

Oregon Law Review  
Spring 2000 - Volume 79, Number 1  
(Cite as: 79 Or. L. Rev. 23)

**Symposium: New and Critical Approaches to Law and Economics (Part I)**  
**Behavioral Economics, Law and Psychology**

**\*23 BEHAVIORAL ANALYSIS AND LEGAL FORM: RULES VS. STANDARDS REVISITED**

Russell B. Korobkin [\[FN1\]](#)

Copyright © 2000 University of Oregon; Russell B. Korobkin

Introduction

When lawmakers make legal pronouncements, they must decide not only on the substance of the pronouncements, but also on their form. The choice of legal form has long been described as a choice between "rules" and "standards." [\[FN1\]](#) Rules state a determinate legal result that follows from one or more triggering facts. [\[FN2\]](#) The 65 mile per hour (mph) speed limit is a rule. If a driver travels faster than 65 mph, he has violated the law. If he travels at 65 mph or less, he has not violated the law. No other circumstances are relevant to the legal consequences of the driver's act. Standards, in contrast, require legal decision makers to apply a background principle or set of principles to a particularized set of facts in order to reach a legal conclusion. [\[FN3\]](#) A law requiring drivers to travel "no faster than is reasonable" is a standard. To determine whether the driver has or has not violated the law, an adjudicator must investigate the range of relevant driving conditions and apply the background principle of reasonableness to the situation.

Most scholarly analyses of rules and standards attempt to determine which legal form is substantively more desirable in different circumstances, [\[FN4\]](#) usually by comparing the costs and [\\*24](#) benefits of the competing forms. [\[FN5\]](#) Much of this literature can be classified broadly as "law and economics" in nature (although many of its authors are not usually associated with the law and economics movement) for two reasons. It emphasizes a utilitarian analysis of the consequences that the choice of form will have on the actions of citizens subject to the law and legal system participants. And it assumes, implicitly if not explicitly, that citizens and system participants will react rationally to the incentives created by the choice of legal form.

This Article revisits the question of legal form from the law and behavioral science perspective. [\[FN6\]](#) This perspective shares with economic analysis a focus on the incentive effects of legal pronouncements. It deviates by jettisoning the presumption of economic analysis that citizens who are subject to the legal system always respond to its pronouncements in ways that are consistent with the predictions of rational choice theory. That is, the behavioral approach uses economic analysis as a point of departure but relaxes the strict behavioral assumptions of rational choice theory. The comparison of the costs and benefits of rules and standards is richer and more complete when behavioral analysis is combined with economic analysis than when only economic analysis is considered.

Part I of the Article creates a context for the comparison of rules and standards by describing the choice of legal form as a [\\*25](#) choice among points on a spectrum with rules at one end and standards at the other. This Part contends that rules can often have standard-like qualities, standards can have rule-like qualities, and at the margin rules can merge into standards and vice versa. Nonetheless, it maintains that rules and standards can be differentiated enough for the investigation into the normative choice between the two to be a coherent and useful endeavor.

Part II uses economic analysis to compare the virtues of rules and standards. More specifically, it identifies three primary issues of concern to the economic analysis of the choice of legal form: administration costs, undesirable behavior costs, and private transaction costs.

Part III, using the behavioral analysis approach, relaxes the strict behavioral assumptions that underlie economic analysis. Doing so leads to three observations relevant to the choice of legal form. First, judgment biases such as

the self-serving bias, the hindsight bias, and "bounded rationality" generally might have different implications for rules than for standards. Second, the choice of legal form can affect citizens' perceptions of their legal endowments and, thus, their preferences. Finally, rules and standards are likely to have a differential effect on the ability of law to shape citizens' actions by signaling community norms. These observations are then factored into the comparative analysis of rules and standards.

## I The Rules and Standards Spectrum

Legal pronouncements can be classified as rules or standards on the basis of their clarity prior to an incident that invokes the legal system either directly through adjudication or indirectly through negotiations that take place in the shadow of the possible resort to adjudication. Rules establish legal boundaries based on the presence or absence of well-specified triggering facts. Consequently, under a rule it is possible for citizens (with good legal advice [\[FN7\]](#)) to know the legal status of their actions with reasonable certainty *ex ante*. Standards, in contrast, require adjudicators (usually judges, juries, or administrators) to incorporate into the legal pronouncement a range of facts that are too broad, **\*26** too variable, or too unpredictable to be cobbled into a rule. Consequently, under a standard, citizens cannot know with certainty *ex ante* where a legal boundary would be drawn in the event a set of specified facts come to pass. [\[FN8\]](#) Stated in these simple terms, rules and standards can be viewed as dichotomous forms of legal pronouncements. For example, the pronouncement that "mothers are entitled to custody of minor children in the event of divorce" is a rule, whereas the pronouncement that "custody is determined based on the best interests of the child" is a standard.

In real world situations, however, the distinction between rules and standards is often less extreme, and the two types of legal forms are better understood, as a descriptive matter, as endpoints of a spectrum than as dichotomous categories. A rule that is applied consistently without variation can be called a "pure rule." [\[FN9\]](#) Most rules have qualifications or exceptions, which is to say that certain triggering facts may invoke the rule but additional, second-level triggering facts may negate the rule. The mere presence of exceptions may be said to make the rule complex, and it may be argued that complexity alone does not reduce a rule's purity *per se*. [\[FN10\]](#) For example, a pronouncement that "a divorcing mother is entitled to child custody except when she is addicted to drugs, in which case the father is entitled to custody" would be complex because of the exception to the general rule, but it would still be a rule. The legal entitlement of custody can be discovered *ex ante* even under the more complex rule, at least assuming competent legal advice, with the caveat that language is always subject to some ambiguities on the margin (e.g., what is "addiction" ?).

The more qualifications and exceptions a rule has, however, the more likely it will be applied unpredictably. When adjudicators **\*27** frequently develop new exceptions to rules, the legal consequences of actions become less predictable *ex ante* and, by definition, the rules themselves are less pure. [\[FN11\]](#) If lawmakers announce unpredictable exceptions to a rule infrequently, the law may still be classified as "rule-like" in nature, although shading somewhat toward the "standard" end of the legal form spectrum. For example, if exceeding the 65 mph speed limit is usually seen as a *per se* violation of the law, but courts occasionally excuse drivers who speed to avoid striking another car or to deliver a sick friend to the hospital, the speed limit is still properly labeled a rule, although it isn't a pure rule. As the frequency of unpredictable exceptions to a rule increases, however, the law comes to resemble a standard more and more (such as when the speed limit is 65 mph except in frequent cases in which judges excuse faster driving), and eventually disappears into a "gray area," in which it is difficult to classify the law as a rule or a standard. [\[FN12\]](#) At the extreme, when a rule is enforced rarely or randomly, it can be said that the law's form has migrated across the legal form spectrum and become a standard. For example, if courts will enforce a rule that mothers are entitled to custody only after reviewing all the unique circumstances of a divorce and determining that the rule should not be abrogated for some reason, it is more appropriate to classify the law as a standard.

A "pure standard" is a legal pronouncement that specifies no triggering facts that have defined legal consequences. [\[FN13\]](#) The basic negligence requirement of acting as would a "reasonable person" is close to a pure standard. The legal pronouncement specifies no facts that would automatically trigger a finding of negligence, and no facts that would trigger a finding of non-negligence. Furthermore, **\*28** the standard does not even identify facts that would be evidentiary of either outcome.

Multi-factor balancing tests are less pure and more rule-like than requirements of "reasonableness" because they specify ex ante (to a greater or lesser degree of specificity) what facts are relevant to the legal determination. They still fall on the "standard" side of the spectrum, however, because they do not specify how adjudicators should weight the relevant factors. [FN14] Consequently, citizens often cannot know with certainty ex ante whether a particular action will be classified ex post as within or beyond the legal boundaries.

Consider, for example, the famous case of *Tunkl v. Regents of the University of California*, in which the court pronounced that it would not enforce a contract clause that exculpates the negligence of a service provider when doing so violates public policy. [FN15] Had the *Tunkl* court announced only this principle, it would have established a pure standard, one with no fact-specific guidance. The *Tunkl* court, however, specified six factual characteristics relevant to a finding that an exculpatory clause would violate public policy. [FN16] The presence of the "Tunkl factors" moves the legal pronouncement out of the realm of a pure standard, because the factors identify the types of facts that are relevant to the determination. This means that in some \*29 circumstances, i.e., when none of the Tunkl factors are present, adjudicators can resolve disputes without resort to general principles. But *Tunkl* is still appropriately labeled a "standard" because in most circumstances the pronouncement alone does not clearly resolve whether courts will enforce an exculpatory clause.

Just as a pure rule can become standard-like through unpredictable exceptions, a pure standard can become rule-like through the judicial reliance on precedent. Imagine a pure standard that specifies landlords must provide "habitable" apartments, and that, based on this standard, a court rules that a landlord who did not provide heat has failed to meet the standard. If a second court, and even a third and a fourth, reaches the same result under identical facts based on its de novo interpretation of the standard, the legal pronouncement remains a standard, albeit one that has been applied consistently. But if the second court relies on the first court's decision for the proposition that apartments without heat are per se uninhabitable, the standard has become modified by a rule when a certain triggering fact is present. [FN17]

The extent to which the legal pronouncement may still properly be termed a standard depends on the extent to which other facts are also relevant to the habitability determination. If insect infestation, inconsistent running water, and leaky roofs may or may not violate the law, depending on the circumstances, the habitability requirement is still predominantly a standard, although not a "pure" one; triggering facts are determinant in one circumstance (temperature control), but otherwise fact-intensive investigation is necessary. If the presence or absence of a violation of the habitability requirement is always determined by reference to the presence or absence of specified triggering facts, what might have begun its life as a pure standard can be said to have crossed the spectrum and become nearly a pure rule.

