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Sticky Compliance: An Endowment Account of Expressive Law

David E. DePianto

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STICKY COMPLIANCE:
AN ENDOWMENT ACCOUNT OF EXPRESSIVE LAW

David E. DePianto*

Abstract

This Article extends the literature on expressive law by developing a model of compliance rooted in the endowment effect. The central premise of the model is that compliance with legal rules, while costly from an ex ante perspective, may also endow individuals with a stream of benefits whose ex post value will increase. Examples of compliance-related benefits would include reductions in risk to one’s own health and safety, enhanced reputation (as a law-abiding individual), and even tangible goods. Under this novel account, once an individual has complied with a law, received some associated benefits, and grown attached to such benefits via the endowment effect, violating the law might thereafter entail a net economic loss—even without the sanction that induced compliance in the first place. While the initial threat of sanction plays a key role in this story, the law’s capacity to change individual endowments through forced compliance, and in turn alter preferences, is the expressive engine of the endowment model. The upshot is not only that the compliance decision is about more than just costs, narrowly conceived; it is that the very act of compliance at one time might change the entire cost structure for future decisions about compliance. The Article distinguishes the endowment model from other expressive accounts and offers a series of antismoking examples as suggestive evidence of the model in action.

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INTRODUCTION

Economic accounts of compliance revolve largely, if not exclusively, around the threat of formal sanctions. Rational actors deciding whether to follow a law purportedly act as “amoral calculators,”¹ weighing the relevant costs and benefits and, ultimately, choosing their actions so as to maximize payoffs.² From this perspective, legal sanctions merely determine the *price* of noncompliance, tilting the decisional calculus away from bad behavior and toward more desirable patterns of activity.³ Remove the threat of formal sanction, the rational-actor model predicts, and compliance will abruptly and inevitably fade. In short, rational compliance with laws—like any other activity viewed through the lens of classical economics—is an instrumental means to a utility-maximizing end.

Unsatisfied with this narrow conception of human motivation and armed with a series of intriguing counterexamples, several commentators have sought to describe the “expressive” dimension of law. As used in this literature, the expressive power of law (or simply, “expressive law”) refers to the capacity of legal rules to influence behavior in ways unrelated to the direct and continued

¹ Neil A. Gunningham et al., *Motivating Management: Corporate Compliance in Environmental Protection*, 27 LAW & POL’Y 289, 289 (2005) (quoting Robert A. Kagan & John T. Scholz, *The Criminology of the Corporation and Regulatory Enforcement Styles*, in ENFORCING REGULATION 67, 67 (Keith Hawkins & John M. Thomas eds., 1984)).

² See, e.g., Richard H. McAdams, *An Attitudinal Theory of Expressive Law*, 79 OR. L. REV. 339, 339 (2000) (arguing that law exerts an influence on behavior, independent of the effect of its sanctions).

³ See, e.g., ROBERT COOTER & THOMAS ULEN, LAW & ECONOMICS 3 (6th ed. 2012) (“[T]o economists, sanctions look like prices”); RICHARD A. POSNER, THE ECONOMICS OF JUSTICE 75 (1981) (“The basic function of law in an economic . . . perspective is to alter incentives.”). See generally Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968) (analyzing the costs and benefits of deterring harmful activity using law); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997) (describing law’s effects on social “norms” or regularities).

threat of formal sanctions.⁴ Prior explanations of expressive law have appealed to the ability of legal rules to signal commonly held values,⁵ law's capacity to coordinate behavior,⁶ the moral authority of laws perceived as legitimate,⁷ the ability of legal rules to change individual beliefs about the consequences of certain activities,⁸ and the influence of law on the social meaning of certain behaviors.⁹ By refining—and in some cases directly challenging—rational-choice accounts of compliance, expressive models have shed light on the often complex relationship between law and its subjects. In doing so, this area of scholarship has also yielded practical information about enforcement strategies and the resources required to achieve legal compliance under various conditions.

This Article extends the literature on expressive law by developing a model of compliance rooted in the endowment effect.¹⁰ Simply put, the endowment effect is the systematic tendency of individuals to place higher values than they otherwise would on goods that they happen to own at the time of valuation.¹¹ Put another way, “[t]he least amount of money that owners of goods are willing to accept to part with their possessions is often far greater than the amount that purchasers would be willing to pay to obtain them.”¹² Taken as a whole, research on the endowment effect suggests that this psychological phenomenon—or something quite similar¹³—applies across a wide variety of goods: from tangible goods, such

⁴ See, e.g., Alex Geisinger, *A Belief Change Theory of Expressive Law*, 88 IOWA L. REV. 35, 57–63 (2002) (describing how law can change beliefs about consequences); Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943, 949–62 (1995) (describing the “social meaning” theory of expressive law); McAdams, *supra* note 2, at 341–72; Richard H. McAdams, *A Focal Point Theory of Expressive Law*, 86 VA. L. REV. 1649, 1713–28 (2000) (applying expressive law theory to smoking bans and landlord liability law); Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021, 2025–29 (1996).

⁵ See McAdams, *supra* note 2, at 340.

⁶ See McAdams, *supra* note 4, at 1651.

⁷ See, e.g., TOM R. TYLER, *WHY PEOPLE OBEY THE LAW* 4 (2006) (arguing that if people “regard legal authorities as more legitimate, they are less likely to break any laws”).

⁸ See Geisinger, *supra* note 4, at 57–63.

⁹ See Lessig, *supra* note 4, at 949–62.

¹⁰ As discussed further in Part II, the compliance dynamic developed herein does not, strictly speaking, rely on the endowment effect. Rather, it relies on the exchange anomalies that the endowment effect purportedly explains.

¹¹ See generally Russell Korobkin, *The Endowment Effect and Legal Analysis*, 97 NW. U. L. REV. 1227 (2003) (demonstrating how the endowment effect “can be incorporated into legal policy analysis across a variety of substantive areas”).

¹² Christopher Buccafusco & Christopher Jon Sprigman, *The Creativity Effect*, 78 U. CHI. L. REV. 31, 31 (2011).

¹³ Recent experimental work has raised serious questions about whether ownership itself—as opposed to the various circumstances surrounding ownership—drives changes in preference (or, as I call them, “exchange anomalies”). I address the implications of this line of research for the endowment model in Part II, explaining why the model may capture something important about compliance even if the endowment effect, narrowly construed, does not exist. See generally Gregory Klass & Kathryn Zeiler, *Against Endowment Theory:*

as coffee mugs and chocolates,¹⁴ to intangible goods that aren't owned in any conventional sense, like entitlements to clean air¹⁵ and default contract terms.¹⁶

Of what relevance is the endowment effect to expressive law? The central premise of the model presented here is that compliance with legal rules, while costly from an ex ante perspective, may also endow individuals with a stream of benefits whose ex post value will increase. Benefits of compliance may include reductions in risk to one's own health and safety, an enhanced reputation, access to new markets and social circles, and even tangible goods.¹⁷ Under the endowment account, once an individual has complied with a law, received some associated benefits, and grown attached to such benefits via the endowment effect, violating the law might thereafter entail a net economic loss—even *without the sanction that induced compliance in the first place*. For example, a bar owner may reluctantly comply with an antismoking ordinance only to find the value of a smoke-free environment increase above its ex ante (precompliance) value. If the increase in the value of the smoke-free environment is substantial enough, formal sanctions might prove unnecessary in the long run.

While the initial threat of sanction plays a key role in the above story, the “stickiness” or path-dependent¹⁸ nature of compliance is a result of rearranged endowment sets. The law's capacity to change individual endowments through forced compliance, and in turn alter preferences through the endowment effect, is the expressive engine of the endowment model. The upshot is not only that the compliance decision is about more than just costs, narrowly conceived; it is that *the very act of compliance at one time might change the entire cost structure for future decisions about compliance*. To invoke a commonly used metaphor, the initial use of the proverbial “stick” can, in certain circumstances, yield “carrots” that induce continued compliance over the long run.

Experimental Economics and Legal Scholarship, 61 UCLA L. REV. 2 (2013) (discussing experimental and behavioral economics in legal scholarship).

¹⁴ Jack L. Knetsch, *The Endowment Effect and Evidence of Nonreversible Indifference Curves*, 79 AM. ECON. REV. 1277, 1278–81 (1989).

¹⁵ See Robert D. Rowe et al., *An Experiment on the Economic Value of Visibility*, 7 J. ENVTL. ECON. & MGMT. 1, 9 (1980).

¹⁶ See Russell Korobkin, *Inertia and Preference in Contract Negotiation: The Psychological Power of Default Rules and Form Terms*, 51 VAND. L. REV. 1583, 1587–92 (1998) [hereinafter *Inertia and Preference*]; Russell Korobkin, *The Status Quo Bias and Contract Default Rules*, 83 CORNELL L. REV. 608, 630–33 (1998) [hereinafter *The Status Quo Bias*].

¹⁷ See, e.g., Robert Cooter & Ariel Porat, *Does Risk to Oneself Increase the Care Owed to Others? Law and Economics in Conflict*, 29 J. LEGAL STUD. 19, 28–29 (2000) (discussing the relationship between reasonable care and risk to one's own safety).

¹⁸ On the nature of path dependence, see Paul Pierson, *Increasing Returns, Path Dependence, and the Study of Politics*, 94 AM. POL. SCI. REV. 251, 252 (2000) (characterizing path dependence as a dynamic in which “preceding steps in a particular direction induce further movement in the same direction” and one in which “the relative benefits of the current activity compared with other possible options increase over time” (emphasis omitted)).

Importantly, the compliance dynamic described above could also be framed as a story about norm internalization. In the literature on law and social norms, internalization refers to the process whereby individuals assimilate a belief or pattern of activity into their life such that any deviation from the activity becomes a net economic “bad.”¹⁹ Compliance with a noninternalized norm or law is therefore costly, and compliance must be induced through external sanctions. Compliance with a norm or legal rule that has been internalized, on the other hand, yields a net benefit even without external inducement. Because the process of internalization and the expressive power of law lead to a common result—compliance without enforcement—the endowment model can explain both phenomena by reference to postcompliance changes in endowments and preferences.

To date, the endowment effect has garnered a significant amount of attention in discussions of law and policy.²⁰ However, the focus has been exclusively on the challenges that it poses to the Coase Theorem and related economic attempts to allocate legal entitlements by reference to individual preferences.²¹ For example, the endowment effect has been invoked to explain why those granted legal (or quasi-legal) entitlements in the form of trial rights,²² IP rights,²³ or environmental goods²⁴ are often reluctant to trade them away through Coasian bargaining.²⁵ Little attention, however, has been paid to the related question of why “losers” in the entitlement game—those *not* granted a particular legal entitlement—might ultimately follow a disfavored legal rule absent a continued threat of enforcement.²⁶ By linking the literature on expressive law and internalization to the endowment effect, this Article fills that important gap.

¹⁹ See Robert D. Cooter, *Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization*, 79 OR. L. REV. 1, 8 (2000) (noting the lower net costs of obeying a social norm).

²⁰ See *infra* Part II.A.3.

²¹ See generally Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051 (2000) (arguing that law and economics should look beyond rational choice theory and, instead, should focus on “law and behavioral science”).

²² See Russell Covey, *Reconsidering the Relationship Between Cognitive Psychology and Plea Bargaining*, 91 MARQ. L. REV. 213, 220 (2007).

²³ See, e.g., Buccafusco & Sprigman, *supra* note 12, at 32–36; Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 220–21 (2006).

²⁴ See Cass R. Sunstein, *Endogenous Preferences, Environmental Law*, 22 J. LEGAL STUD. 217, 236–37 (1993).

²⁵ Coasian bargaining is the process through which actors buy and sell legal entitlements in the shadow of the law. The Coase theorem posits that, in the absence of transaction costs, property will be allocated to the highest-value user. See COOTER & ULEN, *supra* note 3, at 81–95.

²⁶ Professors Russell B. Korobkin and Thomas S. Ulen’s discussion of “addictive” compliance comes closest to the endowment model presented herein, but it focuses primarily on the avoidance and/or minimization of costs (rather than the role of compliance-related benefits). More importantly, the article does not explicitly link the endowment effect to expressive law or internalization. See Korobkin & Ulen, *supra* note

The endowment model also departs from prior work on expressive law in at least two important respects. First, unlike other accounts of internalization, the endowment model emphasizes the *benefits* of compliance rather than just the costs. Under many existing models, the possible benefits of compliance are simply overlooked. Thus, compliance is about what the law takes away rather than what it can offer. In other models, the costs and benefits associated with compliance are viewed as conceptually indistinguishable aside from the mathematical sign (+ or –) that precedes them.²⁷ Inasmuch as compliance-related benefits are subject to the endowment effect, though, the cost-benefit distinction becomes important; there is no longer one stable, time-invariant cost of compliance. As a result, costs and benefits cannot be summed up in a simple way and compared across compliance and noncompliance states of the world. Rather, the cost structure of compliance is dependent on one’s endowments, which, in turn, may be a function of one’s current compliance status.

Secondly, the endowment account suggests that certain expressive aspects of law may be triggered only after compliance is externally induced through sanctions (thus endowing compliers with the associated benefits). This distinguishes the endowment model from other accounts, under which *the mere passage of a law* would presumably trigger the relevant expressive mechanism.²⁸ This unique feature of the endowment model doubles as a testable implication and may help explain—in ways that other expressive models cannot—the timing of compliance in certain situations. For example, antismoking ordinances in a number of states and municipalities achieved remarkably high levels of compliance, but only after the laws became officially enforceable (often long after the laws were officially adopted).²⁹ The timing of compliance in these cases, combined with other factors concerning preenforcement awareness of the smoking bans and their low long-term enforcement levels, are strongly suggestive of the endowment model. More specifically, the antismoking examples tell a story in which short-term compliance is induced by the perceived threat of sanction, while long-term compliance is induced by, among other things, a self-reinforcing change in preferences about smoke-free environments.

