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STRUCTURAL LAWS AND THE PUZZLE OF REGULATING BEHAVIOR

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When faced with undesirable behavior, legislatures almost invariably turn to the criminal law to regulate. Concerned that people talk on cell phones while driving? Pass a law making it illegal.[1] Concerned that increasing numbers of sleep-deprived drivers are falling asleep at the wheel? Make accidents caused by sleep-deprived drivers subject to enhanced penalties.[2] Concerned about music piracy and other copyright violations? Expand the copyright infringement statute's scope and increase the punishments.[3]

In an ideal world, of course, statutory prohibitions are a perfectly reasonable tool for regulating conduct: The legislature issues a command prohibiting the undesired conduct, and if these commands are violated, the state pursues, prosecutes, and punishes the offender. Other citizens are subsequently deterred, and the legislature succeeds in addressing the problem.

The problem is that in the real world, statutory prohibitions alone are often ineffective at regulating behavior, especially when the behavior is common among average, otherwise law-abiding citizens. When legislated offenses involve no moral stigma and lack supporting social norms, the number of violators is likely to be unmanageable for already overwhelmed police departments and district attorney offices. Enforcement is further complicated by the sporadic and victimless nature of many of these offenses, making them extremely difficult to detect.[4]

Worse yet, the consequences of the blasé attitude toward criminalizing conduct extend beyond the obvious low compliance rates. The excessive use of criminalization leads to broad and labyrinthine criminal codes that threaten the rule of law.[5] It enables (perhaps even forces) authorities to engage in arbitrary and discriminatory enforcement, and the consistent and

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[1] *E.g.*, N.Y. VEH. & TRAF. LAW § 1225-c(2) (Gould 2005) (prohibiting cell phone use by motor vehicle operators).

[2] *See* John Valenti, *Better Get Some Shut-Eye—Just Not Behind the Wheel*, NEWSDAY (New York, N.Y.), Jan. 23, 2005, at A28 (describing New Jersey's "Maggie's Law" which increases penalties for deaths caused by sleep-deprived drivers).

[3] *See infra* Part V.A.1.

[4] Robert A. Kagan, *On the Visibility of Income Tax Violations*, *in* 2 TAXPAYER COMPLIANCE: SOCIAL SCIENCE PERSPECTIVES 76, 76–78 (Jeffrey A. Roth & John T. Scholz eds., 1989) (defining "low-visibility" offenses, which are hard to detect because of their episodic nature and the lack of a definitive victim).

[5] *See* Stephen Williams, *The More Law, the Less Rule of Law*, 2 GREEN BAG 2D 403, 405 (1999) ("[I]n many contexts, proliferation of rules means proliferation of lawlessness; the rules may be too numerous and complex for normal people to master.").

casual lawbreaking by ordinary citizens promotes an unhealthy disrespect for the law.

One might think that overcriminalization is unavoidable. For fifty years, academics have complained vociferously about overcriminalization, so much so that finding trivial crimes has become akin to an academic sport.[6] After all, in a resource-constrained world, legislatures have little choice but to enact prohibitions that will ultimately be underenforced if they want to regulate behavior at all.

In this Article, I argue that this alarming state of affairs is far from inevitable. While regulating by statutory commands alone—what I term "fiat"—may be the easiest and most obvious method of regulating behavior, it is not the only option. In many cases, legislatures have an alternative, indirect method of regulation that I term "structure." Structural laws establish mechanisms or procedures that push citizens toward compliance by making the undesirable behavior less profitable or more troublesome. They far more effectively regulate large populations, promote the development of social norms, and confine the need for enforcement to a much smaller subset of determined lawbreakers.

Structural laws are not new, and indeed they have been used successfully in a number of past instances. The problem is that legislatures typically overlook structure, and even when they do not, they apply structural solutions on an ad hoc basis without any underlying theory. By developing a conceptual framework for understanding the advantages and limitations of structural laws, we can think more systematically about the use of fiat and structure. More broadly, we can also better understand why legislatures currently decline clearly superior structural solutions even when presented with the option.

Part I develops a basic theoretical framework for distinguishing the two types of regulation and explores their respective strengths and weaknesses. Part I also discusses the intellectual foundations of structural regulation in the Situational Crime Prevention movement in modern criminology and the concern about "code" in the cyberlaw literature.

Part II tackles the puzzling question why legislatures persist in relying almost exclusively on fiat-based measures despite the availability of more effective structural ones. Here, a closer examination reveals a broad spectrum of concerns. For example, at the simplest level, legislatures may be predisposed to fiat-based solutions because they are easy to enact or appear deceptively simple to implement. On a philosophical level, because struc-

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[6] *See, e.g.*, William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 507 (2001) (noting that "criminal law's breadth is old news" and "has long been a source of academic complaint"); *see also id.* at 515–16 (discussing prohibitions on selling untested sparklers, causing dogs to fight, and exhibiting deformed animals); Sanford H. Kadish, *The Crisis of Overcriminalization*, 7 AM. CRIM. L.Q. 17, 18 (1968) (citing, inter alia, a statute punishing teachers for failing "to carry first-aid kits on field trips").

ture often regulates invisibly without the knowledge of the governed, structure may seem incompatible with popular notions of free will or, worse yet, raise the specter of totalitarianism. On a political level, fiat solutions and their accompanying underenforcement may be a legislative compromise built to placate conflicting interest groups.

To better illustrate the theoretical arguments advanced in the first two Parts, Parts III through V discuss the operation of fiat and structure in three concrete examples. Part III demonstrates the success of structural mechanisms, such as income withholding and information reporting in the tax evasion context. IRS studies consistently show that compliance rates in income areas that are subject to structural mechanisms (wages, interest, and dividends) vastly exceed rates in income areas that are not. Part III also offers some insights on how and why structure triumphed in this area.

In contrast, Part IV offers an example of the more common instance in which legislatures have failed to implement structural solutions. In the context of highway speeding, the near-exclusive reliance on speed limits and sporadic police enforcement has resulted in low compliance rates, arbitrary and discriminatory enforcement, and a "sporting chance" attitude among drivers. Part IV also explores how structure could change the speeding landscape, but why that is unlikely to occur.

Part V turns to an ongoing debate, music piracy, as a promising new opportunity to consider structural solutions. Thus far, much of the congressional response to the problem of music downloading has been primarily fiat based. Over the past decade, Congress has expanded criminal statutes and increased penalties to discourage music piracy online. The recent spate of civil litigation by the Recording Industry Artists Association ("RIAA") has further followed the traditional fiat mode of thinking, focusing on selective punishment and deterrence. Part V argues, however, that seeds for a structural regime in this context exist, and that perhaps an increased use of copy protection and trusted systems may have public benefits not previously considered.

The Article concludes with some broader questions about the desirability and the future of structural regulation.

I. TWO METHODS OF REGULATION

This Part develops a basic framework for analyzing the relationships between fiat and structure. It looks at and contrasts their attributes, explores their individual strengths and limitations, and reviews their intellectual roots. In the end, we will see that neither method of regulation is usually sufficient acting alone. The effective use of fiat requires accompanying structural laws that influence default behavior and confine violations to a small, determined subset of offenders. At the same time, structure relies on statutory prohibitions to punish the incorrigible few, whether for deterrence, incapacitation, or strictly retributive purposes.

A. Fiat and Its Problems

Fiat is the most common and direct method of regulating behavior, and it forms the basis of all modern discussions about criminal law. Legislatures announce specific prohibitions or standards of conduct, and then these mandates are enforced by police and prosecutors, or in some cases through private tort litigation.[7] The difficulty with fiat is that it relies principally on deterrence, and deterrence is tricky to achieve, particularly when there are large numbers of violators. Basic law and economics suggests that legislatures can increase deterrence by either raising the probability of enforcement or toughening sanctions.[8] Unfortunately, often neither is sensible in dealing with relatively minor offenses.

Understaffed police forces can ill afford to reallocate resources to enforcing low-level offenses, so "[m]any misdemeanors are simply ignored."[9] Even if new resources were made available to police, those resources would be more efficiently used investigating violent felonies than catching music downloaders. In addition, achieving enforcement levels necessary for effective deterrence may require unacceptably oppressive methods. Having thousands of traffic officers monitoring the streets (or the Internet) for illegal activity—essentially, the imposition of constant surveillance—conjures images of a police state.[10]

Increasing penalties is also unlikely to improve deterrence. Small changes in penalties are easily overlooked and unlikely to affect behavior.[11] At the same time, imposing large, draconian fines or sentences for minor

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[7] *See, e.g.*, Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661, 662 (1998) (describing traditional law as involving ex post sanctions); Louis Michael Seidman, *Points of Intersection: Discontinuities at the Junction of Criminal Law and the Regulatory State*, 7 J. CONTEMP. LEGAL ISSUES 97, 105–06 (1996) (dividing criminal sanctions into those which are formal and ex post, and those which are regulatory and ex ante).

[8] *See generally* Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

[9] JON BRIGHT, CRIME PREVENTION IN AMERICA: A BRITISH PERSPECTIVE 9 (1992) (noting that law enforcement is "absolutely overwhelmed by the amount of crime they are required to process"). Low enforcement levels unfortunately may create a vicious cycle. *See* Raaj K. Sah, *Social Osmosis and Patterns of Crime*, 99 J. POL. ECON. 1272, 1275 (1991) (noting that higher crime rates mean that fewer resources exist for enforcement, resulting in a decrease in enforcement rates, which in turn encourages more crime).

[10] *See* John T. Scholz, *Compliance Research and the Political Context of Tax Administration*, *in* 2 TAXPAYER COMPLIANCE: SOCIAL SCIENCE PERSPECTIVES, *supra* note 4, at 12, 26 (recognizing that Americans paradoxically want to live by the rule of law but do not want a lot of policing); *see also* Scholz, *supra*, at 12 (recognizing constraints on the ability of democratic government to control behavior); Stuntz, *supra* note 6, at 511 (suggesting that the solution of requiring all crimes be prosecuted "is as impossible as it is familiar").

[11] *See* Paul H. Robinson & John M. Darley, *Does Criminal Law Deter?: A Behavioral Science Investigation*, 24 OXFORD J. LEGAL STUD. 173 (2004) (reporting an empirical study that demonstrated little citizen awareness of the "law on the books"). In the Robinson and Darley study, respondents were asked about their knowledge of various legal rules, such as the duty to report a crime, etc. Interestingly, the distribution of responses was unaffected by the actual rule in the respondents' home state. *Id.*

regulatory violations insults common intuitions of desert. Disproportionate penalties provoke community outrage[12] and ultimately may cause even greater underenforcement as police and prosecutors feel increasingly conflicted about the law's advisability.[13] Inflicting heavy penalties on an unlucky few as a tool to maintain general deterrence seems arbitrary and is arguably "undemocratic."

Furthermore, studies suggest that "[c]ertainty of detection is far more important than severity of punishment."[14] Deterrence falls off rapidly (and nonlinearly) with lower probabilities of enforcement,[15] and higher penalties are unable to counteract these losses.[16] Various theories may explain this phenomenon: Widespread noncompliance may reduce the social stigma associated with violations or lead observers to overestimate their chances of evading detection.[17] Alternatively, because people tend to assess risks heuristically, low detection probabilities may swamp risk calculations.[18]

The costs of ineffective fiat-based regimes do not end with low compliance rates. Underenforced laws create what might be (adventurously) called "vagueness in practice." While they are not doctrinally or textually

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[12] *See, e.g.*, Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 NW. U. L. REV. 453, 463 (1997).

[13] For example, Dan Kahan has noted the problem of "sticky norms." Dan M. Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. CHI. L. REV. 607, 608 (2000). When the law conflicts with social norms, imposing severe punishments may be counterproductive. If penalties are weak, governmental actors, though they may disagree with the substantive law, will still be likely to apply it due to professionalism and "rule of law" norms. However, if penalties are severe, individual feelings may override those institutional norms. *Id.*

[14] Becker, *supra* note 8, at 176 n.12 (quoting Lord Shawness); *see id.* at 178–79 (reporting that increases in enforcement levels have a greater deterrent effect than increases in penalties); Dan M. Kahan, *Social Influence, Social Meaning, and Deterrence*, 83 VA. L. REV. 349, 380 & n.112 (1997) (citing empirical studies showing that "certainty of conviction plays a much bigger role in discouraging all manner of crime than does severity of punishment").

[15] *See* Robinson & Darley, *supra* note 11, at 183 (discussing empirical research showing that although a fifty percent probability of punishment has some deterrent effect, at ten percent, almost no compliance is seen (citing Nathan Azran et al., *Fixed Ratio Punishment*, 35 J. EXPERIMENTAL ANALYSIS BEHAV. 55 (1981))).

[16] *See generally* Anthony N. Doob & Cheryl Marie Webster, *Sentence Severity and Crime: Accepting the Null Hypothesis*, 30 CRIME & JUST. 143 (2003) (surveying the vast empirical literature on deterrence and concluding that sentence severity has no effect on crime levels).

[17] Kahan, *supra* note 14, at 356–57 (noting that widespread flouting signals a low detection probability and reduces social stigma). Paradoxically, studies have shown that when the IRS announces efforts to increase enforcement activities, tax evasion actually increases because taxpayers interpret the announcement as a signal that others are flouting the law. *Id.*

[18] For instance, behavior studies report that "many people appear to believe that risk is an 'all or nothing' matter; something is either safe or dangerous, and there is no middle ground." Cass R. Sunstein, *The Laws of Fear*, 115 HARV. L. REV. 1119, 1128–29 & n.36 (2002) (reviewing PAUL SLOVIC, THE PERCEPTION OF RISK (2000)) (citing Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, *in* CHOICES, VALUES, AND FRAMES 17, 20 (Daniel Kahneman & Amos Tversky eds., 2000)).

vague,[19] underenforced laws *functionally* raise the same concerns.[20] Citizens receive little or no notice as to what constitutes unlawful (as in "sanctionable") conduct,[21] and perhaps more critically, the underenforced laws create a substantial risk of arbitrary and discriminatory enforcement.[22] Since large segments of the population are in violation of the law at any given time, police officers and prosecutors are empowered with vast discretion on whom to punish.[23]

Low compliance rates can also harm the moral authority of the law.[24] Glaring inconsistencies between the law and everyday behavior create an impression that "breaking the law is okay as long as you don't get caught," eroding civic norms of obedience that encourage compliance even in the absence of enforcement.[25] As the discussion about speeding in Part IV illustrates, this attitude may ultimately degrade into a "sporting chance" view of enforcement. Under this outlook, the police are routinely denied the luxury of simple and straightforward enforcement, and citizens come to feel entitled to an ability to escape detection.[26]

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[19] Kolender v. Lawson, 461 U.S. 352, 357–58 (1983) (setting forth vagueness standard); *see also* Margaret Raymond, *Penumbral Crimes*, 39 AM. CRIM. L. REV. 1395, 1428 & n.140 (2002) (noting that underenforcement does not violate the constitutional requirement of notice, which focuses on whether the law exists, not whether it is regularly enforced).

[20] The Supreme Court has never struck down a law for underenforcement or "vagueness in practice." Whren v. United States, 517 U.S. 806, 818–19 (1996).

[21] *See* Stuntz, *supra* note 6, at 519, 521–22 (observing that when police "filter" sanctionable from unsanctionable behavior, there is no record of exactly what conduct is sanctionable).

[22] *See* Shuttlesworth v. City of Birmingham, 382 U.S. 87, 90 (1965) (striking down loitering statute that could be enforced "at the whim of any police officer").

[23] *Kolender*, 461 U.S. at 358 (requiring "minimal guidelines to govern law enforcement"); Grayned v. City of Rockford, 408 U.S. 104, 108–09 (1972) (noting that in passing a vague statute, the legislature essentially delegates basic policymaking authority to actors in the criminal justice system: the police, prosecutors, judges, and juries).

[24] *See* Francis A. Allen, *The Morality of Means: Three Problems in Criminal Sanctions*, 42 U. PITT. L. REV. 737, 746–47 (1981) (decrying the use of criminal prohibitions for mere deterrence purposes because it compromises the "moral authority of the state").

[25] *See* Kadish, *supra* note 6, at 20 (arguing that "the spectacle of nullification of the legislature's solemn commands is an unhealthy influence").

[26] The idea of giving someone a "sporting chance" is a rather anomalous way to approach the criminal law, particularly because it derives from historical "sports" such as fox hunting, and archaic institutions such as dueling. *See generally* JOHN LYDE WILSON, THE CODE OF HONOR, OR, RULES FOR THE GOVERNMENT OF PRINCIPALS AND SECONDS IN DUELLING 21 (Charleston, S.C., J. Phinney 1858) (establishing rules for dueling); James Howe, *Fox Hunting as Ritual*, 8 AM. ETHNOLOGIST 278, 282–83 (1981) (describing fox hunting). To be sure, legal discussions have occasionally referenced the "sporting chance" model in describing trial procedure or evidence, but almost uniformly in a negative light. *See* 5 JEREMY BENTHAM, RATIONALE OF JUDICIAL EVIDENCE (1827), *reprinted in* 7 THE WORKS OF JEREMY BENTHAM 454 (John Bowring ed., Thoemmes Press 1995) (1843) (discussing the "fox-hunter's reason" for excluding self-incriminating testimony, but noting that while fair play may help foster zeal among lawyers with a penchant for gamesmanship, this reason should not "be let out without disguise").

B. Structure

Structural laws often offer a more effective alternative for influencing everyday behavior than statutory prohibitions. Unlike fiat, structure does not regulate undesired behavior directly through ex post penalties. Rather, it regulates indirectly and ex ante by subtly shaping the physical, social, or other arrangements that enable the behavior to occur in the first place. Its philosophy is more preventive than reactive.[27] Its focus is more on minimizing the opportunities available for committing violations than on deterring individual offenders.

The conceptual difference between fiat and structure is best illustrated by a simple example. Imagine for a moment that instead of steel boxes, the post office used open wicker baskets for outgoing mail, and that nosy neighbors regularly stole, opened, and read the mail of others. How could a legislature address the problem? Fiat would rely on increasing penalties or greater enforcement—after all, stealing mail is a federal crime.[28] Unfortunately, with so many violators and mailboxes to protect, the police would be immediately overwhelmed. Enforcement would degrade into an occasional police officer watching a few "mailbox-traps" in the hope of catching lawbreakers red handed. To compensate for low enforcement rates, legislatures might ramp up penalties, severely punishing any mail-reader unlucky enough to be caught.

A more reflective legislature could instead mandate precisely what we have today. As everyone knows, we have neither wicker basket mailboxes, nor "mailbox-traps." Instead, mail is deposited in big, blue, steel boxes with hinged openings that virtually preclude tampering or theft. Few people, if any, even bother attempting to circumvent the mailboxes. It is simply not worth their while.

1. Theoretical Foundations.—The concept of structure shares a deep kinship with and builds upon two bodies of recent academic work that focus on indirect methods of regulation: the Situational Crime Prevention movement in modern criminology, and the idea of "code" or architecture from the cyberspace context.

Situational Crime Prevention ("SCP") arose out of a growing realization in the 1970s and 1980s that changes in policing and punishment were failing to reduce crime levels.[29] The fresh approach advocated by Ronald Clarke and other criminologists in the British Home Office[30] was to focus

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[27] *See* BRIGHT, *supra* note 9, at 10 (describing most policing as still "reactive rather than preventive").

[28] *See* 18 U.S.C. § 1708 (2000) ("Whoever steals . . . from or out of any . . . mail receptacle . . . any letter, postal card, package, bag, or mail . . . [s]hall be fined under this title or imprisoned not more than five years, or both.").

[29] Ronald V. Clarke, *Situational Crime Prevention*, 19 CRIME & JUST. 91, 94 (1995).

[30] Paul Ekblom, *Less Crime, by Design*, ANNALS AM. ACAD. POL. & SOC. SCI., May 1995, at 114, 115.

on criminal opportunities and the ways in which they could be designed away.[31] The basic principle of SCP is thus that "opportunity makes the thief,"[32] and its proponents seek to discourage crime through architectural design, a greater involvement of citizens and nongovernmental actors, and other similar mechanisms.[33] Its various techniques can roughly be broken down into "increasing the effort," "increasing the risks," and "reducing the reward."[34] So, for example, SCP followers have suggested that building architecture can reduce crime by increasing monitoring by residents,[35] and they have studied how the use of tokens on New York City buses decreased robbery rates by reducing the cash carried by drivers.[36]

The other important body of related work comes from Larry Lessig, Joel Reidenberg, and others in the cyberlaw area. Their insight is that "code," the software architecture of cyberspace, is an important regulator of online behavior.[37] Lessig ominously warns that unreflective design choices in Internet architecture (or worse, unchecked, government-mandated choices)[38] could boost the government's ability to regulate behavior, leading to a culture of control.[39] Reidenberg, in contrast, offers a more optimistic view, believing that careful software selection and design will address some of the legal enforcement problems caused by the global and dispersed na-

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[31] Clarke, *supra* note 29, at 94. *See generally* David Garland, *Ideas, Institutions, and Situational Crime Prevention*, *in* ETHICAL AND SOCIAL PERSPECTIVES ON SITUATIONAL CRIME PREVENTION 1, 2–7 (Andrew Von Hirsch et al. eds., 2000) (reporting the interesting history of the SCP movement and its historical origins, some of which go back centuries).

[32] René Sève, *Philosophical Justifications of Situational Crime Prevention*, *in* RATIONAL CHOICE AND SITUATIONAL CRIME PREVENTION 189, 189 (Graeme Newman et al. eds., 1997).

[33] SCP does recognize that government can encourage or mandate the adoption of these opportunity-focused techniques. *E.g.*, Gloria Laycock & Nick Tilley, *Implementing Crime Prevention*, 19 CRIME & JUST. 535, 541–42 (1995) (noting the ways that government can implement SCP though legislation, design competitions, and publicity). However, its emphasis is generally more focused on understanding and developing effective methods of preventing crime.

[34] Clarke, *supra* note 29, at 109 tbl.1; *see also id.* at 107–22 (discussing twelve specific SCP techniques within the three categories and providing a summary of empirical research on the effectiveness of the techniques).

[35] Ronald V. Clarke, *Situational Crime Prevention: Its Theoretical Basis and Practical Scope*, 4 CRIME & JUST. 225, 233–41 (1983).

[36] *Id.* at 243.

[37] LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 6 (1999) (introducing architecture as a regulator of cyberspace); Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 TEX. L. REV. 553, 554 (1998) ("Technological capabilities and system design choices impose rules on participants.").

[38] LESSIG, *supra* note 37, at 52–53 (expressing dismay over companies embedding the ability for government actors to access encrypted files); *id.* at 44–45 (discussing a statute requiring that digital telephone networks have wiretapping capabilities for government actors).

[39] *See id.* at 43–44.

ture of cyberspace.[40] More recently, this concept of architecture as a regulator has been extended by scholars to urban planning[41] and identity theft.[42]

2. *Two Types of Structure.*—To be more analytically precise, there are actually two types of structure, though often (as in the mailbox example) a particular law can embody both simultaneously. The first type, which can be conveniently labeled as "Type I Structure," creates a process that facilitates *enforcement.* So with the mailbox, the fact that a would-be mail thief must now spend additional time picking the mailbox lock or carry conspicuous welding equipment to cut the steel makes the thief more vulnerable to detection. Ultimately, however, the chief enforcer is the underlying fiat-based law. Other familiar Type I approaches include encouraging the greater use of surveillance cameras, electronic theft alarms, and so forth. They all make detection and prosecution easier to accomplish.

Type II structural laws are different and arguably truer to the basic philosophy of structure. Their focus is not on facilitating detection, but preventing the undesirable activity in the first place by making it more difficult or troublesome to achieve. So in the mailbox hypothetical, the steel container makes casual mail theft nearly impossible. Few people have the know-how or acquire the equipment necessary to circumvent the container. Type II structure is essentially self-executing; no background system of policing or prosecution is required.

One may fairly object that the distinction between Type I and Type II is a false dichotomy, and that really they are poles on a continuum. Nevertheless, the important point is that some structural laws facilitate and rely upon underlying fiat-type prohibitions, whereas others are more self-executing. Viewed from a would-be defendant's perspective, there is a difference between being able to do something but knowing that you will likely get caught (Type I), and not being able to do it at all (Type II). Dividing the concept of structure into these two types may seem to be splitting hairs at the moment, but the distinction will become more important as the discussion moves on. For example, excessive use of surveillance (Type I) typically raises civil liberties concerns, whereas the use of Type II structural laws may not.[43]

3. *The Advantages of Structure.*—Because structure—particularly Type II structure—is largely self-executing, it minimizes many of the prob-

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[40] Reidenberg, *supra* note 37, at 580–81.

