

Minnesota Journal of Law, Science & Technology

Volume 9 | Issue 2

Article 18

2008

Legal Innovation and the Compliance Paradox

Emanuela Carbonara

Francesco Parisi

Georg von Wangenheim

Follow this and additional works at: <https://scholarship.law.umn.edu/mjlst>

Recommended Citation

Emanuela Carbonara, Francesco Parisi & Georg von Wangenheim, *Legal Innovation and the Compliance Paradox*, 9 MINN. J.L. SCI. & TECH. 837 (2008).

Available at: <https://scholarship.law.umn.edu/mjlst/vol9/iss2/18>

The Minnesota Journal of Law, Science & Technology is published by the University of Minnesota Libraries Publishing.



Legal Innovation and the Compliance Paradox

Emanuela Carbonara,* Francesco Parisi** & Georg von Wangenheim***

INTRODUCTION

Following previous work,¹ in this paper we study the interaction between legal and extralegal forces affecting human conduct, highlighting the possibility of countervailing effects of legal innovation. Traditionally, law and economics theory has relied on the conception of legal sanctions as prices in order to predict how changes in the law affect individual behavior. According to such models, individuals are motivated by external incentives and make decisions regarding legally relevant behavior by means of standard cost and benefits analysis.

The price model was, however, questioned by non-mainstream economists when some experimental evidence showed that individuals are often motivated by intrinsic rather than external incentives. For example, in a famous paper published in the *Journal of Legal Studies*, Uri Gneezy and Aldo Rustichini presented a field experiment

*© 2008 Emanuela Carbonara, Francesco Parisi & Georg von Wangenheim.

* University of Bologna, Department of Economics. The authors would like to thank Claire Hill, Brett McDonnell, Thomas Ulen, and the participants to Conference on "Self and Other: Cognitive Perspectives on Trust, Empathy and the Self," organized by the University of Minnesota Institute for Law and Rationality on April 6-7, 2007.

** University of Minnesota Law School and University of Bologna, Department of Economics.

*** University of Kassel, Faculty of Law.

¹. See Francesco Parisi & Georg von Wangenheim, *Legislation and Countervailing Effects from Social Norms*, in *EVOLUTION AND DESIGN OF INSTITUTIONS* 25 (Christian Schubert & Georg von Wangenheim eds., 2006); Emanuela Carbonara, Francesco Parisi & Georg von Wangenheim, *Unjust Laws and Illegal Norms* (Minnesota Legal Studies Research Paper No. 08-03, 2008), available at <http://ssrn.com/abstract=1088742>. While the first paper focuses on the interplay between a mechanism of interactive opinion formation and social norms, the second looks at the effect of sanctions on social norms. This paper is an attempt to link these two research lines.

838 *MINN. J.L. SCI. & TECH.* [Vol. 9:2
they conducted in several day-care centers.² Several centers lamented that many parents had the bad habit of coming late to collect their children, thus leaving the burden of personnel's extra time on the center. Gneezy and Rustichini tested the effects of introducing a fine for late-comers on parents' behavior.³

According to the traditional economic model, the fine represents a price for the action of leaving children at the center beyond the scheduled time. In a typical cost-benefit analysis the fine increases the price of coming late, and, therefore, fewer parents would do so. The result of the field experiment conducted by Gneezy and Rustichini was surprisingly different. In all the day-care centers in their study, there was a statistically significant increase in the number of children picked up late by parents.⁴

There could be several explanations for such a result. For instance, the idea of paying a "price" for leaving the children late transformed a "bad action" by parents into a further service provided by the center, and parents felt they were simply buying this service.⁵ Alternatively, buying more day-care for their children substantially reduced or even cancelled the sense of guilt they might have felt at the thought of leaving their children for longer in day-care and of exploiting the center's personnel.⁶ Whatever the motivation behind the observed behavior, the main issue is that legal intervention (internal regulation of day-care centers in this case) may have totally unexpected results. A regulator introducing new rules assuming a wrong or incomplete model of human behavior may trigger unintended forces and lead society to outcomes that are far from the social optimum.

The result at child day-care centers, albeit striking, is not the only one pointing out unintended results of (legal) rules. In another paper, Gneezy and Rustichini provide further experimental evidence of behavior opposite to

². See Uri Gneezy & Aldo Rustichini, *A Fine is a Price*, 29 J. LEGAL STUD. 1 (2000).

³. *Id.*

⁴. *Id.* at 8.

⁵. *Id.* at 11-13.

⁶. *Id.* at 14.

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 839 that predicted by the cost-benefit economic model.⁷ Also, Bohnet, Frey and Huck obtained results in sharp contrast with the prediction of the economic model. They present an experiment in which increasing the probability of detecting action in environments with weak institutions crowds out virtuous social norms and trustworthy behavior.⁸ Finally, the reaction of music downloaders and users of peer-to-peer technologies, whose number has increased after major labels and entertainment companies started suing copyright infringers, provide interesting anecdotal evidence of the inadequacy of the traditional economic model.⁹

The question of the true determinants of behavior in response to legal rules is therefore in urgent need of theoretical analysis to explain the huge variety of results of legal innovation.