The remainder of the paper is organized as follows. Part I provides background on the study of compliance, starting with the classical economic approach and moving to expressive law and the role of social norms. Part II begins with a brief overview of the substantial research on the endowment effect,

21, at 1116–17 (“For example, fastening a seatbelt when driving might be a behavior that is initially costly, as the driver must remember to fasten the belt and must suffer a loss of comfort. As fastening the seatbelt becomes a habit, however, the *costs* of doing so decrease greatly, and it is possible that the feeling of inconvenience is replaced by a feeling of comfort and security as the behavior becomes habitual.” (emphasis added)).

²⁷ See, e.g., McAdams, *supra* note 2, at 341–43 (developing an expressive model of law in which the costs and benefits of compliance—though more than just formal sanctions—are static across compliance states).

²⁸ See, e.g., Geisinger, *supra* note 4, at 64 (“[T]he inferential process may lead us to change the certainty of a belief based on the passage of law without new information.”).

²⁹ For further discussion, see *infra* Part III and accompanying notes.

discussing the range of situations in which it applies and the mechanisms underlying its operation. The Part also addresses recent empirical work that raises important questions about the meaning and scope of the endowment effect. Against this backdrop, Part II goes on to present the endowment model of compliance—how it works and where its effects would most likely manifest. In large part, the section will seek to explain how compliance-related benefits function like the iconic mugs in the endowment effect experiments. Given recent evidence calling the endowment effect into question, Part II also discusses why the *endowment model* may still be valid even if the *endowment effect*, strictly speaking, is not.

Part III will locate the endowment model in the wider literature on social norms and expressive law, discussing how the model differs from other expressive accounts and why it is uniquely suited to capture certain compliance dynamics. Though this Article will not endeavor to empirically test the endowment model, a series of antismoking examples from around the country are offered as suggestive evidence of the model at work.

I. EXISTING ACCOUNTS OF COMPLIANCE

A. *Rational Choice—Compliance Through an Economic Lens*

The economic conception of compliance has long dominated academic discourse on the subject.³⁰ The persistence of this approach—referred to, variously, as rational choice theory or the standard deterrence model—is at least partially attributable to its simplicity.³¹ Rational actors, after all, are predictable, easy to model, and in certain social domains, possess significant predictive power.³² In this sense, *homo economicus* is to the study of law what frictionless planes are to the study of physics: a flawed, but often useful, starting point.

Despite its predictive successes, though, the rational actor model is ill equipped to explain why individuals obey laws that are not enforced (or enforced only to a trivial extent) through formal sanctions. Why, for example, do people refrain from littering, pick up after their dogs,³³ and heed antismoking signs³⁴ when formal sanctions are unlikely? What explains the high level of compliance

³⁰ See generally Robert Cooter, *Models of Morality in Law and Economics: Self-Control and Self-Improvement for the “Bad Man” of Holmes*, 78 B.U. L. REV. 903 (1998); Amitai Etzioni, *Social Norms: Internalization, Persuasion, and History*, 34 LAW & SOC’Y REV. 157 (2000). On the general influence of economic reasoning in the legal academy, see William M. Landes & Richard A. Posner, *The Influence of Economics on Law: A Quantitative Study*, 36 J.L. & ECON. 385 (1993).

³¹ See Etzioni, *supra* note 30, at 160.

³² See generally Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551 (1998) (responding to behavioral economists’ charges that rational choice theory erroneously “assum[es] that people are rational”).

³³ See Robert Cooter, *Expressive Law and Economics*, 27 J. LEGAL STUD. 585, 595 (1998).

³⁴ See *id.*; Robert A. Kagan & Jerome H. Skolnick, *Banning Smoking: Compliance Without Enforcement*, in SMOKING POLICY: LAW, POLITICS, AND CULTURE 69, 72 (Robert L. Rabin & Stephen D. Sugarman eds., 1993).

with underenforced environmental regulations³⁵ and seat-belt laws?³⁶ Why don't people cheat more often on their taxes?³⁷

The inability of economic models to fully capture such scenarios arises from the standard assumptions of rationality and the “legal centralist” tendencies that have historically defined the economic approach. Under the rationality assumptions, individual preferences are complete, stable, exogenous, informed, and narrowly self-serving.³⁸ Legal centralism, further, is the “belief that governments are the chief sources of rules and enforcement efforts.”³⁹ Taken together, these assumptions substantially limit the universe of factors that a rational actor can consider when facing a compliance decision.

To illustrate, suppose an economically rational individual is deciding whether to follow a law or violate its strictures and absorb the relevant penalty. If the cost of compliance were \$100 and the expected sanction \$50—say, a 50% chance of a \$100 fine—a rational actor would choose to violate. If the cost of compliance were under \$50 or the expected penalty above \$100 (holding the other numbers the same), the actor would choose to comply. As this simple example illustrates, the costs of violation are all known to the rational actor and narrowly construed, consisting solely of the formal sanction discounted by the likelihood of detection. Other noninstrumental considerations, such as the effect of compliance on others or the moral dimension of the law, fall outside the purview of the classical model.

In addition to being narrowly construed, the costs and benefits of compliance are also assumed to be static in the economic model. That is, rational actors are precluded from changing preferences to improve their situation within a given economic landscape. This result flows from the “stability” and “exogeneity” assumptions. The former, as its name suggests, holds that preferences remain more or less fixed over time.⁴⁰ The latter holds that individual preferences are a function of the inherent qualities of goods rather than their distribution in the world at any particular time.⁴¹ For example, one may prefer apples to bananas, but the fact that one possesses either one at any given time should not, according to classical economic thinking, affect this preference.

³⁵ See Neil Gunningham et al., *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 LAW & SOC. INQUIRY 307, 308–09 (2004).

³⁶ See Maggie Wittlin, *Buckling Under Pressure: An Empirical Test of the Expressive Effects of Law*, 28 YALE J. ON REG. 419, 456 (2011).

³⁷ See, e.g., Susan C. Morse, *Tax Compliance and Norm Formation Under High-Penalty Regimes*, 44 CONN. L. REV. 675, 681 (2012).

³⁸ See Korobkin & Ulen, *supra* note 21, at 1061–66.

³⁹ See Etzioni, *supra* note 30, at 159 (quoting ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 138 (1991)).

⁴⁰ See, e.g., Jennifer Arlen, Comment, *The Future of Behavioral Economic Analysis of Law*, 51 VAND. L. REV. 1765, 1766 (1998) (“Conventional law and economics assumes that people exhibit rational choice: that people are self-interested utility maximizers with stable preferences and the capacity to optimally accumulate and assess information.”).

⁴¹ See, e.g., Korobkin, *The Status Quo Bias*, *supra* note 16, at 611 (“[S]ome buyers might prefer the delivery of goods on Tuesdays and others on Wednesdays, but whether lawmakers determine that the default delivery day for contracts is to be Tuesdays or Wednesdays will not affect which day any individual buyer would prefer.”).

With respect to compliance decisions, these rationality assumptions suggest that the adoption of a law will not change how a person values the entitlements at stake. For example, one may or may not value a clean park enough to pick up after one's dog or refrain from littering, but the law's stance on this issue—whether it gives the entitlement to a clean park or establishes a “littering is okay” norm—should not affect preferences.⁴² Rather, all the law can do is change the costs associated with violation, so as to discourage the activity in question. Therefore, an individual predisposed to violate a norm will do so unless some external set of incentives, namely civil liability or criminal punishment, steers her away from that course of action and toward a less costly one.

In the language used by social-norms scholars, the above story means that *homo economicus* is incapable of internalization. Rather, *homo economicus* knows what he⁴³ wants, knows all the costs and benefits relevant to the compliance decision, makes the determination in a social vacuum, and is not likely to change his mind absent external pressures. Unsurprisingly, efforts to explain the process of internalization within the strict parameters of rational choice have proven difficult.⁴⁴

⁴² See Korobkin, *supra* note 11, at 1228.

⁴³ Some commentators have suggested that the economic conception of rationality reflects values and interests that are culturally coded as masculine. See Julie A. Nelson, *Feminism and Economics*, 9 J. ECON. PERSP. 131, 131–35 (1995).

⁴⁴ Professor Robert Cooter, among the first law and economics scholars to lament the inability of *homo economicus* to undergo meaningful change, has noted the following:

Theories of endogenous preferences, which go back at least to Adam Smith, have not flourished in economics. Microeconomics marginalizes morality by treating it as an exogenous taste or a side constraint upon optimizing behavior. Thus the theory of cooperative games, which requires normative commitments from players, languishes while the theory of non-cooperative games flourishes.

Cooter, *supra* note 30, at 911 (citations omitted). To remedy this imbalance, Cooter has proposed a theory of “Pareto Self-Improvement” to explain internalization in something that resembles a rational-choice framework. *Id.* at 904–05. Under the theory of Pareto Self-Improvement, actors alter their character (or preference function) in order to increase the opportunities, and corresponding economic rewards, available to them. *Id.* at 922. Thus, a person may internalize a social norm where the circumstances—including the social and legal landscape—make it economically beneficial to do so. However, most of the intuitive appeal of the concept of Pareto Self-Improvement arises through Cooter's analytical sleight-of-hand providing that “character is chosen.” *Id.*

Not surprisingly, other theorists have criticized this aspect of the Pareto Self-Improvement theory:

[T]he concept of self-motivated preference change within a framework of rational choice theory is internally incoherent. A Pareto self-improvement, by definition, is a self-motivated change in the individual's discount rate. It assumes that an individual can rationally choose to expand her opportunity set by reducing her rate of time discounting and thus increasing the present value of future interactions. But under rational choice theory, an actor who wants to be

B. Expressive Accounts of Law and Compliance

In its broadest sense, the study of expressive law is an effort to inject social and behavioral realism into the study of compliance.⁴⁵ Over the past two decades, several overlapping models have emerged to make sense of behavior that would otherwise be deemed irrational by economic models. Though expressive models, as responses to the rational choice paradigm, are often framed as narrow efforts to explain specific “high compliance/low enforcement” situations, their implications extend beyond such examples to the study of compliance generally. The remainder of this section outlines several expressive mechanisms through which law can influence behavior.

1. Social Norms

Several accounts of expressive law use social norms to explain behavior that appears irrational from an economic perspective. At the most general level, norms might be described as regularities in the way people understand and react to social situations. Scholars have divided the universe of norms into a number of categories, including conventions (such as driving on a certain side of the road), habits (like drinking coffee in the morning), descriptive norms (such as taking off one’s hat when it is hot), and injunctive norms (such as not littering in public spaces).⁴⁶ Injunctive norms, which have drawn the most scholarly attention in the study of social norms, are thought to be more than accidental or convenient behavioral patterns. Rather, injunctive norms are often viewed as having a moral dimension—an “oughtness”—about them that leads many to feel guilt when they

motivated by a concern for future considerations *is, in fact*, motivated by a concern for future considerations. In other words, someone who wants to be a cooperator is [already] a cooperator.

Robert E. Scott, *The Limits of Behavioral Theories of Law and Social Norms*, 86 VA. L. REV. 1603, 1636 (2000) (emphasis in original). Cooter acknowledges the deficiency of his theory, noting that the process whereby “people who want to improve their character succeed in doing so remains[, where economics is concerned,] murky.” Cooter, *supra* note 30, at 922. Though Cooter offers three noneconomic explanations of Pareto Self-Improvement based on the psychological insights of Jean Piaget, Lawrence Kohlberg, and Sigmund Freud, it is difficult to fit such theories into the language of classical economics. See Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1661–62 (1996).

⁴⁵ This objective is shared by other legal subdisciplines, such as behavioral economics, the insights of which can be found in many expressive theories.

⁴⁶ See, e.g., Cooter, *supra* note 30, at 1656 (“Taking off your hat to escape the heat is different from taking off your hat to satisfy an obligation. The former is a regularity and the latter is a norm.”); Yuval Feldman & Janice Nadler, *The Law and Norms of File Sharing*, 43 SAN DIEGO L. REV. 577, 598 (2006) (“Descriptive norms are how most people would behave in comparable situations. Injunctive norms refer to the extent to which most people would approve of the target behavior.”).

fail to comply:⁴⁷ “[b]eyond affecting the content and intensity of numerous particular predispositions, social norms help people form (and re-form) the self, by profoundly influencing their identities, their worldviews, their views of themselves, the projects they undertake, and thus the people they seek to become.”⁴⁸

Of course, because social norms are costly to observe, some individuals will remain predisposed to violate them absent some external motivating pressure. Informal sanctions supply this pressure. Just as fines, civil liability, and criminal punishment can induce compliance with legal rules, the threat of communal sanctions can coerce individuals into complying with social norms. Examples of such informal enforcement mechanisms are legion: people who choose not to vote are subject to mild forms of harassment by their politically engaged friends, smoking in certain contexts is met with scorn and confrontation, “litterbugs” are chastised by passersby,⁴⁹ the reputations of businesspeople who behave unethically or opportunistically are tarnished,⁵⁰ and motorists who drive unsafely or fail to heed traffic signals are shamed by way of horn honking and unsavory hand gestures.⁵¹ As noted by Professor Cass R. Sunstein,

When defection [or, noncompliance,] violates norms, defectors will probably feel *shame*, an important motivational force. The community may enforce its norms through informal punishment, the most extreme form of which is ostracism. But the most effective use of norms is *ex ante*. The expectation of shame—a kind of social “tax,” sometimes a very high one—is usually enough to produce compliance.⁵²

Thus, whatever specific form they take, informal sanctions can make compliance with costly social norms economically rational.