\*30 The legal forms of rules and standards, then, are better understood as spanning a spectrum rather than as being dichotomous variables. [FN18] Not all rules are pure rules; exceptions can render them standard-like in some circumstances. Similarly, not all standards are pure; reliance on precedent can make standards partially rule-like. At a certain point, rules can become so riddled with unpredictable exceptions that they are as much standard as rule, and standards can become so determinate that they are as much rule as standard; these composites reside in the "gray area" at the center of the spectrum. In more extreme cases, standards can become so determinate that they are transformed into rules, and rules so unpredictable that they are transformed into standards. [FN19]

Despite this fluidity, however, it is possible to classify most legal pronouncements as standards or rules, based on their core characteristics. Under rules, outcomes are determined by the presence or absence of triggering facts that can be specified ex ante; under standards, outcomes require situation-specific factual inquiries and/or balancing of competing factors. These different core characteristics of rules and standards translate into different costs and benefits that policy makers should consider when selecting a legal form. These costs and benefits are considered in the next two Parts.

## II An Economic Analysis of Rules and Standards

As previously noted, scholars have long been interested in the optimal choice of legal forms. In a very broad sense,

all analyses of rules and standards that attempt to compare the costs and benefits of each form can be said to be economic in nature because their ultimate goal is to identify which form has more benefits \*31 than costs. Analyses are economic in a narrower sense, however, when they set aside deontological, rights-based arguments [FN20] and political philosophy arguments [FN21] about rules and standards and emphasize the incentive effects the choice of form will have on the behavior of citizens who are subject to the law and on those charged with enforcing the law. This is to say that legal economists take seriously that the law will encourage or discourage citizens from taking various possible actions and, consequently, the law can cause good and bad social consequences. The normatively appropriate legal form will minimize net social costs of the resulting behavior. The considerations that inform the normative evaluation of legal form from this perspective can be grouped into three categories: administrative costs, undesirable behavior costs, and private transaction costs. This Part describes these types of costs consistent with traditional economic analysis. Part III modifies the analysis by relaxing some of the restrictive behavioral assumptions that implicitly underlie the economic analysis.

## A. Administrative Costs

Applying legal pronouncements to individual disputes entails costs to the public in the form of judicial, legislative, or administrative resources, as well as costs to the disputants themselves. Rules and standards have different cost structures, which effect their desirability as legal forms in different circumstances.

### 1. Public Costs

The public costs of administering rules will tend to be front \*32 loaded, whereas the costs of administering standards will be back loaded. Promulgating rules will usually require more up-front costs, because rule promulgation requires decision makers to match a variety of possible actions to their legal consequences. [FN22] For example, to establish a speed limit rule, decision makers must consider what consequences should arise not just if a citizen drives 75 mph during the day in dry weather, but also the consequences if a citizen drives the same speed in inclement weather, a faster speed in dry weather, and so forth. Only after considering a range of possible factual situations can lawmakers establish the boundaries of the rule. Promulgating standards, on the other hand, requires less precise analysis prior to disputes arising, because the matching of facts to legal outcomes is left to a later determination.

When disputes arise, they can be resolved at lower cost by rules, because adjudicators need only determine whether the triggering facts are present or absent--the legal consequences of different facts have already been determined. Dispute resolution by standards is more expensive than by rules. Adjudicators must not only investigate facts, but also determine the legal consequences of the facts because this has not been done ex ante. [FN23] Usually dispute resolution by standard also requires adjudicators to investigate a wider range of facts than dispute resolution by rule. This will not always be the case, however, as standards can limit the universe of relevant facts ex ante and the list of relevant facts under complex rules can be long.

The dynamic effect on litigation behavior of the choice of legal form should give an additional advantage to rules. The ex ante certainty that rules provide should encourage more disputes to settle out of court and not require adjudication at all. [FN24] The economic model of litigation predicts that litigants will bear the high private costs of seeking adjudication only if they have different predictions about the likely outcome of adjudication and the \*33 plaintiff predicts a larger verdict than the defendant. [FN25] Ex ante certainty should translate into fewer deviations in litigation predictions between plaintiffs and defendants.

Because of different administrative cost structures of rules and standards, rules will be relatively cheaper (and thus more desirable) in areas of law where identical disputes arise frequently. [FN26] In such circumstances, the cost of matching a set of facts to a legal consequence is borne only once, when the rule is promulgated, and that cost is then amortized over a large number of transactions. In high-frequency disputes, standards are relatively less efficient because adjudicators must match the same facts to legal consequences over and over, effectively reinventing the wheel every time. [FN27]

Standards will be relatively desirable when a type of dispute arises infrequently, because the larger initial investment in rule promulgation will be amortized over fewer disputes, and, conversely, case-by-case analysis of the problem will not result in an excessive duplication of effort. Standards will likewise tend to be more desirable in resolving classes of disputes in which a wide variety of facts and combinations of facts are relevant to the legal pronouncement. In such circumstances, the appropriate resolution of the range of disputes, however defined, would require many different rules, whereas a single standard might give adjudicators the tools necessary to reach the various appropriate resolutions. [FN28]

Just as standards will be relatively more efficient than rules when there is factual heterogeneity across disputes, they will be \*34 relatively more efficient when the appropriate resolution of disputes with identical facts changes rapidly over time, a circumstance that might be termed "chronological heterogeneity." For example, as technology improves and the cost of safety devices decreases, the failure of a manufacturer to install a particular safety device in a product might be cost-justified one year but not the next. A rule specifying that the failure to install the safety device is non-negligent will be appropriate in the first year, but inappropriate the second year, requiring a change in the rule, which will be costly. [FN29] A standard specifying that manufacturers must install cost-justified safety precautions, however, would be appropriate in both time periods. Just as standards are flexible across material differences between disputes, they are also flexible across material temporal differences.

## 2. Private Costs

To conform to the law, or to understand the costs associated with not conforming to the law, citizens must often expend time and money to learn the legal consequences of actions that they are considering. [FN30] The choice of legal form probably has little effect on the costs of learning the black-letter statement of the law. Learning the description of a pure rule and of a pure standard will both be low-cost activities. It would take little research for a lawyer to learn and communicate that the speed limit is 65 mph or that the speed limit is a "reasonable speed" given road conditions. Advice costs would be higher for impure rules (i.e., complex rules with many exceptions) than pure rules, but such costs would also be higher for impure standards (i.e., those that specify a list of relevant factors or those that have been given some rule-like content through adherence to precedent).

\*35 Predicting what behaviors are within the law's boundaries might be more costly under a standard than under a rule, but this is likely to depend on the content of the standard. Standards that require adjudicators to judge citizens' actions on the basis of a cost-benefit analysis demand considerable effort on the part of citizens who wish to conform to the law in order to avoid sanctions. However, standards that require adjudicators to judge citizens' actions on the basis of whether those actions comply with community norms might require even less effort for citizens to understand than would rules.

Consider a manufacturer who wishes to dispose of a certain by-product of his manufacturing process in a landfill located near a residential area. If the legality of this act is governed by a standard that permits disposal of by-products where reasonable, the manufacturer will probably need to study the health risks of the by-product, the demographics of the neighborhood adjacent to the landfill, and the cost of alternative disposal options in order to reach a prediction about the legality of the plan. This analysis is likely to be more costly than learning how to comply with even a moderately complex rule. [FN31] In contrast, if legality turns on a standard of commercial reasonableness, i.e., what others in the manufacturer's business do, complying with the law will probably be cheaper than learning the content of a complex rule. [FN32]

### B. Undesirable Behavior Costs

If precisely drawn, law encourages socially desirable behavior and discourages socially undesirable behavior. [FN33] The achievement of this ideal can be impeded, however, if the law is not precisely drawn, if the law is not communicated clearly to citizens, or if adjudicators fail to implement the law correctly. All of these impediments can have the perverse result of discouraging desirable behavior or failing to discourage undesirable behavior. The choice between rules and standards can have a differential effect on minimizing this collection of impediments.

### \*36 1. Overinclusion and Underinclusion

It is possible for lawmakers who wish to treat situations with subtle factual variations differently to do so with rules. Accommodating factual variation requires increasing the complexity of the rules by modifying basic rules with exceptions and sub-rules. But by their very nature, that is, because rules are specified ex ante, even complex rules will sometimes fail to take account of all factual variations that might arise ex post which might be relevant to optimal tailoring of legal boundaries. [FN34] Consequently, rules will often be overinclusive and underinclusive, that is, whatever the underlying policy goal of the legal pronouncements, rules will often permit some undesirable conduct and prohibit some desirable conduct. [FN35]

Assume, for example, that nuisance law is intended to prohibit revelers from annoying sleepers when revelers can do so at relatively low cost, and that a rule has been promulgated that prohibits noise of greater than 100 decibels in residential neighborhoods after 10:00 p.m. The self-interested reveler will play his stereo at ninety-nine decibels next to an open window six inches away from an adjacent sleeper, even if doing so makes it impossible for the sleeper to rest, and even if the reveler can avoid the disturbance by closing the window, locating the stereo in another room, or wearing headphones. [FN36] The failure of the law to prohibit this undesirable behavior demonstrates that the rule is underinclusive. [FN37] The underinclusion problem may be even more extreme if the rule has the effect not only of failing to \*37 punish revelers who play their stereos at ninety-nine decibels, but also of encouraging more of this behavior as revelers shift their behavior to achieve maximum revelry within the law's confines. [FN38]

Now assume that a rule designed to encourage cost-effective product safety precautions requires manufacturers of a certain item to install a particular safety device. Manufacturers that wish to avoid sanctions must incur the cost of installing the device even if their product design renders the safety device redundant or completely ineffective. In this case, the rule is overinclusive. It requires some actors to take socially undesirable actions to achieve compliance with the law. [FN39]