In this paper we attempt to answer this crucial question with the aid of a broader model. The premise of our analysis is that human behavior is affected by factors beyond mere extrinsic incentives. These factors include individual values and social norms and constitute the intrinsic motivation of behavior. Often, intrinsic motivation and extrinsic incentives push individual behavior in opposite directions. For instance, the generalized social norm may allow sharing and downloading of music from the internet, thus encouraging individuals to engage in such activity. A sanction, on the other hand, discourages them. If intrinsic motivation exerts a stronger pull on individual behavior than extrinsic incentives and the two incentives encourage clashing behavior, we might observe more unintended results of legal intervention.

When intrinsic motivation is not aligned with extrinsic incentives we say that social norms have a countervailing effect. Specifically, in the case of legal intervention, this happens when the goals the legislature pursues or the means designed to achieve such goals are not aligned

⁷. See Uri Gneezy & Aldo Rustichini, *Incentives, Punishment and Behavior*, in *ADVANCES IN BEHAVIORAL ECONOMICS* 572 (Colin F. Camerer et al. eds., 2003).

⁸. See Iris Bohnet et al., *More Order with Less Law: On Contract Enforcement, Trust and Crowding*, 95 *AM. POL. SCI. REV.* 131, 141 (2001).

⁹. John Borland, *RIAA Lawsuits Yield Mixed Results*, *NEWS.COM*, Dec. 4, 2003, http://www.news.com/RIAA-lawsuits-yield-mixed-results/2100-1027_3-5113188.html?tag=item.

840 *MINN. J.L. SCI. & TECH.* [Vol. 9:2
with current social norms. As a consequence, individuals face legal rules clashing with their sense of justice or fairness, stemming principally from the social norms they follow. Then, the command of social norms counteracts the law, offsetting it.

This paper is organized as follows: section 2 describes in greater detail the interaction of extrinsic and intrinsic incentives; section 3 presents a model analyzing the effects of legal innovation; section 4 studies the role of countervailing social norms and introduces the compliance paradox; section 5 provides some policy prescriptions regarding the optimal instruments and timing of legal innovation in the presence of countervailing norms; and section 6 concludes, highlighting the possibility of countervailing effects of legal norms and providing some interesting historical cases.

2. THE BASIC MODEL: INCENTIVES, INTERNALIZATION AND SOCIAL REACTION

THE INTERPLAY BETWEEN SOCIAL REACTION AND THE LAW

Behavioral studies of responses to legal commands generally support the argument that the law affects human choice by creating external "incentives" and promoting the individual "internalization" of the values expressed by the law. More specifically, deterrence and internalization are the two distinct ways in which the law can influence behavior.¹⁰

Legal rules can create incentives by affecting the relative cost of alternate behavioral choices.¹¹ For example, by imposing a fine for an illegal activity the law raises the "price" of this activity relative to others. This change in relative prices will lead to a substitution effect and will ultimately affect human behavior: some illegal activities will be substituted for legal activities. Law and economics scholars refer to these effects of legal rules on

¹⁰. Robert Cooter, *Expressive Law and Economics*, 27 J. LEGAL STUD. 585, 607-08 (1998) [hereinafter *Expressive Law*]. See generally Robert Cooter, *Do Good Laws Make Good Citizens? An Economic Analysis of Internalized Norms*, 86 VA. L. REV. 1577 (2000) [hereinafter *Do Good Laws Make Good Citizens?*].

¹¹. *Do Good Laws Make Good Citizens?*, supra note 10, at 1584.

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 841
behavior as "incentives."

Legal rules can also affect behavior through "internalization." Robert Cooter, law professor at the University of California, Berkeley, developed a general theory of how legal rules can destroy or create social norms through the expression of social values.¹² According to Cooter, law may prompt citizens to adopt social norms without changing their preferences, or "tastes."¹³ Also, citizens may internalize norms by changing their own tastes. He calls all these effects "expressive law." Cooter focuses on situations where the mere creation of legal rules may change social conduct, even in the absence of enforced legal sanctions.¹⁴ He refers to social psychological research suggesting that the majority of citizens obey laws out of internal respect for the law in general.¹⁵ Expressive law is most effective when it aligns with pre-existing social values: then it simply reduces the costs of private enforcement and thus facilitates the values' becoming norms.¹⁶ Private enforcement follows two distinct channels. The first channel is generally termed "first-party enforcement": since individuals dislike disobeying the law, the (psychological) cost of performing a given action increases after that particular action is illegal. Thus people are induced to refrain from that action. The second channel goes through "second-, and third-party enforcement": once a given behavior is rendered illegal by the law, the subjects whose rights are protected by the law (second parties) and the community at large (third parties) may engage in private enforcement of the newly created legal rights by means of reprobation or possible reprisal. In these channels, the law acts as a signal for others observing violations. Citizens now feel entitled to exert extra-legal enforcement in the form of open disapproval, ostracism or even physical punishment of those who fail to behave in accordance with the law.

¹². *Id.* at 1581.

¹³. *See Expressive Law, supra* note 10, at 589 (defining taste as "strength of individual commitment to the norm").

¹⁴. *See Id.* at 607.

¹⁵. *Id.* *See generally* TOM R. TYLER, *WHY PEOPLE OBEY THE LAW* (1990). There is, however, a danger that unaligned law may crowd out moral norms rather than create them: individuals might feel it unnecessary to sanction violators of a norm if the government assumes this task.

¹⁶. *Do Good Laws Make Good Citizens?, supra* note 10, at 1597, 1601.