[41] Neal Kumar Katyal, *Architecture as Crime Control*, 111 YALE L.J. 1039, 1042 (2002) (seeking to "reverse-engineer cyberlaw's insights" and to apply the lessons about architecture to actual building architecture).

[42] *See generally* Daniel J. Solove, *Identity Theft, Privacy, and the Architecture of Vulnerability*, 54 HASTINGS L.J. 1227 (2003) (looking at how current information architectures threaten privacy and facilitate identity theft).

[43] *See infra* Part II.C.3.

lems that plague fiat regimes. Structure tends to produce higher compliance rates, because its regulatory power is immediate and uniformly imposed on most members of the population without the need for further police intervention. The average person, who has neither the time nor the patience for circumventing the structural components, defaults to the desired course of conduct.[44] In addition, because it is far less discretionary in its application, structure reduces the problem of arbitrary and discriminatory enforcement.

Higher compliance rates lead to a virtuous cycle. Over time, the structurally preferred default behaviors give rise to accompanying social norms, further enforcing the desired conduct.[45] As many recent commentators have noted, social intuitions and established practices play a critical role in regulating everyday behavior,[46] in large part because "standing rules" are very efficient for making everyday decisions.[47] Structure takes advantage of the natural inclination to follow routines and the tendency for social norms and institutions to form around them.[48]

In addition to achieving high compliance rates, the combination of structural mechanisms and accompanying social norms confines violations to a small group of determined offenders.[49] This cabining enables fiat-based methods to operate more effectively. With fewer violators to address, police can achieve higher enforcement rates and greater deterrence without prohibitive enforcement costs or oppressive police practices. In addition, the remaining group of offenders will experience greater social stigmatization.[50]

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[44] *See, e.g.*, LESSIG, *supra* note 37, at 106 (contending that consumers are unlikely to tinker with restrictive mechanisms, such as the V-Chip on the television, once they are put in place).

[45] *See id.* at 57 (describing the "principle of bovinity"—that small controls, if enforced consistently, will affect underlying social behavior patterns); *see also* David J. Smith, *Changing Situations and Changing People*, *in* ETHICAL AND SOCIAL PERSPECTIVES ON SITUATIONAL CRIME PREVENTION, *supra* note 31, at 147, 148 (suggesting that situational crime prevention methods might not only change "immediate opportunities for crime, but also . . . change longer-lasting propensities to conform or deviate").

[46] Kahan, *supra* note 14, at 352 & n.8 (1997) (citing the psychology literature in arguing that "individuals tend to conform their conduct to that of other individuals"). *See generally* ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991) (discussing the norms used by cattle ranchers to resolve disputes); Harold G. Grasmick & Donald E. Green, *Legal Punishment, Social Disapproval and Internalization as Inhibitors of Illegal Behavior*, 71 J. CRIM. L. & CRIMINOLOGY 325, 327–29 (1980) (discussing the three most important "inhibitory variables—internalization of norms, threat of social disapproval, and threat of legal punishment").

[47] Clarke, *supra* note 35, at 231 (discussing how people adopt "rules of thumb").

[48] Structure thereby creates more than just an extra "price" on disfavored conduct, as a traditional law and economics analysis would suggest. *Cf.* Ekblom, *supra* note 30, at 119 (explaining situational crime prevention techniques in economic risk-reward terms).

[49] Katyal, *supra* note 41, at 1089 (noting that if crimes require special tools, crime will be restricted to sophisticated criminals).

[50] *See* Kahan, *supra* note 14, at 357 (noting that stigmatization is difficult to achieve when noncompliance rates are high). For an additional discussion on social norms and stigmatization, see ERIC POSNER, LAW AND SOCIAL NORMS 88–111 (2000).

Finally, a chief advantage of structural laws is that they regulate centralized institutions rather than individuals.[51] Institutions, usually in the form of corporations, are easier to regulate because they are smaller in number, have known locations, and have significant economic incentives to comply with government mandates. Individuals, in contrast, are dispersed and difficult to track. For example, as the later discussion about tax evasion will show, governments have had significantly better success requiring that large corporations withhold their employees' income tax than enforcing tax laws directly against small businesses and farmers.

This focus on centralized institutions can also have the benefit of cost-internalization. In some cases, offenses are most easily and logically prevented by these institutions, but they lack incentives (or have disincentives) to impose structural solutions because the structural mechanism may dampen sales or provoke customer complaint.[52] For example, displays that encourage impulse buying increase revenue, but also encourage shoplifting, producing external costs that are borne by the criminal justice system.[53] Structural laws ensure that the most efficient actors are taking appropriate crime prevention measures.[54]

4. The Limitations of Structure.—Structural laws, of course, have their limitations. First, structural laws are not always available. Some undesirable behaviors lack an associated centralized institution that can be regulated. For example, if the government wants homeowners to shovel their sidewalks, it must regulate them directly; there is no obvious structural alternative. In other cases, the available structural mechanism may be too intrusive to be implemented realistically.

Second, even when effective structural mechanisms are available, they generally will not prevent all violations. Determined offenders, such as the mailbox thief with the lockpick or the acetylene torch, will invariably find methods to circumvent the imposed structure.[55] While one can certainly

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[51] *Cf.* LESSIG, *supra* note 37, at 106 (noting that "code writers," the people who design the Internet standards, are "regulable" because they are easily found and held accountable).

[52] Laycock & Tilley, *supra* note 33, at 578 (advocating that when "business-related costs of crime are borne by the public" and managers lack sufficient incentives to take efficient precautions, then government pressure is necessary).

[53] Clarke, *supra* note 29, at 136; *see also* Kadish, *supra* note 6, at 29 (arguing that stores know about the risk of bounced checks, "but expectedly prefer not to discourage sales," so they primarily rely on ex post criminal prosecutions); Laycock & Tilley, *supra* note 33, at 561 (discussing a music store in which music was kept "live" on the shelf because of space constraints, and shoplifting prosecutions rates were inordinately high).

[54] *Cf.* Guido Calabresi & Douglas A. Melamed, *Property Rules, Liability Rules and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1093–94 (1972) (developing the cheapest cost avoider principle).

[55] *See* Ekblom, *supra* note 30, at 116 ("Design usually seeks to shape behavior in statistical aggregates rather than imposing cast-iron control . . . allowing that determined offenders will work around it in particular instances."); Laycock & Tilley, *supra* note 33, at 538 (noting that reducing the opportuni-

protect against those circumventions, at some point those additional measures will yield diminishing returns.[56] As noted earlier, however, this inability to achieve perfect compliance is not a problem, because we can always fall back on enforcement.[57] Once structural laws have narrowed the class of lawbreakers, enforcement becomes much easier, and fiat can be used to "mop up" and punish the remaining violators.

Finally, whether the imposition of structural constraints on conduct necessarily leads to the formation of complementary social norms is an empirical question about which more research is needed.[58] Certainly, one can imagine that making unwanted conduct more difficult to accomplish *could* cause people to shift to other, hopefully lawful conduct. For example, making music piracy extremely difficult may discourage people from trading music, and perhaps encourage them to find more legitimate avenues for buying music. However, imposing structural controls may also potentially destroy social norms by absolving individuals of the responsibility to police themselves.[59] Imposing structural speed regulations in some areas but not others could have the beneficial effect of increasing compliance in structured locales, but the pernicious effect of further lowering compliance in unstructured ones.[60]

II. WHY LEGISLATURES IGNORE STRUCTURE

Given the significant benefits of structural laws, one would imagine that legislatures would use them more often. In reality, however, legislatures seem fixated on fiat and typically ignore structural components entirely. What explains this mindset? As this Part explores, fiat-based thinking is caused by the confluence of a number of factors.

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ties for crime will not necessarily deter the determined criminal, but may be quite effective in stopping trivial crimes).

[56] Ekblom, *supra* note 30, at 124 (noting that while one can anticipate criminal adaptation, there is a point of diminishing returns).

[57] *See* David Garland, *Criminology, Crime Control, and "The American Difference,"* 69 U. COLO. L. REV. 1137, 1155 (1998) (recognizing that even if there were a "major shift toward preventative policies, there would be a residual need for the sanctioning of offenders"); *see also* LESSIG, *supra* note 37, at 57 (recognizing that control only needs to be effective, not perfect); Karen J. Bernstein, *The No Electronic Theft Act: The Music Industry's New Instrument in the Fight Against Internet Piracy*, 7 UCLA ENT. L. REV. 325, 337 (2000) (arguing that because technology can be hacked, the need for legal measures remain); Katyal, *supra* note 41, at 1046 (noting, in the context of using urban design to combat crime, that "[a]rchitecture by itself cannot stop crime, nor can it replace law").

[58] Smith, *supra* note 45, at 148 (noting that few empirical studies have been done on the long-term effects of changing environmental factors on crime rates).

[59] *Id.* at 170.

[60] *Id.* at 160.

A. Predominant Modes of Thinking

Inertia arguably has much to do with the prevalence of fiat-based solutions. As David Garland has noted, "our standard institutionalised response to crime gives priority to case-processing and the punishment of offenders, and uses the threat of such processing and punishment—general deterrence—as its primary prevention technique."[61] Therefore, when searching for solutions to undesirable conduct, legislatures naturally incline toward establishing new rules that prohibit and punish the conduct. The machinery—police, prosecutors, courts, prisons—is already in place; the legislature might as well use it.

Even without inertia, the background and training of most legislators would predispose them toward fiat-based solutions. Legislatures are disproportionately composed of lawyers, who are familiar and comfortable with applying and manipulating text-based rules.[62]

The prevailing philosophy of criminal law further contributes to the bias. Modern criminal theory focuses on individual choice, responsibility, and culpability.[63] Fiat-based legislation coheres with this perspective by punishing offenders after they have chosen to violate the law, rather than channeling behavior away in the first place.

B. Institutional Pressures

Institutionally speaking, fiat-based solutions are more attractive to legislatures because they appear costless. Establishing new crimes or increasing sentences is the criminal law equivalent of an unfunded mandate. It requires no additional allocation of resources and just becomes incorporated into the medley dealt with by police and prosecutors. To be sure, prosecutors may need to reallocate resources within their offices and budgets (if they want to enforce the law significantly), but legislatures need not budget extra funds for enforcement.

Statutory prohibitions also do not require a great deal of research or debate. To the extent that legislatures pass new prohibitions primarily for their symbolic or normative aspects, research is largely unnecessary and controversy is contained. A legislator is either for or against the prohibition, and oftentimes there is only one politically viable position. Fiat-based solutions thereby enable legislators to take politically popular stands and

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[61] Garland, *supra* note 31, at 2.

[62] *See* Katyal, *supra* note 41, at 1042 (observing that "the instinctive reaction of many lawyers is to focus on legal rules"); *id.* at 1087 ("The theory of how architecture shapes tastes has been . . . largely ignored by law schools due to their focus on the use of legal codes to regulate conduct.").

[63] *See* Seidman, *supra* note 7, at 97 (arguing that criminal law is more focused on individual rights than the rest of the law, which is more "regulatory" or utilitarian). The structure of criminal law, which focuses on voluntary acts and mental states, illustrates this focus on the individual. *See, e.g.*, MODEL PENAL CODE §§ 2.01–2.02 (1962) (defining voluntary act and mental culpability requirements).

gather colleague support at minimal cost.[64] In comparison, broader structural solutions often require time-consuming and extensive research. The advisability of a systemic solution is also far less black-and-white, making enactment more difficult. Each facet of a structural solution may rile a different interest group and become a focal point for opposition, particularly if that interest group will bear the disproportionate cost of the structural solution.[65]

Additional institutional pressures arguably come from the extant criminal justice system itself, particularly prosecutors.[66] Seeking to minimize costs and workload, prosecutors prefer expanded criminal statutes because they increase prosecutorial discretion and maximize plea bargaining leverage.[67] Indeed, according to one historical account, criminal justice institutions at the turn of the last century fought against alternative crime control methods largely to ensure their own dominance.[68]

C. Liberty Concerns

Substantively, the legislative aversion to structural laws may derive from concerns about their impact on personal freedom, and more broadly, their appropriateness in a democracy.[69] Fiat makes compliance a choice, whereas structure makes compliance largely automatic.[70] The involuntary nature of structural regulation raises objections of excessive government control, reduced liberty, and invasions of privacy.

1. Control Without Knowledge.—Structural laws have the ability to regulate invisibly. Since structural mechanisms go behind the scenes and remove the ability and opportunity for noncompliance, citizens may not even realize that they are being regulated.[71] This invisibility raises the "po-

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[64] Scholz, *supra* note 10, at 21 ("[E]lectoral incentives for members of Congress in particular are primarily to pass new legislation, not necessarily to see that the laws are enforced."); Stuntz, *supra* note 6, at 532 ("[L]egislatures tend to create new crimes not to solve the problem, but to give voters the sense that they are doing something about it.").

[65] *Cf.* Laycock & Tilley, *supra* note 33, at 557 (noting that car makers could make cars more secure, but receive no benefit for doing so).

[66] Stuntz, *supra* note 6, at 529 (arguing that police and prosecutors are even more influential than special interest groups).

[67] *Id.* at 534–38.

[68] Garland, *supra* note 31, at 6 ("The established institutions acted as a grid that filtered out incompatible or disruptive proposals, denying them the legal, organisational and budgetary support that they required to succeed.").

[69] *Cf.* Marcus Felson & Ronald V. Clarke, *The Ethics of Situational Crime Prevention*, *in* RATIONAL CHOICE AND SITUATIONAL CRIME PREVENTION, *supra* note 32, at 197, 198 (noting that SCP is criticized for infringing on privacy and civil liberties).

[70] Richard A. Posner, *Social Norms and the Law: An Economic Approach*, 87 AM. ECON. REV. 365, 367 (1997) (raising concerns about "*unquestioning* obedience").

[71] Garland, *supra* note 31, at 1 (noting that institutions have the ability to shape behavior of participants, without people even noticing).

tential for totalitarian control, not of the iron fist but of the velvet glove."[72] Just because overt, physical coercion in the form of arrests, imprisonment, and fines is absent does not mean that the government is not controlling behavior.[73]

Indeed, invisible structural regulation may be particularly pernicious to liberty because it dampens political activity. Under a fiat-based regime, in which regulation is relatively obvious and transparent, public sentiment arguably keeps legislatures in check. Enforcement of unpopular laws spurs public outrage, protests, and demands for legislative repeal. Mobilizing opposition against relatively unseen structural laws is far more difficult.

The appropriate response to this concern, however, is not the abandonment of structural laws entirely. Rather, it merely counsels vigilance, suggesting that structural laws require greater transparency and public participation to ensure legitimacy.[74]

2. Reduced Costs of Control.—As some commentators have suggested, liberty requires that regulation be difficult or expensive;[75] otherwise governments will have a natural tendency to overregulate. Structural laws, however, are efficient and relatively inexpensive because they do not require enforcement on a case-by-case basis. Were legislatures to adopt a more structural approach, they would be able to engage in more regulation, further limiting the freedom of the average citizen.

However, these concerns are rather unconvincing when viewed more closely. A well-enforced statutory prohibition regime may concededly be the most costly option, but as discussed in Part II.A, fiat as it is currently practiced—with severely underenforced laws—actually may be the cheapest path of overregulation. At least with structural laws, the process of design and implementation can entail some significant costs, which will dampen the inclination to overregulate.

3. Surveillance and Invasions of Privacy.—Concerns about freedom and civil liberties also revolve around the threat of increased surveillance

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[72] Clarke, *supra* note 29, at 133; Gary T. Marx, *The Iron Fist and the Velvet Glove: Totalitarian Potentials Within Democratic Structures*, *in* THE SOCIAL FABRIC 135, 137 (James E. Short, Jr. ed., 1986).

[73] Marx, *supra* note 72, at 138. Marcus Felson and Ronald Clarke note that Disney World manipulates crowd movement through strategically placed fences and walkways. Felson & Clarke, *supra* note 69, at 208 (remarking on the "uncomfortable images of people being corralled and shepherded from place to place in the interests of authoritarian social control").

[74] *Cf.* Katyal, *supra* note 41, at 1132 (positing that "the safest form of architecture can be that which is publicly regulated and justified").

[75] *See* LESSIG, *supra* note 37, at 148 (citing Bill Stuntz for the proposition that liberty requires that regulation be difficult).

and violations of privacy.[76] In analyzing this objection, however, the distinction between Type I and Type II structural laws becomes particularly important.[77] Type I structural laws can pose a significant threat to privacy if not carefully implemented because they carry the constant threat of detection, arrest, and punishment. For example, widespread installation of surveillance cameras monitored continuously by law enforcement personnel would clearly discourage and inhibit undesirable behaviors, but it would also carry substantial "Big Brother" costs.[78]

Type II structural laws are arguably more benign on this score. Type II structural laws do not facilitate or even depend on enforcement to regulate the average citizen. Type II structure creates barriers to the behavior itself.

4. Freedom to Break the Law.—Finally, a related liberty claim views the ability to break the law as an essential freedom in a democratic society.[79] Recall that under a fiat regime, compliance is a choice—a punishable choice, but still a choice. Structure, by force or by habit, prevents undesirable behavior from occurring except among the most determined of violators. Under this view, removing the voluntary aspects of legal compliance offends individual dignity and perhaps has broader costs by making society "less creative and dynamic."[80] It also has the effect of making adherence to the law rather amoral, an issue discussed below in Part II.D.

Of the various liberty concerns raised in this section, this appeal is arguably the most fundamental. The liberty interest in voluntary compliance cannot be mitigated by careful design choice, for the essence of structure is precisely to regulate by foreclosing or inhibiting an individual's ability to choose otherwise.[81]

Perhaps the best response is to concede that a greater use of structural laws would in fact require a shift in democratic values. We would need to reduce our focus on individual rights and acknowledge the importance of more community-oriented, social welfare goals. After all, the freedom to break the law under the current fiat-based regime comes with other costs to

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[76] *But see* Felson & Clarke, *supra* note 69, at 208 (noting the strange paradox that to "protect" civil liberties, we turn toward punishment and incarceration, which deprives an unlucky few of freedom completely).

[77] *See supra* Part I.B.2 (discussing the two types of structure).

[78] *But see* Felson & Clarke, *supra* note 69, at 209 (suggesting that having store detectives is still more intrusive than a camera).

[79] *See* HANNAH ARENDT, BETWEEN PAST AND FUTURE 161 (Penguin Books 1968) (1954) ("For Montesquieu as for the ancients it was obvious that an agent could no longer be called free when he lacked the capacity to do."); *see also* Posner, *supra* note 70, at 367 (describing how the internalization of social norms "reduces human freedom" because the person "does not make a choice; the choice has been made for him, by his parents, teachers, or peers"); Lessig, *supra* note 7, at 687 (describing Posner's view that "[h]abit . . . is freedom reducing; choice is freedom enhancing").

[80] Gary T. Marx, *The Engineering of Social Control: The Search for the Silver Bullet, in* CRIME AND INEQUALITY 225, 245 (John Hagan & Ruth D. Peterson eds., 1995).

[81] *See id.* at 227 (noting that "hard" engineered solutions dispense with a person's will entirely).

freedom—excessive police and prosecutorial discretion, pretextual and discriminatory enforcement, etc.—so in the final analysis, fiat may still lead to more oppression than liberty.

D. Law Without Morality?

One of the chief advantages of structure is that it regulates a person's conduct regardless of whether that person internalizes the regulation or chooses to obey.[82] This attribute, however, is precisely what makes it objectionable for those who view the law—particularly the criminal law—as being more than just about behavioral regulation.

Critics may argue that a structural regime would run "against the grain of contemporary politics," because it fails to stress individual responsibility and, accordingly, blame and punishment.[83] Structure absolves offenders of responsibility, blaming societal institutions, rather than the individual's own choices or moral character. The importance of the criminal justice system, so the argument goes, is not whether it is effective at preventing crime, but whether it is morally just (however that may be defined).[84]

Another related objection to the involuntary nature of structural mechanisms is that it does nothing to improve a person's moral character.[85] According to this rehabilitative view, people should want to comply with the law and respect the rights of others.[86] When they do not, they should be punished to help them internalize the law and accompanying social norms. Structural laws operate at cross-purposes to the rehabilitative ideal. Structure implicitly assumes that people cannot be trusted, and perhaps also that they cannot be reformed.[87]

The problem with these positions is that they unnecessarily mix the preventive and the retributive aspects of criminal justice.[88] While retribu-

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[82] LESSIG, *supra* note 37, at 238.

[83] Clarke, *supra* note 29, at 92 (suggesting that in the United States, punishment is "seen as the most appropriate response" given the "dislike of government intervention, as well as . . . the strong ethos of individual responsibility"); Garland, *supra* note 57, at 1155.

[84] Sara Sun Beale, *What's Law Got to Do with It?: The Political, Social, Psychological and Other Non-Legal Factors Influencing the Development of (Federal) Criminal Law*, 1 BUFF. CRIM. L. REV. 23, 29 (1997) (noting that the system's emphasis seems to be on punishment, rather than prevention).

[85] Clarke, *supra* note 35, at 251 ("Simply preventing crime is therefore not enough, because what is really wanted is the moral improvement of offenders: people should not *want* to disobey the law."); *see also* Garland, *supra* note 31, at 6 (noting that situational crime prevention measures are viewed as "cosmetic" or temporary because they do not address the underlying moral problem).

[86] *See* John Kleinig, *The Burdens of Situational Crime Prevention: An Ethical Commentary*, *in* ETHICAL AND SOCIAL PERSPECTIVES ON SITUATIONAL CRIME PREVENTION, *supra* note 31, at 37, 41–42, 57 (advocating that compliance should be because people respect each other, not because of fear of enforcement).

[87] *See id.* at 40 (criticizing situational crime prevention as being "socially divisive . . . or erosive" because it does not build trust and instead designs away antisocial behavior like a prison).

[88] *See* Garland, *supra* note 57, at 1155 ("[The] penal process should not be confused with, nor used as a substitute for, the prevention of violence.").

tive justice is certainly a legitimate goal, it also competes with the significant need to prevent antisocial behavior. To the extent that fiat-based schemes are unable to maintain reasonable compliance rates, the desire for retribution alone cannot justify a complete refusal to implement structural solutions.

Furthermore, having structural elements does not necessarily entail an amoral or nonretributive system. As mentioned in Part I.B.3, structure only cabins the noncompliant population. Fiat, with its expressive, retributive, and rehabilitative aspects, is still necessary for the offenders that remain. Indeed, structure arguably strengthens the expressive force of fiat-based laws, since they will be more uniformly enforced against the remaining offenders, who are more blameworthy for their insistence on violating the law.

More fundamentally, one must ask just how realistic an "individual responsibility" model really is. While some notion of free will and responsibility is realistic and part of the experience of everyday life,[89] viewing the choice between compliance and noncompliance as one made entirely freely is fictive.[90] Opportunities for noncompliance and other environmental factors have a profound impact on whether a person chooses to obey the law, particularly with regard to the low-level crimes addressed in this Article.[91] One might even argue that the failure to eliminate opportunities for noncompliance verges on the unethical, since the government essentially creates a temptation and then traps those who succumb.[92]

E. Political Compromises

If the origins of the legislative focus on fiat lie with any of the above concerns, then we have reason to be hopeful. Their influences, while certainly strong, are more appropriately attributed to institutional laziness or a lack of careful consideration than any perverse incentive or bad faith. A greater awareness of the problems with fiat and the advantages of structure can therefore promote reform. After all, under this view, legislators are still earnestly seeking to solve social problems, and providing them with structure as another tool should be a welcome development.

That said, however, there may be a more cynical, political explanation for the legislative obsession with fiat. This explanation, if true, would make it far more difficult to shift toward greater use of structural laws. In some cases, two powerful but conflicting interest groups may drive a legislature

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[89] *See* Seidman, *supra* note 7, at 162.

[90] *Id.* at 102–03; *see also id.* at 104–05 (noting that under a regulatory model, "questions about freedom are incoherent and pointless" because actions are considered "deterministic").

[91] Laycock & Tilley, *supra* note 33, at 538 ("It is likely that many relatively trivial offenses fall into this opportunistic category.").