Compliance with norms can also yield long-term rewards, or “cooperative surpluses,” in the context of repeated interactions.⁵³ Professor Eric A. Posner’s signaling model of social norms, for example, explains how adherence to social norms might function as a sort of proxy for individual reliability. The primary function of norms, in Posner’s model, is to fill informational gaps in what would otherwise be very risky repeated games. In this signaling model, social norms are able to distinguish “cooperators” from “defectors,” not through any of their

⁴⁷ See Melvin A. Eisenberg, *Corporate Law and Social Norms*, 99 COLUM. L. REV. 1253, 1261 (1999).

⁴⁸ Etzioni, *supra* note 30, at 163.

⁴⁹ See Sunstein, *supra* note 4, at 2030.

⁵⁰ See Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 MICH. L. REV. 1724, 1763–64 (2001).

⁵¹ Personal experience.

⁵² Sunstein, *supra* note 4, at 2029–30.

⁵³ See ERIC A. POSNER, *LAW AND SOCIAL NORMS* 174 (2000).

qualitative (or normative) attributes, but rather by dint of the economic cost associated with compliance.⁵⁴

To be an effective signal under Posner's theory, compliance needs to be costly enough to signal long-term commitment to a potential partner. By observing costly social norms, cooperators signal to the world that they are "in it for the long haul"—or at least long enough for them to offset the short-term costs of compliance with the longer-term cooperative surpluses. Conversely, defectors who eschew social norms are viewed as myopic and untrustworthy.⁵⁵

For example, an employer might prefer to hire a college graduate to a high school graduate even if college imparts no relevant skills or has no correlation with intelligence or aptitude. Under Posner's signaling theory, the mere fact that the college graduate paid a substantial amount of money for their education implies that they will be committed to the job long enough for them to offset the costs of the education (the signal) with the surpluses, or wages, associated with the position.⁵⁶

Whether compliance is induced by the threat of social alienation or the promise of long-term cooperative surpluses, social norms are commonly viewed as a pervasive and influential force in determining behavior. To the extent that laws align with, establish, or enhance the operation of norms, therefore, compliance with laws is not solely a function of formal enforcement (as the standard deterrence model suggests). And, of course, laws do frequently align with preexisting social norms. Though "special interests" certainly play a role in the formulation of social policy, it remains the case that laws "formulated in ways that are congruent with social norms are much more likely to be enacted than laws that offend such norms."⁵⁷ By the time a rule of conduct gets adopted as a formal law, therefore, many will already have internalized its content.

Even where a legal rule is not initially backed by a universally accepted social norm, the adoption of a law can tip behavior into an equilibrium of high compliance. Assuming that some portion of a community has internalized the content of a law or will comply reflexively—publicly upholding it and/or shaming violators—others will account for this expected social cost and follow suit: "If most citizens obey the law from respect, enacting the law without enforcing it can probably achieve the desired result. . . . For the small recalcitrant group of lawbreakers, rude remarks by citizens and other informal punishments deter without state coercion."⁵⁸ The process described above, importantly, is self-perpetuating. The more people who are observed complying with a given law, even if compliance is reluctant and externally induced, the greater the perceived social cost of noncompliance. The greater the perceived social cost of noncompliance, in turn, the more people will find compliance to be individually advantageous. This

⁵⁴ See *id.*; Daniel Gilman, *Of Fruitcakes and Patriot Games*, 90 GEO. L.J. 2387, 2390–94 (2002).

⁵⁵ See POSNER, *supra* note 53, at 169–74; Gilman, *supra* note 54, at 2393–94.

⁵⁶ See POSNER, *supra* note 53, at 180–82.

⁵⁷ Etzioni, *supra* note 30, at 159.

⁵⁸ Cooter, *supra* note 33, at 595.

“network effect”⁵⁹ triggered by the passage of a law implies that even without formal enforcement, a legal rule can rapidly transform a situation of zero compliance into one of universal compliance.⁶⁰

Norms-based expressive accounts like the above, it should be noted, can be seen as extensions of the rational-actor model rather than competing accounts. Nothing about the compliance dynamic described above, in other words, is strictly inconsistent with the view that individuals base compliance decisions on costs and benefits. Social norms merely add a new type of cost (or benefit) to the equation.

2. *Social-Meanings Accounts*

Another set of expressive models emphasizes the role of law in establishing and reinforcing social meanings.⁶¹ By drafting, publicizing, or applying a legal rule in a certain way, the government can attach widely shared associations—either positive or negative—with certain activities. For example, “[i]f the nation suffers under a health craze, the government can use ‘healthy styles of life’ as arguments to fight drug usage.”⁶²

The social meanings attached to law can impact people individually or collectively. In the former case, the change is internal—akin to the “acceptance of a new reason”⁶³—rather than an instrumental response to perceived social pressures. A helmet law, for example, may change an individual’s view of riding a motorcycle without head protection from an exercise of freedom and individualism to an irresponsible act.⁶⁴ In the latter case, widespread changes in social meaning can activate “norm cascades” in the manner described above: “[i]ndividuals . . . cannot be expected to act against social meanings, even if the social meanings are, from some perspective, stupid. The reason follows from what has been said so far: Social meanings are part of the benefits and costs associated with any individual action.”⁶⁵ Because social meanings are inextricably intertwined with norms, moreover, the same dynamic of self-reinforcement applies equally to both accounts.

⁵⁹ A network effect describes a situation in which the value of an object or activity is a function of the number of others who own the relevant good or participate in the activity.

⁶⁰ See Cooter, *supra* note 33, at 595; McAdams, *supra* note 2, at 370–71.

⁶¹ See generally Lessig, *supra* note 4 (discussing the interplay of governance and social construction); Sunstein, *supra* note 4 (writing on the expressive function of law).

⁶² Lessig, *supra* note 4, at 957.

⁶³ See Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1661–62 (1996).

⁶⁴ See Lessig, *supra* note 4, at 964. This type of individual change is difficult to square with strict rational-actor models.

⁶⁵ *Id.* at 1000–01.

3. *Informational Accounts of Expressive Law*

In addition to signaling majority views and influencing social meanings, legal rules may also serve as a reliable source of a different kind of information: “[t]he basic idea is that, through the process of information aggregation inherent in legislative decision-making, the law can provide information about intrinsic features of the world. This information causes citizens to update their prior beliefs and thereby changes individual behavior”⁶⁶ Note the difference between this “educational” function and the consensus-signaling function mentioned in the discussion of social norms: the former supplies information about *nonsocial* facts of the world—like the inherent riskiness of certain activities—while the latter signals the reactions that others are likely to have in response to certain patterns of conduct.

The law’s capacity to serve this informational function hinges on a number of considerations. First, reliable information on the precise consequences of risky or potentially harmful behavior must be scarce and expensive to acquire. Second, governing bodies must be viewed as trustworthy sources of this type of information.⁶⁷ For example, if legislators are viewed as an especially intelligent or competent class of individuals, the empirical facts they accept as the basis for laws might be viewed as reliable (or at least more reliable than competing folk narratives circulated among the masses). Even if legislators are not viewed as an especially smart group, the mere fact *that they are a group* might also make their wisdom more dependable.⁶⁸ Both the deliberative nature of legislating and its winner-take-all nature make it less likely that individual errors in reasoning will taint the collective wisdom of legislating bodies.⁶⁹ Finally, the legislative process gives governing bodies access to expert opinions and affords them the time and resources to effectively interpret and digest complex sets of information.

For all of these reasons, law—or the empirical subtext associated with legal rules—might lead people to update the substance of their beliefs or the certainty with which they are held. Laws forbidding drunk driving or the ingestion of drugs, for example, may signal unknown or counterintuitive facts about the risks posed by such activities. As with the other of the expressive mechanisms, formal enforcement is largely beside the point; legal rules educate rather than punish.

⁶⁶ Dhammika Dharmapala & Richard H. McAdams, *The Condorcet Jury Theorem and the Expressive Function of Law: A Theory of Informative Law*, 5 AM. L. ECON. REV. 1, 2–3 (2003).

⁶⁷ See Geisinger, *supra* note 4, at 59.

⁶⁸ See Dharmapala & McAdams, *supra* note 66, at 3 (“[E]ven if individual legislators have no more information or expertise than individual citizens, the legislative process of aggregating votes will provide citizens with superior information. If legislative expertise *did* exist, it would only reinforce this basic argument.” (emphasis added)).

⁶⁹ See Dharmapala & McAdams, *supra* note 66, at 2–3.

II. THE ENDOWMENT ACCOUNT OF INTERNALIZATION AND EXPRESSIVE LAW

The preceding section discussed various ways in which law can influence behavior and garner widespread compliance in ways other than the direct threat of sanction. This section adds to that effort. After providing some background on the endowment effect and its extant legal applications, this section connects this psychological effect to the literature on expressive law, showing how the law's ability to reshuffle endowment sets can induce long-term compliance without the continued threat of sanction. This account, referred to as the endowment model, is different than the accounts described above, but not necessarily incompatible with them. That is, even in the limited circumstances where the endowment model most likely applies, other aspects of expressive law may also apply simultaneously.

A. *The Endowment Effect*

As mentioned above, part of what it means to be economically rational is to have exogenous preferences: preferences that derive from the inherent qualities of goods rather than their distribution in the world at any particular time. In short, *whether you own something shouldn't affect how much you like that something.*

An individual may prefer to own either a house in the city or a house in the country, but the location of the house that she presently owns should not affect her preference or the intensity of that preference. Likewise, an individual might prefer cheap gas and dirty air or expensive gas and clean air, but his preference should not depend on whether gas is cheap or expensive or whether the air is dirty or clean, nor should it depend on which of these combinations the law favors.⁷⁰

A growing body of empirical work, however, has challenged the notion that preferences are entirely stable and unaffected by ownership. Much of this research is built around a behavioral quirk referred to as the endowment effect.

The observable empirical results that underlie the endowment effect are “exchange asymmetries” and “willingness-to-accept/willingness-to-pay” gaps (also known as WTA-WTP gaps or offer-ask disparities).⁷¹ The former label refers to situations in which people display a systematic reluctance to trade goods that they currently own with other goods of similar market value. The latter terms refer to disparities between the amount of money that individuals are willing to accept to endure a certain state of affairs or part with a good (WTA) and the amount of money that people are willing to spend to obtain that same state of affairs or set of goods (WTP).⁷² The remainder of the Article refers to WTA-WTP gaps and exchange asymmetries collectively as “exchange anomalies.”

⁷⁰ Korobkin, *supra* note 11, at 1228.

⁷¹ See generally Klass & Zeiler, *supra* note 13, at 7–8 (using empirical results to disprove endowment theory).

⁷² See *id.*

Though the endowment effect is often conflated with exchange anomalies,⁷³ it is best understood as an explanation of such phenomena or a theory about the underlying mechanisms. To say that the endowment effect operates in a given context or applies to a certain set of goods, in other words, is to assert that ownership *simpliciter*—merely being endowed with something—changes the value of the owned goods, thereby generating WTA-WTP gaps and exchange asymmetries.⁷⁴

1. Supporting Evidence

Contingent valuation (CV) studies provide some of the earliest evidence of WTA-WTP gaps. In such studies, the values of nonmarket goods are elicited through hypothetical questions.⁷⁵ CV questions vary the baseline state of affairs so as to generate either WTA or WTP values. A WTA value, for example, could be elicited from the question “how much money would you require in order to accept a 1% decrease in air quality?” The corresponding WTP question might be “how much would you pay to improve air quality by 1%?”

CV studies on natural resources and environmental goods have consistently shown WTA/WTP ratios well above unity (that is, WTA/WTP ratios that are larger than one). One such survey, for example, indicated a large disparity between willingness of duck hunters to pay for wetlands preservation (\$247) and their willingness to accept money to forego the same preservation efforts (\$1044).⁷⁶ Another CV study of elk hunters yielded similar results: the hunters in the study were willing to pay an average of \$54 to increase their elk sightings by a particular amount, yet they would demand approximately three times the willingness-to-pay figure (\$142) to reduce their elk sightings by the same amount.⁷⁷ Similarly, participants in a CV study about air quality were willing to pay \$4.75 per month to maintain seventy-five miles of air visibility but would require a payment of \$24.47

⁷³ See, e.g., Eyal Zamir, *Loss Aversion and the Law*, 65 VAND. L. REV. 829, 839 (2012) (“The endowment effect, sometimes dubbed the WTA-WTP disparity, refers to the phenomenon that individuals tend to place higher value on objects and entitlements that they already have, compared to objects and entitlements that they do not have.”).

⁷⁴ See Charles R. Plott & Kathryn Zeiler, *Exchange Asymmetries Incorrectly Interpreted as Evidence of Endowment Effect Theory and Prospect Theory*, 97 AM. ECON. REV. 1449, 1449 (2007) (“To say that an observed phenomenon demonstrates an ‘endowment effect’ does not simply denote that an asymmetry was observed; rather, use of the label implies that a very special form of preferences causes the asymmetry.”).

⁷⁵ See ROBERT CAMERON MITCHELL & RICHARD T. CARSON, *USING SURVEYS TO VALUE PUBLIC GOODS: THE CONTINGENT VALUATION METHOD 2* (1989); Korobkin, *supra* note 11, at 1232.

⁷⁶ JUDD HAMMACK & GARDNER MALLARD BROWN, JR., *WATERFOWL AND WETLANDS: TOWARD BIOECONOMIC ANALYSIS* 26–27 (1974).