It is generally recognized that the alignment of legal precepts and decisions of authorities with current social norms and values has a positive influence on people's compliance with law, even when it is not in their self-interest to do so.¹⁷ Legitimacy is undermined when the content of the law departs from social norms, be they based on moral, ethical, or merely cultural values.¹⁸ Tom Tyler's individual work, as well as his combined work with Jason Sunshine, support the argument that the public's perceptions of a law's legitimacy affect people's compliance with the law.¹⁹

In this paper, we suggest that the effects of law further depend on the social "reaction" triggered by legal innovation. The extent of social reaction to a new law depends on the degree of consistency of the new law with prior social values.

When the law differs from the socially desired level of regulation, we might observe a backlash in which society tries to correct the law and align it with current social norms. The law may differ from the desired level in two alternative ways: 1) the law may be too strict; or 2) the law may be too lenient compared to what society perceives as just.

When the law exceeds what is deemed socially acceptable, people protest, adopt a behavior of civil disobedience, and try to stop its enforcement. In general, they approve an observed infringement of the "unjust law," and they try to stop the application of too-severe penalties.

In case the law falls short of the socially desired level, people protest and try themselves to apply the larger penalty they believe correct. Here, people show reprobation in front of an infringement of the (weak) law. Hence social reaction may reinforce or undermine the effect of legal intervention, depending on whether the law is too strict or too weak compared to the social norms.

¹⁷. See generally TYLER, *supra* note 15. See also TOM R. TYLER & YUEN J. HUO, TRUST IN THE LAW: ENCOURAGING PUBLIC COOPERATION WITH THE POLICE AND COURTS 213 (2002) (with respect to the decisions of authorities).

¹⁸. See TYLER & HUO, *supra* note 17, at 213.

¹⁹. TYLER, *supra* note 15, at 33; Jason Sunshine & Tom R. Tyler, *The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing*, 37 LAW & SOC'Y REV. 513, 534 (2003).

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 843

Absent initial alignment between legal rules and social values, legislators may ensure compliance with law through the creation of external incentives (i.e., sanctions). But, as it will be suggested below, reaction to unjust laws and countervailing norms may undermine the effect of legal incentives. Legal coercion may be counterproductive in some cases.

THE ENDOGENOUS RISE OF SOCIAL NORMS

In the previous subsection we stressed the essential role that social norms have in the determination of the final outcome of legal innovation. Before describing how social norms affect legal compliance, it is important to understand how these norms emerge among individuals and whether enacting laws exactly embodying social norms would be both efficient and utterly just for a legislator.

First, we should ask where legal norms derive legitimacy. Conventions and social norms (intended as the basis on which customary law is founded) are only one source of law, the others being legislation and judge-made law.

It is untrue that only laws based on social norms are just laws—no matter how they are perceived by the people. As David Young effectively puts it in his translation of Beccaria's *Essay on Crimes and Punishments*: "human conventions [...] are expressly formulated or simply assumed in view of common necessity and utility."²⁰ It is therefore a strong statement to say that human conventions that form the bases for social norms are efficient and follow principles of justice. Conventions are a way that people coordinate their behavior.²¹ Driving to the right (or to the left, in England) is a convention that allows two drivers facing each other to avoid collision.²² As Bob Sugden effectively explains, conventions typically spread because of past experience (last time I faced a driver, he kept the right), common

²⁰. CESARE BECCARIA, *AN ESSAY ON CRIMES AND PUNISHMENTS* 2 (David Young trans., Hackett Publishing Co. 1986).

²¹. See Robert Sugden, *Spontaneous Order*, 3 J. ECON. PERSP. 85, 87-88 (1989).

²². See *Id.* at 90, 93.

844 *MINN. J.L. SCI. & TECH.* [Vol. 9:2
background and ideas, and analogy.²³ There is a strong path dependency in the adoption of a convention. Path dependency implies that decisions are made following a backward looking, myopic approach. This is the exact opposite of the forward looking, rational expectations approach. Forward-looking individuals do not make systematic mistakes when making decisions. They are, on average, correct. They are therefore able to spot the convention that maximizes total surplus among the many possible conventions to which they may converge. On the contrary, backward-looking decision makers make systematic errors and can adopt the wrong convention, keeping it thereafter.²⁴

The same can be said of justice as of efficiency. Many social conventions have become very strict social norms that limit the freedom, restrict the rights and diminish the dignity of women and ethnic minorities.²⁵

Not only social norms but even "revelation and natural law," to use Beccaria's words once again, "though divine and immutable, have been changed by human fault in a thousand ways, by false religion and by arbitrary notions of vice and virtue in deprived minds."²⁶

That is why, in contrast with Cooter and the subsequent literature on expressive law, we consider the case in which laws do not align with pre-existing moral norms and social beliefs. Unlike Cooter's ideal scenario of non-paternalistic legal intervention,²⁷ we allow for paternalistic intervention aimed at manipulating social beliefs and behavior. We do not assume that law, values, and existing social norms are aligned. In our setting, laws can be enacted that clash with existing social norms, inducing civil disobedience and reinforcing the social values contrary to law.

We study the dynamic characteristics of the interaction between individual values and laws, and we

²³. See *Id.* at 85-97.

²⁴. See *Id.* at 97.

²⁵. See generally Emanuela Carbonara & Piero Pasotti, Social Dynamics and the Enforcement of Minority Protection Norms (June 2006) (unpublished manuscript, on file with author), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract_id=906635#PaperDownload](http://papers.ssrn.com/sol3/abstract_id=906635#PaperDownload).

²⁶. See BECCARIA, *supra* note 21, at 5.

²⁷. See *Do Laws Make Good Citizens?*, *supra* note 10, at 1577-81.