[92] Felson & Clarke, *supra* note 69, at 215; *see also* Sève, *supra* note 32, at 190 (suggesting that some blame rests with the person who provides the temptation).

toward rhetorically expressive, but practically ineffective fiat-based solutions. Fiat and its underenforcement therefore become convenient tools of compromise. On the one hand, the legislature can satisfy one side (if only rhetorically) by passing legislation and taking the normative position that the behavior is wrong and illegal. It can even place pressure on prosecutors or provide private rights of action to ensure some token enforcement. On the other hand, the legislature can still satisfy (or at least mollify) the opposing interest group, because for most of the citizenry, the fiat-based prohibition will be of little practical import. The prohibition will alter social practices only marginally, leaving revenue streams reasonably intact.

Both speeding and music piracy, covered in Parts III and V, can be characterized in this way. Speed limits can be viewed as a détente between the insurance and automobile industries. Convinced that higher speeds lead not only to more injuries and deaths, but also to higher insurance payouts and operational costs, insurance companies have stressed the importance of speed limits.[93] At the same time, however, automakers rely on the image and appeal of higher performance to sell cars,[94] and presumably would strongly oppose the imposition of structural laws, such as the mandated installation of speed governors. Music piracy can be cast analogously as a détente between the music and technology industries. The music industry wants to protect its copyrights and the accompanying income streams. In contrast, electronics manufacturers have fought and will continue to oppose effective solutions to copyright piracy, because they will invariably dampen consumer interest in MP3 players like the iPod.[95]

The real loser in this compromise, however, is the public, who for want of interest or political mobilization is unable to force the legislature into a more definitive position. If the legislature were serious about the prohibition, it would impose structural impediments and then enforce the law against the remaining few. Everyone would thereby be forced to play by

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[93] *E.g.*, Ins. Inst. for Highway Safety, *Faster Travel and the Price We Pay*, STATUS REPORT, Nov. 22, 2003, at 1–3, *available at* http://www.hwysafety.org/sr/pdfs/sr3810.pdf (discussing the dangers of speeding and decrying the lack of public support for speed limits).

[94] *See, e.g.*, MAZDA, BROCHURE FOR 2004 MAZDA6 (2003), http://www.mazdausa.com/MusaWeb/pdf/brochures/2004_mazda6_brochure.pdf (emphasizing Mazda's motto "zoom zoom" and describing the Mazda 6 as having a "gene pool . . . overflowing with adrenaline" and giving drivers the ability to "own the road"); Pontiac, Grand Prix, http://www.pontiac.com/grandprix/index.jsp (last visited Aug. 11, 2005) (touting the Pontiac Grand Prix Sedan as "impressive handling and power made affordable"); *see also* Ins. Inst. for Highway Safety, *supra* note 93, at 5–7 (criticizing car commercials for their focus on performance and providing additional examples).

[95] *See* Robert T. Baker, *Finding a Winning Strategy Against the MP3 Invasion: Supplemental Measures the Recording Industry Must Take to Curb Online Piracy*, 8 UCLA ENT. L. REV. 1, 20 (2000) (noting that computer companies oppose copy protection because it "would force them to abandon the MP3 enthusiasts in their customer base"); Jason M. Schultz, *Taking a Bite out of Circumvention: Analyzing 17 U.S.C. § 1201 as a Criminal Law*, 6 MICH. TELECOMM. & TECH. L. REV. 1, 2–3 (noting that technology firms want "low-cost, high-quality access to content without restriction" and the media industries want to protect their intellectual property).

the rules, and the rules would be clear. Instead, under a fiat regime, people who abide by the rules are placed at a distinct disadvantage to the law-breaking plurality, and people who do not abide by the rules are subject to random targeting and the possibility of discriminatory enforcement.

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To offer a more concrete picture of the theoretical framework developed above, the next three Parts of this Article discuss the operation of fiat and structure in three concrete examples: tax evasion, speeding, and music piracy.

III. OPPORTUNITY TAKEN: TAX EVASION

As Professor Charles Davenport once eloquently testified before the House Ways & Means Committee, "[o]ur [tax] system is said to be one of voluntary compliance, but for some time we have known that compliance is the highest where voluntarism is the least relied upon."[96] Structure is the cornerstone of the American income tax system, not (as it is commonly believed and rhetorically reported) the American people's sense of moral obligation or the deterrence wrought by highly publicized trials. Compliance rates may be high and enforcement rates low, but that is only because structural mechanisms such as income withholding and information reporting have dramatically reduced the opportunities for tax evasion.[97]

This Part illustrates the successful use of structural laws in the current system of tax withholding and information reporting.[98] It contrasts these successes to other segments of the tax code which are still fiat focused and have lower compliance rates. It also speculates on why structure has been rather uncharacteristically implemented in some areas of tax law, and not others.

A. Basics

As most Americans know, income taxes on wages are withheld "at the source" in the United States.[99] Estimated taxes are automatically subtracted from paychecks and set aside by employers. Withholding is arguably a Type II structural law, because it makes tax evasion very difficult to ac-

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[96] Richard L. Doernberg, *The Case Against Withholding*, 61 TEX. L. REV. 595, 595 (1982) (questioning the characterization of the tax system as "voluntary"); Charlotte Twight, *Evolution of Federal Income Tax Withholding: The Machinery of Institutional Change*, 14 CATO J. 359, 388 (1995).

[97] Leandra Lederman, *Tax Compliance and the Reformed IRS*, 51 U. KAN. L. REV. 971, 974 (2003).

[98] *See also* Piroska Soos, *Self-Employed Evasion and Tax Withholding: A Comparative Study and Analysis of the Issues*, 24 U.C. DAVIS L. REV. 107, 121–22 (1990) (describing withholding and information reporting as "structural devices" for "eliminat[ing] . . . opportunities for noncompliance" and "increasing the risk of detection").

[99] *See* 26 U.S.C. § 3402 (2000).

complish. The money is already transferred to the Treasury, requiring that the criminally inclined taxpayer engage in affirmative fraud to attempt to claim his or her money back. Not only do norms inhibit a taxpayer's willingness to actively falsify records (as opposed to omitting to pay),[100] but the process of actually falsifying an employer's records is difficult as well. In addition, withholding has the salutary effect of making the tax burden easier to bear for taxpayers, since the amounts are extracted incrementally.[101] A large, aggregate tax bill presented at year's end could be overwhelming to many taxpayers, increasing the incentive to evade.

At the same time, many other forms of income, including interest and dividend income, are subject to information reporting requirements.[102] Banks and corporations keep detailed records of the interest paid and dividends distributed, respectively, and this information is reported to the IRS and the taxpayer in due course. Information reporting is Type I structure, because its efficacy comes from raising the probability of detection.[103] Since the IRS already has the numbers, only a fool would try to evade paying the appropriate taxes.

In addition to these structural mechanisms, traditional tax evasion laws remain, both to back up these structural provisions and to regulate people not subject to structure, such as independent contractors and other self-employed individuals. Enforcement of these laws, however, is predictably spotty,[104] and deterrence is further undermined by the secrecy surrounding plea bargains and other voluntary agreements.[105] No attempt is made to increase enforcement, presumably because of the expected public opposi-

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[100] Kagan, *supra* note 4, at 110 (suggesting that taxpayers are more reluctant to commit active falsification than mere omission).

[101] Lederman, *supra* note 97, at 974–75 (noting that withholding both tasks employers with the administrative burdens and reduces the "psychological burden" of paying taxes by taking it a little at a time). Historically, one of the most salient arguments for withholding when it was passed in the 1940s was taxpayer convenience. *See* Doernberg, *supra* note 96, at 602 (noting the "paternalistic feeling" that withholding was necessary for taxpayers who could not plan ahead); Twight, *supra* note 96, at 371.

[102] *See* 26 U.S.C. § 6042 (2000) (dividend reporting statute); *id.* § 6049 (interest reporting statute).

[103] Kagan, *supra* note 4, at 81 (discussing how withholding and information reporting change the "visibility" of evasion).

[104] *See* Steve Johnson, *The 1998 Act and the Resources Link Between Tax Compliance and Tax Simplification*, 51 U. KAN. L. REV. 1013, 1015 (2003) (reporting an audit rate of less than one percent and a compliance rate of about eighty percent in 1997).

[105] *See* Robert Mason & Lyle D. Calvin, *A Study of Admitted Income Tax Evasion*, 13 LAW & SOC'Y REV. 73, 87 (1978) (noting that the secrecy surrounding tax litigation makes it difficult for people to assess the actual penalties).

tion,[106] and from time to time, allegations arise that tax audits are discriminatorily imposed, often on political rivals.[107]

B. Structure's Success

The use of structure to encourage tax compliance has been an unqualified success. As commentators have noted, withholding "has probably done more to increase the tax-collecting power of central governments than any other one tax measure at any time in history."[108] Countries that have adopted withholding schemes have experienced dramatic improvements in compliance,[109] and indeed, nearly all countries with income tax now utilize some form of withholding.[110]

In the United States, the importance of structure is starkly presented by the relevant compliance rates.[111] Estimates of the "tax gap" for each income category—the percentage of revenue lost due to noncompliance—are directly correlated with the amount of structure imposed on that category.[112] Wages, which are subject to withholding, consistently have a tax gap of less than one percent.[113] Interest and dividends, which are subject only to information reporting, have a tax gap of 2% to 3% and 7% to 10%, respectively.[114] In contrast, self-employed individuals have dramatically higher

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[106] *See* Scholz, *supra* note 10, at 17 (acknowledging that enforcement could be increased in the tax context because it is a revenue-generating activity, but conceding that it would be politically infeasible to cut government services while increasing IRS budgets); *see also* Leandra Lederman, *The Interplay Between Norms and Enforcement in Tax Compliance*, 64 OHIO ST. L.J. 1453, 1466 (2003) (noting also that penalties cannot be raised because of inequity and the likelihood of public opposition).

[107] *See, e.g.*, HOUSE COMM. ON THE JUDICIARY, IMPEACHMENT OF RICHARD M. NIXON, PRESIDENT OF THE UNITED STATES, H.R. REP. NO. 93-1305, art. II, § 1 (1974) (making accusation of discriminatory tax audits); Scholz, *supra* note 10, at 13–14 (discussing congressional investigations in the 1970s about abusive auditing which were found to be largely unsubstantiated).

[108] Soos, *supra* note 98, at 126 (quoting MacGregor, *Further Thoughts on Tax Levels and Prospective Welfare Expenditures*, 4 CAN. TAX J. 171, 173 (1956)).

[109] *Id.* at 127–30.

[110] *Id.* at 126 (reporting the notable exceptions of France and Switzerland).

[111] Mason & Calvin, *supra* note 105, at 87 (suggesting that opportunity can explain many of the differences in evasion rates).

[112] Kagan, *supra* note 4, at 82 fig.1 (diagramming compliance rates with withholding highest, then information reporting, then "auditable records," then cash); Lederman, *supra* note 106, at 1505–06 (noting that wages and interest income have high compliance rates due to lack of opportunity and that self-employed income has low compliance rates); *see also* Lederman, *supra* note 97, at 975 (estimating compliance rates for wages and salary (95%), dividends (94%), and self-employment (42%)).

[113] IRS, U.S. DEP'T OF THE TREASURY, FEDERAL TAX COMPLIANCE RESEARCH: INDIVIDUAL INCOME TAX GAP ESTIMATES FOR 1985, 1988, AND 1992, at 8 tbl.3, 15 tbl.7 (rev. ed. 1996) (reporting tax gap data for 1992, 1988 and 1985). Unfortunately, the available tax compliance data only extends to 1992, because the IRS ceased its Taxpayer Compliance Management Program ("TCMP") in 1994. *See* Johnson, *supra* note 104, at 1020–21. Congress and the IRS have attempted to reinstitute a revised program, but so far to no avail. Robert E. Brown & Mark J. Mazur, *The National Research Program: Measuring Taxpayer Compliance Comprehensively*, 51 U. KAN. L. REV. 1255, 1263 (2003).

[114] IRS, *supra* note 113, at 8 tbl.3, 15 tbl.7.

rates of noncompliance. The tax gaps for farming and non-farming proprietary income are estimated to be 31% to 32% and 32% to 35%, respectively.[115] Compliance studies from other countries exhibit similar trends.[116]

Concededly, compliance is not perfect in the areas subject to structure. Evasion still occurs, and sometimes the centralized institution (here, the employer) is complicit in or the source of the wrongdoing. Employers have been known to fail to withhold, embezzle the withheld funds, or aid the employee in understating income.[117] Nevertheless, as the statistics make plain, structured areas have significantly lower rates of noncompliance, theoretically allowing for more effective and targeted enforcement.

C. Fiat's Shadow

Although structure has achieved a level of success in the taxation context, the shadow of fiat and its pathologies are never far behind. Enforcement-oriented elements of the tax system predictably continue to demonstrate fiat-type pathologies. Despite significant residual tax gaps, Congress has limited IRS enforcement budgets in recent years,[118] resulting in depressed enforcement levels.[119] Indeed, because Congress felt that the IRS had been previously overzealous in enforcement, it passed the Internal Revenue Service Restructuring and Reform Act of 1998,[120] which established a number of "pro-taxpayer procedural provisions" and a "Taxpayer Bill of Rights," further debilitating IRS enforcement efforts.[121] As we will see, many of the arguments against higher levels of tax enforcement mirror the arguments against additional speed enforcement in Part IV: It evokes images of "Big Brother," intrudes on people's privacy, and creates undue administrative hassles.[122] Some advocates have even gone so far as to justify tax evasion as a form of government subsidy for small businesses and tip-earners.[123]

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[115] *Id.*

[116] *E.g.*, Soos, *supra* note 98, at 113–14 (reporting tax gaps in Japan for wages (10%), self-employed income (40%), and farming (60%)); *id.* at 114 (reporting tax compliance rates for individuals in Japan as 87.5% for wage earners, 39.5% for the self-employed, and 14.6% for farmers).

[117] *Id.* at 187.

[118] Johnson, *supra* note 104, at 1045–46.

[119] U.S. DEP'T OF THE TREASURY, MANAGEMENT ADVISORY REPORT: ANALYSIS OF TRENDS IN COMPLIANCE ACTIVITIES THROUGH FISCAL YEAR 2001, at 4–5 (2002), *available at* http://www.treas.gov/tigta/auditreports/2002reports/200230184fr.pdf (showing a downward trend in tax investigations from 1997 to 2000, and a slight increase for 2001); *see also* Kagan, *supra* note 4, at 92 (noting that increased enforcement has "formidable political obstacles, as well as philosophical and policy-related objections").

[120] Pub. L. No. 105-206, 112 Stat. 685 (1998).

[121] Lederman, *supra* note 97, at 981 (discussing the Act's limits on the use of liens and seizures and its creation of procedural restrictions on collection methods).

[122] Scholz, *supra* note 10, at 28–29 (discussing the costs to freedom of increased enforcement).

[123] *Id.* at 28 (observing that some conservatives defend small-business tax evasion as a form of "relief from excessive governmental intervention," whereas liberals defend evasion by largely poor em-

The arguments against withholding that occasionally surface also follow traditional, fiat-focused lines. In the debates preceding the establishment of withholding in the 1940s, Representative Donald H. McLean (R-N.J.) criticized withholding as taking away Americans' "independence."[124] More recent commentators have expressed concern about the ability of withholding to conceal the actual costs of tax increases from citizens,[125] and the unfairness of shifting collection costs to businesses.[126]

D. Explanations

The unusual triumph of structure in the tax compliance context raises the question why. Why has structure managed to entrench itself in this particular area of regulation? Perhaps more importantly, why has structure attached to some areas of taxation, but not others?

Certainly, administrative and other practical considerations explain some of the varying degrees of structure in taxation: Wages, interest, and dividends are easier to subject to structural mechanisms because of the usual presence of established, centralized institutions with systematized recordkeeping. Self-employed income, in contrast, tends to evade structural controls because the individual actors are diffuse and mobile, and their transactions are difficult to track.[127]

Historical contingency is also in part responsible for the institution of wage withholding. Withholding for wages began in the midst of World War II, when the government needed to broaden its tax base significantly.[128] Under those circumstances, the fiscal need for a dependable and compliant tax base easily dwarfed arguments made about diminished liberty.[129] In addition, because a large segment of the population had not previously paid taxes, paternalistic arguments about taxpayer convenience and budgeting were especially salient.[130]

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ployees in cash or tip-based businesses). *But see* Kagan, *supra* note 4, at 99 (criticizing the "subsidy" argument because it grants relief arbitrarily based on type of profession, provokes resentment from others, and may spark greater noncompliance).

[124] Twight, *supra* note 96, at 385 (quoting also McLean's objection that the income tax was like "taking money out of a fellow's pay envelope without giving him the right to say [the Treasury is] privileged to do it").

[125] *Id.* at 362, 391.

[126] Doernberg, *supra* note 96, at 604 (complaining that withholding is expensive for businesses); *see also* Soos, *supra* note 98, at 187 ("[W]ithholding shifts the problem of noncompliance from taxpayers to withholding agents.").

[127] Soos, *supra* note 98, at 119–20 (arguing that self-employed individuals have "informal business practices and high mobility" along with often poor recordkeeping and greater incentive to evade taxes).

[128] *See* Twight, *supra* note 96, at 369–70 (discussing the "crisis" of World War II). Notably, income tax withholding had been implemented in 1913, but was repealed two years later in the face of considerable animosity. Doernberg, *supra* note 96, at 600.

[129] *See* Twight, *supra* note 96, at 371 (describing 1943 House hearings in which witnesses emphasized the necessity of withholding to prevent evasion).

[130] *Id.* at 370–71; Doernberg, *supra* note 96, at 602.

Administrative and historical theories, however, can only explain so much. First, while they may account for structure's prominence in collecting wage taxes, they do not explain the somewhat anomalous treatment of interest and dividends. Interest and dividends are both typically distributed by established, accountable institutions, and yet those forms of income are only subject to information reporting, not withholding. In fact, Congress once did successfully impose withholding on interest and dividends with the Tax Equity and Fiscal Responsibility Act ("TEFRA") of 1982.[131] The Act, however, was repealed the following year.[132]

Second, the administrative and historical accounts do not adequately explain the lack of withholding on independent contractors and tip income. Many independent contractors, particularly those who work for defined business entities, could be easily made subject to withholding through their functional employers.[133] Instead, independent contractors are left to self-report. At the same time, tip income, which could (with some changes in norms) be readily withheld by restaurants and other business establishments, is only subject to information reporting requirements.[134]

In the end, the variations in the level of structure are perhaps best explained by politics.[135] Unlike the cases mentioned previously in Part II.E, the tax context normally does not involve opposing interest groups.[136] Instead, the political landscape pits the government's general need for revenue against interest groups that would be harmed by the structural laws.[137] In the case of wages then, the continuing use of effective structural mechanisms should seem unsurprising. Because income taxes on wages comprise such a large portion of tax revenue, the government's need for high compliance is substantial. At the same time, the lack of a defined interest group coupled with the inertia of a now well-established mechanism attenuates political opposition. In tandem, these factors ensure that withholding will continue for a long time to come.

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[131] Pub. L. No. 97-248, 96 Stat. 324 (1982). Notably, prior to 1982, Congress had failed several times to pass withholding on interests in dividends. Doernberg, *supra* note 96, at 604–05.

[132] Interest and Dividend Tax Compliance Act of 1983, Pub. L. No. 98-67, 97 Stat. 369. *But see* Scholz, *supra* note 10, at 22 (noting that though withholding was repealed, "more stringent reporting" requirements were imposed on interest and dividends).

[133] *See* Independent Contractor Tax Classification and Compliance Act, S. 2369, 97th Cong. (1982) (proposing a ten-percent withholding rate on services provided by some classes of independent contractors); *see also* Soos, *supra* note 98, at 142–43 (discussing the proposal).

[134] *See* 26 U.S.C. § 3402(k) (2000); Scholz, *supra* note 10, at 22 (reporting that restaurant lobby fought, but lost on the reporting requirement on tip income).

[135] *See* Soos, *supra* note 98, at 178 (arguing that nonwithholding classifications "are difficult to justify, except perhaps on political grounds").

[136] *But see* Scholz, *supra* note 10, at 21 (noting the unusual case in which labor unions fought against financial institutions on the withholding of interest and dividends).

[137] *Id.* at 12, 18 (noting that the political forces are stacked against enforcement of tax laws because those most affected by a new mechanism will lobby hard against it, and few groups that have incentives to support it).

In contrast, the nonwithholding categories are often supported by concentrated and powerful interest groups. For example, interest and dividend withholding has for years been held at bay because of the concerted lobby efforts of the financial services industry.[138] Indeed, TEFRA was ultimately repealed due to these efforts.[139] Similarly, the "real estate, insurance, and construction [industries have] successfully opposed withholding provisions for payments to independent contractors,"[140] and the restaurant lobby has fought (though unsuccessfully) the reporting of tip income.[141]

Notably, the interest groups fighting against the use of structure are often not the actual tax evaders. Investors, independent contractors, and restaurant servers are diffuse groups lacking organized political power, and more importantly, for them to advocate directly against structural mechanisms would place them in the untenable "moral position of defending noncompliance."[142] Instead, opposition is organized primarily by middlemen, who benefit indirectly from tax evasion through lower wage costs, greater revenues, and the like.[143] This trend will be seen again both in the speeding and music piracy discussions that follow.

IV. OPPORTUNITY MISSED: SPEEDING

In contrast to tax evasion, speeding illustrates the bizarre practices and social costs that result when legislatures attempt to change behavior by fiat alone. The highway speeding regime exemplifies the traditional, "cops-and-robbers" approach to regulating behavior: make the activity illegal, place police officers on beats, and hope that they can catch some violators and deter the others.[144] As every driver knows, however, this approach has all but failed. Few violators are caught, and even fewer are deterred. The threat of speed traps may dissuade drivers from exceeding the prevailing speed of traffic and singling themselves out for enforcement, and the actual appearance of a police car may slow traffic temporarily,[145] but compliance

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[138] *Id.* at 22 (reporting on the success of "financial institutions to mobilize grass-root pressure" against interest withholding in 1962 and 1979).

[139] *Id.* at 16 (discussing repeal of TEFRA).

[140] *Id.* at 20.

[141] *Id.* at 22.

[142] *Id.* at 20–21.

[143] *Id.* at 20.

[144] Of course, speeding enforcement technology has evolved over the years. The rudimentary stopwatches and police bicycles used early on, *see* Edward C. Fisher, *Modern Traffic Law Enforcement*, 36 NEB. L. REV. 258, 263 (1956) (recounting the early use of speed traps in which cars could actually be caught by bicycle); H.L. Towle, *A Speed Trap in Jersey*, N.Y. TIMES, June 14, 1908, at 10 (describing an early speed trap that involved use of a simple stopwatch to enforce a speed limit of 15 mph), have given way to modern radar guns, high-speed squad cars, and in some locales, speed cameras, but little else has changed.

[145] The "halo effect" of such a police car is notably short, decreasing by half for approximately every 3000 additional feet downstream. TRANSP. RESEARCH BD., NAT'L RESEARCH COUNCIL, MANAGING SPEED: REVIEW OF CURRENT PRACTICE FOR SETTING AND ENFORCING SPEED LIMITS 146,

with actual posted limits is virtually nil.[146] Speeding is so socially accepted that a majority of drivers readily admit to it,[147] and the media treats drivers who conscientiously follow speed limits as notable curiosities.[148] Even state departments of transportation have conceded that speed limits have little if any effect on average travel speeds.[149]

Unfortunately, the insistence on a pure fiat model not only deprives society of the perceived public health benefits of speed regulation,[150] but also breeds public disrespect for the law and erodes constitutional protections. This Part reviews some of those effects as well as asks how structure could have changed the landscape.

A. Sporting Chances

Speeding exhibits the "sporting chance" or "fox-and-hounds" view of the law discussed in Part I.A, in which offenders peculiarly feel entitled to the opportunity to escape detection and enforcement. Critics of the prover-

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148 n.9 (1998) (citing E. Hauer & F.J. Ahlin, *Speed Enforcement and Speed Choice*, 14 ACCIDENT ANALYSIS & PREVENTION 267, 277 (1982)).

[146] *See* John Lamberth, Revised Statistical Analysis of the Incidence of Police Stops and Arrests of Black Drivers/Travelers on the New Jersey Turnpike Between Exits or Interchanges 1 and 3 from the Years 1988 Through 1991, at 16 tbl.2 (Nov. 11, 1994) (unpublished manuscript, on file with author) (showing compliance rates on the New Jersey Turnpike of between 0% and 5.8% in July 1993, with 5.8% being the outlier).