⁷⁷ William D. Schultze et al., *Valuing Environmental Commodities: Some Recent Experiments*, 57 LAND ECON. 151, 165–66 (1981).

to give up the same.⁷⁸ Other studies, both within and without the environmental context, echo these results.⁷⁹

CV studies, however, face an important limitation: the results are hypothetical in the sense that participants in such studies do not actually buy, sell, or own the goods that they are asked to value.⁸⁰ In response to this limitation, a wave of experimental studies sought to test for the presence of exchange anomalies in cases where the stakes were real (i.e., where actual sales, purchases, and/or exchanges were made). One influential experimental study randomly split the participants into two groups, one of which received a coffee mug and the other a candy bar of roughly equivalent market value.⁸¹ When allowed to trade the goods—a mug for a candy bar or vice versa—few in either group chose to do so. Since the reluctance to trade appeared on both sides of the “market” and the initial assignments were random, either the fact of ownership or something closely linked with ownership appeared to be driving the results.⁸²

Other experimental studies have sought to create a miniature market for goods such as pens and mugs by randomly distributing one of those items to half of the study participants and giving the other half nothing. Those who received the good in question were asked to state a price at which they would sell, and those who received nothing were asked to reveal their buying price.⁸³ From this information, the experimenters determined a market price for the good. “Sellers” who indicated a price at or below the market price were required to sell the good, and “buyers” who indicated a price at or above the market price would be required to buy the good (thus limiting strategic bidding). In the end, far fewer trades were executed than would be expected if ownership had no effect on the valuations given by the participants.⁸⁴ To date, experiments of this type number in the hundreds.⁸⁵ Unlike the exchange or barter-based studies mentioned above, the studies that create functioning minimarkets yield information about the magnitude of the WTA-WTP gaps.

WTA-WTP gaps and exchange asymmetries have been found across a wide variety of goods: environmental entitlements like clean air and visibility; tangible

⁷⁸ Rowe et al., *supra* note 15, at 10.

⁷⁹ See generally Jack L. Knetsch, *Environmental Policy Implications of Disparities Between Willingness to Pay and Compensation Demanded Measures of Values*, 18 J. ENV. ECON. & MGMT. 227 (1990) (using economic and environmental assessments in controlled tests to show that willingness-to-pay and compensation-demanded valuations are not necessarily equivalent).

⁸⁰ See Klass & Zeiler, *supra* note 13, at 14–15; Korobkin, *supra* note 11, at 1232.

⁸¹ See Knetsch, *supra* note 14, at 1278.

⁸² See *id.*

⁸³ See Daniel Kahneman et al., *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325, 1329–33 (1990).

⁸⁴ *Id.*

⁸⁵ See generally John K. Horowitz & Kenneth E. McConnell, *A Review of WTA/WTP Studies*, 44 J. ENVTL. ECON. & MGMT. 426 (2002) (examining forty-five studies comprising 208 experiments); Serdar Sayman & Ayse Öncüler, *Effects of Study Design Characteristics on the WTA-WTP Disparity: A Meta-Analytical Framework*, 26 J. ECON. PSYCHOL. 289 (examining thirty-nine studies comprising 164 experiments).

goods such as chocolates, pens, and mugs; and a strange collection of other items, including lottery tickets, health and safety risks, nuclear waste, foul-tasting liquids, and pathogen-contaminated sandwiches.⁸⁶ The size of the WTA-WTP gaps observed in the literature, however, appears to vary widely. One recent meta-analysis of over forty studies, for example, found WTA/WTP ratios ranging from 0.74 to 113—meaning that, in some cases, individuals valued goods over one hundred times more when they owned them than when they didn't.⁸⁷ The median and mean ratios in that survey were 2.16 and 7.17, respectively.⁸⁸ A similar survey of 164 experimental results also found substantial variation in WTA/WTP gaps, reporting a median ratio of 2.9, a mean of 7.1, and a maximum value of over one hundred.⁸⁹

Aside from indicating the general range of WTA-WTP magnitudes, meta-analyses also provide clues about what determines the size of the gaps. For example, WTA-WTP gaps appear to be largest where the good in question lacks a close market substitute.⁹⁰ Thus, normal tangible goods like mugs and pens carry lower valuation gaps.⁹¹ Conversely, unique goods for which there are few substitutes—such as environmental goods, health, and safety—often exhibit higher gaps.⁹² The more uncertain the value of the good, the more ownership seems to impact its valuation.

The circumstances under which a good is received also affect offer-ask disparities. Goods that are earned (or are perceived by their owners as having been earned) are valued more highly than goods that are received through random or accidental processes.⁹³ Also, WTA-WTP gaps are highest when the person performing the valuation is doing so on behalf of themselves (i.e., not as an agent for another).⁹⁴

⁸⁶ See Horowitz & McConnell, *supra* note 85, at 427.

⁸⁷ See *id.*

⁸⁸ See *id.*

⁸⁹ See Sayman & Öncüler, *supra* note 85, at 300.

⁹⁰ See, e.g., Wiktor L. Adamowicz et al., *Experiments on the Difference Between Willingness to Pay and Willingness to Accept*, 69 LAND ECON. 416, 417 (1993) (hockey tickets for a televised game led to a smaller WTA-WTP gap than hockey tickets for an untelevised game); Jason F. Shogren et al., *Resolving Differences in Willingness to Pay and Willingness to Accept*, 84 AM. ECON. REV. 255, 259–64 (1994) (an ordinary candy bar carries no WTA-WTP, while food screened for pathogens shows a high valuation gap).

⁹¹ See Shogren et al., *supra* note 90, at 264–66.

⁹² See Horowitz & McConnell, *supra* note 85, at 433–35; Sayman & Öncüler, *supra* note 85, at 296–98.

⁹³ See Korobkin, *supra* note 11, at 1236; George Loewenstein & Samuel Issacharoff, *Source Dependence in the Valuation of Objects*, 7 J. BEHAV. DECISION MAKING 157, 165–66 (1994).

⁹⁴ See Jennifer Arlen et al., *Endowment Effects Within Corporate Agency Relationships*, 31 J. LEGAL STUD. 1, 14–22 (2002).

2. *Alternative Explanations and Skeptical Voices*

The apparent upshot of the above studies is that ownership or something closely associated with ownership changes the way individuals assign value to goods. Strictly speaking, the endowment effect is a narrow explanation of exchange anomalies under which *ownership itself*—rather than the various circumstances surrounding ownership—drives preference changes. In this sense, the endowment effect is a species of the more general phenomenon of “loss aversion”:

[W]hen deciding what to do, people give possible losses more weight than potential gains of the same magnitude. Endowment theory is an application of prospect theory, adding the hypothesis that ownership determines whether one experiences a change as a gain or a loss. Endowment theory posits that ownership sets one’s reference point, the movement from which triggers either a perceived gain or loss, and that people perceive the transfer or sale of endowments as losses.⁹⁵

However, there are other possible explanations for exchange anomalies that are distinct from the “mere ownership” explanation implicit in endowment theory.⁹⁶

Some explanations, for example, attribute exchange anomalies not to ownership or entitlement itself, but to things often associated with ownership, such as increased knowledge about an object that only ownership could convey.⁹⁷ Exchange anomalies may also be attributable to affective features of ownership, such as sentimental attachment to goods or the “felt need to remove some spheres of life from the marketplace.”⁹⁸ Further, strategic bargaining behavior—in particular, “buy-low/sell-high” approaches to market transactions—may also explain offer-ask disparities. In the latter case, WTA and WTP values are not really sincere valuations of goods, but rather attempts to achieve favorable outcomes in the context of trades.⁹⁹

To varying extents, such explanations have been challenged on empirical and theoretical grounds.¹⁰⁰ For example, if increased knowledge about objects drives exchange anomalies, why do the exchange anomalies appear so quickly before any

⁹⁵ Klass & Zeiler, *supra* note 13, at 4.

⁹⁶ To reinforce the point that the term “endowment effect” is a conclusory term about the mechanisms underlying exchange anomalies—rather than the anomalies themselves—Klass and Zeiler use the term “endowment theory” to refer to the notion that ownership itself drives value gaps. *See id.*

⁹⁷ *See id.* at 26; Cass R. Sunstein, *Legal Interference with Private Preferences*, 53 U. CHI. L. REV. 1129, 1150–51 (1986).

⁹⁸ Klass & Zeiler, *supra* note 13, at 26.

⁹⁹ *See, e.g., id.*; Korobkin, *supra* note 11, at 1243; Peter Knez et al., *Individual Rationality, Market Rationality, and Value Estimation*, 75 AM. ECON. REV. 397, 397–98 (1985).

¹⁰⁰ *See* Korobkin, *supra* note 11, at 1243–47 (discussing experimental research that undermines alternative explanations of exchange anomalies).

detailed knowledge about the object could be acquired? Further, why do exchange anomalies arise with objects, like mugs, whose characteristics are already well known?¹⁰¹

Experimental procedures are another plausible explanation of exchange anomalies. A recent line of empirical studies suggests that exchange anomalies can be “turned on and off” through manipulations in study design.¹⁰² For example, experiments in which study participants are educated about the (potentially confusing) trading mechanisms used in the experiments, afforded the opportunity to practice trading, and ensured that their trades are anonymous, have failed to generate WTA-WTP gaps.¹⁰³ Further, in bartering experiments, exchange asymmetries are absent where the participants are told that their endowments are randomly generated, the actions of the experimenters do not suggest anything about the value of the goods, and the trading choices of the experimental subjects are shielded from public view.¹⁰⁴ These “no-gap” experimental findings, though somewhat controversial themselves,¹⁰⁵ constitute powerful evidence against the notion that ownership alone changes preferences—that the endowment effect exists *as such*. Accordingly, such studies serve as a cautionary reminder against the uncritical acceptance and application of the endowment effect.

Despite its name, however, the endowment account of expressive law does not hinge crucially on the existence of a narrowly construed endowment effect.¹⁰⁶ Nothing about the model described below, that is, relies on the view that ownership *simpliciter* changes individual preferences. This Article assumes only that the endowment effect *or something closely resembling it* could plausibly

¹⁰¹ See *id.* at 1251–52 (“[A]ttachment [to a good] seems a far less plausible explanation of the endowment effect in experiments in which subjects are asked to value consumer items just moments after they are randomly given the items.”).

¹⁰² Charles R. Plott & Kathryn Zeiler, *The Willingness to Pay—Willingness to Accept Gap, the “Endowment Effect,” Subject Misconceptions, and Experimental Procedures for Eliciting Valuations: Reply*, 101 AM. ECON. REV. 1012, 1012 (2011) [hereinafter *Reply*]; see also Charles R. Plott & Kathryn Zeiler, *The Willingness to Pay—Willingness to Accept Gap, the “Endowment Effect,” Subject Misconceptions, and Experimental Procedures for Eliciting Valuations*, 95 AM. ECON. REV. 530, 542–44 (2005) [hereinafter *Willingness to Pay*].

¹⁰³ See Klass & Zeiler, *supra* note 13, at 33–38; Plott & Zeiler, *Willingness to Pay*, *supra* note 102, at 541.

¹⁰⁴ See Klass & Zeiler, *supra* note 13, at 33–38, 40.

¹⁰⁵ See Andrea Isoni et al., *The Willingness to Pay—Willingness to Accept Gap, the “Endowment Effect,” Subject Misconceptions, and Experimental Procedures for Eliciting Valuations: Comment*, 101 AM. ECON. REV. 991, 991–95 (2011).

¹⁰⁶ The model is named after the endowment effect because (1) though controversial, the existence of the endowment effect is still a matter of active debate and (2) for better or worse, the term “endowment effect” is used loosely in legal literature to refer to the notion (or possibility) that legal entitlements can affect preferences. It is not my comparative advantage to conclude either way on the status of this technical debate. Given the above disclaimer, however, the “endowment model of expressive law” could just as easily be called the “exchange anomaly account of expressive law” or the “trade asymmetry model of expressive law.”

operate to change the preferences of individuals. More specifically, it assumes that either entitlement to a good, or some closely related set of phenomena that have, in fact, generated exchange anomalies in the experimental context, might serve as a trigger for preference change across compliance states. After all, it is the exchange anomalies themselves—the differences between *ex ante* and *ex post* valuations of compliance benefits—that drive the path-dependent compliance dynamic. And nobody denies the existence of exchange anomalies themselves; it is their interpretation that is controversial. This Article returns to this issue in greater detail below, where specific types of compliance-related benefits are discussed.

3. *Current Legal Applications*

Notwithstanding its somewhat controversial nature, the endowment effect has been thoroughly embraced by the legal academy.¹⁰⁷ Several commentators have noted how the effect might serve to undermine the Coase Theorem, and cost-benefit analysis more generally, by setting up a self-fulfilling story about economic efficiency. According to the Coase Theorem, legal entitlements will ultimately flow to those who value them most, thus achieving efficiency when parties can effectively and cheaply bargain over them.¹⁰⁸ A corollary of the Coase Theorem is that the initial assignment of legal entitlements should not matter from an efficiency perspective.¹⁰⁹ For example, if a legal rule effectively grants firms the right to pollute or impose some other type of harmful externality on third parties, the affected third parties can organize and pay the firms not to pollute. Whoever values the entitlement the most ultimately receives it.

However, if law plays a role in determining the preferences of the interested parties, as it would in cases where the endowment effect is at play, the choice of law cannot be justified by reference to individual preferences.¹¹⁰

[A] robust offer-ask disparity greatly decreases our confidence in the efficiency of private markets generally It also decreases our confidence in the Coase Theorem as a mechanism for predicting the consequences of private bargaining over legal entitlements. Even more fundamentally, it constrains the policymaker's ability to use measures of value based on either observed willingness to pay or observed

¹⁰⁷ See, e.g., Klass & Zeiler, *supra* note 13, at 18 (“A search of Westlaw’s Journals and Law Reviews database finds 264 articles citing Kahneman, Knetsch, and Thaler’s 1990 piece, 88 citing Tversky and Kahneman’s 1991 article, and 63 citing Knetsch’s 1989 article. . . . Westlaw reports almost 1200 articles using the term [‘endowment effect’] between 1990 and today.”).

¹⁰⁸ See COOTER & ULEN, *supra* note 3, at 81–84.

¹⁰⁹ See *id.*

¹¹⁰ See Sunstein, *supra* note 97, at 1139 (“When preferences are traceable to a legal rule or an existing legal regime, the rules and the regime cannot be justified, without circularity, by reference to the preferences.”).

willingness to accept. Rather, value must be determined by means other than the observation of preferences.¹¹¹

Therefore, the endowment effect complicates the notion that the ex ante preferences are an effective guide to policy.