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 845
prove that existing social norms may trigger countervailing effects when a new law is passed. As pointed out above, this happens when the new law is more severe than people would support on average.

Although we will deal mainly with cases where the law is too severe, we are aware that there are several examples of protests against laws that were perceived by society as being too lenient. For instance, consider the protest that followed decriminalization of homosexuality amongst adults in Germany in the sixties or the recent protest in Italy following a proposed bill allowing gay marriage. Similarly, the promulgation of laws supporting a woman's right to terminate a pregnancy have given rise to political and social battles over abortion rights in many countries. In the United States this happened in 1973, with the Supreme Court decision in *Roe v. Wade*.²⁸ We argue that this type of protest is likely to have no countervailing effects on behavior.²⁹ As mentioned above, when people protest against a law being too soft, there is no effect on deterrence, and we may even observe private enforcement of social norms with the imposition of private sanctions. This may result in strengthened deterrence and further reduction of violations. There is evidence that antiabortion activities have had a significant impact on the reduction of the quantity of abortion services demanded and supplied in the United States.³⁰

When a law is perceived as unfairly strict, people can either voice dissent or be silent. In addition to that, people can also act against the law, violating it. We argue that protest is the most effective means of opinion formation. Violations can be the result of civil disobedience, but they can also be motivated by private benefit. It is difficult for observers to disentangle the real motivation of violators.

²⁸. 410 U.S. 113 (1973).

²⁹. This is not to say that a law perceived as too lenient does not pose problems. Private enforcement of social norms may severely limit the exercise of personal rights or may adopt violent and illegal means. Moreover, where a socially efficient level of the regulated activity exists, private enforcement may lead to underperformance. However, since the research presented in this paper deals with the existence of countervailing effects not produced by too lenient laws, we choose to leave this aspect to future research.

³⁰. See generally Leo H. Kahane, *Anti-Abortion Activities and the Market for Abortion Services: Protest as a Disincentive*, 59 *AM. J. ECON. & SOC.* 463 (2000).

We are now ready to analyze the effects of legal innovation in the presence of countervailing social norms and to understand the conditions under which the compliance paradox can occur (i.e., a situation where an increase in the strictness of the law reduces compliance).

3. THE EFFECTS OF LEGAL INNOVATION

Although we have stressed the impact that social values and norms have on compliance, we should be aware that such values are not immutable. Hence it is not given *a priori* that a law departing from current social values will be inevitably defeated.

Social values change over time. Paternalistic legal intervention aimed at changing a well rooted social behavior has an impact on social norms. Consider the example of the enactment of a law that prohibits smoking in public places in a community accustomed to public smoking. The new law could impose a sanction to deter individuals from smoking in public places, and the sanction would increase the relative price of the sanctioned activity possibly leading to a substitution toward other non-sanctioned activities. Legal external incentives leading to a substitution and thus behavioral changes may affect individual preferences in the long-run, contributing to a change in conventions and then in social norms.

INTERNALIZATION EFFECT

In addition to the extrinsic incentives just described, there are also intrinsic incentives provided by a new law. These intrinsic incentives may affect the evolution of preexisting social values. In the discussion above, we considered intrinsic motivations as possible antagonists of extrinsic incentives, and we drew an almost exclusive analogy between intrinsic motivation and social norms. In this subsection we want to highlight the multifarious and dynamic character of intrinsic motivation, showing how some components of it can exert pressure on social norms and move them in the direction desired by the legislator.

A powerful social norm, and one of the main constituents of individual intrinsic motivation, is the desire to obey to the law. According to Cooter, citizens are often

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 847
willing to pay to do their civic duties, which includes following the rules.³¹ Enacting a strict law that heavily punishes a given behavior is a clear signal that the State considers deterring citizens from performing that sanctioned action primarily important. This is exactly what is defined as the "expressive power of the law,"³² and this theory acts on other social norms, bending them towards the values embedded in the law.

Legal rules differ in their expressive power.³³ Laws with a strong expressive power are laws which citizens are willing to obey, even if obedience is very costly for them. In general, expressive power outweighs the possible effect of countervailing social norms and possibly changes these norms over time, resulting in increased acceptance of the initially controversial law. In such a case, the values expressed by the new law are internalized by people and gradually modify pre-existing social opinions, which is exactly what is meant by "internalization."³⁴

In our working example, a new statute that prohibits smoking in public places or that heavily punishes copyright infringement, expresses values that may be internalized by individuals. If individuals internalize the value expressed by the law, the law could increase its effectiveness, and potentially affect behavior even in the absence of direct incentives. In the specific examples above, non-legal enforcement mechanisms could be triggered. Individuals who internalize the value expressed by the law could engage in first-party enforcement, suffering guilt or shame when violating the prohibition. Likewise, second-party and third-party enforcement could be carried out by non-smokers and by people not engaging in the download of copyrighted material against

³¹. See *Do Good Laws Make Good Citizens?*, *supra* note 10, at 1581-84.

³². *Expressive Law*, *supra* note 10, at 595 ("The expressive theory of law holds that eliciting voluntary obedience from most citizens make law effective, and the effects may be greater than applying state sanctions to a few recalcitrant wrongdoers.").

³³. It would be interesting to analyze the determinants of the expressive power. In general, it seems that the expressive power of a law is inversely related with the degree of forcefulness of the social values the law tries to bend. However, literature on this specific issue is almost non-existent.