Rules have lower undesirable behavior costs when factual circumstances are homogenous, because a single line drawn between permitted and prohibited acts for an entire range of circumstances will be appropriate most of the time. Rules also have lower undesirable behavior costs when the behavior deterred by an overinclusive rule is not highly valuable or when the behavior permitted by an underinclusive rule is not highly costly. Consider, for example, a littering ordinance that seeks to protect the environment by prohibiting citizens from leaving any garbage in a park. Because some garbage is biodegradable and would not harm the environment, the rule is overinclusive. But because the effort required of picnickers to remove all their remains from the park is small, the harm caused by overinclusion is probably minor. [FN40]

### 2. Communication of the Law

If standards are applied precisely, no desirable behavior will be sanctioned and no undesirable behavior will avoid sanction. Nevertheless, the ex ante uncertainty of the legal boundaries endemic to standards regimes can lead to undesirable behavior. The imprecise communication of the law can cause citizens to misjudge the legal boundaries and consequently to commit socially undesirable acts or forbear from taking socially desirable \*38 actions. If the law requires driving at a reasonable speed, some citizens will drive too fast without knowing it. [FN41] Even if the drivers are sanctioned, society suffers the undesirable behavior. Other citizens will drive far slower than safety requires (thinking that they must in order to comply with the law), thereby incurring the social cost of needlessly wasting time. If citizens are risk averse, standards will suffer from the second defect more often than the first, because citizens' imprecise knowledge of the legal boundary will cause them to "play it safe" by staying far to the legal side of the line. [FN42]

### 3. Adjudication Failure

In theory, standards can avoid all over- and underinclusion because adjudicators can draw the optimal legal

boundaries on a case-by-case basis, protecting socially desirable conduct and punishing socially undesirable conduct. Some economic analysts recognize that adjudicators will sometimes fail to draw the legal boundary optimally, although adjudicators are presumed to err unsystematically. [FN43] Others assume that adjudicators, as fully rational actors, are capable of drawing precise legal boundaries perfectly, but even these analysts recognize that precision is costly, and adjudicators will often determine that the marginal administrative costs of applying a standard precisely (rather than haphazardly) based on its underlying principles will not always exceed the marginal benefit of doing so. [FN44] Either way, because of unsystematic imperfection or rational concern with the cost of \*39 adjudication, adjudicators might fail to apply a standard precisely in particular cases. Consequently, standards can be over- or underinclusive as applied.

Although the application of a standard to a particular set of facts by definition cannot be known for certain ex ante, citizens may be able to predict whether certain standards are likely to be over- or underinclusive as applied. If this occurs, standards, like rules, can encourage undesirable behavior or discourage desirable behavior. For example, in a regime in which the speed limit is set by a reasonableness standard, citizens might learn that drivers are often punished for driving at a speed that is not actually dangerous, but that they rarely go unpunished for driving at a speed that is dangerous. Citizens' knowledge that the standard is overinclusive as applied could encourage sub-optimally cautious driving.

An additional problem is that if a particular adjudicator seeks to fulfill a personal agenda when resolving cases, rather than drawing a legal boundary based solely on the factors motivating the law, a standard may be over- or underinclusive as applied. [FN45] Again, if citizens know this, they can be expected in relevant circumstances to commit socially undesirable acts and refrain from committing socially desirable acts. Although adjudicators could create the same undesirable behavior by misapplying rules as they could by misapplying standards, errors in rule application will tend to be more obvious and, therefore, more susceptible to correction on appeal.

### C. Private Transaction Costs

The desirability of a legal form must be discounted if it is expensive to administer or if it encourages undesirable behavior. It \*40 should also be discounted if it hinders the ability of private parties to efficiently exchange legal entitlements.

The preceding discussion of undesirable behavior costs assumed implicitly that if a legal entitlement were allocated to a particular actor, that actor would enjoy the entitlement rather than trade it. For example, the discussion assumed that if nuisance law protects sleepers from noise by preventing revelers from playing their stereos, revelers would simply refrain from their activities in order to avoid sanctions unless they were mistaken as to the boundaries of the law. This need not necessarily be the case, at least in private law contexts where competing entitlement claimants are private parties able to bargain with each other. If a reveler values listening to music more than a neighboring sleeper minds the noise (or minds wearing earplugs), the reveler might compensate the sleeper in return for the latter's agreement to forbear from asserting his right to enjoin the former's behavior. If both are made better off by such a transaction (and there are no significant externalities), the transaction improves allocative efficiency. [FN46]

It is important to observe that lawmakers sometimes set legal boundaries with allocative efficiency in mind, but often they set legal boundaries for reasons completely divorced from efficiency concerns. For example, an efficiency conscious municipality, Kaldor-Hicksville, might wish to define an action as a nuisance when the benefits to revelers are less than the costs to sleepers. Another municipality, Silence City, might construct its nuisance law based on the deontological principle that sleepers should be free of all disturbances at night, no matter how much creating disturbances might benefit revelers. By preventing all noise, Silence City's law might well be inefficient. But if revelers are permitted and able to pay sleepers not to call the police, allocative efficiency might ultimately be achieved through private bargaining in Silence City, just as it is by entitlement allocation in Kaldor-Hicksville.

Rules and standards can have a differential impact on the ability of citizens to barter their legal entitlements. If transaction costs are low, meaning that private parties can bargain with each other relatively easily, the ex ante clarity of legal entitlements \*41 provided by rules is generally thought to facilitate attempts to achieve allocative efficiency through private transactions. [FN47] If nuisance law is defined by a rule that prohibits noise louder than

100 decibels, it is clear to revelers that if they wish to play their music louder than this, they will have to bargain with their neighbors for the right to do so. If nuisance law prevents unreasonable noise, in contrast, it is unclear whether or not the stereo owner needs to bargain with his neighbor, making private ordering less likely. The relative advantage of rules in facilitating private transactions is buttressed by the fact that when private reordering is possible the problem that rules are likely to be over- and underinclusive is minimized. [FN48]

If transaction costs are high, meaning that private parties are unlikely to be able to reallocate legal entitlements to the highest-value owner under any circumstances, the advantage that rules hold in facilitating private transactions becomes irrelevant. In such circumstances, standards become relatively appealing because, if applied correctly by adjudicators, they maximize the likelihood that an entitlement will be allocated efficiently, assuming a situation in which allocative efficiency is a goal of the law. [FN49] If Silence City allocates the entitlement to silence without concern for efficiency, and its citizens find it impossible to reallocate the entitlement through private bargaining, allocative efficiency will be achieved only by chance, if at all, and neither rules nor standards are more likely to lead to efficiency. Kaldor-Hicksville, on the other hand, is more likely to achieve allocative \*42 efficiency in a high transaction cost situation if it uses a standard rather than a rule.

In some instances, legal pronouncements prohibit citizens from transferring their entitlements because of the perceived immorality of commodifying certain goods, the fear that the entitlement holder will be exploited by others who are more savvy, or perceived negative externalities to third-parties caused by such a transfer. [FN50] In these circumstances, standards provide the best opportunity for the achievement of allocative efficiency, for the same reasons that this is true in high transaction cost environments: the benefits that rules have in facilitating efficient reallocations of entitlements are irrelevant, leaving only the benefits that standards have in helping to initially allocate entitlements to their most efficient users.

#### D. The Standard for Choosing a Form

Economic analysis does not lead inexorably to a simple rule, or even a complex set of rules, that can guide lawmakers faced with a choice between legal forms. Instead, insights derived from economic analysis at best can form the basis for a multi-factored standard for choosing a form, in which the relevant considerations are specified but their relative weights are left for case-by-case balancing. Consider the following summary of the economic insights developed in this Part.

If disputes are frequent and factually homogeneous, rules are likely to have lower administrative costs, and thus are more desirable than standards on that score. If disputes are infrequent and/or factually heterogeneous, standards are preferable because they will likely be more cost effective for lawmakers to administer. Whether rules or standards have higher advice costs depends on whether the standard requires a complex investigation or \*43 merely a reference to a widely-shared social norm and the complexity of the comparable rule.

Rules are more likely to be over- and underinclusive than standards, suggesting standards are preferable. However, the lack of ex ante clarity associated with standards will lead to some well-intentioned undesirable behavior on the part of citizens, and errors in applying standards might cause them to be over- or underinclusive as applied. This suggests standards are likely to cause less undesirable behavior than rules when citizens and adjudicators are both relatively perceptive (i.e., proficient at matching behaviors to vague legal pronouncements) and homogenous (i.e., share an understanding of vague legal pronouncements and the values that underlie them), whereas rules are preferable otherwise.

Rules are more likely to facilitate private reallocation of legal entitlements to more efficient users, so they are relatively preferable when transaction costs are low and entitlements are initially assigned for reasons other than efficiency. Standards are more likely to result in entitlements being initially allocated efficiently, so they are relatively preferable when transaction costs are high and lawmakers wish to allocate entitlements based on efficiency concerns.

Although a thorough economic analysis of the comparative costs of rules and standards provides a variety of relevant insights into the ultimate choice of legal form, it provides no clear prescription for how to balance the



various competing factors, some of which favor rules and others of which favor standards. Consequently, economic analysis of the choice of legal form does not provide lawmakers with a rule, even a complex one, for choosing between rules and standards in a particular factual situation. One view of this state of affairs is that economic reasoning has failed to resolve the question of whether lawmakers should make legal pronouncements in the form of rules or standards. Another view is that selecting a legal form is an activity more suited to being guided by a standard than by a rule.

### III Behavioral Analysis of Legal Form

The economic approach to legal analysis is notable for its determined observation that the law operates as a set of incentives and disincentives and that, consequently, the law's content has **\*44** important behavioral implications that lawmakers should take into account. [FN51] Behavioral analysis shares this devotion to accounting for the behavioral consequences of law. Implicit within economic analysis is a set of predictions about how individuals will respond to law, known generally as "rational choice theory" (RCT). RCT is a collection of related predictions about human behavior, not a single immutable proposition, [FN52] but in the law and economics community it is usually taken to mean that individuals act so as to maximize their expected utility subject to external constraints, have fixed and stable preferences that are independent of law, and act in their self-interest. It is concerning the sanctity of RCT that behavioral analysis diverges from economic analysis.