[147] Raymond, *supra* note 19, at 1398 n.8 (citing 2 JOHN BOYLE ET AL., U.S. DEP'T OF TRANSP., NAT'L SURVEY OF SPEEDING AND OTHER UNSAFE DRIVING ACTIVITIES: DRIVER ATTITUDES & BEHAVIORS 83 (1998) (discussing self-reporting survey in which 65% of respondents admitted to exceeding the posted speed limit occasionally, 18% to 25% admitted to speeding a few days a week, and 7% to 10% admitted to speeding daily)). The Boyle study likely underreports highway speeding rates because it relies on self-reporting and mixes highway and urban commuters. *Id.*

[148] Almost perversely, obeying speed limits has come to either exemplify extremely principled behavior or be cause for suspicion. *Compare* Dinitia Smith, *An Academic Ready to Take the Plunge into Novelistic Success*, N.Y. TIMES, May 27, 2002, at E1 (describing Yale Law School professor Stephen Carter as someone who "doesn't drink, . . . doesn't exceed the speed limit, . . . doesn't lie, . . . [and] is a committed Christian who writes about old fashioned virtues like civility"), *with* Disrud v. Comm'r of Pub. Safety, No. C8-88-281, 1988 Minn. App. LEXIS 853, at *2 (Ct. App. Aug. 30, 1988) (describing case in which police stopped a drunk driver for *not* exceeding speed limit because it was "suspicious"), *cited in* Raymond, *supra* note 19, at 1406 n.47.

[149] The current speeding regime may concededly have some moderating effect on speed at the extremes. However, traffic engineers have found that motorists primarily set their speed based on road conditions, not posted limits. *See, e.g.*, DIV. OF TRAFFIC AND SAFETY, UTAH DEP'T. OF TRANSP., SPEED LIMITS (2002), *available at* www.udot.utah.gov/ops/traff_saf/tsafetystudiesmgr/traff_count/speed%20studies%2020brochure.pdf (noting that speed limits should be set at the 85th percentile to encourage uniformity); STATE HIGHWAY ADMIN., MARYLAND DEP'T OF TRANSP., SPEED LIMITS (1997), *available at* http://www.sha.state.md.us/Safety/oots/trafficsignalsandlaws/speedlimits2.asp (same); WASH. STATE DEP'T OF TRANSP., SPEED LIMITS, *available at* http://www.wsdot.wa.gov/biz/trafficoperations/traffic/limits.htm (last visited May 26, 2005) (same).

[150] Whether excess highway speeds are indeed responsible for increased accident and fatality rates and constitute a "public health crisis" may be controversial in some circles, but clearly state legislatures have determined that speed limits have at least some social utility, and the current regime fails to capture those anticipated benefits.

bial hidden speed trap argue that it is "sneaky,"[151] "stack[s] the cards against an offender,"[152] and violates "notions of fair play."[153] Proponents of tougher speed enforcement respond along similar terms, urging that people should "stop looking upon enforcement as a glorified game of 'cops and robbers,'"[154] a "cat-and-mouse game in which a bell is placed on the cat,"[155] or as "a sporting proposition."[156]

More disturbingly, the influence of the "sporting chance" view has not been merely rhetorical. It has seemingly received direct support from legislators, influenced judicial decisions, and permeated police practices.

1. Radar Detectors.—Despite the creative justifications given for their use,[157] it is not hard to see that radar detectors are essentially evasion devices. Yet, radar detectors remain widely legal. Only two jurisdictions statutorily prohibit radar detectors: Virginia and the District of Columbia.[158]

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[151] Lisa S. Morris, Note, *Photo Radar: Friend or Foe?*, 61 UMKC L. REV. 805, 808 & n.42 (1993) (citing MARK FREEDMAN ET AL., INS. INST. FOR HIGHWAY SAFETY, PUBLIC OPINION REGARDING PHOTO RADAR 9 (1989)). "Sneakiness" also arises in a related line of argument against hidden police detection that equates it to spying. *E.g.*, Fred Abatemarco, *The Business of Radar Evasion*, N.Y. TIMES, Jan. 2, 1977, at 87 (quoting radar manufacturer material claiming that people "resent[] someone sitting out there spying on them" (internal quotations omitted)); Paul J.C. Friedlander, *Prevention or Prosecution: Increasing Use of Radar Against Speeders Raises Questions as to Best Method of Insuring Safety on the Highways*, N.Y. TIMES, Apr. 24, 1955, at X19 (criticizing hidden cars as creating a sort of "secret police"); E.A. Gutkind, Letter to the Editor, *To Reduce Auto Accidents: Speed Limits Declared Unrealistic; Driving Improvements Proposed*, N.Y. TIMES, Dec. 27, 1959, at E8 (likening hidden speed traps to wiretapping); *Jersey Accused of Traffic 'War': Newburgh Senator Calls for 'Truce' to Stop Policy of 'Soak the New Yorker,'* N.Y. TIMES, Mar. 16, 1957, at 40 (reporting New York state senator's comments that drivers should not have to "nervously . . . watch for police cars behind billboards or motorcycle police camouflaged behind bushes and trees").

[152] D.W. Woodbridge, *Radar in the Courts*, 40 VA. L. REV. 809, 811 (1954) (recounting a friend's opposition to radar because it makes acquittals difficult to achieve).

[153] Frederick Grab, *Photo-Radar: What's Wrong with This Picture?*, 10 GLENDALE L. REV. 51, 64 (1991) (suggesting that "notions of fair play mitigate pursuit of even the laudable goal of highway safety").

[154] Hiram M. Smith, Jr., Letter to the Editor, *Virginia Aide Replies to Trap Charge—About Breakdowns in Europe*, N.Y. TIMES, Nov. 15, 1959, at XX15 (responding to James G. Adams, Letter to the Editor, *Virginia Trap*, N.Y. TIMES, Nov. 8, 1959, at X33, which criticized a "well-hidden" radar station).

[155] Ray Ashworth, *Argument for Radar Control: Traffic Expert Maintains that Potential Offenders Among Motoring Population Need a 'Continual Reminder,'* N.Y. TIMES, May 15, 1955, at X31 (responding to Friedlander, *supra* note 151, and characterizing a marked car system as a big game in which drivers look out for marked cars).

[156] Woodbridge, *supra* note 152, at 811 (arguing that the law is not a game, and that if the object is to reduce or eliminate crime, then higher enforcement levels are desirable).

[157] *E.g.*, Nikolaus F. Schandlbauer, Comment, *Busting the "Fuzzbuster": Rethinking Bans on Radar Detectors*, 94 DICK. L. REV. 783, 784, 798, 801 (1990) (describing various rationales including allowing drivers to check their speed and countering inaccurate radar guns).

[158] D.C. CODE ANN. § 1-319.02 (LexisNexis 2001) (granting the mayor and city council authority to promulgate regulations necessary for "the protection of lives, limbs, health, comfort, and quiet of all persons and the protection of all property," under which the city subsequently banned radar detectors); VA. CODE ANN. § 46.2-1079 (2005); Smith v. District of Columbia, 436 A.2d 53, 55 n.1 (D.C. 1981) (discussing D.C. POLICE REGULATION art. 25, § 16, which prohibits possession of a radar detector).

The Connecticut legislature actually *repealed* its ban in 1992,[159] and other recent legislative attempts to ban radar detectors, notably in Pennsylvania,[160] Maryland,[161] and at the federal level,[162] have failed.[163]

Similarly, prosecutors have occasionally declined to enforce bans[164] or have interpreted statutes narrowly to exclude radar detectors,[165] and administrators have specifically prohibited insurance companies from denying coverage based on radar detector use.[166] Courts, in contrast, have generally been more ambivalent, but their limited role makes their attitude more difficult to discern.[167]

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[159] 1992 Conn. Acts 256 (Reg. Sess.) (amending CONN. GEN. STAT. § 14-137 to prohibit bans on radar detectors); *see also* CONN. GEN. STAT. § 14-137 (2005); Bill Keveney, *Legislature off Beam on Radar Issue*, HARTFORD COURANT, Jun. 29, 1992, at C1 (discussing the repeal); Kirk Johnson, *Hartford Legislators Legalize Radar Detectors*, N.Y. TIMES, June 23, 1992, at B5 [hereinafter Johnson, *Hartford Legislators*]. In the same year, Connecticut also banned the use of radar guns by the police, although the primary driving force was probably cancer concerns raised by the police union. Kirk Johnson, *Connecticut Is First State to Bar Hand-Held Radar Guns*, N.Y. TIMES, June 3, 1992, at B5 (acknowledging that law would result in greater use of laser alternatives).

[160] Schandlbauer, *supra* note 157, at 790 (reporting that 1988 Pennsylvania legislation on radar detectors died in committee).

[161] Jo-Ann Armao, *Committee Kills Md. Bill to Ban Radar Detectors*, WASH. POST, Jan. 18, 1989, at B2 (reporting that Maryland Senate killed similar bills in 1988 and 1987).

[162] Anti-Scofflaw Act, H.R. 2102, 100th Cong. (1987) (making it illegal to manufacture or possess a radar detector); Schandlbauer, *supra* note 157, at 789 n.60 (noting that 1987 bill died in committee, and that the reintroduced bill in 1989 met a similar fate). The failure of federal legislation may be based in part on federalism values. *See* S. REP. No. 102-148, at 90 (1991) (acknowledging that general prohibitions on radar detectors should be handled by the states).

[163] Congress, however, was able to induce an administrative ban on radar detectors in commercial vehicles. *See* 49 C.F.R. § 392.71 (2005) (prohibiting the use of a radar detector in commercial vehicles); *see also* S. REP. No. 102-148, at 90 (1991) (explaining the language in a budget bill that required the Secretary of Transportation to issue a notice of proposed rulemaking on banning radar detectors in commercial vehicles); S. REP. No. 103-150, at 111 (1993) (expressing displeasure at the Federal Highway Administration's delay in promulgating the regulation); S. REP. No. 103-310, at 129 (1994) (acknowledging new regulation).

[164] Johnson, *Hartford Legislators*, *supra* note 159 (noting that by the time of its repeal, Connecticut's 1972 ban was not being enforced by prosecutors).

[165] In 1977, a district attorney's office in New York refused to prosecute a radar detector case under a statute that prohibited devices that received or transmitted police frequencies. Ronald Smothers, *Westchester Bars Trial of Two over Radar Detectors*, N.Y. TIMES, Mar. 22, 1977, at 1 (reporting prosecutor's view that the statute was "deficient and antiquated technologically," although the office reserved the right to look at statutes on a case-by-case basis). Certainly, the refusal to prosecute may have been driven by the rule of lenity, but the statute is rather broad, and one wonders if an evasion device in another arena would have received similar treatment.

[166] Schandlbauer, *supra* note 157, at 796–98 (citing Maryland Insurance Commissioner's report rejecting insurer attempts to deny liability coverage based on radar detector use).

[167] For example, courts have uniformly rejected constitutional challenges to radar detector bans, but such challenges have rested on rather tenuous theories. *E.g.*, Smith v. District of Columbia, 436 A.2d 53 (D.C. 1981) (rejecting preemption and due process arguments); Bryant Radio Supply, Inc. v. Slane, 507 F. Supp. 1325 (W.D. Va. 1981) (same); *see also* Schandlbauer, *supra* note 157, at 785–89 (discussing these cases and others). On the flip side, courts have interpreted statutes narrowly to exclude radar detectors, but these decisions may have been driven primarily by lenity or interpretive concerns. *See, e.g.*,

2. Driver Warnings.—Exposing the existence of an ongoing police operation usually constitutes obstruction of justice, but not for speeders.[168] A pair of New York cases best illustrates this discrepancy: In 1977, the New York Court of Appeals held that using a CB radio to warn others of a speed trap was not sanctionable because the interference was not sufficiently physical.[169] Twenty years later, however, the Court of Appeals upheld a conviction when the defendant rode a bicycle and shouted in front of a suspected drug front to alert the occupants to the presence of a police stakeout.[170] The court distinguished the CB radio case, claiming that the interference there "was attenuated by distance, time and technology," whereas in the drug case, the defendant had "intentionally intruded himself into the specific area of police activity" and caused "a physical reaction and dispersal."[171] It seems rather implausible that the stated reason, and not the obvious difference between speeding and drugs, was the primary distinction in the case. Did the CB radio driver not intrude (though unintentionally) into the area of police activity and induce other drivers to slow down? Would

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People v. Gilbert, 324 N.W.2d 834, 837 (Mich. 1982) (holding that statute prohibiting radio sets that monitor police frequencies did not encompass radar detectors); People v. Moore, 401 N.Y.S.2d 440, 441–42 (Broome County Ct. 1978) (noting that while the court does not condone the use of radar detectors, the legislature did not contemplate them when it passed the statute, and the court is not a legislature); *cf.* Whistler Corp. v. Autotronics, Inc., No. CA3-85-2573-D, 1988 U.S. Dist. LEXIS 17302 (N.D. Tex. July 28, 1988) (rejecting claim that radar detector patent was invalid under beneficial utility rule, and noting that Congress should amend the patent law if it wants to bar their patentability).

[168] Warning fellow drivers about speed traps, of course, is a time-honored tradition. Back in the early 1900s, the British Automobile Association even systematized the practice by employing "scouts" on bicycles that would warn members of oncoming traps. *See* Clive Emsley, *'Mother, What Did Policemen Do When There Weren't Any Motors?': The Law, the Police and the Regulation of Motor Traffic in England, 1900–1939*, 36 HISTORICAL J. 357, 369–70 (1993) (recounting exasperated government officials, who likened it to an association of burglars employing scouts). In *Betts v. Stevens*, an English court found that the activity constituted a crime, causing the association to cleverly use the act-omission distinction—henceforth, scouts would only salute when the road was safe. *Id.* at 370. *Betts* was ultimately overturned in 1929 by the Dresden Appeal Court, which held that the warning promoted public safety. *Id.*; *see also Tips on Speed Traps No Crime in England: Auto Association Scout, Arrested for Warning Fellow-Members, Is Freed in Court*, N.Y. TIMES, July 24, 1926, at 11 (reporting that a London magistrate dismissed charges against one particular scout).

[169] People v. Case, 365 N.E.2d 872, 873–75 (N.Y. 1977) (expressing concern that "[a] casual meeting of two travelers at a rest stop along a thoroughfare followed by a casual remark by one that a radar setup had been seen, with nothing more, would be enough to mark the author of the remark as a criminal"). In his concurrence, Chief Judge Breitel agreed with the decision but argued that the statute should be amended. *Id.* at 875 (Breitel, C.J., concurring) (arguing that "[a]ny scheme to frustrate a system of law enforcement" such as this one should be an offense, and expressing concern that under the statute, muggers could be legally tipped off as to undercover agents).

[170] *In re* Davan L., 689 N.E.2d 909, 910 (N.Y. 1997); *see also* Raymond Hernandez, *Top Court Upholds 1995 Conviction of 15-Year-Old*, N.Y. TIMES, Dec. 19, 1997, at B5. The defendant in *Davan L.* was a minor, but in determining the validity of the juvenile conviction, the court applied the same statute as in *Case*. *Davan L.*, 689 N.E.2d at 910. In any event, the juvenile context would argue in favor of more leniency, not less.

[171] *Davan L.*, 689 N.E.2d at 911. The defendant in *Davan L.* had ridden his bicycle in front of the store. *Id.* at 910.

the result really have been different if the defendant had called the drug dealers from his house an hour before?[172]

The phenomenon is confined neither to New York, nor to CB radios, although the results elsewhere have been less striking.[173] Some state courts, including ones in Pennsylvania[174] and New Jersey,[175] have protected the ability of drivers to flash their headlights to warn oncoming traffic about speed traps. In the 1980s, a bill was even introduced into the Connecticut legislature to explicitly authorize the flashing of headlights.[176]

3. Publicity.—Even the police intentionally provide drivers with a "sporting chance." Ordinarily, enforcement strategies are closely guarded secrets, since disclosure undermines their efficacy and deterrence value. The IRS, for example, does not publish the formulas used to trigger audits. Police, however, routinely discuss speeding enforcement policies[177] and release the dates and locations subject to heightened attention.[178] They even commonly post warning signs in the vicinity of speed cameras.[179]

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[172] A more plausible distinction might have been that the defendant's actions imminently endangered the undercover police operatives, while Case's actions merely caused other drivers to slow down. However, no such distinction was made by the court, and as far as can be determined from the facts of the case, no such danger actually materialized in *Davan L.*

[173] *Compare Judge Backs Motorist Who Warned Speeders,* N.Y. TIMES, Nov. 20, 1972, at 79 (reporting case in which court permitted pedestrian to hold sign that said "Radar Ahead"), *with Warning of Speed Trap Leads to Youth's Arrest,* N.Y. TIMES, Aug. 14, 1960, at 50 (reporting that person was fined, presumably in New York, for posting an illegal sign warning motorists), *and Fined for Speed-Trap Warning*, N.Y. TIMES, June 1, 1960, at 25 (reporting that seventeen-year-old yelling warning to passing cars was fined for disorderly conduct).

[174] Commonwealth v. Beachey, 728 A.2d 912, 913 (Pa. 1999) (reversing defendant's conviction under a statute that prohibited the use of high-beams near other cars). *But see id.* at 913–14 (Castille, J., dissenting) (suggesting that the driver should have been charged with "obstructing government operations"); Commonwealth v. Beachey, 698 A.2d 1325, 1327 (Pa. Super. Ct. 1997) (Hudock, J., dissenting) (implying that driver was mischarged).

[175] *Drivers Allowed to Flash Speed-Trap Alerts*, N.Y. TIMES, Aug. 1, 1999, at 35 (reporting New Jersey case allowing drivers to flash their lights).

[176] Richard L. Madden, *Legislators Busy with Proposals for New Laws*, N.Y. TIMES, Feb. 17, 1985, at CN1.

[177] Raymond, *supra* note 19, at 1405 & n.39 (noting examples of police commenting that speed limits are never strictly enforced).

[178] *E.g.*, John K. Long, *A Torrent of Traffic Tickets*, CHI. TRIB., Dec. 19, 1996, at 3 (reporting scheduled high-enforcement periods); Larry Sandler, *Operation Holiday Driving Under Way: Authorities Target Speeding, Seat-Belt Law, Truck Brakes*, MILWAUKEE J. SENTINEL, Sept. 2, 2000, at 1B (advising motorists of upcoming Labor Day enforcement period). This practice has a long and distinguished tradition. *See, e.g., Has Novel Safety Plan: Police Chief Seeks to Popularize Proposed Speed Trap*, N.Y. TIMES, Nov. 18, 1934, at E6 (reporting that Pittsburgh police chief broadcasted location of speed enforcement zone but not a definite date, hoping to deter speeding without creating a "speed trap").

[179] *E.g.*, Morris, *supra* note 151, at 811; Thomas M. Stanek, Note, *Photo Radar in Arizona: Is It Constitutional?*, 30 ARIZ. ST. L.J. 1209, 1226 (1998) (noting that Arizona cities with speed cameras often have signs not only at the city limits, but also "approximately 30 feet before their photo radar vans"); *see also* Stanek, *supra*, at 1226 (noting that Arizona speed camera cities have also made it widely known

In addition, newspapers and auto clubs have long published lists about speed trap locations.[180] The tradition continues today on various speed trap websites on the Internet.[181] But despite their essential function, which is to facilitate evasion, these efforts are socially well accepted and are even welcomed by the police.[182]

4. Speed Trap Laws.—Finally, a few states have passed "speed trap laws," which specifically hamper speed enforcement.[183] California established its speed trap law in 1923.[184] Originally, the California law prohibited both the use of unmarked police cars[185] and the timing of drivers between two predetermined points,[186] which prior to radar was the easiest and most accurate method of detection.[187] The resulting regime was predictably ineffective: to write a valid speeding ticket, police had to pace targets in marked cars.[188]

The persistence of California's speed trap law cannot be blamed on mere institutional inertia.[189] When radar technology supplanted timers as

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that their cameras will not photograph unless the passing car is more than ten miles over speed limit). When radar itself was first introduced, a number of states required the posting of signs near where the radar was operating. *See* Fisher, *supra* note 144, at 269 (describing situation in Maryland and Ohio).

[180] *E.g.*, *Auto Group Lists 22 'Speed Traps': Warns Motorists to Beware of 'Eager' Police in South*, N.Y. TIMES, Nov. 4, 1965, at 48; *Speed Traps for Motorists*, N.Y. TIMES, Oct. 13, 1912, at X14 (listing the numerous speed trap locations in the mid-Atlantic states compiled by Automobile Club of America).

[181] *E.g.*, The Speed Trap Exchange, http://www.speedtrap.org (last visited May 26, 2005).

[182] Michael Pollak, *Information Highway Maps Speed Traps*, N.Y. TIMES, May 21, 1998, at 118 (reporting that police officials welcome website that advertises speed traps because it encourages drivers to slow down).

[183] *See, e.g.*, WASH. REV. CODE. ANN. § 46.61.470 (West 2005).

[184] CAL. VEH. CODE §§ 40800–40803 (West 2005).

[185] CAL. VEH. CODE § 40800 (requiring that police cars used in speed enforcement be marked with a distinctive color); *see* Mitchell v. Superior Court, 291 P. 580, 580 (Cal. 1930) (applying the distinctive color statute).

[186] *See* Fleming v. Superior Court, 238 P. 88 (Cal. 1925) (upholding the constitutionality of the prohibition on using predetermined points).

[187] *See* Roy A. Gustafson, *A Paradise for Criminals?*, 30 S. CAL. L. REV. 1, 16 (1956) (noting the oddity that the California legislature would place "little hurdles" to enforcement such as prohibiting the most accurate measures of speed (measured distance divided by time)).

[188] The two ostensible purposes for the California legislation are: (1) to encourage police visibility, which is purportedly a more effective deterrent than retrospective fines, and (2) to prevent localities from using speed traps as a source of revenue. *Fleming*, 238 P. at 88 (discussing the visibility rationale in the legislative history); People v. Sullivan, 285 Cal. Rptr. 553, 554 (Ct. App. 1991) (noting that commentators also suspected a legislative desire to stop localities from using speed traps to raise revenue); *see also* Michael L. Murphy, Comment, *Speed Traps and the Use of Airplanes*, 14 HASTINGS L.J. 427, 431 (1963) (discussing both reasons); Chaoyen Wang, Note, *Should Radar Enforced Speed Limits Be Automatic Speed Traps?*, 16 GLENDALE L. REV. 90, 95 (1998) (same). Whatever the nominal reasons, however, the speed trap law once again gives drivers a sporting chance.

[189] *See Sullivan*, 285 Cal. Rptr. at 555 ("Although the speed trap laws have undergone numerous amendments since 1923, they have always been carried forward in successive versions of the Vehicle Code.").

the easiest detection method in the 1950s, the California courts interpreted the law into obsolescence.[190] The legislature, however, overruled them, explicitly amending the speed trap laws to prohibit the use of radar except when the posted limit was justified by a recent traffic and engineering survey.[191] Recent California courts have maintained a more pro-driver stance and have interpreted these laws to restrict enforcement even further. Courts have scrutinized engineering surveys[192] and closed loopholes used by the police to escape speed trap law strictures.[193]

B. Arbitrary and Discriminatory Enforcement

The speeding experience also illustrates the problems of arbitrary and discriminatory enforcement that typically characterize fiat-based regimes. Whether due to race, age, or residency, disfavored or politically weak groups have consistently been disproportionately affected by speed limit enforcement efforts. Studies suggest racial disparities in whether drivers subjected to a traffic stop subsequently receive citations.[194] Commentators have accused police of targeting teenage or immigrant drivers because they are either less likely to contest their tickets or lack political power.[195] And

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[190] *In re* Beamer, 283 P.2d 356, 359–60 (Cal. Dist. Ct. App. 1955) (holding that radar gun did not fall under speed trap statute).

[191] CAL. VEH. CODE § 40803 (West 2005) (requiring that a traffic and engineering survey have been performed within the last five years); *see also* William Power Clancy, Jr., Note, *Criminal Law: Admissibility of Evidence Obtained by Radar Speed Meter*, 43 CAL. L. REV. 710, 712 (1955) (noting that legislation was introduced in 1953 and 1955 to *exclude* radar from the speed trap law restrictions, but failed); Wang, *supra* note 188, at 95 (noting that legislature amended law to include radar in 1972);.