³⁴. See *generally Expressive Law*, *supra* note 10.

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 849
the RIAA, but it also spawned a strong wave of protest. Commentators believe that this is a false victory and that it will result in backlash against the music industry, as has happened in the past.³⁹

Thus, if new legal prohibitions clash with existing social values, they may induce reaction. The degree of reaction to legal prohibitions obviously varies with the extent to which the new law departs from current social norms.

Negative social reactions to a new law may weaken and undermine the effects of legal intervention. As shown in our previous economic paper, through an opinion formation process, individual negative reactions may reinforce other individuals' dislike of the law, with countervailing effects.⁴⁰

If the expressive power of the law is not very strong, a sudden increase in the strictness of the law may lead to countervailing effects, where the situation after the legal change is one with high protest and an increased rate of violations compared to the initial situation. An initial reaction to unfair laws may occasion a shift in equilibrium behavior that goes in the opposite direction from that intended by the law.⁴¹

4. LEGAL INNOVATION AND THE ROLE OF COUNTERVAILING NORMS

The argument presented in the previous sections can be summarized as follows. Human behavior is influenced by both external incentives (prices and sanctions) and by intrinsic motivations. Two main components of intrinsic motivation are of interest in our analysis: the preference individuals have for obeying to the law—independent of its content—and the influence that social norms exert on behavior.

When legal innovation aligns with preexisting social values, these two components move preferences in the same direction, forcing internalization. Conversely, when the law departs from current social values, the expressive and reaction effects will play opposite roles. The final

³⁹. *Id.*

⁴⁰. See Carbonara et al., *supra* note 1, at 6.

⁴¹. *Id.*

outcome and the ability of the legislator to achieve her intended goal depends on the relative magnitude of external incentives, expressive and reaction effects. A law will have a positive marginal impact on behavior when the sum of incentives and expressive effects outweighs the reaction effects. In other papers, the authors of this article carried out an economic study of the dynamic interaction of these three factors and their impact on legal compliance, identifying several possible scenarios.⁴² In the following sections, we provide an account of the results of our economic models.

BALANCING THE EFFECTS OF LEGAL INTERVENTION

Consider a simple framework in which individuals have to decide whether to obey a given law or not. Their decision is influenced, among other factors, by the magnitude of the sanction that would be imposed in case of non-compliance, by the strength of the expressive power, and by the extent of protest that a specific law generates. We follow the traditional economic model by assuming that individuals are more prone to obey the higher the sanction. We also follow the literature on the expressive function of the law assuming that the stronger the expressive power, the higher the intrinsic incentive to obey. The new element we introduce in the analysis is the effect of protest on compliance. The more individuals engage in social protest against the law, the less likely it is that people will obey to the new law.

To understand why this may be the case, one should consider that protest is a public expression of dissent, which reveals that the law clashes with the protesters' shared values. A visible and popular protest shows that the new law does not reflect social norms.

The generalized level of protest in a society depends positively on the strictness of the law.⁴³ The stricter the

⁴². *Id.*; see Parisi & Wangenheim, *supra* note 1.

⁴³. In general, we may devise two alternative definitions for the strictness of the law. A first, straightforward definition is based on the amount of the sanction imposed to violators: the higher the sanction, the stricter the law. A law that imposes life sentence for homicide is a very strict law. A second possible definition is based on the extent of the prohibition prescribed by the law. A law that prohibits smoking in parks and streets is more restrictive than a law that prohibits smoking only in closed public spaces, like restaurants and cinemas. Both

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 851
new law, the higher the upsurge in protest. The intuition behind this statement can be provided by the following example. Consider the case where individual i believes that sharing music over the Internet is wrongful and believes that somebody downloading one song should be fined \$10. Now assume that the law prescribes a fine equal to \$2,000. Such an individual could disapprove of the excessive harshness of the law and empathize with the "wrongdoer" who suffers a harsh punishment for such a minor crime.

When the law has a strong expressive power, the combined effect of incentives and internalization will dominate the effect of reaction. An increase in the severity of the law would suffice to counterbalance the effect of protest and increase legal compliance. When the instrument of legal innovation has a strong expressive power, the enactment of a law backed by an enforceable sanction will thus have its normal effect of reducing the rate of violations. This will ensure that legal intervention produces its intended effects with a dominance of incentive effects.

This case is depicted in Figure 1. Define x as the rate of violations of the law, and p the level of protest. The variable x represents the percentage of individuals disobeying the law, be that civil disobedience or mere illegal behavior. Protest p is the percentage of individuals expressing dissent towards the law. As argued above, a law that is contrary to current social values or more restrictive than people would ordinarily support triggers an increase in protest. For a given sanction and expressive power, the rate of violations is an increasing function of protest. The rate of violations depends negatively on the sanction S , meaning that the function $x(p)$ shifts downwards when a stricter law is passed, due to the incentive and internalization effects. Figure 1 considers a case in which a legal change is introduced. The new legal standard is B , raising the strictness of the preceding law. In our example, this is accomplished by increasing the sanction imposed to violators from a given S_A to S_B . This has two distinct effects. It decreases the rate of violations for a given level of social protest (effect