Individuals often behave consistently with the predictions of RCT. However, a large body of social science literature demonstrates that its predictions are not always accurate, and that deviations from so-called "rational" behavior are often systematic. A variety of heuristics and biases cause individuals to take actions that do not necessarily maximize their expected utility. This observation can be called "bounded rationality." [FN53] Preferences depend on a variety of factors, many of which are fixed independently of legal pronouncements (genes, environment, etc.). But it is also true that preferences are often context-dependent, and that law itself can shape the context in which preferences are formed. This observation can be called "preference endogeneity." Finally, people act in their selfish interest much of the time, and perhaps most of the time. But, as social beings, individuals are also motivated to comply with community standards, even if the content of those standards is at variance with their selfish desires. This observation can be called "norm compliance."

Adherents to the behavioral approach to legal analysis believe that incorporating bounded rationality, preference endogeneity, and norm compliance, along with other observed deviations from the strict behavioral predictions of RCT, into legal analysis can improve our understanding of the law's effects and, consequently, **\*45** normative judgments about what the law ought to be. [FN54] This is no less true for analyses of law's form as it is for analyses of law's content. Taking account of bounded rationality, preference endogeneity, and norm conformity can make the comparison of rules and standards richer and more complete. This Part adds these considerations to the preceding economic analysis of the choice between rules and standards, thus modifying the previous Part's conclusions.

#### A. Bounded Rationality

Economic analysis assumes that citizens will compare the expected private costs and benefits of each possible action and embark on the course that maximizes expected benefits net of expected costs. [FN55] Put more simply, individuals are expected to optimize. The legal consequences of the individual's possible actions are assumed to be one factor in the optimization algorithm.

While it is unobjectionable to assume as a starting point that people tend toward actions that provide them with more utility, there is considerable evidence that people tend to take predictable shortcuts in decision making to economize on cognitive effort and are subject to predictable perceptual and cognitive biases, all of which impair optimal decision making. [FN56] While this is true for citizens subject to the legal system, it also can be true for legal decision makers called upon to make legal pronouncements in a way that satisfies specified social goals. The bounded rationality of both citizens and legal decision makers has significant consequences for the choice of legal forms. This Section considers the consequences for the choice of legal form of two specific and particularly relevant aspects of bounded rationality, **\*46** the self-serving bias and the hindsight bias, along with implications of bounded

rationality more generally.

## 1. Self-Serving Bias

The label "self-serving bias" describes the phenomenon that individuals are likely to interpret ambiguous information in ways that resound to their benefit. [FN57] For example, in one set of experiments, subjects given a description of facts underlying a lawsuit and asked to play the role of the plaintiff believed the facts were favorable to the plaintiff, while subjects asked to play the role of the defendant believed that the same facts were favorable to the defendant. [FN58] The self-serving bias could increase the undesirable behavior costs of standards relative to the predictions of economic analysis, and it almost certainly will increase the administrative costs of standards relative to the predictions that follow from economic intuition.

Economic analysis predicts that the ex ante uncertainty of legal boundaries in a standards regime will cause some citizens to unknowingly violate the law and also chill some desirable behavior on the part of citizens who unknowingly overcomply with the law. [FN59] A general tendency toward risk aversion suggests that the latter type of costs are more likely than the former. [FN60] The self-serving bias, in contrast, suggests that the former costs may be more prevalent than previously thought. Self-serving drivers, for example, are likely to believe that their driving habits do not violate a law prohibiting unreasonable speeding, and self-serving neighbors are likely to believe that their behavior does not constitute a violation of an ordinance prohibiting unreasonable noise. The self-serving bias is less problematic in a rules regime where there is, by definition, little or no ex ante ambiguity about legal boundaries. Of course, just as the self-serving bias suggests that standards will lead to more affirmative undesirable behavior than economic analysis predicts, it also suggests that standards \*47 will chill less desirable behavior than otherwise would be expected. Thus, if lawmakers are particularly concerned about the chilling effects of a law, the costs of standards may be less vis-a-vis rules than would otherwise be expected.

The self-serving bias also suggests that standards will lead to more litigation, and thus have higher administrative costs than economic analysis suggests. Economic analysis predicts that litigation will occur only when parties have different predictions about adjudicated outcomes; the plaintiff expects a more favorable outcome than the defendant expects, and the difference in expectations is greater than the parties joint costs of litigation. [FN61] But traditional economic analysis assumes that when the parties have different expectations of litigation, it is just as likely that the defendant will expect a more favorable verdict for the plaintiff than the plaintiff will expect. Consequently, there is a possibility of adjudication taking place in only fifty percent of the circumstances in which the parties disagree about the legal status of their actions. [FN62]

The self-serving bias leads to a different prediction. In circumstances in which parties disagree about the likely outcome of adjudication, plaintiffs will systematically predict more favorable verdicts for them than defendants will predict. Thus, disparate predictions about the results of adjudication will increase the likelihood of litigation most of the time, rather than merely fifty percent of the time. If custody disputes are decided according to a "best interests of the child" standard, when parents disagree about how a court is likely to rule, fathers will usually believe they will prevail, and mothers will usually believe they will prevail. If nuisance law is based on reasonableness, revelers are likely to believe their behavior falls within the legal boundaries while sleepers are likely to believe the same behavior crosses the line. Such one-way disparities in perception will exacerbate the litigation costs of standards, with their ex ante ambiguity, relative to the litigation costs of rules, with their ex ante clarity.

## 2. Hindsight Bias

Economic analysis takes into account the possibility that a \*48 standards regime will not always lead to precisely-drawn legal boundaries ex post. Adjudicators might make mistakes or, at a minimum, adjudicators might fail to invest the time and resources needed to draw perfect boundaries because the marginal costs of doing so outweigh the marginal benefits. [FN63] However, economic analysis assumes that the imperfect application of standards will be unsystematic; that is, that standards as applied are equally likely to be overinclusive or underinclusive. Evidence of the hindsight bias suggests that adjudicators might systematically apply standards in an overinclusive fashion.

The hindsight bias causes decision makers to overestimate ex post their ex ante prediction about the likelihood of an event taking place. In a wide range of experimental settings, subjects given a set of facts and asked to estimate, based on those facts, the likelihood of an uncertain event occurring, tend to give lower estimates than subjects who are given the same set of facts, told that the event in question did occur, but then asked to state what estimate they would have made of the event occurring ex ante. [FN64] When the law is determined on a case-by-case basis after disputes arise rather than prospectively, adjudicators' evaluations about what an individual should have done are likely to be tainted by information about the results of the individual's actions. This is especially problematic when a legal standard requires citizens to take only actions that are "reasonable" at the time. If adjudicators' determinations of what behavior was reasonable ex ante is tainted by knowledge of ex post outcomes, actions that were reasonable at the time they were undertaken often will be labeled unreasonable after the fact. The overinclusion problems caused by the hindsight bias occur only under standards; in a rules regime, adjudicators need determine ex post \*49 only if the requisite triggering facts are present rather than normatively evaluating a citizen's conduct. [FN65]

The costs of standards relative to rules caused by the hindsight bias will depend, of course, on the personal qualities of the adjudicators in question and on the type of standard the law requires adjudicators to apply. Costs will be less significant when adjudicators are uniquely able to overcome the hindsight bias or be protected from knowledge of the results of the actions that they are responsible for evaluating. To date, psychologists have found that the hindsight bias is difficult to counteract, and even well-trained and repeat decision makers have difficulty avoiding it. [FN66] In some situations, however, it might be possible to prevent finders of fact, jurors for example, from learning the results of a party's behavior before deciding what behavior would have been reasonable in a particular circumstance. [FN67] The hindsight bias problem will also be less serious when standards are based on factors less subject to corruption in hindsight, such as industry trade practices and other community norms, than on more malleable concepts like reasonableness.

### 3. Bounded Rationality Generally

Some cognitive biases, such as the self-serving bias and the hindsight bias, cause decision makers to systematically make a particular type of error, which in turn biases behavior in a predictable direction. Other biases and decision making strategies suggest that individuals will fail to behave in ways that maximize their utility, but the direction that behaviors will deviate from the optimum is less clear.

To use just one example of many, the availability heuristic suggests that individuals will overestimate the likelihood of events that are more cognitively salient, or available to them, ignoring \*50 or undervaluing the relevant base rates of outcomes. [FN68] That individuals will employ the availability heuristic is predictable, but the consequences of using the heuristic are less so. If an individual wanted to choose whether to travel by airplane or by automobile solely based on the criterion of safety, the use of the availability heuristic would impair his ability to make an optimal choice, but it is unclear to what effect. If the individual watches national news reports, he might overestimate the likelihood of airplane crashes relative to automobile crashes. But if he recently lost a friend in an automobile accident, the opposite might be true.

It is harder to generalize about the effects of bounded rationality generally than it is to generalize about specific causes of bounded rationality that cause a clear directional bias. But the existence of bounded rationality generally suggests at least some implications for the choice of legal form. Recall that economic analysis leads to the prediction that it will be more costly for citizens to comply with standards that are based on cost-benefit analysis, suggesting the standards might have higher advice costs than rules. [FN69] Bounded rationality suggests the disadvantage of standards on this score might be more pronounced. Even if citizens incur the higher advice costs of attempting to comply with cost-benefit standards, they might be incapable of judging the standards precisely. This would then lead to undesirable behavior costs, as citizens either overcomply or undercomply with the law. [FN70]

Additionally, adjudicators might have a more difficult time applying cost-benefit standards precisely than economic analysis predicts or that the hindsight bias specifically implies, making such standards even more over- or underinclusive as applied than otherwise thought. All of these factors suggest that rules or, alternatively, norm-based standards might be relatively more desirable than cost-benefit standards.