[192] In *People v. Goulet*, 17 Cal. Rptr. 2d 801 (Super. Ct. 1992), the court used the California Department of Transportation's traffic manual to scrutinize the particular survey involved. *Id.* at 807–08. In accordance with general traffic engineering theory, the manual expresses a preference for speed limits set near the 85th percentile of drivers, except under unusual traffic conditions. *Id.* at 808. Because the survey in *Goulet* failed to justify the posted 35 mph speed limit (which was exceeded by ninety-five percent of drivers), the court held that the road segment constituted a speed trap, and dismissed the charge. *Id.* at 809. The court thus not only reined in the discretion of traffic engineers, who may be influenced or pressured by their localities, but also seemingly established a veto right for drivers. As a result of the decision, a local government, absent a strong articulable reason, may not set (and enforce) a speed limit at odds with more than fifteen percent of the driving public.

[193] *See id.* at 805 (holding that an independent assessment of speed by a police officer in addition to the use of a radar gun is insufficient to escape speed trap law restrictions).

[194] *See* PATRICK A. LANGAN ET AL., U.S. DEP'T OF JUSTICE, CONTACTS BETWEEN POLICE AND THE PUBLIC 15 (2001) (reporting that in a 1999 Department of Justice study, 60.4% of blacks and 65.6% of Hispanics received tickets subsequent to their traffic stop, as compared to only 51.8% for whites). Unfortunately, the Department of Justice study did not report data on speeding stops alone. As always, confounders may explain the racial disparities, but it is not clear what these confounders may be, particularly since the population has already been narrowed to stopped drivers only.

[195] *E.g.*, Benjamin Plotinsky, *Busted*, PRINCETON SPECTATOR ONLINE, Nov. 18, 1996, http://www.princeton.edu/~spectatr/vol2/nov96/busted.htm. Teenagers would seem *more* likely to challenge speeding tickets since they have more time and lower opportunity costs to appear in court than adults. However, teenagers under eighteen lack direct political representation and college-age Americans are notoriously politically disengaged and poorly organized. Empirically speaking, a 1999 Department of

historically, the "classic" speed trap involved localities targeting out-of-state motorists en route to vacation destinations.[196] Over the years, the efforts of the American Automobile Association ("AAA"),[197] various chambers of commerce, and state legislatures[198] have reduced out-of-state (or even out-of-town) discrimination,[199] but it still remains a concern in some areas.

Speeding also contributes to the problem of racial profiling. Because compliance levels are so low, speeding laws provide police with one of many convenient pretextual reasons for conducting investigative stops,[200] significantly eroding Fourth Amendment protections.[201]

C. Applying Structure to Speeding

What might the speeding regime look like if legislatures focused on structure rather than fiat? As this section suggests, structure yields some interesting solutions.

1. Speed Cameras.—Automated systems, such as speed cameras, could solve the speeding problem easily.[202] While they have high capital

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Justice study suggests that the probability of receiving a ticket during a traffic stop does indeed increase with youth. LANGAN, *supra* note 194, at 15.

[196] All throughout the 1950s and 1960s, the *New York Times* consistently ran letters to the editor or articles discussing the problem of speed traps, particularly in small Georgia towns that attempted to fleece Northern travelers on their way to Florida. *See, e.g.*, Charles Grutzner, *Dirty Work at the Crossroads: Survey by Automobile Association Shows Increase in Speed Traps Along the Winter Motorist's Route to Florida*, N.Y. TIMES, Feb. 1, 1953, at X17 (discussing the problem of speed traps on the route from the Northeast to Florida, and noting that some communities discriminated against out-of-staters).

[197] *See id.* (reporting that one of the goals of AAA was addressing the unfair application of speeding laws to out-of-state drivers).

[198] *See* W. Moffett Kendrick, Jr., Letter to the Editor, *More About Southern Speed Traps*, N.Y. TIMES, Feb. 15, 1953, at X17 (reporting that the Chamber of Commerce in Jesup, Georgia (a notorious speed trap) sought to introduce legislation in the Georgia Legislature requiring distinctive markings on traffic enforcement cars).

[199] For example, a study of traffic stops on the New Jersey Turnpike in 1993 showed that 23% of stops were of New Jersey drivers, a number that compared reasonably well with the proportion of New Jersey cars on the road (24.15%). Lamberth, *supra* note 146, at 14, 19.

[200] *See* Whren v. United States, 517 U.S. 806, 810–13 (1996) (permitting police to conduct pretextual traffic stops).

[201] When one considers the cornucopia of other minor traffic violations that can be used pretextually, the role of speeding laws may seem a minor one. *See* Brief for Petitioner at 13, Whren v. United States, 517 U.S. 806 (1996) (No. 95-5841) (arguing that "the universe of persons subject to seizure under the [*Whren*] rule is the same universe of persons subject to seizure for spot license checks in [*Delaware v. Prouse*, 440 U.S. 648 (1979)]—all motorists"); *see also id.* at 21 (noting a police manual that recommends following a vehicle until it makes a technical violation that then justifies the stop). In this sense, the problem of racial profiling may concededly be better addressed by reconsidering *Whren* directly. Nonetheless, speeding laws remain a contributor.

[202] Automated enforcement mechanisms can have other benefits as well. For example, they would obviate the need for high-speed traffic stops, risky affairs in which police must accelerate rapidly to highway speeds, disrupt traffic, and confront potentially angry (or even dangerous) motorists. Stanek, *supra* note 179, at 1216–17 (noting that photo radar can lessen the danger to officers). They would also

costs, once in place they have virtually no additional incremental costs per driver.[203] They also would achieve near perfect levels of enforcement, potentially sufficient for effective deterrence.[204] Indeed, empirically, automated systems have had dramatic effects even with extremely limited deployment.[205] Speed cameras, however, are a form of Type I structure, because they increase the probability of detection and punishment. They may therefore be more objectionable from a privacy or civil liberties standpoint.

Few states currently permit the use of speed cameras. As the Insurance Institute for Highway Safety notes, only six states—Arizona, California, Colorado, North Carolina, Ohio, and Oregon—and the District of Columbia use speed cameras, often with severe legislative restrictions.[206] All other

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relieve motorists of routine traffic stops, which can be emotionally distressing. *See Prouse*, 440 U.S. at 656–57 (characterizing random license and registration checks as "unsettling show[s] of authority" that "interfere with freedom of movement, are inconvenient, and consume time" and that "may create substantial anxiety"); Gordon S. Huffman, Letter to the Editor, *Letters: About Speed Traps*, N.Y. TIMES, Sept. 20, 1959, at XX3 (recounting the experience of being subject to a Ludowici, Georgia speed trap and noting that "it is a frightening thing to be held up on the public highway by one in the uniform of an officer of the law with no recourse unless one is willing to spend days or perhaps weeks to attempt to prove his innocence"); *cf.* Eugene Volokh, *Traffic Enforcement Cameras*, WALL ST. J., Mar. 26, 2002, at A22 (pointing out the coerciveness of a traffic stop in an argument for greater use of red light cameras).

[203] Unlike officer-conducted enforcement, which is limited to one speeder every twenty minutes, speed cameras have the capability of taking two pictures every second. Morris, *supra* note 151, at 808 (citing Ronald Koziol & Jerry Shnay, *No Smiling Matter for Speeders*, CHI. TRIB., Apr. 16, 1991, at C1); *see also* People v. Hildebrandt, 126 N.E.2d 377, 382 (N.Y. 1955) (Fuld, J., dissenting) ("[T]here are simply not enough police officers to patrol the road sufficiently without the assistance of mechanical aids, such as the photo traffic camera here employed."); Ins. Inst. for Highway Safety, *Automated Traffic Law Enforcement Is Being Used Worldwide*, STATUS REPORT, May 4, 2002, at 4, *available at* http://www.hwysafety.org/sr/pdfs/sr3705.pdf (arguing that traditional enforcement by officers is inadequate because of slow and limited enforcement); Claire Corbett & Frances Simon, *Decisions to Break or Adhere to the Rules of the Road, Viewed from the Rational Choice Perspective*, 32 BRIT. J. CRIMINOLOGY 537, 548 (1992) (acknowledging that the volume of offenses swamps manual enforcement).

[204] Robinson & Darley, *supra* note 11, at 204 (arguing that deterrence works only under very specific conditions, including well-known legal rules, high levels of enforcement, and rational actors).

[205] For example, use of photo radar in British Columbia led to a decline in speeding from sixty-six percent to forty percent in areas near camera stations. Ins. Inst. for Highway Safety, *Evidence Is Mounting: Photo Radar Helps to Lower Speeds and Reduce Injury Crashes*, STATUS REPORT, Dec. 5, 1998, at 7, *available at* http://www.hwysafety.org/sr/pdfs/sr3310.pdf. Similar results are seen with red light cameras. *See* Avner Bar-Ilan & Bruce Sacerdote, *The Response to Fines and Probability of Detection in a Series of Experiments* 15–16 (Nat'l Bureau of Econ. Research, Working Paper No. 8638, 2001), *available at* http://www.nber.org/papers/w8638.pdf (reporting that in Fairfax, Virginia, within one year of red light camera implementation, violations fell by forty-five percent at camera-installed intersections and twenty-nine percent at non-camera-installed intersections); *id.* at 16 (reporting that in Oxnard, California, use of red light cameras led to a forty-four percent drop at camera-installed intersections, and a fifty-four percent drop at non-camera-installed intersections).

[206] Ins. Inst. for Highway Safety, *Q&A: Speed—Law Enforcement*, HWYSAFETY.ORG, July 2005, http://www.hwysafety.org/ research/qanda/speed_lawenf.html. For example, in Colorado, speed cameras can only be used in certain residential, school, or park areas. *Id.* at 2 n.2; *see also Regional Digest*, DENVER POST, May 26, 2002, at B-5 (reporting signing of legislation to restrict the use of photo radar to these areas). *See generally* INS. INST. FOR HIGHWAY SAFETY, AUTOMATED ENFORCEMENT LAWS

states have either expressly prohibited speed camera use,[207] repealed or terminated existing programs,[208] or simply failed to implement speed cameras.

2. Speed Governors.—A Type II structural solution to speeding would be to mandate governors, mechanical or electronic devices that internally regulate vehicle speeds.[209] All new cars actually have preexisting speed governors,[210] but the current limits on factory-installed governors are set at extraordinarily high speeds, because their purpose is to prevent catastrophic equipment failure, not speeding.[211] New regulations could require that these devices be set at the highest state speed limit.

Naturally, governors could be disconnected or otherwise disabled, but that possibility should be of minimal concern. Average drivers would lack the technological know-how or skill to disable the governor,[212] and even those that do (or have access to others that do) might decline because of the inconveniences involved.[213] The legislature could even attach undesirable consequences to disabling the governor, such as voiding the manufacturer's

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(2005), http://www.hwysafety.org/laws/state_laws/pdf/automated_enforcement.pdf (conducting comprehensive survey).

[207] *E.g.*, CAL. VEH. CODE § 21455.6(b) (West 2005); N.J. STAT. ANN. § 39:4-103.1 (West 2005); WIS. STAT. § 349.02 (2003).

[208] *See, e.g.*, Morris, *supra* note 151, at 826 (reporting that in Batavia, Illinois, after the city council approved a speed camera plan, public outcry resulted in a referendum: sixty-three percent against, thirty-seven percent in favor); Stanek, *supra* note 179, at 1218 (recounting that two cities in Texas were the first to implement photo radar, but the programs have since ended); *Hawaii Halts Use of Cameras to Catch Speeders*, N.Y. TIMES, Apr. 11, 2002, at A24 (reporting that Hawaii's governor halted the use of "van cameras"); *see also* James C. Fitzpatrick, *Speeders: Radar Photo Vote Is Soon*, KANSAS CITY STAR, Oct. 19, 1992, at B1 (quoting police characterization of referendum as asking "Do you want to get tickets?").

[209] At present, governors are generally found only on specialized vehicles, such as school buses, do-it-yourself moving vans, and some commercial trucks. *See, e.g.*, *Diary*, PLAIN DEALER (Cleveland, Ohio), July 4, 1996, at 1C (reporting that a major national trucking company was changing the speed governor on its trucks from 62 mph to 59 mph to improve safety).

[210] Editorial, *Let's Put a Stop to High-Speed Chases*, WASH. POST, July 12, 2002, at A20 ("U.S. car manufacturers install speed governors on all automobiles they produce."); P'ship for Safe Driving, *Parents Urged to Lower Speed Governor Setting on Cars*, CRASH PREVENTION NEWS, June 5, 2002, http://www.crashprevention.org/news/news.php?iss=3#11.

[211] Currently, speed governors are installed by manufacturers to protect the standard tires from excessive speed, which can cause a blow-out. P'ship for Safe Driving, *supra* note 210. For example, the governor limit on a BMW M3 is set at 137 mph, and on 109 mph on a Buick Riviera. *Id.*; *see also, e.g.*, Daniel Pund, *BMW 530i*, CAR & DRIVER, Jan. 2004, at 3, 3, *available at* http://www.caranddriver.com/article.asp?section_id=3&article_id=7573&page_number=3 (reporting "governor limited" top speeds of 149 mph for the 2004 BMW 530i).

[212] *Cf.* P'ship for Safe Driving, *supra* note 210 (encouraging parents to place governors on their teenagers' cars and arguing that teenagers are unlikely to have the know-how to remove governors).

[213] For example, many cars today have sophisticated computer chips that improve long-term engine reliability and reduce emissions at the cost of lowering the engine's horsepower output. Override chips can be purchased, but only enthusiasts bother to buy the chips and install them. *See* Jim Motavalli, *Driving: Altering Your Engine with New Chips*, N.Y. TIMES, Feb. 13, 2004, at F9 (discussing the use of "performance chip[s]").

warranty. In any event, although a small, determined subset of drivers would inevitably tamper with their governors, they would be easily detected and targeted by traffic officials. In addition, as fewer and fewer cars exceeded the speed limit and enforcement probabilities rose, both deterrence and the stigma of speeding could be expected to increase.[214]

Current governors, being rather crude, have some disadvantages. For example, because governors typically have a single, bright-line limit, drivers would be unable to exceed limits for the purpose of passing other cars[215] or during emergency situations. Additionally, they cannot regulate driving on lower-speed roads or respond to state-to-state speed limit variations. New technology, however, could quickly address these concerns. For example, British researchers are working on variable governors that will respond to speed limits broadcast from roadside beacons.[216] Similarly, an "emergency switch" could both disable the governor and wirelessly alert police to the presence of an emergency.

3. Speed Alarms.—For a less heavy-handed structural solution, legislatures could mandate speed alarms. Some recent car models have user-adjustable speed alarms that sound when a certain speed is exceeded,[217] allowing drivers to check their speed. A regulatory variant of these alarms would encourage adherence to speed limits through annoyance, rather than physical restraints.[218]

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[214] Structure creates a virtuous circle by reducing the number of lawbreakers below a certain threshold. At that level, enforcement probabilities are sufficient to deter even more drivers from speeding (either because of a pure cost-benefit calculus or because of a growing stigma that attaches to violations). As these drivers opt to comply, the deterrence and stigmatization effects increase further, and so on.

[215] Drivers may legitimately need to exceed the speed limit to safely pass another car particularly on rural two-lane highways, in which the "passing lane" is the lane usually used for travel in the opposite direction. Therefore, if the speed limit is 55 mph, and there is a 48 mph car ahead, the passing car may need to accelerate over 55 mph to execute the pass quickly and safely (a 7 mph difference being insufficient).

[216] UNIV. OF LEEDS & MOTOR INDUS. RESEARCH ASS'N, EXTERNAL VEHICLE SPEED CONTROL: EXECUTIVE SUMMARY OF PROJECT RESULTS 32 (2000), *available at* http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_506877.pdf (concluding that new vehicles could be equipped with such systems by 2013 and mandatory usage could be imposed by 2019). *See generally id.* (describing the technologies and benefits of external vehicle speed control).

[217] For example, the Saab 9-3 Coupe has an information display that has a (user-set) speed warning. SAAB, SAAB 9-3 (2004) (promotional brochure); *see also* Speed Genie, Why Do I Need Speed Genie?, http://www.speedgenie.com/why.php (last visited May 26, 2005) (describing after-market alarm that drivers can install to check their speed).

[218] The preset speed alarm would operate analogously to some "fasten-seat-belt" systems found in cars today. Ford's "Belt-Minder" system illuminates a dashboard light and activates an intermittent chime if seat belts are unbuckled at any time while the car is in motion. *See* Ford, Safety Belts, http://www.ford.com/en/innovation/safety/safetybelts.htm (last visited May 26, 2005). Anecdotal evidence suggests that the chime is annoying enough to change driver behavior. *See* Sokano, *2001: A Ford Odyssey*, EPINIONS.COM, Nov. 3, 2000, http://www.epinions.com/auto-review-3DA-108704D3-3A037872-prod2 (observing that "the repeated alarm finally made [the author] wear the seat belt"). The

The advantage of speed alarms is that drivers can ignore them in emergency or passing situations; drivers would just have to endure the irritation for as long as the car was above the speed limit. Again, speeders could choose to ignore the alarm (or could find ways to disable it), but the numbers might be sufficiently reduced to ensure a reasonable risk of detection and to create a social norm against speeding.

D. Explanations

Are we ever likely to see the structural solutions to speeding mentioned above? Probably not. Institutional inertia alone effectively guarantees that the fiat-focused speeding regime will remain a fixture for decades to come. The current speeding regime offers drivers a sporting chance, police the ability to pretextually stop nearly any car on the road, and local governments an important source of revenue.[219] Any legislature would find it politically impossible to impose a wide-ranging structural regime at this late date.

Nonetheless, speeding offers an interesting opportunity to see how the framework in Part II might help explain how speeding ended up with a fiat-based regime. First, public objections against automated mechanisms such as speed cameras have often centered on privacy concerns.[220] One suspects, however, that it is not really privacy writ large (i.e., a concern about general electronic monitoring), that is at the core of the objection. After all, electronic monitoring of automobile identity for payment purposes is becoming increasingly common and accepted.[221] What is really troubling to opponents is pervasive monitoring for detection and enforcement purposes,[222] and that objection derives from the perceived oppression created particularly by Type I structure. Speed governors, as a Type II structure, however,

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current Motor Vehicle Safety Standard on seat belts is more limited and only mandates the seat belt warning alarm at the time of ignition. 49 C.F.R. § 571.208(S4.1.5.1), (S7.3) (2005).

[219] *See, e.g.*, Associated Press, *Where's Waldo?: On the Radar Screen*, N.Y. TIMES, Nov. 26, 1999, at D1 (describing a town that derives 33.5% of its revenue from traffic tickets, causing AAA and Florida state officials to place reflective strips on highways to warn motorists); Kevin Sack, *For Speeders in Florida, 20 Miles of Bad Road*, N.Y. TIMES, Sept. 30, 1995, at 6 (reporting that the town of Lawtey, Florida derives seventy-three percent of its total revenue, totaling almost half a million dollars, from speeding fines).

[220] *E.g.*, Christopher Slobogin, *Public Privacy: Camera Surveillance of Public Places and the Right to Anonymity*, 72 MISS. L.J. 213, 217 (2002) (arguing that people "value the ability to walk and drive the streets without having to contend with constant technological monitoring"). *See generally* Jeffrey Rosen, *A Watchful State*, N.Y. TIMES, Oct. 7, 2001, § 6 (Magazine), at 38 (discussing widespread deployment of surveillance cameras in Britain and arguing against their use in the United States).

[221] E-Z Pass in the Northeast and other similar electronic toll systems already record driver or automobile identity (through the unique device), place (through the toll location), and time. *See* James Gleick, *E-Z Riders*, N.Y. TIMES, Jan. 26, 1997, at SM18.

[222] *See id.* (discussing the possibility that E-Z Pass could be used to keep track of a whole host of things, such as the time delays on bridges, but also suggesting that people may understandably become reluctant to get E-Z pass if the result would be to turn toll roads into "giant speed trap[s]").

might raise fewer concerns. As anyone who has ever rented a U-Haul truck can attest, governors are annoying, but not necessarily creepy.

Even without institutional inertia, one might expect a fiat-focused speeding regime nevertheless because of the interest groups involved. As foreshadowed in Part II.E, speeding can be characterized as a détente between insurers and auto manufacturers. Because of market lags, insurers profit from reductions in risk, and conversely suffer losses from increase in risks.[223] Auto insurers will therefore consistently advocate for lower (or at minimum, constant) speed limits over time. At the same time, successful marketing of new cars often focuses on better performance. After all, who would buy the latest Corvette if a speed governor rendered it physically incapable of traveling faster than the speed limit? Car manufacturers therefore will oppose lower speed limits, and might even favor elimination of speed limits entirely.

This tension between insurers and manufacturers ensures not only the continued existence but also the *underenforced* existence of speed limits. Some might argue that given all of the "sporting chance" peculiarities, perhaps we are just not serious about speed limits. The political compromise explanation suggests one reason why the fiat-focused speeding regime arose and why it is likely here to stay.

V. OPPORTUNITY KNOCKING: MUSIC PIRACY

Unlike tax evasion and speeding, which have had decades to entrench their particular enforcement mechanisms, music piracy offers something akin to a "brave new world" for regulating behavior. Music piracy therefore offers an excellent chance to apply the lessons learned about fiat versus structure.

For anyone following the news in recent years, the problem of music piracy requires little introduction. Ever since the MP3[224] music compression standard became widely used in the late 1990s,[225] the music industry has fought a seemingly endless battle against music sharing on the Internet. Surveys estimate that between forty to ninety million people have illegally

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[223] In a perfect market, any increase or decrease in risk would naturally be accounted for in a change in premiums. However, inevitable lags in market pricing (or regulator-set tariffs) likely affect profits for insurers in the short term.

[224] "MP3" is the abbreviated acronym for the Moving Picture Experts Group 1, Audio Layer 3 standard. Robert T. Baker, *Finding a Winning Strategy Against the MP3 Invasion: Supplemental Measures the Recording Industry Must Take to Curb Online Piracy*, 8 UCLA ENT. L. REV. 1, 5–6 (2000).

[225] David R. Johnstone, Note, *The Pirates Are Always with Us: What Can and Cannot Be Done About Unauthorized Use of MP3 Files on the Internet*, 1 BUFF. INTELL. PROP. L.J. 122, 128 (2001). MP3 became popular largely because it compressed music files "to between one-tenth and one-twelfth of [their] original size." *Id.*; Brendan M. Schulman, *The Song Heard 'Round the Word: The Copyright Implications of MP3s and the Future of Digital Music*, 12 HARV. J.L. & TECH. 589, 592 (1999). These smaller files could be sent far faster over the Internet than conventional CD music, and have become even faster to transfer as users have switched to higher speed DSL and cable modem connections.

downloaded music,[226] including fifty-two percent of Internet users between the ages of eighteen and twenty-nine.[227] At one point, studies estimated that up to 3.6 billion songs were illegally downloaded each month.[228] The Recording Industry Artists Association ("RIAA") has consequently blamed music downloading as the primary culprit for the recent drop in music sales.[229] A persistent piracy problem of this magnitude could alter incentives and adversely affect the quality of music in the future.[230]

A substantial portion of the legislative and industry response to the music piracy problem has once again turned toward fiat. As the theory developed in this Article suggests, such an emphasis on individual-level prosecution and civil lawsuits would be misguided. Assuming that the current system of intellectual property is worth preserving,[231] the answer to music piracy is not broader criminalization, harsher penalties, or token enforcement, but rather the development of a comprehensive structural solution. Fortunately, some structural countercurrents have begun to take shape, including copy protection and restrictions on the makers of the peer-to-peer software used to share music. Although a detailed discussion of the

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[226] *Compare* Rob Walker, *Turn On. Tune In. Download*, N.Y. TIMES, Sept. 21, 2003, § 6 (Magazine), at 15 (reporting that an estimated sixty million people have downloaded songs illegally), *with* Press Release, Ipsos-Reid, Legal Issues Don't Hinder American Downloaders (Mar. 14, 2003), *available at* http://www.ipsos-insight.com/pressrelease.aspx?id=1763 (reporting on the results of the IPSOS Quarterly Digital Music Study, entitled *TEMPO: Keeping Pace with Digital Music Behavior*, which estimated that forty million users downloaded music in December 2002), *and* EDISON MEDIA RESEARCH, THE NATIONAL RECORD BUYERS SURVEY II, at 3 (2002) (reporting that about one in three Americans aged twelve to forty-four has downloaded music, amounting to eighty-nine million persons).