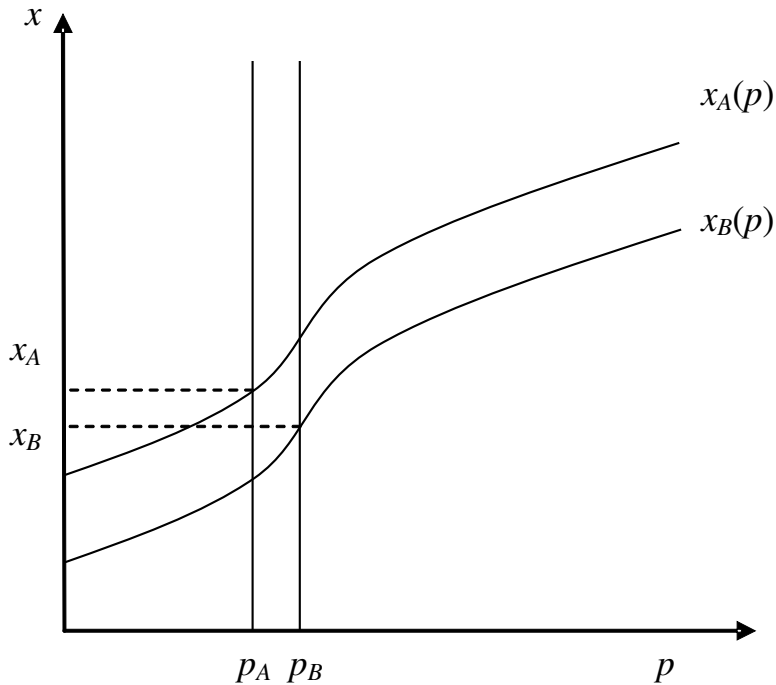
definitions are interchangeable in our analysis.

represented by the shift of the curve $x(p)$ from $x_A(p)$ to $x_B(p)$ and it increases protest from p_A to p_B . In Figure 1, the shift in protest is not high enough to compensate the incentive and the expressive effects, so that the new rate of violations, x_B , is lower than the initial one, x_A .

Figure 1

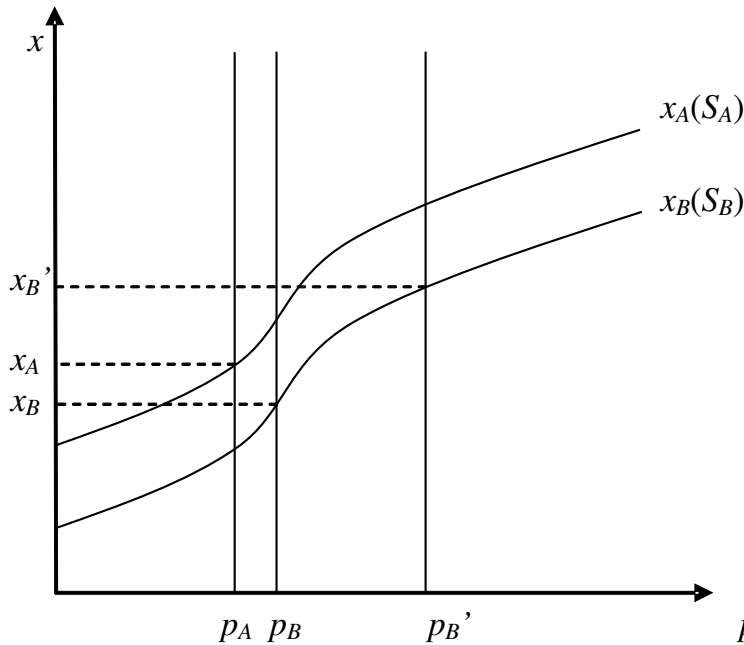
THE COMPLIANCE PARADOX

We now consider a case in which the law does not



have a strong expressive power, but social reaction to the legal change is significant. Here the combined effect of incentives and internalization may not be sufficient to dominate the effect of reaction.

Figure 2



This second case is depicted in Figure 2. Again, we consider an increase in the sanction from S_A to S_B . This produces the shift of the curve $x(p)$, from $x_A(p)$ to $x_B(p)$, and it increases protest from p_A to p_B' . As it is possible to see from Figure 2, in this case the increase in protest is substantial, and more than compensates the incentive and the expressive effect. The new rate of violations, x_B' , is now larger than the initial one, x_A .

Adding incentives by exacerbating legal sanctions may be counterproductive in this case. When the new law departs from preexisting social values, a more repressive law is likely to induce more individuals to react with protest. The final large number of protesters sustains a high level of violations of the new, more restrictive, law.

These unintended effects of legal intervention would thus lead to a compliance paradox—an increase in the strictness of the law would lead to an increase in legal violations, defeating the goals pursued by the lawmaker.

SOCIAL OUTRAGE AND HYSTERESIS

So far we have assumed that protest reacts to the

"absolute strictness" of the law. In other words, a law sanctioning shoplifting with ten years in jail raises more social reaction than a law sanctioning it with just ten months in jail. It is generally true that absolute strictness, as defined above, influences the extent to which a given law receives social support rather than rejection. However, it is also true that protest is spawned by the relative change of the law. If, to continue with our example, the sanction for shoplifting is raised from ten months to ten years in jail, this is likely to raise much more protest and social reaction than a case where the sanction increases from ten months to one year.

From this we can derive another important implication: if protest reacts to the relative change in the strictness, laws that are perceived as excessively strict or even unjust when enacted could be tolerated and eventually accepted over time. In other words, protest subsides after some time. This is tantamount to saying that people get used to a given strictness over time.

