taxpayers observable to enforcement officials, and capable of withstanding a statutory challenge for consistency with the authorizing statutes. *Id.* at 36-37.

contract, legitimacy and efficiency are equally important considerations for meeting adaptive contractarians' expectations in order to maintain high compliance levels.

C. Maintaining Fairness: Complexity Versus Simplicity of the Tax Code

An efficient tax code would presumably minimize the combined costs of compliance and enforcement by simplifying the code and taxing only the most apparent assets and capital. Yet, critics of the income tax system are quick to point out the complexity of the American income tax code and the burden it places on taxpayers and tax collectors. The blame for this inefficient, complex tax code is frequently directed at a political system designed to give away tax favors to special interest groups in return for electoral support. 2222

The adaptive contractarian perspective does not necessarily challenge either this excessive complexity or dubious political motivation, but suggests that the process that generates complexity also sustains the legitimacy needed to maintain a high compliance equilibrium. As noted in the Barzel discussion in section II, the electoral system functions concurrently with contingent compliance to provide controls over the state's coercive powers. To the extent that laws promulgated by an elected government adapt to changing circumstances in a manner consistent with the legitimacy of the tax code, compliance can be maintained by less coercive force, expanding the government's ability to facilitate wealth-enhancing exchanges. The critical question, then, is whether electoral incentives that provide tax benefits are reasonably synchronized with perceptions of legitimacy, resulting in adaptive changes in the tax code that generally maintain legitimacy, and hence compliance by adaptive contractarians.

The argument supporting this perspective notes that tax favors for special groups must be justified by policy purposes valid at the time of passage. They therefore allow adjustments in the basic tax contract that reflect mitigating circumstances and justify some form of tax

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^{222.} See John F. Witte, The Politics and Development Of the Federal Income Tax (1985).

relief. The piecemeal changes in tax liability that result eventually lead to considerable inequality in tax obligations and limitations to revenue collection, triggering a reform cycle to reduce this unjustified special treatment.²²³ This reform cycle could give the tax code an adaptive capability that crudely matches changing perceptions of ongoing social and economic changes.

The tax literature analyzes three types of equity comparisons that could affect taxpayers' sense of obligation to pay taxes. Exchange equity compares the utility of government benefits with the utility the individual could have obtained if taxes paid to the government were spent on private consumption. The adaptive contractarian model suggests the possibility that a greater exchange equity induces a greater sense of obligation to pay.

The other two types compare the equity of the tax contract to other taxpayers rather than to the government. Horizontal equity compares costs and benefits to other comparable groups in the population, while vertical equity focuses specifically on the relative cost and benefits for taxpayers of different income levels. All three comparisons are potentially relevant to an adaptive contractarian and may provide separate categories through which taxpayers monitor the contractual arrangement.

VII. CONCLUSION

The adaptive contractarian perspective suggests that cognitive structures and heuristic patterns developed for a broad array of exchange relationships provide the most comprehensive basis for jointly analyzing both compliance and enforcement. Applying this evolution-based model to the collective action analysis provides a

^{223.} The Tax Reform Act of 1986, for example, was generally portrayed as a victory for reformers over special interest groups because it revoked over 50 special tax privileges. See JEFFREY H. BIRNBAUM & ALAN S. MURRAY, SHOWDOWN AT GUCCI GULCH: LAWMAKERS, LOBBYISTS, AND THE UNLIKELY TRIUMPH OF TAX REFORM (1988). By repealing special privileges and therefore broadening the base, tax rates could be lowered without losing revenues. Although lower tax rates were a critical component for political success, legislators feared that the existence of so many special exemptions undermined the legitimacy of the tax system. Id. In particular, a rapidly growing number of taxpayers aggressively utilized the code's complexity to claim tax loopholes and evade their obligations. By repealing most special exemptions, aggressive tax avoidance was dramatically reduced. Id.

theoretical perspective capable of integrating the deterrence and duty approaches most commonly used to understand and analyze tax compliance. When placed in a contractual perspective that emphasizes both the efficiency of state enforcement and the need to control the state's coercive powers, the adaptive contractarian perspective provides a comprehensive view of the tax system.

The broader theme of the forthcoming book is to clarify the relationship between cooperation and centralized coercion in resolving collective action problems. Coercion plays an essential role in expanding cooperative solutions to collective action beyond small homogeneous group settings. However, we have only a primitive understanding of how judicial institutions, electoral mechanisms, and contingent strategies combine to control concentrated enforcement powers while expanding the scope of the exchanges that they enforce. The joint evolution of adaptive citizenship strategies and the institutions to which they respond creates a delicate balance of cooperation. It is unknown how stable this underlying equilibrium is or how well legislative and oversight institutions respond to opportunities to expand cooperation. It is also unknown how well citizens' evaluation and updating processes provide incentive compatible mechanisms aligning the interests of coercive institutions and a diversity of citizens. Finally, the issue of how effectively the cognitive and heuristic mechanism behind contingent compliance provides additional controls to fortify the relatively clumsy and slowmoving electoral system is unclear. We hope our forthcoming book will place these issues squarely on the policy and political science research agenda.