[227] MARY MADDEN & AMANDA LENHART, PEW INTERNET & AM. LIFE PROJECT, DATA MEMO: MUSIC DOWNLOADING, FILE-SHARING AND COPYRIGHT 5 (2003), *available at* www.pewinternet.org/pdfs/PIP_Copyright_Memo.pdf (reporting further that twenty-nine percent of all Internet users download music); *see also* Press Release, *supra* note 226 (estimating that forty-eight percent of persons between the ages of twelve and seventeen, and forty-two percent of persons between eighteen and twenty-four, have recently downloaded music).

[228] Tia Hall, Note, *Music Piracy and the Audio Home Recording Act*, 2002 DUKE L. & TECH. REV. 23, *available at* http://www.law.duke.edu/journals/dltr/articles/2002dltr0023.html.

[229] Neil Strauss, *File-Sharing Battle Leaves Musicians Caught in Middle*, N.Y. TIMES, Sept. 14, 2003, at 1. *But see id.* (noting that Forrester Research, a survey firm, reports a drop of only fifteen percent and attributes only thirty-five percent of the decrease to downloading).

[230] Predictions about the ultimate effect of widespread music sharing are mixed. Some industry analysts believe that the music piracy problem is so severe that the industry will "never again be profitable" and that music content will degrade in quality. *See* Zachary James Brown & Bernadine Tsung, *If "Information Wants to be Free," How Are We Supposed to Make Money?*, 2001 UCLA J.L. & TECH. 4, 4, *available at* http://www.lawtechjournal.com/articles/2001/04_010417_tsungbrown.php (quoting remarks by Peter Dekom, a management consultant in the entertainment law area, at a meeting of Beverly Hills Bar Association). In contrast, one wonders if only the music companies will be adversely affected. Musicians themselves often receive few royalties from album sales and profit largely from concerts and related merchandise. Strauss, *supra* note 229.

[231] To focus discussion, this Article will assume a desire to maintain the current intellectual property regime. Any normative examination about the system's merits is therefore beyond the Article's scope.

music piracy issue is well beyond the scope of this Article, the concept of structure will be an important perspective moving forward.

A. Fiat (Redux)

Fiat-based "solutions" to the music piracy problem have predictably arisen in both the public and the private sectors.[232] Congress has continued to rely primarily on traditional private enforcement and criminal penalties. Likewise, the music industry has opted for case-by-case, scattershot enforcement.[233] As a result, music piracy has already begun to exhibit some of the features of speeding.

1. Congress.—Congress's primary response has been to expand criminal statutes and stiffen penalties.[234] Prior to 1997, criminal copyright infringement was defined narrowly to include only copying for profit or financial gain.[235] All that changed, however, with the passage of the No Electronic Theft ("NET") Act of 1997.[236] There, Congress redefined "financial gain" to include the receipt of other copyrighted works,[237] thereby making the sharing of over $1000 worth of copyrighted works a federal offense.[238]

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[232] Others share this focus on fiat-based solutions. For example, in an editorial, the *New York Times* wrote that "[t]he only way for the industry to defend itself is to litigate hard, and publicly, against the copyright infringers." Editorial, *Suing Music Downloaders*, N.Y. TIMES, Sept. 12, 2003, at A30.

[233] See Rob Kaiser & Matt O'Connor, *Music Industry Sues 261 People Over Swapping: Users Each Traded More than 1,000 Songs, Group Says*, CHI. TRIB., Sept. 9, 2003, at 1 (reporting that the RIAA "hopes to scare online song swappers into ceasing the practice").

[234] *See* I. Trotter Hardy, *Criminal Copyright Infringement*, 11 WM. & MARY BILL RTS. J. 305, 317 (2002) (noting that the last few decades have seen greater criminalization and harsher penalties). The history of criminal enforcement of copyright has been often recounted elsewhere and need not be reviewed here. *See, e.g., id.* at 315–23; Bernstein, *supra* note 57, at 328–34; Shahram A. Shayesteh, Comment, *High-Speed Chase on the Information Superhighway: The Evolution of Criminal Liability for Internet Piracy*, 33 LOY. L.A. L. REV. 183, 200–12 (1999).

[235] One should note that even in this traditional category, Congress's response to perceived problems has been to increase penalties. In 1974, 1976, 1982, and 1992, Congress increased monetary fines, prison terms, or both for piracy. Shayesteh, *supra* note 234, at 99, 201–02.

[236] No Electronic Theft Act of 1997, Pub. L. No. 105-147, 111 Stat. 2678 (1997) (codified as amended in scattered sections of 17, 18, and 26 U.S.C.).

[237] *Id.* § 2(a), 17 U.S.C. § 101 (2000)); *see also* Aaron M. Bailey, Comment, *A Nation of Felons?: Napster, the NET Act, and the Criminal Prosecution of File-Sharing*, 50 AM. U.L. REV. 473, 492 (2000) (noting that the NET Act removed the requirement of "commercial motive" and a related defense for when there was a lack of market damage); Shayesteh, *supra* note 234, at 204–07 (discussing the NET Act in detail). The impetus for the change was the celebrated *LaMacchia* case, in which the government was unable to prosecute an MIT hacker for posting and distributing copyrighted software on the Internet because he did not financially profit from it. United States v. Rothberg, 222 F. Supp. 2d 1009, 1017–18 (N.D. Ill. 2002); *see also* United States v. LaMacchia, 871 F. Supp. 535, 541–42, 545 (D. Mass. 1994) (rejecting government's use of wire fraud statute as a way around the for-profit requirement of the criminal copyright infringement statute).

[238] No Electronic Theft Act §2(b), 17 U.S.C. § 506(a)(2) (2000); *see also* 18 U.S.C. § 2319 (2000) (providing the penalty schedule for copyright infringement). Given the not insignificant value of each song and the volume that can be transmitted over today's high bandwidth connections, the statutory threshold is relatively easy to meet. Bailey, *supra* note 237, at 476, 519–21.

Some recently proposed (but not enacted) bills exhibit a similar approach: for example, the Author, Consumer, and Computer Owner Protection and Security ("ACCOPS") Act of 2003[239] would have imposed up to five years imprisonment for online infringement.[240]

As with any fiat regime, law and economics theoretically justifies these measures.[241] Since infringement tends to be difficult to detect and enforce, and because infringers are often difficult to identify or judgment-proof,[242] the criminal law can be used to increase deterrence.[243] However, as discussed in Part I.B., from a practical standpoint, raising penalties is unlikely to improve deterrence substantially, and it can violate common notions of fairness.[244]

In addition, by passing the NET Act, Congress criminalized a large segment of the American population,[245] creating a serious risk of arbitrary or discriminatory enforcement. So far, prosecutors have rarely enforced the provisions, perhaps because of resource constraints,[246] a view that piracy is relatively unimportant,[247] or music industry concerns about alienating cus-

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[239] H.R. 2752, 108th Cong. (2003).

[240] *Id.* § 301 (defining the unauthorized placement of copyrighted works on a publicly accessible network as satisfying the requirements for the enhanced five-year penalty).

[241] *See also* Johnstone, *supra* note 225, at 144 (recommending, among other things, "more and higher profile criminal enforcement as a deterrent" to piracy).

[242] Bernstein, *supra* note 57, at 340 (arguing that pirates are usually judgment proof, so criminal laws are necessary as a deterrent); *see also* Bailey, *supra* note 237, at 476 ("[F]iling civil lawsuits against millions of individual infringers would prove ineffective at best given logistical considerations and the probability that most infringers are probably judgment-proof.").

[243] Bailey, *supra* note 237, at 312, 314 (noting that criminal sanctions are appropriate when the activity is difficult to detect or enforce); *id.* at 476 (suggesting harsh criminal penalties "to set an 'example'"); Bernstein, *supra* note 57, at 326 (arguing that because fines and lawsuits will not deter pirates, the solution is to increase prison sentences); Hardy, *supra* note 234, at 312, 314 (noting that criminal sanctions are appropriate when the activity is difficult to detect or enforce).

[244] Hardy, *supra* note 234, at 314 (noting that increasing punishment can increase deterrence, but distorts fairness in the mind of the public).

[245] *See, e.g.*, United States v. LaMacchia, 871 F. Supp. 535, 544 (D. Mass. 1994) ("It is not clear that making criminals of a large number of consumers of computer software is a result that even the software industry would consider desirable."); Bailey, *supra* note 237, at 519 ("Congress has traditionally feared criminalizing widespread consumer habits in drafting copyright law." (citing *Hearings on S. 893 Before the Subcomm. on Intellectual Property and Judicial Admin. of the H. Comm. on the Judiciary*, 102d Cong. 65 (1992) (statement of Edward J. Black, General Counsel, Computer & Industry Association) ("You do not want to be accidentally taking a large percentage of the American people, either small businesses or citizens, into the gray area of criminal law."))); Shayesteh, *supra* note 234, at 207 (noting that the NET Act "has the potential to criminalize minor violations which have traditionally been the subject of civil copyright infringement actions").

[246] *See* Johnstone, *supra* note 225, at 137–38 (recognizing that while the NET Act makes prosecution easier, "it cannot act as a panacea within today's Internet climate because there are too many convictable pirates . . . and only finite public resources for enforcement").

[247] Stephanie Brown, *The No Electronic Theft Act: Stop Internet Piracy!*, 9 DEPAUL-LCA J. ART. & ENT. L. & POL'Y 147, 163 (1998) (arguing that casual copying is "not worth the time and effort of the federal prosecutor").

tomers.[248] The few cases that have been prosecuted have therefore taken on an exceptional quality.[249] However, the cloud of criminal prosecution remains, and many commentators speculate that the criminal statutes will be increasingly used at the behest of copyright holders.[250]

2. The Music Industry.—The copyright regime enables private civil enforcement as well. Concededly, private litigation may not involve direct government enforcement, but modern theories of state action suggest that private enforcement is arguably just another method of government regulation, and in our case, another *fiat-based* method of government regulation. The music industry itself has also resorted to fiat-like enforcement methods. Although the industry's highly publicized use of civil litigation does not involve the criminal justice system per se,[251] it still involves the ex post enforcement of prohibitions.[252] In the spring of 2003, the RIAA began its campaign by suing four college students.[253] It then announced that it would

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[248] Nichelle Nicholes Levy, *Method to Their Madness: The Secure Digital Music Initiative, a Law and Economics Perspective*, 5 VA. J.L. & TECH. 12, ¶ 30 (2000), *available at* http://www.vjolt.net/vol5/issue3/v5i3a12-Levy.html ("The NET has been underutilized as an enforcement tool, likely due to copyright owners' reluctance to prosecute their core constituencies.").

[249] Indeed, Jeffrey Levy, a University of Oregon student charged with offering copyrighted films, music and software on his website, may be the only NET Act prosecution for not-for-profit copyright infringement. *See* Jennifer Sullivan, *MP3 Pirate Gets Probation*, WIRED, Nov. 24, 1999, http://www.wired.com/news/politics/0,1283,32276,00.html. Although he faced up to three years in prison and a $250,000 fine, he eventually pled guilty and received two years probation. *See* Baker, *supra* note 224, at 8; Johnstone, *supra* note 225, at 136–37. In other countries, criminal prosecutions for copyright piracy are similarly unusual. *See, e.g.*, Associated Press, *Japan Police Arrest Two for File Sharing*, CNN, Dec. 8, 2003, http://www.cnn.com/2003/TECH/internet/12/08/sharing.arrests.ap/index.html (reporting "rare crackdown" by Japanese authorities on illegal sharing of movies and games, and noting that it was only the second time in which such arrests were made).

[250] *See, e.g.*, Bailey, *supra* note 237, at 485–86, 513–14 (predicting that the RIAA will want criminal enforcement because of the impracticality of civil litigation); Hardy, *supra* note 234, at 305 (noting that while enforcement has been through civil litigation so far, "criminal prosecutions are likely to grow substantially in relation to the number of civil cases"); *cf.* Associated Press, *supra* note 249 (reporting that arrests of copyright infringers in Japan were made after lobbying from software makers). *But see* Johnstone, *supra* note 225, at 138 (questioning whether federal officials will be willing to continue "crack[ing]" down on private individuals"). Recent proposed legislation in Congress suggests that the fears of increased criminal enforcement may be accurate. *See* MADDEN & LENHART, *supra* note 227, at 3 (discussing the ACCOPS Act as well as the Piracy Deterrence and Education Act of 2003, H.R. 2517, 108th Cong. (2003)).

[251] Modern theories of state action, of course, teach us that private enforcement regimes can be viewed as yet another method of government regulation. The fiat-based music piracy lawsuits can be ascribed just as much to Congress as they can be to the music industry.

[252] Fiat-based responses may be more unusual in the private sector, since private actors do not always have the resources necessary to engage in widespread enforcement. When the private actor is a large industry, however, the practical distinction between private and public enforcement becomes less apparent, at least with regard to this issue.

[253] Amy Harmon, *Recording Industry Goes After Students over Music Sharing*, N.Y. TIMES, Apr. 23, 2003, at A1. The suits were quickly settled for $12,000 to $17,000. Amy Harmon, *Suit Settled for Students Downloading Music Online*, N.Y. TIMES, May 2, 2003, at A22.

sue individual music sharers for infringement,[254] and quickly filed 1600 subpoenas to Internet service providers ("ISPs") requesting the identities of suspected music sharers.[255] The first wave of lawsuits began in September 2003, when the industry sued 261 music sharers,[256] and many subsequent waves followed thereafter.[257] The RIAA promises to continue suing infringers, particularly "egregious" violators who have shared more than a thousand songs.[258]

The outpouring of public defiance and outrage over the music industry's campaign illustrates how music piracy has already begun to look like speeding and other fiat-based regimes.[259] For example, when twelve-year-old Brianna LaHara was sued for copyright infringement in the fall of 2003, the lawsuit touched off a media firestorm.[260] Although Brianna clearly violated the governing statutes, and although her mother quickly settled,[261] infuriated supporters "flooded" Brianna with donations to cover the fine.[262] As one opponent colorfully commented: "'We don't condone copyright in-

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[254] Lynette Holloway, *Recording Industry to Sue Internet Music Swappers*, N.Y. TIMES, Jun. 26, 2003, at C4.

[255] Jefferson Graham, *Music Industry Files First Wave of Lawsuits Against Swappers*, USA TODAY, Sept. 9, 2003, at 6D. Under provisions of the Digital Millennium Copyright Act, 17 U.S.C. § 512(h) (2000), copyright holders were previously able to obtain subpoenas and compel ISPs to disclose the identities of suspected infringers. Recording Indus. Ass'n of Am., Inc. v. Verizon Internet Servs., 351 F.3d 1229, 1231–32 (D.C. Cir. 2003).

[256] Amy Harmon, *The Price of Music: The Overview; 261 Lawsuits Filed on Music Sharing*, N.Y. TIMES, Sept. 9, 2003, at A1.

[257] *See, e.g.*, Press Release, Recording Indus. Ass'n of Am., Inc., RIAA Expands Scope of Illegal File-Sharing Lawsuits Against Student Abusers of Internet 2 (May 26, 2005), *available at* http://www.riaa.com/news/newsletter/052605 (reporting lawsuits against students sharing music on university networks); Associated Press, *More Downloading Suits by Recording Industry*, N.Y. TIMES, Feb. 18, 2004, at C3 (reporting 531 new lawsuits); John Schwartz, *Music Industry Returns to Court, Altering Tactics on File Sharing*, N.Y. TIMES, Jan. 22, 2004, at C1 (reporting 532 new lawsuits).

[258] Frank Ahrens, *RIAA's Lawsuits Meet Surprised Targets: Single Mother in Calif., 12-Year-Old Girl in N.Y. Among Defendants*, WASH. POST, Sept. 10, 2003, at E01; *see also* Harmon, *supra* note 256 (describing the litigation as a "turning point" because the industry was reluctant to sue its own customers).

[259] *See, e.g.*, Amy Harmon & John Schwartz, *Despite Suits, Music File Sharers Shrug off Guilt and Keep Sharing*, N.Y. TIMES, Sept. 19, 2003, at A1 (reporting that while swappers are "more wary" there is "a strong current of defiance"); Jon Healey & Jeff Leeds, *Tone Deaf to a Moral Dilemma?*, L.A. TIMES, Sept. 2, 2003, at A1, A10 (suggesting that "[t]he notion that record labels would sue individual kids seems to generate more anger than worry"); Kaiser & O'Connor, *supra* note 233 (reporting comments that the RIAA is "picking on the real, real little guy"); *see also* Hardy, *supra* note 234, at 306 (suggesting that litigation "strikes a raw nerve" and noting that commentators increasingly are suggesting that infringement actions are a poor method of enforcement).

[260] Helen Kennedy & Derek Rose, *C-Notes for Brianna: Outpouring of Donations in Download Suit*, DAILY NEWS (New York), Sept. 11, 2003, at 10 ("Brianna's plight crystallized the outrage many [felt] about the RIAA's new get-tough policies."); *see also* Adam Liptak, *The Music Industry Reveals Its Carrots and Sticks*, N.Y. TIMES, Sept. 14, 2003, at 5 (discussing the LaHara case).

[261] Alex Pham, *The Labels Strike Back*, L.A. TIMES, Sept. 10, 2003, at C1.

[262] Kennedy & Rose, *supra* note 260 (reporting donations from $3 to $1000).

fringement, . . . but it's time for the R.I.A.A.'s winged monkeys to fly back to the castle and leave the Munchkins alone.'"[263]

Given the widespread practice of music sharing,[264] its ease from a technological standpoint, and its apparent social and moral acceptability,[265] many people see little obligation to follow the contrary legal mandates.[266] To be sure, the recent spate of enforcement seems to have deterred some would-be music swappers, or at least caused them to be more circumspect.[267] But just as in speeding, many remain unfazed[268] by the exceedingly

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[263] Liptak, *supra* note 260 (quoting Adam Eisgrau, Executive Director, P2P United).

[264] Harmon, *supra* note 256 ("If you have really widespread copyright infringement, there is a great temptation to say if it's that widespread it can't be infringing anymore." (quoting Professor Jane Ginsburg)); Healey & Leeds, *supra* note 259 (quoting teenage Kazaa user as saying, "[i]t's hard for me to see it as wrong when so many people are doing it"); *see also supra* text accompanying note 226.

[265] Harmon & Schwartz, *supra* note 259 (suggesting that the lawsuits "highlighted the stark break between the legal status of file sharing in the United States and the apparent cultural consensus on its morality"). The exact numbers vary among studies and among age groups. According to an August 2003 Gallup survey, 83% of teens aged thirteen to seventeen said that "downloading free music was morally acceptable." *Lawsuits Damp Down P2P Audience*, WIRED, Sept. 30, 2003, http://www.wired.com/news/business/0,1367,60654,00.html (reporting results of Gallup Poll Tuesday Briefing Youth Survey). A recent *New York Times*/CBS poll found that 29% of persons under thirty stated that music sharing was acceptable at all times, and 44% thought it was sometimes acceptable (i.e., if shared only with a limited numbers of friends). Harmon & Schwartz, *supra* note 259. A 2002 study by Edison Media Research found that 52% of the survey sample—74% between ages twelve and seventeen and 59% between ages eighteen and twenty-four—found nothing morally wrong with music sharing. EDISON MEDIA RESEARCH, *supra* note 226, at 15.

[266] *E.g.*, Healey & Leeds, *supra* note 259 (noting that while many realize that they are breaking the copyright law, they don't see anything immoral about it).

[267] *See* Associated Press, *Lawsuits Slow Music Downloads*, WIRED, Jan. 5, 2004, http://www.wired.com/news/technology/0,1282,61790,00.html (reporting that the number of Americans downloading music has been "sliced in half" since the onslaught of litigation, according to a November-December 2003 survey by the Pew Internet & American Life Project); Press Release, NetRatings, Inc., Internet Application Usage Continues to Decline, According to Nielsen//NetRatings (Sept. 29, 2003) (showing a 41% decline from 6.5 million to 3.9 million unique visitors on Kazaa between June and September 2003); Press Release, NetRatings, Inc., File-Sharing Application Usage Dips After Warning from the Recording Industry, According to Nielsen/NetRatings (July 14, 2003) (reporting that music sharing dropped fifteen percent in the week immediately following the RIAA announcement of future litigation plans in June 2003); Erin Joyce, *RIAA's Subpoena Strategy Is Chilling Downloads: NPD*, INTERNET NEWS, Aug. 21, 2003, http://www.internetnews.com/bus-news/article.php/3066851 (reporting decline in music sharing between April and June 2003, when RIAA began issuing subpoenas, and noting that decline was more than that expected from seasonal variations). *But see* John Schwartz, *In Survey, Fewer Are Sharing Files (or Admitting It)*, N.Y. TIMES, Jan. 5, 2004, at C1 (describing critics who dismiss the Pew figures because the survey relied on self-reporting and users may be understandably reluctant to admit to "an activity that could get them into legal trouble").

[268] Harmon & Schwartz, *supra* note 259 (noting that despite lawsuits, millions "continue to copy and share songs without paying"); Press Release, Ipsos-Reid, Pay-Per-Download Remains Most Preferred Fee-Based Method over Recently Launched Portable Online Music Subscriptions (Apr. 8, 2005), *available at* http://www.ipsos-insight.com/pressrelease.aspx?id=2618 ("[D]espite . . . continued legal action against individual file-sharers, the presence of peer-to-peer file-sharing options in the market remain an influential force . . . .").

low probabilities of enforcement.[269] Given that millions share music, and comparatively few lawsuits have been filed so far, "many recalcitrant file swappers are simply sizing up the odds."[270] Even among those who are currently deterred, their fear may be due primarily to the uncertainty, rather than the risk of litigation itself.[271] Once the risks and the music industry's overall strategy become known, one can expect swapping levels to creep upwards again.[272] Indeed, some recent surveys show music downloading on the rebound.[273]

The music industry litigation has also become tainted by the specter of arbitrary and discriminatory enforcement. Discontent has arisen not only from the random nature of the enforcement (as in speeding),[274] but also from a sense that litigation destroys the lives of those singled out. For the music industry, like most corporate entities, litigation is simply a cost of doing business. Private individuals are not so sanguine.[275] In addition, given that

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[269] Susan Tom, *Some Students Don't Sweat Piracy*, STATESMAN J. (Salem, Or.), Sept. 30, 2003, at 1C (reporting that "many Oregon college students are not cowering in fear[,] . . . figur[ing] that their chances of being sued are about the same as being struck by lightning"); *see also id.* ("Many are taking the view that millions of people are using these programs and they only served about 200 of these lawsuits so far, so the odds are in your favor."); *id.* ("No one's really talking about it . . . . Everybody has music on their computer and nobody is afraid they'll get caught.").

[270] Harmon & Schwartz, *supra* note 259; *see also, e.g.*, *id.* (quoting one student who noted that given the millions of users, the lawsuits were "only a drop in the bucket").

[271] *See* Joyce, *supra* note 267 (reporting in August 2003 that the uncertainty over potential liability may have "a chilling effect on individuals who swap online music"). For example, when local authorities announce a new antispeeding campaign, one can expect speeding to drop significantly early on, but then rebound as the risks of detection become more certain.

[272] *Cf.* Robinson & Darley, *supra* note 11, at 199–200 (noting a drinking and driving study in France in which compliance initially responded to well-publicized higher penalties, but then fell as the public corrected its early overestimation of the risk of detection (citing Laurence H. Ross et al., *Deterrence of Drinking and Driving in France: An Evaluation of the Law of July 12, 1978*, 16 LAW & SOC'Y REV. 345 (1982))). Naturally, the deterrence created by enforcement need not be so fleeting. Studies suggest that sixty-eight percent of music swappers between the ages of twelve and twenty-two would stop downloading if there were a serious risk of prosecution (resulting in a fine or jail time). *See* JOSH BERNOFF ET AL., FORRESTER RESEARCH, CAN YOUNG FILE SHARERS BE STOPPED?: YES! 2–3 & tbls.1, 2 & 3 (2003). However, what precisely constitutes "serious" is the key question. The experience with speeding suggests that the scant number of lawsuits so far is highly unlikely to be substantial enough.

[273] MARY MADDEN & LEE RAINIE, PEW INTERNET & AM. LIFE PROJECT, MUSIC AND VIDEO DOWNLOADING MOVES BEYOND P2P (2005), *available at* http://www.pewinternet.org/pdfs/PIP_Filesharing_March05.pdf (reporting a rebound in the percentage of Internet users that download music from 18% in February 2004 to 22% in January 2005, although figures are still lower than peak level of 32% in October 2002); *see also* Associated Press, *Study: Music Piracy Rising*, WIRED, Jan. 16, 2004, http://www.wired.com/news/digiwood/0,1412,61943,00.html (reporting the results of a NPD Group survey showing a rise in downloading by 6% in October 2003 and 7% in November 2003 after a previous steady decline for six months).