The initial reaction may, however, lead to reinforcing contrary social opinion and, through a process of hysteresis, may produce a permanent increase in protest in the long run, even after the initial effect due to social outrage subsides.⁴⁴ This phenomenon can be explained in terms of Figure 2. Assume that the new legal standard, S_B , is much higher than S_A . Its enactment provokes a big leap in protest, bringing it to a very high level, say further beyond p_B' . After some time, people get used to the new legal standard and protest decreases. However, due to hysteresis, protest will stabilize at p_B' , where the rate of violations has increased with respect to the situation existing before the new legal standard was introduced.

If the process of hysteresis is positively linked to the maximum level of protest reached after the enactment of the new law, the bigger the difference between the current and the new legal standard, the higher the probability that countervailing effects will lead to the compliance paradox.⁴⁵ To see this, consider a case where

⁴⁴. When a system presents hysteresis, its reactions to an external influence depend both on the actual magnitude of that specific influence and on the previous history of the system. In other words, the system presents "path dependency".

⁴⁵. For a formal analysis of this case see Carbonara et al., *supra* note

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 855
the new legal standard is not much higher than S_A . Even if protest initially raises to a level beyond p_B in Figure 2, when people get used to the new standard, protest will subside to p_B , which is very close to p_A . In such a case, the increased sanction decreases overall disobedience. If the legislator proceeds to implement small consecutive legal changes, protest may stay close to p_A in the long run while the sanction eventually reaches a very high level with a maximum deterrent effect.

In the next section we will derive some policy prescriptions useful to avoid the compliance paradox.

5. CHOOSING OPTIMAL INSTRUMENTS OF LEGAL INNOVATION

The law affects behavior through different channels. First, as discussed above, the law impacts individual choices by creating deterrence through incentives. Second, the law operates through internalization. Finally, the law has effects on behavior through social reaction. The combination of these elements ultimately determines the effectiveness of legal intervention. Lawmakers should thus design law in order to induce an appropriate balancing of incentives, internalization and reaction effects.

First of all, the existence of a compliance paradox indicates that statutes intending to induce substantial shifts from current norms may have to proceed in a gradual fashion. Moving the statute in the desired direction in small, consecutive steps that allow for the gradual adaptation of the individual values to the values expressed in the statutes, will avoid the countervailing effect of internal norms—the disobedience rate will be small in every step. If the legal change is implemented gradually, individuals have the time they need to adapt their internal values to the content of law.

A good example of gradual implementation that avoided potentially strong countervailing effects are laws prohibiting smoking in public places. In Italy, for example, smoking was prohibited first in hospitals and schools, then in trains and finally in restaurants. The latter stage was preceded by a thorough press campaign stressing the

856 *MINN. J.L. SCI. & TECH.* [Vol. 9:2
damages due to smoking, both active and passive. As a result, the law was quite successful, with very little protest, and resulted in a substantial reduction in the number of smokers in public places. In the United States, a similar trend was followed and the law is now becoming more and more restrictive with little protest. In some cities, laws prohibit smoking even in private places.⁴⁶

The compliance paradox suggests another interesting solution. Countervailing effects of social reaction could be exploited as a policy instrument and legal deterrence could be increased by reducing the strictness of the law.

Music downloading and peer-to-peer sharing could constitute an interesting test of this innovative theory. When harsh decisions, like the one in Minnesota,⁴⁷ are made, more and more people start seeing the music industry as "evil" and start acting to harm it. Because of the compliance paradox, decisions like these can act like a "boomerang" against the music labels, contributing to its decline by increasing the extent of copyright infringement.⁴⁸

A way to solve the problem of piracy (not only of digital goods but also of counterfeited fashion goods) would be to impose much lower fines. This would increase the number of cases where the fine is actually applied and the deterrence effect would be magnified.

When gradual adjustments are not possible (e.g., due to the discrete nature of legal change or not viable on political grounds), legislative change should use instruments other than sanctions to obtain the desired result. This should be done to avoid too much public protest (and the consequent high level of disobedience), as those activities undermine the authority and acceptance of the enacted law. Taxes might be a better option in such cases, as they are less likely to trigger "countervailing-norm" effects, even if laws accompanied by sanctions contain a stronger "expressive value."

In this respect, our analysis also provides insights for the understanding of the effect of positive and negative

⁴⁶. *E.g.*, BELMONT CITY, CAL., MUN. CODE § 20.5 (2007), available at http://www.belmont.gov/SubContent.asp?CatId=240001398&C_ID=240002690.

⁴⁷. See Leeds, *supra* note 38.

⁴⁸. *Id.*

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 857
incentives. The reward of a non-violation may be seen as equivalent (in incentive terms) to the sanctioning of a violation. This equivalence may be lost when the expressive and countervailing effects are taken into account. While positive and negative incentives may have similar expressive effects, they may also have opposite countervailing-norms effects. The giving of a reward is, in fact, less likely to trigger reaction than the imposition of a punishment.

Finally, our model sheds new light on the debate between the magnitude and the probability of a fine, ignited by professor Gary Becker in 1968.⁴⁹ As well-known in the literature, the same expected fine can be generated with infinite combinations of probability versus magnitude of a sanction. Given that increasing the probability of a sanction entails high costs and that increasing the magnitude of the fine is not as costly, the conclusion supported in the past is that the tradeoff between probability and magnitude should be resolved by setting the maximum fine possible and reducing the probability of application.⁵⁰ In light of our results, the choice of probability and magnitude combinations may have different effects with respect to countervailing norms. This might substantially change the policy recommendations drawn from that model. The analysis of the consequences of countervailing norms on the optimal combination of probability versus magnitude of a fine is left for future research.