Applying this line of reasoning, empirically minded legal scholars have explored and tested the apparent implications of the endowment effect in several legal domains. In the employment context, for example, the endowment effect has been viewed as a justification for higher damages in improper termination cases than in failure-to-hire cases. The idea is that a worker who is already endowed with a job will value it more than someone who never had it.¹¹² Another extensive line of research examines the implications of the endowment effect in the law of contracts. Default contract rules, for example, operate under the assumption that they can be undone according to the preferences of the contracting parties. However, in light of the endowment effect, “when lawmakers anoint a contract term the default, the substantive preferences of contracting parties shift—that term becomes more desirable, and other competing terms becoming less desirable.”¹¹³ This “stickiness” associated with default contract terms undermines the economic notion that the preferences of contracting parties are independent of the law and, in turn, renders the choice of default rules far more weighty than it would otherwise be.¹¹⁴

In the realm of intellectual property, the endowment effect has been invoked in support of “liability” or “damage rules” rather than property rights. The reliance on strong property rules in IP is premised on the notion that individuals are better equipped than governmental actors (such as courts and agencies) to set prices for their own work.¹¹⁵ However, to the extent that the endowment effect operates on intellectual property—and is enhanced when IP rights are enforced by strong property rules rather than liability rules—granting individuals the right to set prices may result in fewer licenses. Because creators of IP are seldom the best parties to

¹¹¹ Herbert Hovenkamp, *The Limits of Preference-Based Legal Policy*, 89 NW. U. L. REV. 4, 58 (1994).

¹¹² See Scott A. Moss & Peter H. Huang, *How the New Economics Can Improve Employment Discrimination Law, and How Economics Can Survive the Demise of the “Rational Actor”*, 51 WM. & MARY L. REV. 183, 229 (2009) (“Firings cause endowment loss, but failures to hire cannot (because an individual cannot come to feel an ‘endowment’ in a job she never had).”).

¹¹³ Korobkin, *The Status Quo Bias*, *supra* note 16, at 611.

¹¹⁴ See *id.* at 623 (“If the selection of a default term can cause parties’ preferences for substantive contract provisions to shift, the question of which possible default rule is optimal takes on an additional dimension of complexity: lawmakers must anticipate the effect of such preference shifts on the bargaining dynamics between the contracting parties as well as the effects of transaction costs and strategic behavior.”); Russell Korobkin, *Inertia and Preference*, *supra* note 16, at 1584–86; Cass R. Sunstein, *Switching the Default Rule*, 77 N.Y.U. L. REV. 106, 109–11, 123 (2002); Eyal Zamir, *The Inverted Hierarchy of Contract Interpretation and Supplementation*, 97 COLUM. L. REV. 1710, 1760–61 (1997).

¹¹⁵ See Buccafusco & Sprigman, *supra* note 12, at 32–34.

disseminate the fruits of their creativity, strong IP rights may therefore stifle the diffusion of intellectual property—one of the chief aims of IP laws.¹¹⁶

The above studies are only the tip of the iceberg; legal applications of the endowment effect have covered a wide and sundry collection of entitlements.¹¹⁷ However, little attention has been paid to the potential impact of the endowment effect on compliance decisions. Put another way, the extant legal literature on the endowment effect has focused primarily on the way that law can influence preferences *through direct entitlements*. The model presented below explores how the endowment effect, or something closely resembling it, might ultimately influence the preferences of those who are not directly granted a legal entitlement—individuals, in other words, who face legal rules that appear costly and undesirable from an *ex ante* perspective.

B. The Endowment Account of Expressive Law

1. Compliance-Related Benefits and Path Dependence

The central insight of the endowment model is relatively uncontroversial but seldom discussed: compliance with social norms and legal rules, while costly in one sense, can also open the door to a wide array of benefits. As used here, the term “benefits” means more than the mere avoidance of formal or informal sanctions. Rather, compliance-related benefits are the tangible, reputational, interpersonal, or other endowments that flow directly from compliance with legal rules. For example, legal rules concerning health and safety often lead to reductions in risk to those who comply. Speed limits and seat belt requirements are prime examples, as is the generalized tort principle that calls for reasonable care in everyday activities.¹¹⁸ Though such rules are typically framed as efforts to reduce harmful externalities to third parties, compliance in many cases also would endow the complier with an increased level of safety (or, equivalently, a decreased level of risk to self).¹¹⁹

In some cases, compliance with legal rules results in benefits of a more tangible nature. A clean street, for example, would accompany a legal rule against littering. Compliance with an antismoking ordinance would endow compliers with the health and hygiene benefits of a smoke-free work environment. In other instances, compliance can serve to create and alter relationships. Making a safer or “greener” product in accordance with a law or regulation, for example, can enhance the reputation of businesspeople and open up markets that previously were closed.¹²⁰

¹¹⁶ *See id.* at 45.

¹¹⁷ *See* Klass & Zeiler, *supra* note 13, at 23–25 (noting the “dizzying array of entitlements that can be expected to trigger the endowment effect”).

¹¹⁸ *See, e.g.,* Cooter & Porat, *supra* note 17, at 24–26 (discussing how reasonable precaution decreases risk not only to others, but also to oneself).

¹¹⁹ *See id.*

¹²⁰ *See* Andrzej Baniak & Peter Grajzl, *Equilibrium and Welfare in a Model of Torts with Industry Reputation Effects*, 9 *REV. L. & ECON.* 265, 275–76 (2013); Michael L.

Further, compliance with some rules can funnel individuals into otherwise inaccessible social milieus. This interpersonal side effect of compliance is evident in norms of nondiscrimination. Businesses that comply with employment discrimination laws, for example, expose workers to a level of diversity that otherwise might not have been obtained. As this example shows, compliance-related benefits need not be directly related to the primary purpose of the underlying law. The primary purpose of Title VII, as commonly interpreted, is not to yield diversity benefits to third parties, but rather to remove discriminatory barriers for historically disadvantaged groups.¹²¹ Nonetheless, those who comply with workplace discrimination laws would stand to reap the associated diversity benefits.¹²²

To the extent that any of the compliance-related benefits outlined above are subject to the endowment effect, compliance would have a “sticky” or path-dependent quality. Under the endowment account of expressive law, compliance is initially induced by the threat of external sanctions, whether formal or informal. Over time, however, parties forced to observe a particular legal rule will grow more attached to the various benefits flowing from compliance. If the increase in the valuation of compliance-related benefits is significant enough, parties disinclined to comply with a law, *ex ante*, may continue to comply even in the absence of continued sanctions. Over time, a legal sanction that initially coerces people into compliance may therefore become superfluous.

The payoff schedule reflected in Table 1 illustrates the basic logic of the model. Suppose an individual is deciding whether to comply with a law over successive periods of time. For concreteness, assume that the law is a speed regulation for drivers. In this case, the cost of compliance would be the extra commuting time associated with slower speeds. The benefits of compliance (aside from the lower risk imposed on third parties) would be decreased risk of injury *to the complier herself*.

Barnett & Andrew J. Hoffman, *Beyond Corporate Reputation: Managing Reputational Interdependence*, 11 CORP. REPUTATION REV. 1, 5 (2008); Juan José Ganuza et al., *Product Liability Versus Reputation 1* (Nov. 2, 2011) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1986237.

¹²¹ See, e.g., Cynthia L. Estlund, *Putting Grutter to Work: Diversity, Integration, and Affirmative Action in the Workplace*, 26 BERKLEY J. EMP. & LAB. L. 1, 10–11 (2005).

¹²² See Cynthia L. Estlund, *Working Together: The Workplace, Civil Society, and the Law*, 89 GEO. L.J. 1, 77–79 (2000).

TABLE 1: NUMERICAL ILLUSTRATION OF ENDOWMENT MODEL

	Period 1	Period 2	Period 3
I. Violate Law (no sanction; baseline payoff = 5)	5	5	5
II. Violate Law (baseline payoff = 5; expected sanction = 4)	1	1	1
III. Comply with Law (ex ante view) (baseline payoff = 5; compliance costs = 1)	4	4	4
IV. Comply with Law (ex post perspective) (baseline payoff = 5; cost of compliance = 1; compliance benefits = 2)	4	6 (value of compliance benefits increases due to endowment effect)	6

Absent any threat of sanction, our hypothetical individual would prefer to violate the rule, which would yield a baseline payoff of five in each time period (as reflected in row I). Importantly, the individual would make the same choice—not to comply—in every period if the individual were never forced by external pressures to comply.

Rows II to IV introduce a sanction into the story. Row II shows the stream of payoffs associated with violation of the speed law when the expected sanction is four. Rows III and IV show the expected payoffs of compliance from different perspectives: row III represents the expected stream of compliance payoffs from the actor's ex ante perspective, and row IV captures the payoffs associated with compliance as the endowment effect takes effect and increases the value of the decreased risk of injury. In both rows, the direct cost of compliance is one. If the actor is never forced to comply with the law, the actor will always choose to violate, as the comparison between rows I and III illustrates.

However, if initially forced to comply via the threat of sanction, the individual would remain compliant from period two forward *even if the legal sanctions were lifted*. Compliance becomes sticky in this case because the “inflated” values associated with compliance are greater than the “uninflated” values of noncompliance after period one. This is essentially an exchange anomaly: after adhering to the law, compliers are endowed with a decreased risk of injury and

thereafter value it more. The result is illustrated by comparing the payoffs of row IV with those in row I starting in period two. The numbers in the above diagram—specifically, the increasing differential between the payoff streams represented in rows I and IV over time—represent the expressive effects of the endowment model. After the first period, the increase in the individual’s valuation of the compliance benefits crowds out the savings associated with noncompliance, making compliance the superior long-run strategy.

2. *Connecting Compliance to Exchange Anomalies and the Endowment Effect*

Compliance with laws, of course, does not directly endow people with mugs, chocolates, or pens. If compliance were induced in this manner—through the dangling of these types of “carrots” rather than the brandishing of “sticks”—the relationship between the endowment effect and compliance would be easy to explain: *once you comply and earn a mug, you may thereafter value the mug more and continue complying, irrespective of external sanctions.* Given that the law does not operate this way, though, the following questions arise: First, what features of compliance-related benefits make them like the coffee mugs (or other goods) that have been linked to the endowment effect? Second, aside from the inherent qualities of compliance-related benefits, what other features of “real world” compliance situations bear a resemblance to the experimental conditions that yield exchange anomalies?

(a) *Are Compliance Benefits Like the Iconic Mugs in the Experiments?*

The wide and diverse array of goods featured in exchange experiments helps answer the first question posed above. For example, WTA-WTP gaps have been observed in experiments where the good or entitlement in question is a risk to one’s own health or safety¹²³—precisely the type of benefit that would redound to individuals who comply with speed limits, seat-belt laws, or other laws governing unsafe behavior. Thus, where compliance with a law endows someone with a lower risk of harm (or an increase in personal safety), compliers might plausibly value their safety more *ex post* than they would have in a noncompliance state. Environmental goods such as air quality, visibility, and access to wetlands have also been linked to exchange anomalies.¹²⁴ Accordingly, when compliance with a

¹²³ See, e.g., W.R. Dubourg et al., *Imprecise Preferences and the WTP-WTA Disparity*, 9 J. RISK & UNCERTAINTY 115, 118–22 (1994) (WTA-WTP gaps found with respect to an auto-safety feature); Timothy L. McDaniels, *Reference Points, Loss Aversion, and Contingent Values for Auto Safety*, 5 J. RISK & UNCERTAINTY 187, 196–98 (1992) (finding valuation gaps for auto safety feature); Shogren et al., *supra* note 90, at 259 (finding exchange anomalies with respect to food-borne pathogens).

¹²⁴ See HAMMACK & BROWN, JR., *supra* note 76, at 27; W.D. SCHULZE ET AL., A CASE STUDY OF A HAZARDOUS WASTE SITE: PERSPECTIVES FROM ECONOMICS AND PSYCHOLOGY, at 8-3 to 8-4 (1986); Rowe et al., *supra* note 15, at 1–3, 18; Schulze et al., *supra* note 77. See generally Sayman & Öncüler, *supra* note 85 (investigating the effects of certain factors related to study design and elicitation techniques on WTA-WTP gaps).

law results in a cleaner street, cleaner air, or a less smoky work environment—as it would in the case of antilittering ordinances, environmental regulations, and workplace smoking bans, respectively—there is some reason to believe that the ex post valuation of such goods would be higher than the ex ante valuation.

In some cases, legal compliance can lead to a new or enhanced reputation. Businesses who comply with safety and environmental regulations, or engage in “beyond compliance” behavior, are viewed in a positive light, patronized more often, and insulated from various forms of public protest.¹²⁵ Similarly, individuals who follow legal rules are seen as “law abiding citizens.” To the extent that reputations can be seen as goods “owned” by individuals and firms, the reputational benefits of compliance could conceivably be valued differently ex post than they would have been ex ante (thus leading to path dependent compliance). Importantly, the notion that reputation could be subject to something like an endowment effect is speculative. Though I am not the first to suggest a possible endowment effect for reputation,¹²⁶ no empirical study appears to have directly addressed the issue. This Article includes this intriguing possibility because individuals and businesses often treat reputation like a commodity, investing significant resources in its maintenance and even selling it in certain circumstances. Moreover, if intangible entitlements such as default contract terms, intellectual property rights, and risk to self can be the basis for exchange anomalies, the possibility of a similar effect in reputation seems at least conceivable.