[274] *See* Kaiser & O'Connor, *supra* note 233 (quoting one music sharer who expressed skepticism about who was targeted: "How many people are downloading music? . . . I'm curious to know if they're grabbing names out of a hat.").

[275] *See, e.g.*, John Schwartz, *She Says She's No Music Pirate: No Snoop Fan, Either*, N.Y. TIMES, Sept. 25, 2003, at C1 (citing Cindy Cohn of the Electronic Frontier Foundation); Katie Dean, *RIAA Sues*

a significant objective of the litigation is to generate publicity and to discourage resistance, the threat of pretextual enforcement looms large.[276]

Some of the "sporting chance" peculiarities of the speeding regime have also surfaced in the context of music sharing.[277] The RIAA warned the public and announced its intention to begin litigation (which had been its legal right all along) well in advance of filing the lawsuits. Its policy was not even to file immediately, but rather to warn targets first or to offer heavily discounted settlements prior to filing.[278] The music industry further offered a "Clean Slate" amnesty program wherein not-yet-investigated violators could avoid penalties,[279] although that program subsequently ended.[280]

Legislators have also proposed laws making enforcement more difficult by imposing greater procedural safeguards, seemingly in response to the public clamor in the wake of the first wave of lawsuits.[281] Nominally, the legislation is driven by concerns over consumer privacy, but given its timing and the current political climate, the bill's ability to handcuff music

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80 More Swappers, WIRED, Oct. 30, 2003, http://www.wired.com/news/digiwood/0,1412,61028,00.html (quoting Fred von Lohmann, senior staff attorney at the Electronic Frontier Foundation, who doubted that the litigation would "pay[] any dividends other than ruining the lives of those who are arbitrarily singled out").

[276] *See* Warren Cohen, *Downloader "Doe" Fights RIAA*, ROLLING STONE, Sept. 10, 2003, http://www.rollingstone.com/news/story/_/id/5935601?rnd=1131042551590&has-player=true&version=6.0.12.872 (discussing the case of "nycfashiongirl," who challenged the RIAA's ability to subpoena her identity from her ISP, and noting that her tactic is "high-stakes" because "[w]hile not all those subpoenaed by the RIAA will be sued, she probably will be"); Schwartz, *supra* note 275 (noting that "the strategy of suing people of all ages and musical tastes is intentional," and suggesting that targeting the most egregious groups only would have a lower deterrence value because public will not relate).

[277] *See* Johnstone, *supra* note 225, at 126–27 (arguing that MP3 piracy "will endure as *popular sport* unless or until a more copy-proof technology supplants MP3 as the favored medium of the day" (emphasis added)).

[278] Jeff Howe, *Listen, It Isn't the Labels: It's the Law*, WASH. POST, Oct. 5, 2003, at B01 (noting that the settlements are fractions on the dollar); Reuters, *RIAA Croons a New Warning Tune*, WIRED, Oct. 17, 2003, http://www.wired.com/news/digiwood/0,1412,60880,00.html (reporting on RIAA's new policy of issuing warnings or approaching suspects with settlement offers before suing in court).

[279] *See* Dean, *supra* note 275 (reporting that approximately 1000 music sharers have participated in "Clean Slate"); Recording Indus. Ass'n of Am., Inc., Clean Slate Program Description, http://www.riaa.com/pdf/cleanSlateDesc.pdf (last visited May 31, 2005).

[280] Associated Press, *Music Industry Drops File-Sharing Amnesty*, MSNBC, Apr. 20, 2004, http://www.msnbc.msn.com/id/4788671/.

[281] *See* Consumers, Schools, and Libraries Digital Rights Management Awareness Act of 2003, S. 1621, 108th Cong. § 5 (2003); *see also* Jefferson Graham, *Lawmakers Weigh in on File Sharing*, USA TODAY, Sept. 17, 2003, at 7D (reporting that the new legislation will make piracy lawsuits more difficult to file); Katie Dean, *Senator Takes a Swing at RIAA*, WIRED, Sept. 17, 2003, http://www.wired.com/news/politics/0,1283,60461,00.html (explaining that the Consumers, Schools, and Libraries Digital Rights Management Awareness Act of 2003 would reform the current subpoena procedure and require the filing of a "John Doe" lawsuit to prevent privacy invasions).

industry enforcement may not be coincidental.[282] In *Recording Industry Ass'n of America, Inc. v. Verizon Internet Services*,[283] the D.C. Circuit contributed to this trend by making subpoenas seeking the identity of music swappers more difficult to obtain.[284]

B. Structure in Theory

Even at this early stage, legal prohibitions have already become a suspect method of regulating behavior in the music piracy context.[285] The fiat regime is at best a temporary stopgap. With the high litigation and administrative costs, along with mounting public resentment, there is speculation that the RIAA's strategy cannot endure.[286] And given the pernicious effects of the fiat-only regime, it should not continue for any longer than necessary.

The answer, of course, is to focus on structural solutions. Prohibitions need to be part of a larger scheme that guides and cabins the choices available—breaking the law should require effort. As one defendant in the RIAA's litigation eloquently said, "It shouldn't be available if it's illegal."[287]

The thrust of this Article, of course, is not to propose a solution to the music piracy problem, but a structural solution probably would entail (at least in part) some form of copy protection technology.[288] If copying and

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[282] *See* Graham, *supra* note 281 (reporting the remarks of Senator Coleman, who argued, "[t]here's got to be a better solution than making scapegoats of a few people . . . . I don't see how (the suits) will somehow wipe out the actions of 60 million file sharers").

[283] 351 F.3d 1229 (D.C. Cir. 2003).

[284] *Id.* at 1231 (holding that the subpoena provision of Digital Millennium Copyright Act does not apply to an internet service provider if it acts "solely as a conduit for communications the content of which is determined by others").

[285] Harmon & Schwartz, *supra* note 259 (reporting that experts "argue that legal prohibition alone is rarely effective in getting people to behave differently if it runs counter to strong societal beliefs"); *see also id.* (quoting Professor Jeffrey Rosen, who compares the music piracy litigation to Prohibition); Walker, *supra* note 226 (touching on a comparison to speeding or marijuana use). Certainly, there have been successful instances in which fiat has changed the moral attitudes, such as with seat belt requirements, sexual harassment laws, and no smoking laws. *See* Harmon & Schwartz, *supra* note 259. However, one wonders whether the law indeed *caused* the change in attitude, or whether the laws were merely reflective of (and thus only *correlated* to) already changing social mores.

[286] *See* James S. Humphrey, *Debating the Proposed Peer-to-Peer Piracy Prevention Act: Should Copyright Owners Be Permitted to Disrupt Illegal File Trading over Peer-to-Peer Networks?*, 4 N.C. J.L. & TECH. 375, 398–99 (2003) (acknowledging that the litigation strategy is not cost-effective, but may stop the worst offenders); Harmon & Schwartz, supra note 259 (citing Mitch Bainwol, new chairman of the RIAA, as saying that the litigation is "more an effort to contain file swapping than to wipe it out"); Andrew Harris, *Music Group Faces a Suit of Its Own: A Bogus Amnesty Offer Violates California Law, A Plaintiff Claims*, NAT. L.J., Sept. 15, 2003, at 8, 10 (noting that Glen Belvis, a Chicago patent attorney, described the litigation as "buy[ing] time" while the RIAA develops alternatives).

[287] Kaiser & O'Connor, *supra* note 233 (quoting Lorena Nieves, a defendant who claims that she had no idea music swapping was wrong).

[288] *See also* Bailey, *supra* note 237, at 532 ("Technology, rather than innovative use of existing laws, will probably prove to be the key, if there is any, to protecting intellectual property."); Matthew C.

transferring songs can be made more difficult or troublesome, average users will be deterred—not by the remote threat of future legal action, but by the sheer difficulty or aggravation of the copying process.[289] As with any other structural solution, copy protection would operate on two distinct levels. From a cost-benefit perspective, copy protection would raise the costs of the infringement, making it less worthwhile.[290] From a behavioral standpoint, the inertia created by the copy protection, coupled with the technophobia of the average consumer, would keep most everyday users within the (structurally defined) legal boundaries.

Obviously, copy protection cannot prevent every person from engaging in copyright infringement,[291] just as governors cannot prevent every driver from speeding and withholding cannot stop every tax evader. But criticizing structural mechanisms for being less than perfect misses the point.[292] As previously discussed, the critical contribution of an effective structural mechanism is that it sharply reduces the number of violators.[293] Since the

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Mousley, Note, *Peer-to-Peer Combat: The Entertainment Industry's Arsenal in Its War on Digital Piracy*, 48 VILL. L. REV. 667, 668, 689 (2003) (separating antipiracy strategies into three groups—legal, social, and market—and describing the market-based strategy as involving copy protection and other technological solutions). Naturally, the mere use of technology does not make a strategy "structural." For example, some copyright owners have advocated the use of "copy-bots," which are Internet search devices designed to look for infringing copies. Brian W. Esler, *Protecting the Protection: A Trans-Atlantic Analysis of the Emerging Right to Technological Self-Help*, 43 IDEA 553, 558 (2003). Beyond the potential privacy concerns, mechanisms like these do not structure behavior, but are merely high-tech enforcement tools and more properly characterized as fiat-based.

[289] I. TROTTER HARDY, U.S. COPYRIGHT OFFICE, PROJECT LOOKING FORWARD: SKETCHING THE FUTURE OF COPYRIGHT IN A NETWORKED WORLD 264, 269 (1998) (observing that technology can make copying more expensive or troublesome); Esler, *supra* note 288, at 605 ("After all, a strong lock is worth a hundred policemen."). One interesting example of a structural device used to prevent copyright infringement is the use of high quality paper in magazines such as *National Geographic*. The paper makes replicating the image quality difficult on a copy machine; while machines exist to create high quality copies, they are too expensive. HARDY, *supra*, at 270, 272; *see also id.* at 272–73 (describing websites built using layers of links, making it more difficult to cut-and-paste); *cf. id.* at 270 (noting that because cable television providers scramble their signals, a descrambler is needed before someone can illegally view channels).

[290] HARDY, *supra* note 289, at 275–76 (commenting that if technology raises the "cost of unauthorized uses above the benefits," then it will tend to reduce infringement); Humphrey, *supra* note 286, at 410 (arguing that if technology makes copying more time-consuming, it will deter and reduce the rate of piracy); *cf.* Katyal, *supra* note 41, at 1089–90 (noting that door locks make crime more "expensive").

[291] Humphrey, *supra* note 286, at 410 (predicting that copy protection will not be the complete solution because of cracking); James Snider, *Fear and Loathing in Hollywood—Again*, ELEC. NEWS, Feb. 10, 2003, http://www.reed-electronics.com/electronicnews/article/CA274972?text=fear+and+loathing+in+hollywood ("But Hollywood should realize it can never stop everyone—only the honest guy.").

[292] *See, e.g.*, GARTNERG2 & BERKMAN CTR. FOR INTERNET & SOC'Y, COPYRIGHT AND DIGITAL MEDIA IN A POST-NAPSTER WORLD 38 (2003) [hereinafter GARTNERG2], *available at* http://cyber.law.harvard.edu/home/2003-05 (suggesting that the focus should shift from unbreakable locks to ones "flexible enough to provide a decent level of copy protection").

[293] *See* Levy, *supra* note 248, ¶¶ 20, 25 (comparing the current approaches of the music industry, which dreams of perfect copy protection, and the technology industry, which "is willing to move ahead with enough protection to keep honest people honest").

vast majority of average users have neither the know-how nor perhaps the inclination to circumvent copy protections, only a small group of die-hard lawbreakers will remain.[294] Concededly, because music sharing operates in the digital world, the difficulties of modifying or circumventing copy protection for the average person are arguably diminished because hackers can theoretically distribute "cracking" programs more widely and with greater ease. Nevertheless, finding and using a cracking program still requires a degree of computer sophistication not generally found in the population. Furthermore, the ever-present threat of viruses and spyware in these black-market programs potentially deters even sophisticated users.

If copy protection is successful in limiting the number of violators, then the authorities can focus their enforcement efforts on these remaining groups. In addition, social norms will have an opportunity to develop around the new default rule: if the average American is physically unable to pirate music because of copy protection, then new norms may evolve under the presumption that music cannot be copied.[295]

C. The Seeds of Structure

Unlike structural solutions to speeding, which seem radical and are rarely considered, the idea of copy protection is better known and is in the foreground of most music piracy discussions. A structural solution to music piracy is thus far more feasible, and indeed some seeds have already been planted.

1. The Secure Digital Music Initiative ("SDMI").—Currently, the MP3 music standard lacks built-in copyright protection, and CDs do not have security features that prevent indiscriminate conversion to MP3 (also known as "ripping").[296] Cognizant of this problem, music and technology companies formed the Secure Digital Music Initiative (SDMI) in 1998[297] to develop a more secure format.[298] Indeed, SDMI's ambitions extended beyond copy protection to broader "digital rights management," which would

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[294] *See* Esler, *supra* note 288, at 560–61 (noting that while "almost any security measure devised for the digital environment can ultimately be . . . circumvented[,] . . . for the average, non-technical consumer, circumvention is not an option unless technologies of circumvention are readily available").

[295] *See* Johnstone, *supra* note 225, at 145 (suggesting that if music becomes secure, then "most honest consumers ideally would find it no less feasible to pay a reasonable amount for an expedient, quality-guaranteed, authorized download than to troll the black market of cyberspace for free files").

[296] *Id.* at 122, 128–29.

[297] Baker, *supra* note 224, at 19.

[298] Schulman, *supra* note 225, at 626 (reporting that SDMI plans to use "some combination of copyright generation information, digital watermarking, or cryptology technology to prevent the unauthorized copy of digital music files or at least to enable authorities to recognize pirate digital music files"); Sandy McMurray, *Fast, Easy, Cheap—Blame It on Rio*, TORONTO SUN, Oct. 28, 1998, at 76 (reporting that the RIAA is seeking a "global copyright management system" to embed copyright information in music).

enable different methods of selling music, including time-limited listening rights, "rent-to-own," and other creative systems.[299]

In its 2000 Call for Proposals,[300] SDMI sought technology that would restrict copies of each product to four: one copy to a host computer, and three additional copies to peripheral devices such as MP3 players.[301] No Internet transfers were to be allowed.[302] This phase of the project, however, stalled after the proposed security technologies were cracked by consultants and academics.[303] As of May 2001, SDMI was placed on hiatus due to a lack of consensus on which security technologies to adopt.[304]

While ultimately unsuccessful, SDMI represented an encouraging step toward the greater use of structure-based solutions. The SDMI experience, however, raised several concerns that need to be addressed in the future. First, there seemed to be an unrealistic obsession with perfect security.[305] As previously discussed, for structure to work, the technology need not be perfect; it only needs to work well enough.

Second, SDMI was haunted by concerns that it would expand copyright ownership rights,[306] disrupting the delicate balance that copyright has

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[299] Karen M. Lee, *The Realities of the MPC Madness: Are Record Companies Simply Crying Wolf?*, 27 RUTGERS COMPUTER & TECH. L.J. 131, 142 (2001).

[300] SDMI technically had two phases. The first, completed in 1999, was a preliminary "proof-of-concept" in which SDMI-compliant devices were required to detect a digital watermark attached to copyrighted music. Lee, *supra* note 299, at 141; Levy, *supra* note 248, ¶ 16. The 2000 Call for Proposals was for "Phase II."

[301] Levy, *supra* note 248, ¶ 18. Other features were discussed throughout the process. *E.g.*, Lee, *supra* note 299, at 142–43 (reporting that the record companies discussed ultimately having a "trigger device"—that after a grace period, playback devices would refuse to play music without SDMI coding).

[302] Levy, *supra* note 248, ¶ 18.

[303] Baker, *supra* note 224, at 20–21 (noting at the time that "[c]onsultants [had] . . . hacked at least two of the five securities technologies proposed for the protection of online music"); Lawrence Iser & James Toma, *Battling Digital Piracy: Recording Industry Has Taken a Multipronged Response to Illegally Downloaded Music*, NAT. L.J., Jan. 20, 2003, at C1 (reporting that when SDMI challenged outsiders to hack the watermarks, a professor did so within weeks).

[304] Michael Grebb, *No Harmony Yet in Content Land*, WIRED, Jan. 20, 2003, http://www.wired.com/news/digiwood/0,1412,57267,00.html (noting that SDMI has been "on ice since May 2001"); Secure Digital Music Initiative, http://www.sdmi.org (last visited Feb. 29, 2004) (reporting on SDMI's current status).

[305] Levy, *supra* note 248, ¶ 20; *see also* Baker, *supra* note 224, at 20–21 (reporting one commentator's doubts about technological solutions because the SDMI algorithms had been defeated); Brown & Tsung, *supra* note 230, at 4 (same).

[306] Hall, *supra* note 228, ¶ 9 (reporting consumer concerns about losing flexibility); William Fisher, Digital Music: Problems and Possibilities pt. IV (Oct. 10, 2000) (unpublished manuscript), *available at* http://www.law.harvard.edu/faculty/tfisher/Music.html (expressing concern that copy protection technologies will eliminate fair use). Of course, if the concern is simply that SDMI will prevent pirating, then that is not a valid concern at all. Given that Congress has already legislated criminal and civil sanctions for infringement, and assuming that we are serious about those mandates, forcing adherence through structure is not further depriving the consumer of any flexibility.

traditionally drawn between public benefit and private incentive.[307] This critique is not one about structural mechanisms generally, but rather a concern about how SDMI itself would have implemented copy protection. Congress can address this concern in the future by providing legal recognition only for technologies that incorporate certain consumer rights (e.g., fair use),[308] or by involving government agencies in the standards making process.

To be sure, SDMI is only one way to introduce "structure" as a means for combating music piracy.[309] Perhaps a single standard would be the optimal solution, but even if multiple, competing systems develop, that result would still be preferable to a fiat-only approach.[310] Indeed, in the absence of a universal standard, some music companies have already begun selling copy-protected music in various forms. For example, recent attention has focused on the success of Apple's iTunes store, which sells copy-protected music on-line for $0.99 per song.[311] Microsoft and RealNetworks have also developed alternative digital rights management systems,[312] some of which have been used by music producers such as Sony over the past few years.[313]

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[307] *But see* Tom W. Bell, *Escape from Copyright: Market Success vs. Statutory Failure in the Protection of Expressive Works*, 69 U. CIN. L. REV. 741, 787 (2001) (arguing that "'delicate balancing' rhetoric" has no place in describing copyright law, which is comprised of nothing but compromises struck by Congress and various interest groups).

[308] *Cf.* Neil Kumar Katyal, *Digital Architecture as Crime Control*, 112 YALE L.J. 2261, 2284 (2003) (suggesting in the computer security context that the government can give benefits to companies for developing "products that protect certain digital rights," but also emphasizing that this preferential treatment must be done transparently).

[309] For example, in February 2004, a new consortium of five electronics manufacturers announced their intention to develop a new generation of digital rights management tools. *See, e.g.*, Press Release, Content Mgmt. License Admin. (CMLA), Industry Leaders Establish Digital Media Licensing Body to Accelerate Rich Content on Digital Media Devices (Feb. 2, 2004), *available at* http://www.cm-la.com/press/2004_02_04/; John Markoff, *Five Giants in Technology Unite to Deter File Sharing*, N.Y. TIMES, Jan. 5, 2004, at C1 (discussing CMLA, then codenamed "Project Hudson").

[310] *See* Grebb, *supra* note 304 (suggesting that top-down solutions may have a difficult time gaining market acceptance).

[311] *See* GARTNERG2, *supra* note 292, at 12 (describing the iTunes music store, which does not require a subscription and charges $0.99 per song); *see also id.* at 12 (describing the Rhapsody subscription music service). The iTunes copy protection system was broken in November 2003, but apparently the circumventing software "still requires significant knowledge to use" and the cracked files were more difficult to play. Paul Roberts, *DVD Jon Breaks iTunes Security*, INFOWORLD, Nov. 24, 2003, http://www.infoworld.com/article/03/11/24/HNitunes_1.html. The success of iTunes seems to have continued nevertheless. *See* Neil Strauss, *A Wary Eye on Sites for Music Sharing*, N.Y. TIMES, Jan. 1, 2004, at E1 (describing iTunes download rate as 1.5 million songs per week).

[312] GARTNERG2, *supra* note 292, at 38–39 (discussing RealNetworks and Microsoft digital rights management technologies).

[313] Matt Richtel, *Sony Plans to Distribute Music on Line This Summer*, N.Y. TIMES, May 12, 1999, at C2 (reporting Sony's announcement to begin online distribution using Microsoft technology); *see also* Fisher, *supra* note 306, at pt. IV.3 (discussing the copyright protection in Windows Media Player 7, and also noting that EMI released singles in July 1999 in Windows Media Audio format on a pay-per-download basis).

Copy protection is also slowly appearing in more traditional music formats. BMG has released copy-protected CDs in the United States, which feature a mechanism that limits copying to three times per track and prevents swapping over the Internet.[314] Music companies have also begun experimenting with newer formats, such as DVD-Audio and Super Audio Compact Disc ("SACD"), which promise enhanced sound quality but also better copy protection through encryption.[315]

2. The Consumer Broadband and Digital Television Promotion Act.—Some implementations of structure involve more governmental interference than others. SDMI is private-sector driven and requires relatively little government involvement. The DMCA, at least in its current incarnation, gives a great deal of flexibility to industry and involves government only for enforcement purposes.

A more heavy-handed structural approach would be to force electronics manufacturers to implement copy protection measures.[316] For example, the proposed Consumer Broadband and Digital Television Promotion Act ("CBDTPA")[317] would require copy protection technology in all new CD players and computers, and it would task the FCC with regulating copy protection.[318] This structural solution could be very effective: If music compa-

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[314] Cade Metz, *The Changing Face of Online Music*, PC MAG., Sept. 24, 2003, http://www.pcmag.com/article2/0,1759,1298685,00.asp; *see also* Mousley, *supra* note 288, at 690 (noting that copy-protected CDs have already been released in Asia and Europe, but also reporting some compatibility problems); *Sony Music to Introduce New CD Technology*, N.Y. TIMES, Nov. 11, 2003, at C6 (reporting Sony's use of copy-protection technology in CDs in Germany that also prevents uploading to online sites but allows personal copies). Other (older) copy protection technologies prevent CDs from being played on computer drives at all. *E.g.*, Hall, *supra* note 228, ¶¶ 5–6 (discussing Sony's "key2audio" technology, BMG's use of "Cactus Data Shield" by Midbar Technology, and Macrovision's SafeAudio). *See generally* Esler, *supra* note 288, at 559–60 (discussing the technical operation of Macrovision's SafeAudio system). Some of these technologies have been problematic, however, because DVD players and car stereos often use computer-type drives. Hall, *supra* note 228, ¶ 5.

[315] *See* Baker, *supra* note 224, at 24 (discussing DVD-Audio and SACD formats, and noting that they "could be the ultimate solution" because they both use files "too large to pipe through current broadband lines conveniently" and "employ ironclad anti-piracy technology"); Wilson Rothman, *Beyond the CD: A Bid to Burnish Records' Sheen*, N.Y. TIMES, Mar. 13, 2003, at G1 (discussing the slow adoption of DVD-Audio and SACD formats).

[316] *See, e.g.*, Esler, *supra* note 288, at 574 (noting that the DMCA explicitly does not require electronics makers to help "respond" to any particular technology); Schulman, *supra* note 225, at 640 (commenting that the DMCA does not mandate manufacturers to design proactive protections); *see also* Lawrence Lessig, *Hollywood v. Silicon Valley: Make New Code, Not War*, CIO INSIGHT, June 17, 2002, http://www.lessig.org/content/columns/cio1.pdf [hereinafter Lessig, *Hollywood v. Silicon Valley*] (discussing Hollywood's desire for more regulation because equipment makers lack incentives to police copyright); *cf.* Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501, 521 (1999) [hereinafter Lessig, *The Law of the Horse*] (discussing a technological solution to the privacy problem on the Net and noting that "without state intervention, it is not clear that such a framework could develop" because websites have no incentive to impose controls on themselves).

[317] S. 2048, 107th Cong. (2002).