CONCLUSIONS

In this paper we have analyzed the interaction between legal and social norms, highlighting the possibility of countervailing effects of legal norms. In general, it is very likely that rules that depart from current social norms and individual values trigger opposition, leading to an upsurge in protest and even to an increase in disobedience. We have assumed that individuals can express their dissent against the law. By engaging in protest and disobedience, individuals reveal their values

⁴⁹. Gary Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 190-98 (1968).

⁵⁰. *Id.*

to others, which might result in a reinforcement of other individuals' dislike of the law.

Therefore, the alignment of the law to existing morality is critical for the preservation of legitimacy and the ability of law to effectively shape conduct. As laws depart from shared moral values, the influence of law on social norms becomes indeterminate. Laws that depart only slightly from the current mode may occasion a gradual adaptation of the opinions to the new statute. For example, the criminal law's influence as a moral authority has effect primarily at the borderline of criminal activity, where there may be some ambiguity as to whether the conduct really is wrong. Here the law drives the evolution of norms in the same direction of the law.

In other cases, new statutes, which differ substantially from the current opinion mode, may lead to opposition. Dissent may result from a discrepancy between the present state of the law and the prevailing public attitude toward the regulated conduct. Some individuals will manifest their dissent by expressing their opposition to others (protest), while others will oppose the law by ostensibly violating it (civil disobedience). Protest and civil disobedience signal dissent and, through a process of hysteresis, may lead to reinforcing contrary social opinion.

Different types of disobedience have been identified in the literature. Civil disobedience may be a protest against laws that infringe against what individuals perceive to be their natural rights. Protest and civil disobedience can be directed at laws perceived either as too strict or too lenient compared to the current opinion.

Similarly, civil disobedience can take the form of a protest against the failure of the law to recognize or fulfill individual rights and expectations. This second form of disobedience is the assertion of a right that is not recognized in the existing system of law. In this case, a violator attempts to assert that a right which is not recognized by law today, ought to be recognized, or that the existing legal language must be interpreted to recognize such right. While the assertion of a positive legal right is justified on legal grounds, the assertion of non-recognized law can be justified on moral grounds. Examples of such disobedience can be found in the various forms of protest in the area of human rights law.

2008] *LEGAL INNOVATION & COMPLIANCE PARADOX* 859
Historically, this form of civil disobedience has been very valuable to society, allowing acceptance and gradual discovery of new rights in ways that would not have been developed through traditional political or lawmaking processes.

Although in the text we have provided several examples obtained from current commonplace experiences, there are also some interesting historical cases. For instance, Harvard University Law Professor William J. Stuntz considers how criminal law can defeat itself due to the lack of alignment between criminal laws and laypeople's values and norms, generating disobedience rather than obedience.⁵¹ Stuntz focuses on vice crimes (e.g., drinking during Prohibition, gambling) and highly divisive "moral" crimes (e.g., sodomy, slavery), noting that vice crime enforcement has historically been concentrated upon poor and urban neighborhoods.⁵² Such enforcement led to the perception that these policies were driven by racial or class bias rather than moral justice, corroding the authority of the law for a larger portion of the public.⁵³ These examples are good illustrations of how law can positively or negatively influence social norms. Moral crimes, involving issues over which public opinion is widely split, tend to have a set of people "on the fence," highly susceptible to persuasion. Consequently, effective media coverage of criminalized activities can positively influence individual beliefs, creating a critical mass necessary to create a self-reinforcing norm. On the contrary, other persecutory laws may laws generated sympathy for the targeted class of violators generating dominant social support for tolerance or repeal of the criminalizing law.⁵⁴

In this paper we have presented a simple model able to give account of the mechanisms described above. We have considered the role of law in influencing human choice through external incentives and internalization. In contrast with previous literature, we have considered explicitly the case of laws that do not align with pre-

⁵¹. William J. Stuntz, *Self-Defeating Crimes*, 86 VA. L. REV. 1871, 1872 (2000).

⁵². See generally *id.*

⁵³. *Id.* at 1872.

⁵⁴. See *id.*

existing moral norms and social beliefs. We have studied the dynamic characteristics of the interaction between individual values and laws, proving that existing social norms may trigger countervailing effects when a new law is passed.

We have shown that when the law has a strong expressive power, an increase in the severity of the law always has the effect of silencing protest and reduces the rate of violations. This is because a law with a very high expressive power is never countervailing. On the other hand, if the expressive power of the law is not very strong, a sudden increase in the strictness of the law may lead to countervailing effects, where the situation after the legal change is one with high protest and an increased rate of violations compared to the initial situation. Thus, statutes intending to induce substantial shifts from current norms may have to proceed in a gradual fashion. When gradual change is not possible, other instruments than sanctions should be used, like taxes. Finally, the legislator could make instrumental use of the countervailing effect of social norms. When countervailing effects are very strong, a more lenient law may have a higher impact on deterrence than implementing a severe law.

Future work should consider the possibility of long-run effects of legal innovations that run contrary to prevailing social wisdom. If lawmakers enact pieces of legislation that too frequently deviate from existing social norms, the long-run expressive effect of the law may be undermined. Insofar as people are inclined to follow legal rules because they are the law, they may become less inclined to do so if they frequently observe that the law runs contrary to prevailing social wisdom. A systematic discrepancy between the law and the preexisting social norms may render the law objectionable and undermine the legitimacy of legal intervention in the long-run.