## **\*51 B. Preference Endogeneity**

The form of a legal pronouncement might affect citizens' preferences, and thus, the effect of the law on behavior. Specifically, legal form might affect the extent that citizens feel "endowed" with a legal entitlement. This differential endowment effect, in turn, might affect the likelihood that private bargaining will reallocate the entitlement after it is originally assigned by the law. This Section describes how the endowment effect might bear on the choice of legal form.

A large body of social scientific evidence demonstrates that individuals place a higher value on entitlements they have than on entitlements they do not have, but would like to have. To take one simple example, people are likely to place a higher value on a mug if they are given the mug by an experimenter than if they are merely shown the mug. [\[FN71\]](#) Experiments have also demonstrated that individuals will likely place a higher value on clean air if they are told they have a right to clean air that a manufacturer wants to pollute than if they are told that the manufacturer has the right to pollute the air. [\[FN72\]](#) Similarly, experiments have shown that individuals will likely place a higher value on a beneficial contract term if they are told it is the legal default term (the term the law will infer unless the contract explicitly states otherwise) than if they are told it is the opposite of the default term. [\[FN73\]](#)

The endowment effect requires a qualification to the conclusion of economic analysis that rules will better facilitate the private reallocation of legal entitlements to their most efficient users. [\[FN74\]](#) In fact, the endowment effect suggests that the opposite conclusion might be warranted: that rules will impede private transactions because of the clarity of ownership status associated with rules. The endowment effect impedes transactions because of the divergence between the value of an entitlement to an owner and the value of the same entitlement to a non-owner. If two parties desire an entitlement and are unclear as to which one of them owns it under the law, the divergence cannot exist, and **\*52** consequently trades will be more likely to take place. [\[FN75\]](#)

Reconsider our nuisance hypothetical. If the law prohibits noise at a decibel level above 100 and a reveler wishes to play his stereo loudly, it is clear that the sleeper possesses an entitlement to quiet and the reveler does not possess an entitlement to make noise. The virtue of this is that the parties know precisely who has to bribe whom to get his way and who can get his way without offering a bribe, thus reducing the costs of transacting. The problem, however, is that this knowledge is likely to inflate the sleeper's reservation price above what it would otherwise be, impeding the likelihood of a transaction.

If, instead, the law prohibits unreasonable noise, it is unclear who possesses the entitlement. The problem here is that the parties might waste time bickering over what constitutes unreasonable noise. But the virtue is that, if this cost is not so great that it prevents negotiations, the endowment effect suggests that if the sleeper can avoid the costs of the noise (i.e., using earplugs) at less cost than the reveler can avoid those costs (i.e., closing the window, using earphones, or turning down the volume), the two parties are more likely to agree to a deal that permits the reveler to play his stereo.

Consequently, while economic analysis identifies a benefit of rules in facilitating efficient private transactions, clarity of ownership, it fails to recognize the significant countervailing cost (and, therefore, a benefit of standards) of the endowment effect. Whether the benefit of clarity outweighs the cost of the endowment effect depends on the particular situation. But recall that economic analysis tells us that entitlement clarity is only relevant in low transaction-cost settings, [\[FN76\]](#) precisely the settings in which it is likely that the higher negotiation costs that accompany a lack of clarity are not likely to prevent a transaction. Thus, the endowment effect suggests that standards might be more likely than rules to facilitate efficient private allocations of entitlements in low transaction-cost settings.

**\*53** Two qualifications to this argument are in order. First, this benefit of using standards probably will be large only when the facts of a dispute are such that the parties are truly uncertain as to whom an adjudicator would find possesses the entitlement in question. If the reveler wishes to hold a full-scale rock concert in his backyard, rather than merely turn up the volume on his stereo, the sleeper may feel almost completely certain that he would prevail under the standard if the matter were to be adjudicated. As a result, he would be likely to view "quiet" as his

endowment, and the virtues and vices of standards, at least in regard to their ability to facilitate private transactions, will not be much different than the virtues and vices of rules.

Second, the benefits of standards in mitigating against problems of efficient reallocation created by the endowment effect might be partially (or even fully) offset by the self-serving bias. Under a regime that prohibits noise, a sleeper will probably charge an inflated price to waive his rights. Under a regime that prohibits unreasonable noise, a biased sleeper is likely to overestimate the likelihood that a court would find a particular noisy episode to be unreasonable, thus potentially feeling endowed with a right to quiet. Logic suggests that even a severely biased sleeper should suffer from less of an endowment effect in the shadow of a standard than in the shadow of a clear rule. On the other hand, under a standard it is possible that the self-serving bias will cause both the sleeper and the reveler to feel endowed with a legal entitlement, resulting in an even larger gap than a rule would create between what the reveler would be willing to pay the sleeper to waive any potential rights and what the sleeper would demand to waive potential rights.

### C. Norm Compliance

Although RCT is sometimes presented as a theory of means (i.e., that individuals will act to maximize their utility), but not as a theory of ends (i.e., what actions produce utility), law and economics scholarship usually assumes that individuals will act in their selfish interests. [\[FN77\]](#) This assumption is implicitly embedded in the economic analysis of legal form presented in this Article. The analysis assumes, for example, that revelers will choose to make noise unless the law deters such behavior through the \*54 threat of sanctions, and that, under a rules regime, revelers will create noise all the way to the edge of the legal boundary without concern for the desires of sleeping neighbors nor the opinion of the community. [\[FN78\]](#) Economists are not so rigid as to believe that people always act selfishly, but economic analysis usually assumes that deviations from selfishness will be unsystematic and unpredictable.

Norms theorists [\[FN79\]](#) relax the strict assumption of selfish behavior by assuming that citizens' actions are driven by a combination of two considerations: (1) the direct utility that they expect to enjoy from competing behavioral choices and (2) the indirect utility that they expect to enjoy from conforming to community norms. [\[FN80\]](#) This suggests that when community norms are contrary to what is in an individual's selfish interest, his behavior will sometimes be contrary to his self-interest because of the attraction of norm compliance. For example, when a man who enjoys wearing a hat removes it in a church, he might be acting contrary to his selfish interest because of the pleasure he derives from complying with the community norm. [\[FN81\]](#)

The power of norms suggests that law has the potential to encourage or discourage behavior not only directly, by acting as a tax on undesirable behavior and a subsidy for desirable behavior, but also indirectly by changing community norms. As long as a body of law is viewed as embodying a community's norms, law \*55 can be used to signal a particular community norm. Citizens who derive an indirect benefit from complying with the community norms will then have an added incentive to obey the law. [\[FN82\]](#)

The choice of legal form is likely to affect norm compliance behavior. Specifically, rules, because of their ex ante clarity, are more likely to affect social norms than are more ambiguous standards. A law that prohibits unreasonable noise is likely to reflect a broad community consensus that living in a civilized society obligates neighbors to show consideration for each other and will likely generate little opposition. The problem is that such a vague standard sends an unclear signal as to whether playing one's stereo loudly complies with or violates the general community norm. A law prohibiting noise louder than 100 decibels, on the other hand, sends a clearer signal about what behavior is necessary to meet community expectations. So long as citizens believe nuisance laws are generally necessary, clear rules will likely effect the community consensus regarding what level of noise is appropriate and what is inappropriate. [\[FN83\]](#) Some people who would otherwise play their stereos louder than 100 decibels will turn down the volume or close their windows not merely because they are deterred by the threat of a fine, but also because they have a preference for acting neighborly, an abstract preference that is given content by the legal rule. [\[FN84\]](#)

The relative advantage that rules have over standards in shaping citizens' preferences can be both a positive and a

negative feature in minimizing the undesirable behavior costs of law. Economic analysis reveals that a cost of standards is that their lack of ex ante clarity prevents some citizens from changing their \*56 behavior to comply with the law in order to avoid legal sanction. [FN85] The same failure of a standards regime to clearly communicate the law to the citizens will also prevent some citizens from choosing to act in a more socially desirable way because of their preference to embrace community sensibilities.

On the other hand, the over- and underinclusion costs of rules will be more severe when rules effect preferences. Economic analysis reveals that when playing a stereo louder than 100 decibels is prohibited, unneighborly revelers will play their stereos at ninety-nine decibels even if they could reduce the burden to their sleeping neighbors at low cost. [FN86] The problem is worse if neighborly revelers play their stereos at ninety-nine decibels as well because the rule creates the social inference that making any noise less than 100 decibels is not unneighborly. In other words, just as rules can effect citizens' preferences when they draw precise lines between desirable and undesirable conduct, rules can also effect preferences when the legal boundaries they demarcate do not differentiate perfectly between desirable and undesirable conduct.

#### D. The Choice of Form, Revisited

Behavioral analysis, when layered onto a base of economic analysis, leads to a more nuanced analysis of the choice between rules and standards than economic analysis alone can provide. Combining the two strands of analysis, as described in this Article, leads to the following insights: Rules are more expensive than standards for the public to promulgate, but standards will be more expensive to apply both because applying a standard usually will be more expensive than applying a rule and because more cases will be litigated in a standards regime than in a rules regime (a problem exacerbated by the self-serving bias). The greater likelihood of litigation under standards also increases the private costs of administering standards relative to rules.

Rules are more likely to be over- and underinclusive than standards, suggesting rules are more likely to prevent desirable behavior and permit undesirable behavior. However, rules are also more likely to have a dynamic effect on social norms by encouraging people to behave in a socially desirable way. This advantage may be mitigated because rules also encourage some \*57 undesirable behavior to the extent that the rules that shape preferences are over- or underinclusive relative to the actions that would actually be desirable. Standards can be over- or underinclusive as applied, and the hindsight bias suggests that the overinclusion problem is particularly likely to be severe. The ex ante ambiguity of standards can encourage undesirable behavior and chill desirable behavior. Risk aversion suggests the latter problem is the more significant, but the self-serving bias suggests the former might be the more significant.