[318] Hall, *supra* note 228, ¶¶ 7–9 (discussing the CBDTPA); Mousley, *supra* note 288, at 682 (reporting that the CBDTPA would have the FCC impose copy-protection standards); *see also* Mike

nies coded their products with copy protection, and all manufacturers built their electronics to recognize the copy protection, consumers would have little choice but to adhere to the copy protection schema approved by the FCC. As always, technologically savvy consumers could modify the devices and circumvent the copy protection, but they would be few and far between.

Opposition to the CBDTPA has been fast and furious. Consumer groups fear that the CBDTPA would extinguish the ability to make personal-use, "convenience" copies, such as copying a CD for use in the car or on a portable device.[319] For industry, the specter of government regulation raises concerns that the Act would restrict new ideas, harm performance, raise costs, and make American products less marketable overseas.[320] These considerations have led both the electronics industry[321] and, interestingly, even the music industry[322] to oppose the measure.[323]

Although understandable, these concerns are arguably misplaced. For one thing, the fear that copy protection will inhibit fair use unnecessarily assumes an overly restrictive regime. Legislation can certainly require that the FCC adopt a scheme that preserves fair use. Which features to preserve and which to eliminate are policy questions that require further discussion, but the use of structure is not at the core of what is objectionable.

Further, while the worry about excessive government regulation and its potentially stifling effect on creativity is a valid one, there needs to be at least a frank discussion about the balances Congress and the courts are drawing. Increasingly, Congress has resorted to criminalization—and the music industry, litigation—as a solution to music piracy. These enforce-

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Godwin, *Hollywood vs. the Internet: Why Entertainment Companies Want to Hack Your Computer*, REASON, May 2002, at 26, *available at* http://www.reason.com/0205/fe.mg.hollywood.shtml (discussing a similar act entitled the Security Systems Standards and Certification Act, which would make it a civil offense to create a computer or system that did not incorporate a new federal antipiracy standard).

[319] *See* Dan Hellman, *A Legal Matter*, COMPUTER USER, June 2002, http://www.computeruser.com/articles/2106,4,27,1,0601,02.html.

[320] Mousley, *supra* note 288, at 683–84; Iser & Toma, *supra* note 303 (arguing that the "government-mandated approach is likely to be ineffective or inhibit innovation"); Lessig, *Hollywood v. Silicon Valley*, *supra* note 316 (quoting Leslie Vadasz from Intel, who argues that regulating computer design would "damage the high-tech industry").

[321] Amy Harmon, *Music Industry Won't Seek Government Aid on Piracy*, N.Y. TIMES, Jan. 15, 2003, at C3 (noting that technology companies have opposed copy protection because of the expense and claims about ineffectiveness).

[322] Harmon, *supra* note 321 (reporting that the RIAA has "never been a strong supporter of legislation that would mandate technical solutions to digital piracy"); Iser & Toma, *supra* note 303. Interestingly, the RIAA had originally supported the bill, but later withdrew its support. *Compare* Harmon, *supra* note 321 (reporting that the record companies withdrew support for the bill), *with* Mousley, *supra* note 288, at 683–84 (describing early support for the bill by the RIAA).

[323] Various other groups, including software manufacturers, also opposed the bill. *See* Mousley, *supra* note 288, at 683–84 (reporting that the Business Software Alliance, known for policing software piracy, opposes the measure). Only the film industry, represented by the Motion Picture Association of America ("MPAA"), remains a major supporter of the bill. Harmon, *supra* note 321.

ment methods have their own, albeit different, costs. Perhaps the restrictiveness of the CBDTPA is too high a cost to pay, but *some* form of structure is surely better than the current fiat regime.

3. The Digital Millennium Copyright Act.—A commitment to structure will often require that the structural mechanisms themselves be protected in some way. Copy protection or governors in cars would amount to very little if circumvention technologies were widely distributed and available to the average person. Anticircumvention legislation is thus often critical to structure's success.

To remain faithful to the philosophy of structure, however, the regulation of circumvention technologies cannot become a return to fiat. The natural tendency may be to outlaw ownership or possession of these devices, but such a prohibition may become just another underenforced law. The focus must be on manufacturers and distributors, who are more centralized, easily regulated, and, based on their smaller numbers and profit motive, more easily deterred.

Viewed in this light, the Digital Millennium Copyright Act ("DMCA"), while much maligned by commentators, may actually represent a step in the right direction.[324] One section of the DMCA outlaws the manufacture and distribution of technologies used to circumvent "access" and "use" controls, which naturally include copy protection.[325] Only then does the DMCA prohibit the actual act of circumvention.[326] By setting up some structure first—in other words, by making circumvention technologies difficult to obtain—the DMCA makes the latter "act" prohibition easier to enforce. The DMCA is thus a significant improvement over traditional contraband statutes, such as prohibitions on the possession of burglar tools, or dangerous weapons,[327] which focus only on decentralized actors,[328] rather

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[324] Schulman, *supra* note 225, at 630–31 (suggesting that the DMCA may "reflect a trend . . . that replaces infringement claims with a more regulatory system"); *see also* Bailey, *supra* note 237, at 503 (suggesting that the DMCA is "illustrative of the recent trend in Congress toward technology-specific remedies to perceived threats to the current copyright regime"); Schulman, *supra* note 225, at 642 ("The DMCA is yet another step in moving away from a liability system for Internet copyright problems. It shifts the legal attention away from those who might be in possession of infringing material to those who are the sources of the transmissions themselves.").

[325] 17 U.S.C. § 1201(a)(2) (2000).

[326] *Id.* § 1201(a)(1)(a); *see also* Esler, *supra* note 288, at 573 (exploring a curious wrinkle in the DMCA, which bans technologies and the act of circumvention itself for "access" controls, but bans only the technologies for "use" controls).

[327] *See, e.g.*, N.Y. PENAL LAW § 140.35 (McKinney 2004) (possession of burglar's tools); *id.* § 170.47 (criminal possession of an antisecurity item); *see also* A. Michael Froomkin, *The Metaphor Is the Key: Cryptography, the Clipper Chip, and the Constitution*, 143 U. PA. L. REV. 709, 881 n.756 (1995) (citing statutes banning burglar tools and drug paraphernalia).

[328] Another problem with these statutes is that they try to capture dual-use items as well. Consequently, the intent of the actor becomes an important question, and the contraband status of the item depends on context. *See, e.g.*, N.Y. PENAL LAW § 170.47 (McKinney 2004) (requiring intent to thwart antishoplifting devices by using an antisecurity item); *id.* § 140.35 (requiring intent to use or knowledge

than more centralized manufacturers.[329] It is also preferable to other previous copyright legislation, which merely expanded (usually criminal) liability and raised penalties for infringement.

That said, however, the DMCA has deservedly drawn fire for its breadth. As some commentators have complained, the DMCA's blanket protection for access and use controls enables copyright holders to redraw the public-private balance in copyright, eliminating fair use and potentially maximizing their profits at the expense of public good.[330] These criticisms, however, stem primarily from specific drafting issues, rather than the DMCA's general structural approach. The Act aggrandizes copyright holders because it indiscriminately protects all protection schemes.[331] The DMCA could be amended to protect only those controls that properly account for fair use or other public rights, and, indeed, some recently proposed legislation would do just that.[332] An even narrower approach would be to protect only schemes developed by a regulatory agency.

4. MGM Studios v. Grokster.—Courts generally have a limited role in the choice between fiat and structure, particularly because structural solutions are prototypically polycentric,[333] involving many moving parts and policy considerations.[334] Nonetheless, in its much-anticipated decision in *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*[335] last Term, the Su-

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that another intends to use burglar's tools in certain property crimes); People v. Borrero, 259 N.E.2d 902, 905 (N.Y. 1970) (noting that while screwdrivers are not burglar's tools per se, the accompanying circumstances can establish the intent to use it for a burglary).

[329] *But see* Schultz, *supra* note 95, at 27–28 (arguing that illegality should depend on an item's use and noting that "[i]n criminal law, devices are rarely banned per se," and while some devices require permits, they are not illegal to make, sell, or distribute).

[330] *E.g.*, Esler, *supra* note 288, at 606 (noting that technology could make copyright irrelevant, and create a "consumer's nightmare" by dictating how products are used); Schultz, *supra* note 95, at 6–7 (characterizing the DMCA as enabling the control of "audience behavior," and analogizing it to allowing car manufacturers to restrict who fixes the car and how it is driven or sold); Howe, *supra* note 278 (expressing far more concern over technology than litigation because, given the protections under the DMCA, copyright holders could take away fair use entirely).

[331] Lessig, *The Law of the Horse*, *supra* note 316, at 539 (criticizing the DMCA for giving more protection than ordinary copyright).

[332] *See, e.g.*, Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act of 2003, H.R. 1066, 108th Cong. (2003) (limiting the scope of the DMCA's anticircumvention provisions to protect fair use); Lessig, *Hollywood v. Silicon Valley*, *supra* note 316 (arguing that technology needs to incorporate fair use aspects). This reformed language would view copyright more as a "deal," in which public rights are the "price" of legal protection. As always, copyright holders are free to engage in technological self-help to protect their intellectual property. However, if they wish to have the benefit of additional legal protection, then they must sacrifice some flexibility and control. *Cf.* Mimi C. Goller, *Is a Padlock Better than a Patent?: Trade Secrets vs. Patents*, WIS. LAWYER, May 1998, at 20, 20–23 (discussing the benefits and tradeoffs of protecting intellectual property through trade secrets as opposed to patents).

[333] *See* Lon L. Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353, 394–95 (1978).

[334] *See supra* Part II.B.

[335] 125 S. Ct. 2764 (2005).

preme Court arguably adopted a structure-sympathetic position. Doctrinally, *Grokster* answered the limited question whether (and under what circumstances) the distributors of the peer-to-peer software used by downloaders to share music could be liable for contributory copyright infringement.[336] Two aspects of the case, however, demonstrated a broader appreciation for the structural perspective.

First, the *Grokster* suit itself makes music piracy more difficult for the average consumer by attacking the technology used to share music. Appropriately, the lawsuit targeted the centralized distributors of the technology, rather than the individual consumers that might have used it. The distributors—Grokster and Streamcast in this case—were easy to find and profit driven, making them more susceptible to enforcement and deterrence. To be sure, this litigation strategy will not always be effective: Software can be written and distributed by individuals, though the decreased legitimacy and fear of viruses from such software might undermine its popularity. In addition, unlike radar detectors, peer-to-peer software has many potential legitimate uses, making attempts to ban it fraught with difficulty. Indeed, the entire debate over the contours of contributory infringement is a delicate balance between protecting copyright and promoting new technologies.[337] That said, however, for a structure proponent, the *Grokster* case at least looked in the right place.[338]

Second, the Justices' analysis hinted at a possible structure for combating music piracy that would still preserve the availability of peer-to-peer software. In the course of essentially indicting the distributors for promoting infringement, the Court pointed to the fact that "there [was] no evidence that either company made an effort to filter copyrighted material from users' downloads or otherwise impede the sharing of copyrighted files."[339] From a strictly doctrinal standpoint, the distributors had no duty to take affirmative precautions; therefore, this fact was technically only indicative of the distributors' unlawful purpose.[340] However, one can venture that the Justices had structure on their minds. Building filters into peer-to-peer software would at least make piracy more difficult, or at minimum, prevent the software from actively facilitating it.

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[336] *Id.* at 2774–75.

[337] *See id.* at 2781; *see also id.* at 2791 (Breyer, J., concurring).

[338] Arguably, the *Grokster* decision is extremely important because of a potential "propagation problem." If average users can trade illegally "cracked" music (i.e., music in which the copy protection has been stripped), then a single circumvention could potentially propagate around the globe, rendering the copy protection irrelevant. However, under a wide-ranging structural regime in which legitimate electronics and software manufacturers made products that accepted only copyright-verified music, such "cracked" music would be far less of a problem. After all, no one wants cracked music if it does not play on one's iPod.

[339] *Grokster*, 125 S. Ct. at 2774; *see also id.* at 2781 (repeating the argument).

[340] *Id.* at 2781 n.12 (noting that in the absence of other evidence, contributory infringement could not be found "merely based on a failure to take affirmative steps to prevent infringement").

5. The Audio Home Recording Act.—Finally, the Audio Home Recording Act ("AHRA") of 1992[341] provides a fascinating example of structure from the past. It demonstrates that structure is indeed possible, and it illustrates how a well-considered and well-developed revision of the CBDTPA might work in practice.

Most Americans remember the days when music was commonly copied to a blank cassette. That was the way in which music was shared among friends, made suitable for one's "Walkman," or made part of a "mix" tape. Cassette copying, however, had its limits. Because sound quality consistently degraded from one copy to the next,[342] successive copying (making a copy from another copy) was effectively limited, creating an effective—albeit coincidental—structural limit on consumer copying. In 1986, however, digital audio tape ("DAT") technology threatened this delicate balance. DAT made repeated, flawless copying possible,[343] thereby threatening the music industry's livelihood.

In 1992, the electronics and music industries devised a compromise solution, the AHRA,[344] which imposed nothing short of a full structural regime:[345] The AHRA mandated the use of a Serial Copy Management System ("SCMS"),[346] which ensured that copies could only be made from

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[341] Pub. L. No. 102-563, 106 Stat. 4237 (codified at 17 U.S.C. §§ 1001–1010 (2000)).

[342] Baker, *supra* note 224, at 2 (noting that copying music from CD or LP to cassette has long been possible, but the resulting degradation in audio quality limited such copying).

[343] *Id.* at 3.

[344] *See* Eben Shapiro, *Accord on Digital Taping Now Faces Congress Debate*, N.Y. TIMES, July 12, 1991, at D1 (describing industry consensus on the AHRA and congressional approval). The AHRA's scope was limited only to "recording device[s]," 17 U.S.C. § 1001(3) (2000), which arguably excluded computers, 17 U.S.C. § 1001(4)(B)(ii), (5)(B)(ii) (2000), making it difficult to apply to the current music piracy problem. *See* Schulman, *supra* note 225, at 618–23 (debating the possibility that AHRA applies to computers); *see also* Recording Indus. Ass'n of America, Inc. v. Diamond Multimedia Sys., Inc., 29 F. Supp. 2d 624, 632–33 (C.D. Cal. 1998) (holding that the Diamond Rio, an MP3 player, did not fall under the AHRA because its inability to transfer MP3s to another machine rendered the SCMS generational protection moot); Baker, *supra* note 224, at 11.

[345] *See* Baker, *supra* note 224, at 3 ("Congress recognized that technology had outpaced the law, that it would be futile to sue or prosecute every consumer who made use of the new digital recording technology."); Timothy H. Ehrlich, Note, *To Regulate or Not?: Managing the Risks of E-Money and Its Potential Application in Money Laundering Schemes*, 11 HARV. J.L. & TECH. 833, 854 (1998) (suggesting that the AHRA "not only adapted copyright law, but also imposed a 'technological fix'").

[346] The SCMS system was implemented through the use of a "copy bit," which was regularly appended to the digital music stream. For copy-protected originals, the copy bit was set to "1." For non-protected originals, the copy bit was set to "0." For SCMS copies of copy-protected originals, the copy bit was set to toggle between "1" and "0." Therefore, when a DAT machine read the toggled copy bit, it would prohibit further copying to another tape. *See* Technical Reference Document for the Audio Home Record Act of 1991, H.R. Rep. 102-780(I), pt. I(B), at 46–47 (1992); Mitsui Advance Media, http://www.barrel-of-monkeys.com/graphics/prod/dvdplayers/scms.html (last visited May 31, 2005). Interestingly, the AHRA did not describe SCMS specifically, since the Technical Reference Document originally attached was removed prior to the bill's passage. *See* Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified at 17 U.S.C. §§ 1001–1010 (2000)); Schulman, *supra* note 225, at 609.

originals.[347] Penalties were imposed for the circumvention of the SCMS system,[348] and the AHRA implemented a royalty system, redistributing a small part of the price of each DAT tape and recording device to various music industry funds.[349]

DAT was ultimately a market flop,[350] and some commentators have blamed its failure on the AHRA for increasing DAT's cost and hindering successive copying.[351] But if we remain committed to the current system of copyright, we can hardly fault the AHRA for increasing costs and thwarting piracy. DAT technology imposed costs on the music copyright holders. The AHRA limited some of these costs by limiting successive copying and recouped others through the royalty system. If that cost internalization made DAT unprofitable, then measured against the extant copyright regime, DAT was a socially inefficient product.[352]

D. Success for Structure?

As a relatively new phenomenon, music piracy naturally does not suffer from the same institutional inertia problems that plague speeding. And as all the above structural "seeds" suggest, policymakers—whether they know it or not—are devising and considering structural solutions to the music piracy problem. In addition, even a recent Internet survey suggests that the public implicitly supports structure over fiat in this area.[353] Structure therefore has a chance, particularly if Congress generally shifts toward a more structural perspective on how to regulate behavior. Will music piracy end up as a speeding-like fiat regime? Or will Congress ultimately adopt a broad-ranging structural solution?

A pessimist might argue that the inclination will be toward a fiat regime because of the relevant political landscape. As noted in Part II.E, the regulation of music piracy can be cast as a struggle between the music in-

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[347] Baker, *supra* note 224, at 3. To increase flexibility, authority was given to the Secretary of Commerce to use an alternative system in the future. Schulman, *supra* note 225, at 610.

[348] 17 U.S.C. § 1009 (2000); Baker, *supra* note 224, at 3.

[349] 17 U.S.C. §§ 1003–1007 (2000). The royalty was 2% for each recording device (minimum $1, maximum $8), and 3% for each recording tape. *Id.* § 1004. The royalties were distributed two-thirds to the Sounds Recordings Fund, and one-third to the Musical Works Fund. The Sound Recordings Fund was distributed in various complex ways to musicians, vocalists, and copyright holders (usually, the music labels). The Music Works Fund was distributed 50% to music publishers and 50% to songwriters. *Id.* § 1006. *See generally* Michael I. Rudell, *The Audio Home Recording Act of 1992*, N.Y.L.J., Feb. 26, 1993, at 3 (describing the royalty scheme); Shapiro, *supra* note 344 (same).

[350] Baker, *supra* note 224, at 3–4.

[351] Levy, *supra* note 248, ¶ 27; *see also* Lessig, *Hollywood v. Silicon Valley*, *supra* note 316 ("Every time Congress has regulated technology to protect content, it has blown it.").

[352] Certainly, one can argue that the existing copyright regime itself is inefficient and distortive, but then the blame lies with the regime, not the structural mechanism that the AHRA represents.

[353] The survey found that forty-nine percent of Americans believed that companies that operate file-sharing networks should be held responsible for music piracy, but only eighteen percent believed that individual file-traders should be held responsible. *See* MADDEN & RAINIE, *supra* note 273, at 1.

dustry and electronic equipment manufacturers. On the one hand, the music industry wants to suppress music piracy, because that will either increase profits[354] or at minimum preserve existing markets. On the other hand, manufacturers of MP3 and other music players arguably benefit from the underenforcement of music piracy laws because consumers will be more interested in buying MP3 players if the music essentially comes free. Wedged between these two powerful interest groups, Congress may repeat the "fiat compromise" wrought by state legislatures in the speeding context. By making music piracy illegal and subjecting it to increasing penalties, Congress takes a rhetorically powerful stand against music piracy, placating the music industry. Yet, by failing to impose truly effective structural solutions, Congress practically assures the continued free downloading of copyrighted music on the Internet, satisfying the electronics manufacturers.

The recent success of the iPod and the (copy-protected) iTunes music store, of course, calls this view into question. Apple has demonstrated that good design, ease of use, and clever marketing have the potential to generate profits for electronics manufacturers even in the face of structural controls on music piracy,[355] so perhaps electronics manufacturers may ultimately relent.

VI. CONCLUSION

Historically, attempts to change behavior have been addressed primarily through fiat—legal prohibitions with accompanying penalties for noncompliance.[356] Fiat, however, is often too weak to counteract social norms and the inertia of familiar practices. Consequently, not only does the undesired behavior continue, but the ineffective prohibition also results in public disrespect for the law, and arbitrary and discriminatory enforcement. Speeding has shown this to be true, and although the effects of the music piracy litigation are still unknown, it too has already started to exhibit similar pathologies.

This Article has argued for a fundamental change in perspective. Legislatures cannot rule by fiat alone; rather they must develop structures that will channel behavior in desired directions,[357] as shown in the tax evasion

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[354] *But see* Felix Oberholzer & Koleman Strumpf, The Effect of File Sharing on Record Sales: An Empirical Analysis 1–2 (March 2004) (unpublished manuscript, on file with author) (arguing that the link between declining record sales and file sharing is unclear).

[355] *See* MADDEN & RAINIE, *supra* note 273, at 2 (reporting that "[c]urrent file downloaders are now more likely to say that they use online music services like iTunes than they are to report using p2p services"); Laurie Flynn, *Apple's Profit Quadruples, Thanks to iPod*, N.Y. TIMES, Jan. 13, 2005, at C1 (reporting huge profits for Apple due to its iPod, and also noting that the iTunes music store turned a small profit in the last quarter of 2004).

[356] *See* Katyal, *supra* note 41, at 1071 (noting that "[l]egal scholarship has been largely single-minded in its focus on one constraint, public enforcement of the law through police and prosecutors").

[357] *See* Lessig, *The Law of the Horse*, *supra* note 316, at 502 (discussing the "limits on law as a regulator" and the importance of "recognizing the collection of tools that society has at hand for affect-

context. By making antisocial behavior infeasible or more troublesome, structure has the ability to change default practices and dramatically reduce the number of violators, thereby enabling new social norms to take shape. Prohibitions are only a last resort, to be imposed on the remaining hold-outs who have shown a conscious willingness to flout the law. Installing governors on cars would eliminate speeding except for the few willing and with the technical knowledge to circumvent the devices. Similarly, widespread use of copy protection technology would cause many Americans to stop pirating music—in many cases for no reason other than that the fifteen dollars necessary to buy an album is a bargain when compared to the hassle and risks of viruses and spyware[358] that often accompany illegal software.[359]

This insight about how to regulate behavior raises two important questions for the future, for which this Article offers only preliminary answers. First, even if legislatures could overcome the institutional and political pressures against fiat regimes, do we really want a structured society? Are the liberty costs too great? Breaking down the liberty arguments, we see that they largely counsel caution and do not necessarily require the abandonment of structural laws: Structure can infringe on privacy and raise the specter of a police state, but those problems tend to arise only with Type I structures, which force compliance through surveillance and the constant threat of enforcement. Type II structures rarely raise such issues because they modify behavior directly and without police involvement. Similarly, Type II structures may raise accountability concerns because they regulate behavior behind the scenes. Yet, these concerns can be addressed by greater public awareness and a more open deliberative process.

Second, if we agree that structure is desirable, how can society prevent legislatures from adopting fiat regimes as political compromises? This problem obviously requires more comprehensive study, but one solution might include reinvigorating judicial doctrines such as vagueness or desuetude.[360] Properly strengthened, the doctrines would force legislatures to "mean what they say," preventing them from creating prohibitions that they have no intention of enforcing. Relying on judicial policing, however, raises issues about judicial activism and the role of prosecutorial discretion. It would also be ineffective against problematic private rights of action,

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ing constraints upon behavior"); *see also id.* at 513 (suggesting that regulation is "always a mix of direct and indirect strategies").

[358] *See* Katie Hafner & Michael Falcone, *Heart of Darkness, on a Desktop*, N.Y. TIMES, Sept. 4, 2003, at G1.

[359] *See* John Schwartz, *When Free Isn't Really Free*, N.Y. TIMES, Nov. 23, 2003, at C1 (describing the spyware costs of using music sharing services).

[360] *See generally* ALEXANDER M. BICKEL, THE LEAST DANGEROUS BRANCH 148–56 (1962) (discussing vagueness and desuetude); Corey R. Chivers, *Desuetude, Due Process, and the Scarlet Letter Revisited*, 1992 UTAH L. REV. 449 (1992) (discussing the failure of American courts to recognize the doctrine of desuetude).

such as the music piracy litigation, because policing when and whom a private party sues could prove impossible.

Ultimately, then, the responsibility for demanding more structure and less fiat may rest with the citizenry or citizen groups. And while the battle for structure will inevitably be difficult, it will be in many ways a worthwhile and noble one, for not only will it address many of the harms outlined in this Article, but it will also promote healthier democratic deliberation. As a toothless compromise tool, fiat has essentially disarmed political opposition and debate about issues that (unlike many other political issues) are actually part of our daily lives. Talking about structure will create greater transparency by producing more debate and political mobilization, enriching discussion, and ensuring that political safeguards remain effective.