To be sure, legal compliance would not yield benefits, much less benefits that would be subject to the endowment effect, in all cases. Compliance with antipiracy laws that proscribe the downloading of copyrighted work from the Internet, for example, would likely fall outside the purview of the endowment model. In this context, compliance would be private, thus precluding any reputational benefits, the value of which could conceivably be increased via the endowment effect. In addition, no increases in safety or other tangible benefits would flow to those who comply with this set of IP laws. For precisely the same reasons, compliance with tax laws—another popular example in the literature on expressive law¹²⁷—would likely not be explained by the endowment account. In both cases, compliance entails direct costs without yielding any direct benefits on which the endowment effect might operate.¹²⁸ In contexts similar to these, therefore, compliance is better

¹²⁵ See Gunningham et al., *supra* note 35, at 309–10, 328–32.

¹²⁶ See, e.g., Wendy J. Gordon, *Market Failure and Intellectual Property: A Response to Professor Lunney*, 82 B.U. L. REV. 1031, 1035 (2002) (“[E]ndowment effects could make it meaningless to inquire into monetary valuations, particularly for items that are tied to priceless goods such as reputation.”); Wendy J. Gordon & Sam Postbrief, *On Commodifying Intangibles*, 10 YALE J.L. & HUMAN. 135, 158 (1998) (book review) (“[A]ssets such as reputation may have strong wealth or endowment effects . . .”).

¹²⁷ See, e.g., Morse, *supra* note 37 (defining an appropriate role for expressive law in promoting tax compliance).

¹²⁸ Of course, compliance in either case would ultimately yield societal benefits. In the case of antipiracy laws, compliance might yield more (or better) artistic output in the long run; more compliance with tax laws, further, would increase state and federal budgets

explained by the continuing threat of sanction or some other expressive mechanism (or both).

(b) How the Circumstances Surrounding Compliance Resemble Exchange Experiments

As noted in the prior section, although governing bodies do not directly reward legal compliance with mugs or chocolates, compliance often yields benefits that fit comfortably within the large collection of goods featured in exchange experiments. If ownership or entitlement alone triggered changes in value—as it would under a strict reading of the endowment effect—any of the aforementioned compliance benefits would presumably be valued more postcompliance than they would precompliance. In other words, if the endowment effect exists *as such*, the analysis begins and ends with the identification of a suitable good or entitlement.¹²⁹

However, in light of the possibility that ownership alone does not change preferences, it is worthwhile to consider the circumstances surrounding compliance. Recall that several exchange experiments over the past decade have failed to generate exchange anomalies.¹³⁰ In these experiments, the participants were, in fact, endowed with goods. However, something about the experimental context in which the goods were distributed prevented the appearance of WTA-WTP gaps and/or exchange asymmetries. For example, no exchange anomalies are observed in experiments with the following set of features:

- (1) Random Distribution: the goods or endowments in question are distributed among experimental subjects randomly (and participants are told about the random nature of distribution);
- (2) No Signals from Authority: the experimenters' actions do not give cues, express or implicit, about the value of the relevant goods;
- (3) Anonymity: the trading choices of the experimental subjects are private¹³¹

According to authors of the “no-gap” studies, these null results do more than suggest that the endowment effect is “context dependent.”¹³² Rather, they question whether ownership itself is really driving the exchange anomalies in the first

and allow for more beneficial social programs. However, in both cases, the benefits would likely be too far removed from compliance and also too uncertain to give rise to the compliance dynamic envisioned herein.

¹²⁹ See Klass & Zeiler, *supra* note 13, at 26 (noting the endowment effect gives scholars “a license to assume, without explanation or argument, that virtually any entitlement will positively affect preferences”).

¹³⁰ See Isoni et al., *supra* note 105, at 992–93; Plott & Zeiler, *Willingness to Pay*, *supra* note 102, at 540; Plott & Zeiler, *supra* note 74, at 1460.

¹³¹ See Klass & Zeiler, *supra* note 13, at 37–40.

¹³² See *id.* at 42–46.

instance—in other words, *whether the endowment effect exists at all*.¹³³ For the purposes of the present inquiry, though, the existence of the endowment effect is not of primary concern; it is a sufficient condition for the type of path-dependent compliance envisioned here, but not a necessary one. The necessary condition is the existence of the exchange anomalies that the endowment effect purportedly explains. Accordingly, the important question is whether the circumstances surrounding compliance in any given context are likely to lead to preference changes across compliance states, however such preference changes might arise.

As it turns out, the context surrounding legal compliance largely resembles the experimental conditions under which *exchange anomalies are found*. First, compliance in many cases is not anonymous. Littering, smoking in nonsmoking areas, disregarding workplace safety rules, and driving in violation of speed limits and other vehicle safety laws, for example, are often publicly observable. Thus, while experimental studies that cloak people's choices in anonymity find no exchange anomalies, compliance with legal rules—as it occurs in many real world situations—does not always control for this factor.¹³⁴

Further, unlike the goods in the no-gap studies, compliance-related goods are surrounded by social cues that signal their value. Benefits associated with legal compliance are, by necessity, stamped with the imprimatur of the governing bodies that pass the underlying laws. A law that forbids some unsafe behavior, for example, signals something about the value of personal safety. Similarly, a law that forbids an environmentally destructive activity provides a strong social cue about the importance of the environment.¹³⁵ Just as subtle experimental signals may lead to exchange anomalies in the case of coffee mugs, the social cues associated with laws may lead compliers to value the benefits of compliance more than they otherwise would: “Subjects compare not a mug and a pen, but a mug given them by an authority figure with whom they might have future dealings, and a pen whose choice might offend that authority.”¹³⁶

Indeed, the social cues surrounding legal compliance seem far stronger than the subtle signals that appear to generate exchange anomalies in the experimental context. In the context of experimental studies, the mere placement of a good in front of a study participant or a repeated statement that clarifies the participants'

¹³³ *See id.*

¹³⁴ Indeed, the transparency of compliance is a crucial part of social norms models, where compliance is induced in part by the threat of social sanctions—if others can't see it, they can't impose social sanctions on violators. *See, e.g.,* Cooter, *supra* note 33, at 599.

¹³⁵ Again, there is a similarity here between the endowment model and other expressive models such as those based on social meanings. The latter relies heavily on the notion that the laws passed by the government have the normative force to change meanings. *See* Lessig, *supra* note 4, at 946–47. In the endowment model, the same normative force operates, but not on social meanings; rather, the law indirectly imbues value into compliance-related benefits, thus generating exchange anomalies.

¹³⁶ Klass & Zeiler, *supra* note 13, at 44.

ownership of a good may determine whether exchange anomalies arise.¹³⁷ With legal rules, the social cues are direct, clear, and backed by the authority of the state.¹³⁸

Another important feature of the no-gap experiments is the random nature in which the relevant goods are distributed. In these experiments, researchers take pains to emphasize that the initial distribution of goods among the study participants is not meaningful or motivated in any way by the characteristics of the participants.¹³⁹ Unlike the goods in the no-gap experiments, however, compliance-related benefits are distributed in a decidedly nonrandom fashion. To wit, they are bestowed only on those who consciously choose to cooperate or adhere to the relevant legal rule. This aspect of compliance benefits—the fact that they are, in a sense, *earned*—not only militates toward the presence of exchange anomalies, but also suggests that they may be large. As mentioned above, a number of studies have suggested that WTA-WTP gaps tend to be bigger when individuals view the relevant goods as being earned.¹⁴⁰ Of course, the larger the difference between ex ante and ex post valuations of compliance-related benefits, the more likely that the changes in preference, rather than external sanctions, will drive long-term compliance.

In sum, while the no-gap experiments raise important questions about the endowment effect itself, they do not foreclose the possibility that compliance-related benefits may be valued differently across compliance states. In order to definitively determine whether exchange anomalies would appear in any particular compliance context, of course, a more detailed analysis (and perhaps experimental work) would be required. The more modest goal of this Article is to show that, in several cases, there are good reasons to believe that compliance, once initially induced, could become sticky in the long run.

III. IMPLICATIONS, DISTINCTIONS, AND EXAMPLES

A. *Disentangling the Endowment Account from Other Models*

The expressive model presented above is about the stickiness, or path-dependence, of compliance: once a party complies with a legal rule, the benefits associated with compliance may become more valuable, thus crowding out the direct costs of compliance and making formal enforcement less relevant as a motivating force. The extent to which the endowment model explains compliance would, of course, vary according to the number and type of benefits associated

¹³⁷ Among the cues that purportedly impact the valuation of goods in the experimental context are statements to the participants: “The mug is yours. I’m giving it to you. You own it.” *Id.* at 40.

¹³⁸ The ability of legal rules to signal something about the (otherwise unclear) value of compliance-related benefits is an additional reason to characterize the endowment model as a species of expressive law.

¹³⁹ See Klass & Zeiler, *supra* note 13, at 37–40.

¹⁴⁰ See Korobkin, *supra* note 11, at 1236; Loewenstein & Issacharoff, *supra* note 93, at 160–65.

with compliance in any particular case. Where the endowment effect applies to a large number of compliance-related benefits or operates on some subset of them intensely, internalization is more likely to occur. Legal rules that do not yield the types of compliance-related benefits listed above, conversely, would not become internalized via the endowment effect.

This Article has suggested a few compliance domains in which the endowment model is most likely to apply: (1) situations in which compliance with a legal rule is transparent or readily observable by others (thus yielding a reputational benefit); (2) situations where compliance with a rule reduces risk of harm not only to third parties, but also to the actor making the compliance decision; and (3) cases in which compliance endows compliers with an improved environment, as it would, for example, in the case of antilittering ordinances and workplace smoking bans. In all of the above cases, compliers stand to receive specific rewards that are conceptually distinct from the mere “benefit” of avoiding a sanction.

The criteria above give some hints about where the endowment model might apply, but (even in such contexts) how can it be identified and disentangled from other possible explanations of compliance? In short, how would we know it when we see it? This identification problem is common among expressive theories, as the underlying mechanisms—changed social meanings, norm cascades, updated beliefs, and altered preferences—are not easily observable. As a result, expressive aspects of law are usually identified through a process of elimination. First, to rule out the possibility that external sanctions are driving compliance, expressive law scholars typically look for instances of high compliance coupled with low (or nonexistent) levels of formal enforcement.¹⁴¹ Once high compliance/low enforcement contexts are identified, other nonexpressive motivations for compliance must be ruled out. For example, high levels of compliance may be observed in low enforcement areas if the individuals subject to the law in question are under the mistaken impression that the expected sanctions costs are high. Finally, once the perceived threat of sanction is effectively ruled out as an explanation for compliance, proponents of particular expressive models must rule out competing expressive explanations.

The compliance dynamic suggested by the endowment model would be particularly difficult to observe in light of the (initial, temporary) role that external sanctions play in the compliance story. Because some initial threat of sanction is necessary to induce compliance, endow compliers with some form of benefit, and lead to changed preferences, the effects of the model would only be clear in situations where the perceived threat of sanction drops substantially after some initial period. Without the initial threat of external sanctions, the endowment model would not apply at all; with continuing sanctions, though, it would be difficult to know whether long-term compliance was a result of changed preferences or the external sanctions themselves. Even in the rare case that fits the above criteria, moreover, other expressive mechanisms would have to be ruled out

¹⁴¹ See, e.g., Cooter, *supra* note 19, at 4 (asking whether “law [can] change behavior without deterring anyone”).

as explanations of compliance. The list below summarizes the cases in which the endowment model would be most clearly identifiable:

- (1) Compliance with a legal rule would yield direct benefits to compliers;
- (2) Noncompliance would *initially* be subject to some external sanction, real or perceived;
- (3) The perceived threat of sanction drops (either because enforcement efforts recede or because individuals subject to the law believe there is a drop in the likelihood or severity of sanction); and
- (4) Some other aspect of compliance, such as the timing, rules out other expressive mechanisms as a possible motivation.

The next section explores a unique compliance domain that appears to fit the above criteria: antismoking laws. Though compliance in this set of smoking examples is likely a result of many overlapping factors, certain aspects of the story are suggestive of the endowment model.

B. Smoking Bans—The Endowment Model in Action?

The past two decades have seen a dramatic rise in antismoking legislation. Aiming to reduce public exposure to second-hand smoke, various governments have prohibited smoking in the workplace, hospitality venues (such as hotels, restaurants, and bars), and other public areas. In the United States, for example, twenty-four states and Washington, D.C., have implemented some type of major ban on smoking in shared public spaces.¹⁴² Thousands of American cities, further, have adopted local ordinances that broaden the reach of their respective state-level laws.¹⁴³ Perhaps surprisingly, this legislative trend extends beyond our borders: countries such as Ireland, Scotland, New Zealand, Australia, Germany, Norway, and Italy have followed suit, implementing similar (and sometimes more aggressive) smoking bans.¹⁴⁴ As noted by one commentator, “in a relatively short time . . . cigarette smoking has become the most rigorously defined of all public behaviors.”¹⁴⁵

While the precise contours of the various smoking bans differ as widely as the populations they cover, the circumstances surrounding their passage share some important features. Taken together, these commonalities appear to tell a story in which short-term compliance with the bans is induced by the perceived threat of sanction, while long-term compliance is induced by (among other things) a change

¹⁴² AM. NONSMOKER’S RIGHTS FOUND., OVERVIEW LIST—HOW MANY SMOKE-FREE LAWS? 2 (2014), available at <http://www.no-smoke.org/pdf/mediaordlist.pdf>.

¹⁴³ *Id.* at 1.

¹⁴⁴ *Smoking Curbs: The Global Picture*, BBC, <http://www.bbc.co.uk/news/world-11845158> (last updated Feb. 3, 2011).

¹⁴⁵ Allan M. Brandt, *The Cigarette, Risk, and American Culture*, in *SICKNESS AND HEALTH IN AMERICA: READINGS IN THE HISTORY OF MEDICINE AND PUBLIC HEALTH* 494, 502 (Judith Walzer Leavitt & Ronald Numbers eds., 1997).

in preferences about smoke-free environments. If this reading is correct, the endowment model presented above may help to explain the uniform success achieved by antismoking laws across the world.