Rules clarify entitlements, and clarity reduces the transaction costs associated with private reallocation of legal entitlements that can increase allocative efficiency. But rules also create the endowment effect, which is likely to impede private transactions and swamp the virtues of clarity, especially in low-transaction cost settings where clarity is valuable in the first place. Standards, in contrast, are likely to minimize costs of the endowment effect.

#### Conclusion: Behavioral Analysis and Indeterminacy

There are several familiar criticisms of behavioral analysis, two of which are particularly relevant to the comparison of rules and standards. [FN87] The first criticism is that the broad range of deviations from rational choice theory that behavioral analysis seeks to take into account makes the approach too complex relative to traditional economic analysis. [FN88] The comparison of rules and standards demonstrates that the behavioral approach is more complex than economic analysis, because the former incorporates the latter and adds to it. But to classify this fact as a per se negative attribute of behavioral analysis seems hasty. A simple theory is more desirable than a complex approach when the simple theory is as accurate, but the complexity of the behavioral approach can be a virtue, rather than a vice, when it can enrich our understanding of how citizens react to the incentives created by law.

The second criticism is that behavioral analysis often seems indeterminate because two behavioral factors often cut

in opposite \*58 directions. Further, even a single behavioral factor can sometimes cut in opposite directions simultaneously. [FN89] The behavioral analysis of rules and standards provided here underscores this criticism. The endorsement effect seems to favor standards over rules, but the hindsight bias seems to favor rules over standards. Behavioral analysis provides lawmakers no clear direction on how to make the trade-off between the two countervailing factors. The advantage that rules have in effecting behavior by shaping social norms is favorable (rules can encourage desirable behavior) and is simultaneously unfavorable (rules can encourage undesirable behavior and discourage desirable behavior to the extent that they are over- or underinclusive, which they always must be to some extent). Behavioral analysis, at least at this stage of its development, does not answer the question of which effect is generally more significant.

This failure of behavioral analysis, however, is no more severe than that of economic analysis, which, when done in even a moderately sophisticated way, also is prone to indeterminate normative results. It is true that behavioral analysis cannot definitively answer the question of whether rules are more desirable than standards, or vice versa. But, as Part II of this Article demonstrates, neither can economic analysis. Under either approach, an honest analyst without preconceived conclusions must ultimately say that multiple considerations favor each type of legal form, and which form is most desirable will depend on which set of competing costs dominate in a particular fact-specific situation.

The indeterminacy problem, then, seems to be more accurately attributed to the complexity of the choice between rules and standards, than to the unsuitability of the behavioral analytical approach. [FN90] The normative question of whether to promulgate law in the form of rules or standards seems unanswerable with a rule, even a complex one. Presenting lawmakers with a set of \*59 multiple factors to weigh in standard-like fashion is probably all that legal scholars can do.

This is not to suggest that the indeterminacy critique of behavioral analysis is totally meritless. Because it is wide-ranging, behavioral analysis might fail to yield clear normative policy conclusions more often than economic analysis. But this relative disadvantage is not dispositive of the choice between behavioral and economic analysis. It is a cost that must be balanced against the countervailing benefits of behavioral analysis: that it can yield richer and more nuanced predictions than economic analysis about how citizens are likely to react to law. The choice of analytical approaches, like the choice of legal forms, seems resistant to resolution by rule. Whether behavioral analysis is more useful than economic analysis in helping lawmakers to craft socially desirable laws must be determined on a case-by-case basis.

[FN<sub>a</sub>1]. Visiting Professor, UCLA School of Law 2000-2001; Associate Professor, University of Illinois College of Law and University of Illinois Institute of Government and Public Affairs. The author acknowledges the helpful comments of Chris Guthrie, Jeff Rachlinski, and Tom Ulen as well as the other participants in this symposium along with the excellent research assistance provided by Brett Griffin.

[FN1]. See Duncan Kennedy, Form and Substance in Private Law Adjudication, 89 Harv. L. Rev. 1685, 1685-87 (1976) (characterizing choice of form for legal directives as between rules and standards).

[FN2]. See Kathleen M. Sullivan, The Justices of Rules and Standards, 106 Harv. L. Rev. 22, 58 (1992).

[FN3]. Id. at 58-59.

[FN4]. Other analyses, most often associated with the Critical Legal Studies (CLS) movement, question whether there is a coherent distinction between rules and standards. See, e.g., Pierre J. Schlag, Rules and Standards, 33 UCLA L. Rev. 379 (1985); Joseph William Singer, The Player and the Cards: Nihilism and Legal Theory, 94 Yale L.J. 1 (1984). Still others argue that the distinction between rules and standards reflects substantive political commitments to individualism or altruism and substantive objectives. See, e.g., Kennedy, *supra* note 1, at 1685. The

CLS critiques build on a traditional legal realist skepticism of the ability of lawmakers to maintain a coherent distinction between rules and standards. See Frederick Schauer, *Rules and the Rule of Law*, 14 *Harv. J.L. & Pub. Pol'y* 645, 658 (1991) (summarizing legal realist arguments). The range of CLS arguments about rules and standards (as well as more traditional arguments) are summarized and extended in Mark Kelman, *A Guide to Critical Legal Studies* ch. 1 (1987). This Article assumes there is a coherent and non-political distinction between rules and standards, but does take CLS arguments seriously by arguing that on the margin the distinction disappears. See *infra* Part I.

[FN5]. See Schlag, *supra* note 4, at 399 ("Perhaps the most common view of the rules v. standards dialectic ascribes one set of virtues and vices to rules and another set of virtues and vices to standards.").

[FN6]. See Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 *Cal. L. Rev.* 1051 (2000).

[FN7]. Whether citizens seek legal advice itself has implications for the choice of form. See Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 *Duke L.J.* 557, 571 (1992).

[FN8]. Kaplow distinguishes rules from standards by whether the law is given content before or after individuals act, see *id.* at 560, yet he also assumes that it is possible with good legal advice to predict the content of standards prior to individual actions. *Id.* at 597. This assumption strikes me as inconsistent with the premise; a critical consequence of the ex post nature of standards is that their application cannot be known with certainty ex ante.

[FN9]. It should be noted that even "pure rules" do not provide complete ex ante certainty about the boundaries of the law, since there can often be arguments about whether the requisite triggering facts exist such that the rule is applicable to a given situation. See, e.g., Schlag, *supra* note 4, at 413 ("Because rules do not determine their own fields of application... rules necessarily entail uncertainty....").

[FN10]. See Kaplow, *supra* note 7, at 589 (distinguishing level of detail or "complexity" from the form of legal directive).

[FN11]. Schlag offers the example of a rule that appeared to exempt a variety of minor municipal adjustments to traffic-flow arrangements from certain regulatory requirements, but a court imposed the regulatory requirements on the grounds that the minor adjustments, taken together, constituted a different type of action that was subject to the requirements. Schlag, *supra* note 4, at 408-09.

[FN12]. Cf. Carol M. Rose, *Crystals and Mud in Property Law*, 40 *Stan. L. Rev.* 577, 578-79 (1988) (observing that in property law "crystalline rules have been muddied repeatedly by exceptions and equitable second-guessing, to the point that the various claimants under real estate contracts, mortgages, or recorded deeds don't know quite what their rights and obligations really are."); Kennedy, *supra* note 1, at 1700-01 (claiming that rules become "covert standards" through exception, culminating in legal indeterminacy).

[FN13]. Kaplow refers to "pure standards" as "complex standards," Kaplow, *supra* note 7, at 588-89, but I find this terminology confusing because while such a standard is complex for an adjudicator to apply, it is simple to describe.

[FN14]. Sunstein gives this class of legal pronouncements its own name-- "factors"--which he locates between



"rules" and "standards" on a spectrum. Cass R. Sunstein, Problems with Rules, 83 Cal. L. Rev. 953, 963-64 (1995).

[FN15]. 383 P.2d 441, 443 (Cal. 1963).

[FN16]. The Court stated:

[1] [The exculpatory clause] concerns a business of a type generally thought suitable for public regulation. [2] The party seeking exculpation is engaged in performing a service of great importance to the public, which is often a matter of practical necessity for some members of the public. [3] The party holds himself out as willing to perform this service for any member of the public who seeks it, or at least for any member coming within certain established standards. [4] As a result of the essential nature of the service, in the economic setting of the transaction, the party invoking exculpation possesses a decisive advantage of bargaining strength against any member of the public who seeks his services. [5] In exercising a superior bargaining power the party confronts the public with a standardized adhesion contract of exculpation, and makes no provision whereby a purchaser may pay additional reasonable fees and obtain protection against negligence. [6] Finally, as a result of the transaction, the person or property of the purchaser is placed under the control of the seller, subject to the risk of carelessness by the seller or his agents. Id. at 445-46 (footnotes omitted).

[FN17]. See Kaplow, *supra* note 7, at 578-79 ("[I]f the first adjudication under a standard constitutes a precedent for future enforcement proceedings and thereby transforms the standard into a rule, the differences between promulgating the law as a rule and as a standard are diminished."); cf. H.L.A. Hart, *The Concept of Law* 135 (2d ed. 1994) (noting that judicial applications of standards, when viewed as precedent, resemble administrative rulemaking).

[FN18]. For other depictions of the choice of form as a continuum, see, e.g., Schauer, *supra* note 4, at 650-51 (arguing decisionmaking modes based on "ruleness" represent points along a continuum); Margaret Jane Radin, *Presumptive Positivism and Trivial Cases*, 14 Harv. J.L. & Pub. Pol'y 823 (1991) (arguing continuum of rules and standards suggests no strong "logical" distinctions); Sullivan, *supra* note 2, at 61-62 (arguing continuum of rules and standards); Sunstein, *supra* note 14, at 961 ("[C]ontinuum from rules to untrammelled discretion, with factors, guidelines, and standards falling in between.").