As discussed in the previous section, situations in which high compliance is achieved with minimal enforcement are often viewed as *prima facie* evidence of the expressive power of law.¹⁴⁶ Antismoking laws appear to exhibit both of these characteristics. Indeed, one of the more striking aspects of antismoking laws is the uniformly high levels of compliance associated with them.¹⁴⁷ Shortly after the implementation of Boston's Clean Air Works Workplace Smoking Restrictions,¹⁴⁸ for example, a pair of studies showed nearly universal compliance.¹⁴⁹ California's experiences were similar: in the wake of the California Smoke-Free Workplace Law,¹⁵⁰ smoking rates in Los Angeles County bars dropped abruptly from 55% to under 25% for freestanding bars and from 7.8% to 1.5% in bar/restaurant combinations.¹⁵¹ Even after several years, compliance rates in California remained high.¹⁵² Delaware and New York also achieved high levels of compliance in the immediate aftermath of their respective bans.¹⁵³ Studies of smoking bans in New

¹⁴⁶ See, e.g., Sunstein, *supra* note 4, at 2032 (“These cases arise when the relevant law announces or signals a change in social norms *unaccompanied by much in the way of enforcement activity.*” (emphasis in original)).

¹⁴⁷ See, e.g., James F. Thrasher et al., *Policy Support, Norms, and Secondhand Smoke Exposure Before and After Implementation of a Comprehensive Smoke-Free Law in Mexico City*, 100 AM. J. PUB. HEALTH 1789, 1789 (2010) (“Studies in high-income countries generally indicate that popular support for laws that ban smoking in public places and workplaces is strong and increases after such laws are passed.”).

¹⁴⁸ *Boston Public Health Commission Regulation: Clean Air Works Workplace Smoking and E-Cigarette Use Restrictions*, BOS. PUB. HEALTH COMM'N (Dec. 1, 2011), http://www.bphc.org/whatwedo/tobacco-free-living/Documents/Amended_Clean_Air_Works_Workplace_E_Cigarette_Restrictions_Regulation.pdf.

¹⁴⁹ See generally James L. Repace et al., *Air Pollution in Boston Bars Before and After a Smoking Ban*, 6 BMC PUB. HEALTH 266 (2006); Margie Skeer et al., *Smoking in Boston Bars Before and After a 100% Smoke-Free Regulation: An Assessment of Early Compliance*, 10 J. PUB. HEALTH MGMT. PRACTICE 501 (2004).

¹⁵⁰ See CAL. LAB. CODE § 6404.5 (West 1998).

¹⁵¹ Mark D. Weber et al., *Long Term Compliance with California's Smoke-Free Workplace Law Among Bars and Restaurants in Los Angeles County*, 12 TOBACCO CONTROL 269, 271 (2003).

¹⁵² *Id.*

¹⁵³ Matthew C. Farrelly et al., *Changes in Hospitality Workers' Exposure to Secondhand Smoke Following the Implementation of New York's Smoke-Free Law*, 14 TOBACCO CONTROL 236, 239 (2005) (“[T]he percentage of hospitality workers exposed to secondhand smoke declined by 85% . . . from 91% to 14% from baseline to the 12 month follow up, with most of the change occurring at the three month follow up.”); James Repace, *Respirable Particles and Carcinogens in the Air of Delaware Hospitality Venues Before and After a Smoking Ban*, 46 J. OCCUP. & ENVTL. MED. 887, 903 (2004) (finding that after the implementation of the Delaware Clean Indoor Air Act, air quality changed from “heavily polluted” to “indistinguishable from outdoors”); M.J. Travers et al., *Indoor Air Quality in Hospitality Venues Before and After Implementation of a Clean Indoor Air Law—Western New York, 2003*, CDC.GOV (Nov. 12, 2004), <http://www.cdc.gov/mmwr/pr>

Zealand,¹⁵⁴ Ireland,¹⁵⁵ Scotland,¹⁵⁶ and a number of other United States cities¹⁵⁷ echo these results, showing strikingly high levels of compliance.

The high compliance levels achieved in the wake of the antismoking laws are particularly impressive given the seemingly modest sanctions attached to noncompliance. Boston's smoking ban, for example, carries a first-time penalty of \$200 and a second-time penalty of \$700—relatively small fines for a business.¹⁵⁸ Violators of California's law are subject to fines of \$100 for initial violations and up to \$500 for subsequent violations.¹⁵⁹ Similarly, under Delaware law, noncompliance is penalized to the tune of “\$100.00 for the first violation and not

view/mmwrhtml/mm5344a3.htm (examining air quality in twenty-two western New York hospitality venues and finding “on average, levels of respirable suspended particles (RSPs), an accepted marker for [second hand smoke], decreased 84% in these venues after the law took effect”).

¹⁵⁴ See generally Nick Wilson et al., *National Smokefree Law in New Zealand Improves Air Quality Inside Bars, Pubs and Restaurants*, 7 BMC PUBLIC HEALTH 85 (2007) (examining air quality and smoking behavior in New Zealand pubs, restaurants, and bars and finding 100% compliance with smoking ban within defined observation period, though outside of the defined observation period of the study, one person was observed smoking in a rural pub).

¹⁵⁵ See, e.g., Geoffrey T. Fong et al., *Reductions in Tobacco Smoke Pollution and Increases in Support for Smoke-Free Public Places Following the Implementation of Comprehensive Smoke-Free Workplace Legislation in the Republic of Ireland: Findings from the ITC Ireland/UK Survey*, 15 TOBACCO CONTROL iii51, iii51 (2006) (finding “dramatic declines” in smoking in public places after comprehensive ban on smoking in Ireland).

¹⁵⁶ See Sean Semple et al., *Secondhand Smoke Levels in Scottish Pubs: The Effect of Smoke-Free Legislation*, 16 TOBACCO CONTROL 127, 127 (2007) (finding “a marked reduction in indoor particle levels . . . after the ban on smoking in a sample of pubs in Scotland”).

¹⁵⁷ Mark D. Eisner et al., *Bartenders' Respiratory Health After Establishment of Smoke-Free Bars and Taverns*, 280 JAMA 1909, 1909, 1913 (1998) (finding a dramatic postban decrease in workplace smoke exposure for San Francisco bartenders); Ellen J. Hahn et al., *Effects of a Smoke-Free Law on Hair Nicotine and Respiratory Symptoms of Restaurant and Bar Workers*, 48 J. OCCUP. & ENVTL. MED. 906, 906, 909–11 (2006) (examining nicotine exposure among bar workers in Lexington, Kentucky, and finding a substantial postban decrease in hair nicotine and respiratory symptoms); Kiyoun Lee et al., *Immediate Impact of Smoke-Free Laws on Indoor Air Quality*, 100 S. MED. J. 885, 887 (2007) (comparing preban and postban indoor air quality of hospitality venues in Georgetown, Kentucky, and finding that “[i]ndoor fine particle pollution levels had decreased 79% in the nine public venues one week after implementation of the smoke-free law in Georgetown”); Wayne Ott et al., *Particle Concentrations Inside a Tavern Before and After Prohibition of Smoking: Evaluating the Performance of an Indoor Air Quality Model*, 46 J. AIR & WASTE MGMT. ASS'N 1120, 1120, 1132 (1996) (finding a 90% decrease in ambient smoke in Menlo Park, California, bar after smoke-free law passed).

¹⁵⁸ *Boston Public Health Commission Regulation: Clean Air Works Workplace Smoking and E-Cigarette Use Restrictions*, BOSTON PUB. HEALTH COMM'N (Dec. 1, 2011), http://www.bphc.org/whatwedo/tobacco-free-living/Documents/Amended_Clean_Air_Works_Workplace_E_Cigarette_Restrictions_Regulation.pdf.

¹⁵⁹ See CAL. LABOR CODE § 6404.5 (West 1998).

less than \$250.00 for each subsequent violation.”¹⁶⁰ Further, given the large number of venues subject to the smoking bans and the limited resources of the entities responsible for enforcement, the likelihood of detection would also appear, *at least in retrospect*, to be low.

For these reasons, scholars interested in social norms and expressive law have seized upon antismoking laws as a paradigmatic case. Proponents of “social meaning” accounts of expressive law, for example, explain compliance with smoking bans by reference to an interpretive shift regarding the act of smoking.¹⁶¹ Under this account, the enactment of a smoking ban alters the web of associations surrounding smoking—from glamorous, cool, or rebellious to harmful, impolite, dirty, and disruptive.¹⁶²

Another strand of norms scholarship suggests that smoking bans signal consensus views regarding smoking in certain social contexts. The logic of these accounts is roughly as follows: if a smoking law is passed by a legislative body, members of which are directly accountable to the public, then a majority of the relevant population must believe that smoking is bad. If, further, a majority of the population supports antismoking legislation, then they will seek to uphold it.¹⁶³ Even if formal enforcement of antismoking laws is weak or nonexistent, the possibility of informal shaming—dirty looks, complaints, and personal confrontations—may induce high levels of compliance. The consensus signal would presumably be strong in the case of antismoking laws, where only a clear majority view could manage to overcome the organized tobacco interests that would thwart such legislation.¹⁶⁴

Just as the antismoking laws might change the social meaning of smoking or signal consensus views about it, the laws might also change individual beliefs about the (nonsocial) consequences of smoking and exposure to second-hand smoke.¹⁶⁵ The enactment of a smoking ban, more specifically, might lead individuals to update the substance or certainty of their views on the dangers of smoking or second-hand smoke.

¹⁶⁰ DEL. CODE ANN. tit. 16, § 2907(a) (2013).

¹⁶¹ See Sunstein, *supra* note 4, at 2022 (“When a social norm tells people not to smoke in public places, the social meaning of smoking is obtuseness, discourtesy, or worse.”)

¹⁶² *Id.*

¹⁶³ See Kagan & Skolnick, *supra* note 34, at 72–73 (noting that before antismoking laws, nonsmokers may not have realized the extent of support for such rules, and hence, they may not have felt emboldened to complain directly to smokers); McAdams, *supra* note 2, at 340 (“[D]emocratically produced legislative outcomes are positively correlated with popular attitudes and therefore provide a signal of those attitudes.”); Sunstein, *supra* note 4, at 2031–33 (addressing the legislative role in shaping social norms when private efforts fail).

¹⁶⁴ See, e.g., Geisinger, *supra* note 4, at 64 (“One may undergo an inferential process in such a case that looks like this: Manufacturers are against requiring seatbelts in cars. Manufacturers make significant donations to legislators’ campaigns. The legislators passed a law requiring seatbelts anyhow. Thus, seatbelts must be a good thing.”).

¹⁶⁵ *See id.*

All of the expressive mechanisms described above—informational, social-meanings accounts and those based on norms—are plausible as a general matter and likely played some role in the smoking cases. None of them, however, appear to explain the precise timing of compliance in this particular context. In the case of smoking bans, compliance can be tracked precisely by observational studies and sophisticated air quality analyses. In the former, researchers observe smoking behavior directly, count cigarette butts, and even observe the number of ashtrays available in the hospitality venues subject to the smoking bans.¹⁶⁶ Air quality studies, as their name suggests, take precise measurements of the environment in hospitality venues before and shortly after enforcement of smoking bans.

Both types of studies suggest that compliance with the smoking bans increased dramatically at the precise juncture *when enforcement began—not when the relevant laws were formally adopted*. New York City, for example, passed its smoking ban on March 26, 2003.¹⁶⁷ After much fanfare, both positive and negative,¹⁶⁸ New York State began enforcing the law four months later on July 24, 2003.¹⁶⁹ The results of two separate studies, however, suggest that people remained noncompliant until the precise moment when enforcement began.¹⁷⁰

The compliance dynamic observed in New York appears to be typical of smoking bans. The California Smoke-Free Workplace Law took effect on January 1, 1995, prohibiting smoking in most workplaces.¹⁷¹ But the ban only became enforceable in bars on January 1, 1998.¹⁷² As in New York, the upward spike in compliance coincided precisely with the enforcement period for bars, some three years after the passage of the underlying statute.¹⁷³ Boston's Smoke Free Law was enacted in December 2002 but only became enforceable in May of the following

¹⁶⁶ See, e.g., Skeer et al., *supra* note 149; Weber et al., *supra* note 151, at 269–72.

¹⁶⁷ See Winnie Hu, *New York State Adopts Strict Ban on Workplace Smoking*, N.Y. TIMES, Mar. 27, 2003, at D1.

¹⁶⁸ See, e.g., Winnie Hu & Ann Farmer, *Ban on Smoking in the Workplace Draws Little Protest at a Senate Committee Vote in Albany*, N.Y. TIMES (Mar. 26, 2003), <http://www.nytimes.com/2003/03/26/nyregion/ban-smoking-workplace-draws-little-protest-senate-committee-vote-albany.html>; Winnie Hu, *The Smoking Ban: Clear Air, Murky Economics*, N.Y. TIMES (Dec. 28, 2003), <http://www.nytimes.com/2003/12/28/nyregion/the-smoking-ban-clear-air-murky-economics.html?pagewanted=all&src=pm>; Kenneth Lovett, *Bars Plan to Draw Out Smoke-Ban Protest*, N.Y. POST (June, 10, 2003, 4:00 AM), <http://ny.post.com/2003/06/10/bars-plan-to-draw-out-smoke-ban-protest/>.

¹⁶⁹ N.Y. PUB. HEALTH LAW § 1399-n (McKinney 2003).

¹⁷⁰ See Farrelly et al., *supra* note 153, at 238–41 (finding an 85% reduction in pollution from the three-week period before enforcement to several months after); Travers et al., *supra* note 153 (finding an 84–90% decrease in air pollution from immediate pre-enforcement period to two months after).

¹⁷¹ See Weber et al., *supra* note 151, at 269.

¹⁷² See CAL. LAB. CODE § 6404.5(b) (West 1998).

¹⁷³ See Eisner et al., *supra* note 157, at 1909–11 (examining respiratory symptoms, spirometry results, sensory irritation, ETS exposure, and self-reported smoking behavior among bartenders in San Francisco, California, and finding evidence of immediate and substantial compliance in the wake of the smoking ban).

year.¹⁷⁴ Again, two studies of air quality—one in which the “before” and “after” air quality measurements straddled the beginning of the enforcement period by a mere week on either side—suggest a dramatic upward tick in compliance right as enforcement began.¹⁷⁵ Studies from other United States and foreign cities indicate a similar compliance timeline.¹⁷⁶

The initial timing of compliance in these cases appears to rule out competing expressive explanations. For example, under informational accounts, compliance would be attributed to updated beliefs about the dangers of smoking and second-hand smoke.¹⁷⁷ But the smoking bans mentioned above were all formally passed several months (or years) before the respective enforcement periods began. Moreover, during the interim period between formal adoption and enforcement, many of the bans were highly publicized in the press and through government-led educational campaigns.¹⁷⁸ In light of the significant lag periods and the publicity of the laws, it seems unlikely that any belief change about the effects of smoking would only occur at the exact moment of enforcement and not before.

For similar reasons, expressive accounts based on social meanings or consensus signals fail to explain compliance in this case. With regard to the former, if the passage of a law changed the social meaning of smoking in shared public spaces, why would smoking continue until the enforcement period? Presumably, any normative force associated with the law would be established through the formal adoption itself, rather than its enforcement. Similarly, if compliance were driven by the fear of informal sanctions from the nonsmoking

¹⁷⁴ *Boston Public Health Commission Regulation: Clean Air Works Workplace Smoking and E-Cigarette Use Restrictions*, BOS. PUB. HEALTH COMM’N (Dec. 1, 2011), http://www.bphc.org/whatwedo/tobacco-free-living/Documents/Amended_Clean_Air_Works_Workplace_E_Cigarette_Restrictions_Regulation.pdf; Stephen Smith & Jenny Jiang, *City Bans Smoking in Bars, Eateries*, BOS. GLOBE, Dec. 12, 2002, at B1.

¹⁷⁵ See generally Repace et al., *supra* note 149 (finding 90–95% reduction in smoke pollution from two weeks before the enforcement period to shortly after); Skeer et al., *supra* note 149 (finding in an extensive observational study of bars that nearly universal compliance with Boston’s smoking ban was achieved in a short period).

¹⁷⁶ See *supra* notes 153–157 and accompanying text.

¹⁷⁷ See Geisinger, *supra* note 4, at 59 (“Beliefs about consequences of behavior can be held with different degrees of certainty. In the case of informational belief, the trustworthiness of the speaker and other factors will affect certainty.”)

¹⁷⁸ See Fong et al., *supra* note 155, at iii57 (“The pre-legislation campaign was successful in diffusing criticism and countering the arguments of the opponents . . .”); Skeer et al., *supra* note 149, at 506 (“In the two months leading up to the smoking regulation prohibiting smoking in bars in Boston, the BPHC launched both an education campaign and a media campaign to ease Boston’s businesses and smokers into the new law.”); Thrasher et al., *supra* note 147, at 328 (“[T]he Mexico City Ministry of Health and civil society organizations disseminated pamphlets and radio spots on the health consequences of second-hand smoke exposure and on the timing of the upcoming law.”); Weber et al., *supra* note 151, at 270 (noting that a preban educational campaign “included mailings of educational materials to 35,000 bar, restaurant, and gaming club owners and print advertisements such as listing popular bars and restaurants throughout the state that publicly supported the law” and also “a television and radio campaign focusing on the smoke-free workplace law”).

majority, one would expect compliance to coincide with the majority signal itself: again, *formal adoption of the smoking bans*. After all, once the bans were passed, nonsmokers immediately would be empowered by their majority numbers to confront noncomplying members of the minority group.

In light of the above, the most likely explanation for the dramatic, *initial* uptick in compliance is the simplest one: those subject to the smoking bans initially complied to avoid formal sanctions. More specifically, they (the bar owners and patrons) complied in the face of an uncertain level of enforcement. Though the penalties associated with noncompliance are typically quite low on a “per violation” basis, nobody subject to the law could have known, *ex ante*, how aggressively the laws would be enforced. The significant uproar from bar and restaurant owners before the passage of the smoking bans and during the preenforcement interim period, however, betrays a widespread belief that noncompliance would be routinely penalized.¹⁷⁹ In short, bar owners believed *ex ante* that the expected sanction for noncompliance would be nontrivial.

In several cases, however, it became an open secret that noncompliance was unlikely to be detected and/or sanctioned. News articles quickly deemed the bans “toothless,” and in some cases, the governing bodies themselves admitted as much.¹⁸⁰ If bar owners acted in an economically rational manner, therefore, one would expect a return to noncompliance. However, compliance with smoking bans has generally persisted over the long run.¹⁸¹ Given the low likelihood of detection—and, in turn, the abrupt drop in the expected sanction for noncompliance—what explains compliance with smoking bans over time?

An extensive collection of survey research suggests that changed preferences likely played a role in long-term compliance. The overriding theme of this literature is that support for smoking policies increases after the implementation of bans.¹⁸² Considered in isolation, postban increases in support for smoking bans

¹⁷⁹ See, e.g., Skeer et al., *supra* note 149, at 501 (“[P]rior to the smoking ban’s effective date, there was a sentiment from bar owners and employees that the number of patrons visiting the bars would drastically decrease and that chaos would ensue outside once people were no longer allowed to smoke inside. . . .”); Hao Tang et al., *Changes of Knowledge, Attitudes, Beliefs, and Preference of Bar Owner and Staff in Response to a Smoke-Free Bar Law*, 13 TOBACCO CONTROL 87, 87 (2004); Hu, *supra* note 167, at D1; Shirin Parsavand, *Pataki Signs Workplace Smoking Ban into Law*, DAILY GAZETTE, Mar. 27, 2003, at A1; *Anti-Smoking Law Takes Hold in New York*, CNN (Mar. 30, 2003, 8:06 PM), <http://www.cnn.com/2003/US/Northeast/03/30/life.smoking.reut/>; Lisa L. et al., *BY GEORGE, BUTT OUT: Gov Signs Tough Workplace Smoking Ban*, N.Y. DAILY NEWS (Mar. 27, 2003, 12:00 AM), <http://www.nydailynews.com/archives/news/george-butt-guv-signs-tough-workplace-smoking-ban-article-1.665764>.

¹⁸⁰ See, e.g., Andrew Blankstein, *Enforcement Clouds Issue of Smoking Ban Laws*, L.A. TIMES, Sep. 21, 1998, at B1; Gil José Durán, *Smoking Ban Has Sporadic Policing*, SAN JOSE MERCURY NEWS, June 14, 1998, at 1B; Richard Pérez-Peña, *Smoking Ban Relies on Voluntary Compliance*, N.Y. TIMES (Mar. 28, 2003), <http://www.nytimes.com/2003/03/28/nyregion/smoking-ban-relies-on-voluntary-compliance.html>.

¹⁸¹ See, e.g., Farrelly et al., *supra* note 153, at 239–41; Ott et al., *supra* note 157, at 1132–33; Tang et al., *supra* note 179, at 87–88; Weber et al., *supra* note 151, at 269.

¹⁸² See, e.g., Thrasher et al., *supra* note 147, at 328–29.

could be taken as evidence for any number of expressive theories. However, as stated above, the timing of compliance in these cases coupled with the pre-enforcement awareness and publicity of the various bans suggests that at least some of the increased support was driven by changes in preference. The authors of two separate studies on support for smoking bans concluded along these lines. According to one, “[O]nce people understand the rationale for implementing smoke-free policies and *experience their benefits*, public support increases even among smokers, and compliance with smoke-free regulations increases over time.”¹⁸³ Another study concluded similarly: “smoke-free legislation seems to have the potential to change attitudes, and *acceptance increases once smokers experience the legislation and its benefits*.”¹⁸⁴

Other studies support the endowment model more specifically. Whereas the above studies identify (postban) increases in general support for smoke-free laws, other surveys specifically frame the analysis in terms of individual preferences or the value of smoke-free environments. A study of bar owners and staff in California, for example, found a three-fold increase in those who “prefer to work in a smoke-free environment” from 1998 to 2002 (the year enforcement began).¹⁸⁵ A similar study by the same author examined changes in the attitudes of patrons in response to smoking bans.¹⁸⁶ Among the questions asked in the latter study was the following: “How important is it to you to have a smoke-free environment inside bars?”¹⁸⁷ Though survey respondents were not asked to give their answers in dollar amounts, the foregoing question can be fairly interpreted as a question about the economic value of smoke-free environments. And, as the study showed, the value of smoke-free environments appeared to follow an upward trajectory among bar patrons after the implementation of the law.¹⁸⁸

Yet another study—this time of Irish citizens—found significant increases in postlegislation support for the notion that “[s]moke-free bars . . . [are] more comfortable to visit.”¹⁸⁹ The increase in support was significant: “[b]efore the legislation three-quarters of the participants agreed that the ban would make bars more comfortable and was needed to protect workers’ health. Post-legislation the proportion increased to over 90%.”¹⁹⁰

¹⁸³ Andrew Hyland et al., *Attitudes and Beliefs about Secondhand Smoke and Smoke-Free Policies in Four Countries: Findings from the International Tobacco Control Four Country Survey*, 11 NICOTINE & TOBACCO RES. 642, 642 (2009) (emphasis added).

¹⁸⁴ Ute Mons et al., *Comprehensive Smoke-Free Policies Attract More Support from Smokers in Europe than Partial Policies*, 22 EUR. J. PUB. HEALTH 10, 15 (2012) (emphasis added).

¹⁸⁵ Tang et al., *supra* note 179, at 88–89.

¹⁸⁶ See generally Hao Tang et al., *Changes of Attitude and Patronage Behaviors in Response to a Smoke-Free Bar Law*, 93 AM. J. PUB. HEALTH 611 (2003).

¹⁸⁷ *Id.* at 612.

¹⁸⁸ See *id.* at 613–17.

¹⁸⁹ For more on findings regarding Irish citizens’ experiences with smoke-free bars, see Lisa Pursell et al., *Before and After Study of Bar Workers’ Perceptions of the Impact of Smoke-Free Workplace Legislation in the Republic of Ireland*, 7 BMC PUB. HEALTH 131 (2007).

¹⁹⁰ *Id.*

This patchwork of evidence—a conglomeration of different types of studies over different geographic areas and time periods—falls short of definitive proof of the endowment model. However, when examined as a whole, the evidence tells a story that is supportive of the endowment model. Once endowed with the various benefits of a smoke-free work environment, it appears that bar owners, employees, and patrons valued those benefits more and continued to comply.

The possibility that exchange anomalies, or changes in the valuation of smoke-free environments, explains long-term compliance in the context of smoking bans, of course, does not entirely rule out other explanations. It remains entirely plausible, for example, that long-term compliance is partially attributable to the fact that smoking bans were not ultimately as detrimental to business as bar owners had anticipated. Under this reading, postban changes in support for the laws would simply be the result of updated views. However, it is not entirely clear that the initial opposition to the bans was motivated exclusively by profits, nor is it clear that bar owners were convinced *ex post* that the smoking bans were not harmful to business.¹⁹¹ Perhaps more importantly, this financial explanation does not explain why bar owners, employees, and patrons alike valued smoke-free environments more after the bans became enforceable.¹⁹² In any case, whether this profit-based explanation for long-term compliance is correct, it is not necessarily incompatible with the endowment model. Compliance could, in other words, be explained by both accounts (as it could by a combination of the endowment model and any of the other expressive theories described herein).

IV. CONCLUSION

The endowment account is something of a middle ground between strict economic approaches to compliance and other expressive models. Whereas the former relies exclusively on the role of formal sanctions, the latter often underplays their role. Economic models, moreover, assume that individual preferences are static and paramount to the compliance decision, while their expressive counterparts paint preferences as profoundly fluid. Under the endowment account, external sanctions do play a vital role, but individual preferences are not assumed to be static over time. Compliance is induced initially by sanctions, but sustained by changes in preference.

If the endowment model accurately captures something about the nature of compliance, the insights offered in this Article can help policy makers deploy enforcement resources in a way that maximizes compliance. One practical implication of the model is that, in circumstances where compliance yields distinct benefits, only a temporary period of enforcement may be required. To achieve the greatest bang for one's enforcement buck, that is, the endowment model suggests that the "frontloading" of enforcement—aggressive monitoring in the immediate

¹⁹¹ See, e.g., Robert D. Davila, *Bars' Woes Blamed on No-Smoking Law Fights Up, Business Down, Trade Group Says*, SACRAMENTO BEE, May 1, 1998, at B3; Hu, *supra* note 167.

¹⁹² See, e.g., Tang et al., *supra* note 179, at 87–88.

wake of passage, followed by a gradual decline in enforcement efforts—would be optimal in some cases.

Another implication of the endowment model concerns the framing of laws. Though compliance with many laws yields distinct benefits, most people think of laws as burdensome and costly. To the extent that governments can emphasize the benefits of complying with laws, rather than just the negative consequences of noncompliance, any preference change with respect to compliance benefits might be magnified. In this sense, a government's emphasis on the benefits of compliance would be tantamount to a researcher in an exchange experiment telling a participant, "The mug is yours. I'm giving it to you. You own it."¹⁹³ Laws could be pitched in the same way: "The clean air (or decreased risk of harm or other compliance-related benefit) is yours. We're giving it to you. If you comply, you will own it." Of course, further research would be required to determine with any confidence where the endowment model might apply—where, in other words, "sticks" can become "carrots."

¹⁹³ Klass & Zeiler, *supra* note 13, at 40.