[FN19]. Cf. Sunstein, *supra* note 14, at 986 (claiming that once an exception to a rule is allowed, other exceptions become possible, and "the line between case-by-case judgments and rule-following becomes thin in principle.").

[FN20]. For example, arguments that rules are superior because citizens should have a right to clear warning as to legal boundaries.

[FN21]. For example, that rules are more consistent with democracy than standards. See, e.g., Antonin Scalia, *The Rule of Law as a Law of Rules*, 56 U. Chi. L. Rev. 1175, 1176 (1989) ("Statutes that are seen as establishing rules of inadequate clarity or precision are criticized... as undemocratic"); Schauer, *supra* note 4, at 683-87 (arguing that rules provide limitations on decisionmaking authority and error); Ruth Gavison, *Comment, Legal Theory and the Role of Rules*, 14 Harv. J.L. & Pub. Pol'y 727, 754-55 (1991) (arguing that rules provide "limited domain" structuring of jurisdiction and decision-making and maintain law as distinct from politics and morality); Sullivan, *supra* note 2, at 64-66 (summarizing versions of the argument that rules are more consistent with democracy). But see Larry Alexander & Emily Sherwin, *The Deceptive Nature of Rules*, 142 U. Pa. L. Rev. 1191 (1994) (arguing rules are deceptive because they always have a "gap" in application, yet maintain universal determinacy, creating secondary exceptions which are deceptive and inherent contradictions with underlying political principles).

[FN22]. See Isaac Ehrlich & Richard A. Posner, An Economic Analysis of Legal Rulemaking, 3 J. Legal Stud. 257, 267 (1974).

[FN23]. See Kaplow, *supra* note 7, at 570 (reasoning that the enforcement costs of standards are higher than of rules because adjudicators must give content to the standard); Sullivan, *supra* note 2, at 63 (observing that rules are economical because they minimize "repetitive application of background principles to facts").

[FN24]. See Ehrlich & Posner, *supra* note 22, at 265.

[FN25]. See George L. Priest & Benjamin Klein, The Selection of Disputes for Litigation, 13 J. Legal Stud. 1, 12-13 (1984).

[FN26]. See Kaplow, *supra* note 7, at 573 (using the example of the income tax code, where a particular law might apply to billions of transactions).

[FN27]. An empirical example of the administrative difficulty in applying a standard to frequent and potentially homogenous activity may be found in the recent Montana Basic Rule of "reasonable and prudent" driving, Mont. Code Ann. § 61-8-303 (1999). See Robert E. King & Cass R. Sunstein, Doing Without Speed Limits, 79 B.U. L. Rev. 155, 179-83 (1999) (summarizing the administrative difficulties of the Montana law, ranging from increased police confrontations, to a "deluge of cases" disputing citations). The Basic Rule has been termed an "enforcement nightmare." Id. at 181.

[FN28]. Cf. James W. Colliton, Standards, Rules and the Decline of the Court in the Law of Taxation, 99 Dick. L. Rev. 265, 322-23 (1995) (claiming that while rules govern the vast majority of frequent and relatively homogeneous tax transactions, standards continue to control in relatively rare and diverse activity such as capital expenditures).

[FN29]. This comparison can plausibly be framed as one of "administrative costs" or as one of "undesirable behavior costs." If it is assumed that rules and standards will be kept up to date, the problem is one of administrative costs, with rules becoming relatively more costly as circumstances become more variable temporally. If it is assumed that rules will not be updated, temporal changes in circumstances will not make rules relatively more expensive to administer, but it will make rules relatively more over- or underinclusive, an "undesirable behavior cost" discussed *infra* Part II.B.

[FN30]. This Section assumes for simplicity that the private costs associated with learning how to conform to law are primarily the costs of legal advice. In actuality, non-legal technical advice might also be necessary for citizens to determine how to comply with technical legal pronouncements. To conform to a law regulating the disposal of toxic materials, for example, citizens must be able to measure the toxicity of their waste materials, and doing so might require costly assistance.

[FN31]. Cf. Kaplow, *supra* note 7, at 597-98 (claiming that the advice costs of a transporter of a dangerous substance would be lower under a rule specifying the routes he could travel than under a standard that limits him to "appropriate" routes).

[FN32]. Cf. Rose, *supra* note 12, at 609 (claiming that standards like "commercial reasonableness" might be more predictable to business people than arcane rules).

[FN33]. See Ehrlich & Posner, *supra* note 22, at 262.

[FN34]. See Frederick Schauer, *Playing By the Rules: A Philosophical Examination of Rule-Based Decisionmaking in Law and in Life* 83-84 (1991) (noting rules cannot incorporate unanticipated events). Kaplow contends that it is theoretically possible for a complex rule to be as fact-sensitive as a standard and consequently, the problems of over- and underinclusion are driven by the complexity of the legal pronouncement, not by the choice of legal form. Kaplow, *supra* note 7, at 586-88. This distinction strikes me as misleading. Due to their *ex ante* promulgation, rules will be systematically less fact-sensitive than standards and, consequently, systematically more likely to be over- and underinclusive.

[FN35]. See, e.g., Kennedy, *supra* note 1, at 1695; Kelman, *supra* note 4, at 40; Ehrlich & Posner, *supra* note 22, at 268.

[FN36]. Of course, the rule could be made more complex by adjusting the permissible decibel level when windows are open, but were the rule to combat this particular problem there is little doubt that the thoughtless reveler could find some way to unreasonably annoy the neighboring sleeper within the confines of the law, and thus evade the spirit of the law while complying with its letter.

[FN37]. Cf. Kennedy, *supra* note 1, at 1773 (noting that rules inform bad men exactly what they can get away with).

[FN38]. See Kelman, *supra* note 4, at 41 (extending the underinclusion critique to reflect the law's dynamic effect on behavior).

[FN39]. This problem can be partially mitigated, but only partially, by replacing a "pure rule" that treats all manufacturers of an item alike with a complex rule that qualifies the requirement for certain subclasses of manufacturers.

[FN40]. Cf. Ehrlich & Posner, *supra* note 22, at 271 (observing that the costs of overinclusion are low "if the lawful conduct deterred... is not considered socially very valuable").

[FN41]. Cf. King & Sunstein, *supra* note 27, at 164-67 (finding that Montana's "reasonable and prudent" speeding law increased unreasonable and imprudent driving because of lack of clarity of meaning).

[FN42]. This chilling effect may be even more pronounced in the case of criminal rather than civil sanctions, since criminal sanctions cannot be insured against and carry a higher reputational cost than do civil sanctions. See Ehrlich & Posner, *supra* note 22, at 263.

[FN43]. See, e.g., Colin S. Diver, *The Optimal Precision of Administrative Rules*, 93 *Yale L.J.* 65, 97-98 (1983). Driver states:

Selecting the optimally precise form for a given rule would seem to require qualities beyond the reach of many administrators: a selfless concern for the public good, consistent goals, comprehensive vision, and accurate foresight. Real policymakers, by contrast, are ordinary mortals burdened with incomplete knowledge, imperfect vision, and selfish desires.... These characteristics may prevent the attainment of perfect rationality....

Id.

[FN44]. See Kaplow, *supra* note 7, at 595 ("When one economizes on [case-by- case creation of complex formulas], recognizing that the formula is to be used only once, it is sensible to oversimplify greatly....").

[FN45]. See Diver, *supra* note 43, at 101-06 (noting that rules will be sub- optimally precise when based on the self-interest of administrative regulators). This raises another argument for rules, which is neglected here due to the focus on concerns particularly cogent to economic analysis: that improperly applied standards may violate the justice principle of horizontal equity and reduce confidence in the legal system. See, e.g., Kelman, *supra* note 4, at 41 (observing that standards "are subject to arbitrary and/or prejudiced enforcement."); Kaplow, *supra* note 7, at 609 ("Rules may be preferred to standards in order to limit discretion, thereby minimizing abuses of power"); King & Sunstein, *supra* note 27, at 181, 184, 189 (noting that a speeding standard creates the perception of arbitrary and unfair enforcement); Sunstein, *supra* note 14, at 974 (observing that rules can counteract "bias, favoritism, or discrimination in the minds of people who decide particular cases").

[FN46]. See, e.g., Richard Posner, *Economic Analysis of Law* 14-15 (5th ed. 1998) (defining a Pareto-superior allocation as one that "makes at least one person better off and no one worse off").

[FN47]. See, e.g., Clifford Holderness, *A Legal Foundation for Exchange*, 14 *J. Legal Stud.* 321, 322 (1985) (arguing that clear entitlements facilitate efficient transactions); Douglas Baird & Thomas Jackson, *Information, Uncertainty, and the Transfer of Property*, 13 *J. Legal Stud.* 299, 312-18 (1984) (same); G. Richard Shell, *Substituting Ethical Standards for Common Law Rules in Commercial Cases: An Emerging Statutory Trend*, 82 *Nw. U. L. Rev.* 1198, 1242 (1988) (arguing rules operate to provide certainty and reduce transaction costs, while standards are more likely to increase transaction costs).

[FN48]. Cf. Ehrlich & Posner, *supra* note 22, at 269 (observing that the Statute of Frauds theoretically denies enforcement of oral contracts, but the costs of overinclusion are low because citizens can easily avoid the Statute by putting their agreements in writing).

[FN49]. Thomas Merrill claims that this intuition is reflected in the law, because rules are usually employed when the costs of transacting are low and standards are usually employed when the costs of transacting are high. Thomas W. Merrill, *Trespass, Nuisance, and the Costs of Determining Property Rights*, 14 *J. Legal Stud.* 13, 13-14 (1985). The accuracy of this empirical claim is questioned in Rose, *supra* note 12, at 593-94.

[FN50]. See, e.g., Margaret Jane Radin, *Market-Inalienability*, 100 *Harv. L. Rev.* 1849, 1855-57 (1987) (arguing inalienability rules are explained as resistance to commodification of certain "goods," such as infants/children, organs, and the environment); Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 *Harv. L. Rev.* 1089, 1111-15 (1972) (arguing inalienability rules are justified by external costs, such as pollution); Richard A. Epstein, *Why Restrain Alienation?*, 85 *Colum. L. Rev.* 970, 990 (1985) ("Rules restraining alienation are best accounted for... by the need to control problems of external harm and the common pool."). See generally Susan Rose-Ackerman, *Inalienability and the Theory of Property Rights*, 85 *Colum. L. Rev.* 931 (1985) (arguing economic efficiency, special distributive goals, and "democratic state" function create inalienability rules).

[FN51]. See Korobkin & Ulen, *supra* note 6, at 1054 (calling this the "seminal insight" of law and economics).

[FN52]. See id. at 1060-66 (describing a spectrum of conceptions of rational choice theory).

[FN53]. For a detailed discussion of bounded rationality, see Korobkin & Ulen, supra note 6, at 1075-1102.

[FN54]. For examples of how these and related insights can be used to modify law and economics analysis in a wide range of legal areas, see Korobkin & Ulen, supra note 6; Christine Jolls et al., A Behavioral Approach to Law and Economics, 50 *Stan. L. Rev.* 1471 (1998); Cass R. Sunstein, Behavioral Analysis of Law, 64 *U. Chi. L. Rev.* 1175 (1997). For an excellent review of articles that apply behavioral analysis to specific topics, see Donald C. Langevoort, Behavioral Theories of Judgment and Decision Making in Legal Scholarship: A Literature Review, 51 *Vand. L. Rev.* 1499 (1998).

[FN55]. See generally Korobkin & Ulen, supra note 6, at 1065-66.

[FN56]. For a review of a variety of causes of bounded rationality, see Korobkin & Ulen, supra note 6, at 1075-1103; see also Jon D. Hanson & Douglas A. Kysar, Taking Behavioralism Seriously: The Problem of Market Manipulation, 74 *N.Y.U. L. Rev.* 630, 643-84 (1999) (reviewing behavioralism literature).

[FN57]. Closely related is the confirmatory bias - the tendency to interpret ambiguous information in ways that confirm preconceived notions. See, e.g., Charles G. Lord et al., Biased Assimilation and Attitude Polarization: The Effects of Prior Theories on Subsequently Considered Evidence, 37 *J. Personality & Soc. Psychol.* 2098, 2101-02 (1979).

[FN58]. George Loewenstein et al., Self-Serving Assessments of Fairness and Pretrial Bargaining, 22 *J. Legal Stud.* 135, 150-51 (1993); Linda Babcock et al., Biased Judgments of Fairness in Bargaining, 85 *Am. Econ. Rev.* 1337, 1340 (1995).

[FN59]. See supra Part II.B.2.

[FN60]. See supra Part II.B.2.

[FN61]. Priest & Klein, supra note 25, at 12-13.

[FN62]. Cf. Babcock et al., supra note 58, at 1337 (observing that if both litigants "construct unbiased point estimates of the value of going to trial... then half of the time plaintiffs will anticipate a higher judgment than defendants").

[FN63]. See supra Part II.C.

[FN64]. Perhaps the seminal hindsight bias study is Baruch Fischhoff, Hindsight not= Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty, 1 *J. Experimental Psychol.: Hum. Perception & Perf.* 288, 289-90 (1975). For an excellent demonstration of the bias in the setting of litigation, see Kim A. Kamin & Jeffrey J. Rachlinski, Ex Post not= Ex Ante: Determining Liability in Hindsight, 19 *L. & Hum. Behav.* 89 (1995). A detailed analysis of the implications of the hindsight bias in substantive legal settings can be found in Jeffrey J. Rachlinski, A

Positive Psychological Theory of Judging in Hindsight, 65 U. Chi. L. Rev. 571, 576 (1998) [hereinafter Rachlinski, Judging in Hindsight]. For a detailed review of the vast hindsight bias literature, see Jay Christensen-Szalanski & Cynthia Fabion Willham, The Hindsight Bias: A Meta-analysis, 48 J. Org. Behav. & Hum. Decision Processes 147 (1991).

[FN65]. Cf. Jeffrey J. Rachlinski, Regulating in Foresight Versus Judging Liability in Hindsight: The Case of Tobacco, 33 Ga. L. Rev. 813, 817 (1999) (observing that because of the hindsight bias regulation might be more desirable than tort liability for protecting against dangerous products).

[FN66]. See generally Rachlinski, Judging in Hindsight, supra note 64, at 603 (doubting that the hindsight bias can be mitigated against successfully in the courtroom).

[FN67]. See Jolls et al., supra note 54, at 1527-29 (recommending that juries be shielded from the precise nature of injuries that gave rise to a particular tort suit prior to determining what conduct would have been negligent). But see Korobkin & Ulen, supra note 6, at 1099 (criticizing this proposal as being unworkable in most situations).

[FN68]. See Amos Tversky & Daniel Kahneman, Availability: A Heuristic for Judging Frequency and Probability, 5 Cognitive Psychol. 207 (1973).

[FN69]. See supra Part II.A.2.

[FN70]. Cf. Thomas S. Ulen, Rules Versus Standards in Light of Limited Rationality (unpublished draft at 26, on file with the author) (finding that if those who must comply with law suffer cognitive limitations, rules are a superior way to achieve social efficiency); Alexander & Sherwin, supra note 21, at 1214 (arguing rationality concerns may justify unqualified rules).

[FN71]. Daniel Kahneman et al., Experimental Tests of the Endowment Effect and the Coase Theorem, 98 J. Pol. Econ. 1325, 1330-32 (1990).

[FN72]. Robert D. Rowe et al., An Experiment on the Economic Value of Visibility, 7 J. Envtl. Econ. & Mgmt. 1, 10 (1980).

[FN73]. Russell Korobkin, The Status Quo Bias and Contract Default Rules, 83 Cornell L. Rev. 608 (1998).

[FN74]. See supra Part II.C.

[FN75]. Ian Ayres and Eric Talley have argued that standards might be superior to rules at facilitating entitlement of reallocation because uncertain ownership of a right dampens the incentive of the parties to strategically misrepresent their private valuations. Ian Ayres & Eric Talley, Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade, 104 Yale L.J., 1027, 1073-78 (1995). The psychological argument advanced here is different from their strategic argument, but the two factors might well complement each other.

[FN76]. Id.

[FN77]. See Korobkin & Ulen, *supra* note 6, at 1060-66 (describing different versions of rational choice theory).

[FN78]. See *supra* Part II.A.

[FN79]. It bears noting that many norms theorists are leading members of the law and economics community who have sought to expand the boundaries of traditional economic analysis of law, much as the behavioral approach seeks to do. See, e.g., Robert Cooter, Normative Failure Theory of Law, 82 *Cornell L. Rev.* 947 (1997); Robert C. Ellickson, *Order Without Law: How Neighbors Settle Disputes* (1991).

[FN80]. The utility derived from social status, in turn, can come from either external or internal sources: (a) the esteem, or social approval, of her friends and neighbors that accompanies various behaviors, or (b) the self-conception benefits, or internal approval, generated by complying with social convention. See generally Cass R. Sunstein, On the Expressive Function of Law, 144 *U. Pa. L. Rev.* 2021, 2031 (1996) (arguing that utility is derived both from reputational benefits of actions and the effects of the actions on the actor's self-conception); Robert D. Cooter, Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant, 144 *U. Pa. L. Rev.* 1643, 1667 (1996) (classifying conformity with norms as "principled" or "adventitious"). Whether the utility derived from social status is generated externally or internally does not affect the subsequent analysis here.

[FN81]. The example is borrowed from Robert Cooter. See Cooter, *Normative Failure Theory*, *supra* note 79, at 954.

[FN82]. See, e.g., Cass R. Sunstein, Social Norms and Social Roles, 96 *Colum. L. Rev.* 903, 907 (1996) (terming this endeavor "norm management"); Lawrence Lessig, The New Chicago School, 27 *J. Legal Stud.* 661, 662-72 (1998) (comparing law's direct and indirect effect on behavior).

[FN83]. The advantage of rules over standards on this score will diminish as the respect for legal pronouncements in the regulated community decreases. At the extreme, in some communities, legal pronouncements might negatively effect social norms. For example, if defying authority is a social norm among teenagers who smoke, making smoking illegal for minors might increase rather than decrease the incidence of that activity. See Korobkin & Ulen, *supra* note 6, at 1131-32.

[FN84]. Of course, this will not be universally true. Some citizens will not have a preference for acting neighborly, while some will have such a preference, but it will be swamped by an even greater desire to play the stereo loudly. These citizens might turn down their stereos anyway because they are deterred by the threat of a fine, or they might violate the law and risk being cited.

[FN85]. See *supra* Part II.B.2.

[FN86]. See *supra* Part II.B.1.

[FN87]. For a discussion of additional criticisms, see Korobkin & Ulen, *supra* note 6, at 1070-74.

[FN88]. See, e.g., Richard A. Posner, Rational Choice, Behavioral Economics, and the Law, 50 *Stan. L. Rev.* 1551, 1559-60 (1998) (defending traditional economics as simpler and more parsimonious than behavioral economics).

[FN89]. See Robert A. Hillman, The Limits of Behavioral Decision Theory in Legal Analysis: The Case of Liquidated Damages, 85 *Cornell L. Rev.* 717, 735- 37 (2000) (observing that some findings of behavioral analysis implying liquidated damages clauses should not be enforced, while others implying such clauses should be enforced).

[FN90]. Cf. Jeffrey J. Rachlinski, The "New" Law and Psychology: A Reply to Critics, Skeptics, and Cautious Supporters, 85 *Cornell L. Rev.* 739, 748 (2000) (arguing that when cognitive effects conflict, legal scholarship must attend to this complexity of life rather than ignore it).

END OF DOCUMENT