THE LIMITS OF LAW AS AN INSTRUMENT OF NORMATIVE CHANGE

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If you think it is easy to violate social constraints, get onto a bus and sing out loud. Full-throated song now, no humming... not one in a hundred will be able to do it.

- Stanley Milgram[†]

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[†] Stanley Milgram, Psychology in Today's World 314 (1975).

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Why are many social norms 'sticky' and slow to change, and what, if anything, can this tell us about law's ability to change social norms? This Article attempts to answer both these questions. The fact that many social norms are 'sticky' is a problem because it means inefficient norms can persist for long periods, if not indefinitely. These social norms can be dangerous from both an individual and a societal perspective. They may encourage such things as domestic violence, substance abuse, racism, institutional corruption, and structural inequality.

There is quite a bit of enthusiasm in the 'law and norms' literature around law's ability to change inefficient social norms and influence behavior. This Article, however, argues that, despite this optimism, it is difficult to assess exactly how effective law is at changing social norms. To make my argument, I first explain why norms tend to be so sticky. I argue that social norms produce network effects that cause norms to become locked in and resistant to change. Once a social norm is locked in, actors cannot easily abandon it. The result is that a social norm may enjoy little genuine public support yet appear extremely stable because it is propped up and held in place by lock-in pressures. Thus, even in the cases where attempts at using law to change social norms appear successful, it is methodologically impossible to determine how important a role law played in causing the change and how much of it was simply because the social norm was fragile and already primed to collapse.

INTRODUCTION

Social norms are often 'sticky' and slow to change.¹ This is a problem because it means that inefficient norms can persist for long periods of

¹ 'Social norms' (or simply 'norms') are understood here as the informal standards of behavior seen as correct by a social group or culture that individuals adopt either out of fear of sanctions or because they have an internalized belief in their objective legitimacy, or both. These standards range in seriousness – they may be as minor as the rules of dinner etiquette or as serious as the prohibition against murder. For the prominent work just within the rational choice approach to norms, *see*, *e.g.*, JAMES S. COLEMAN, FOUNDATIONS OF SOCIAL THEORY 197–300, 371–420, 610–86, 874–950 (1990); Karl-Dieter Opp, *The Evolutionary Emergence of Norms*, 21 BRIT. J. SOC. PSYCH. 139 (1982). *See generally*, SOCIAL NORMS (Michael Hechter & Karl-Dieter Opp eds., 2001); DAVID HUME, A TREATISE OF HUMAN NATURE 490 (L.A. Selby-Brigge ed., 2d ed. 1976) (1740);

time, if not indefinitely.² Inefficient norms can be destructive from both an individual and a societal perspective. They may encourage such things as domestic violence, substance abuse, racism, institutional corruption, and structural inequality.

Starting in the 1990s, there was a surge of interest in social norms in the legal academy.³ This law and norms literature, as it is called, applies economic analysis to sociological inquiry.⁴ The literature is particularly interested in the possibility of 'social norm management' as a regulatory tool, the idea being that law can change inefficient social norms.⁵ Scholars who have advocated theories of *norm management* in some form include legal theorists such as Cass Sunstein, Lawrence Lessig, Dan Kahan, Robert Cooter, and Richard McAdams.⁶ These scholars cite the success of law at changing social norms. They argue that, for example, legal restrictions on public smoking affected anti-smoking norms in the general

³ This scholarship is also known as the New Chicago School. *See* Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661 (1998). For a comprehensive summary of the early law and norms literature, *see* Robert C. Ellickson, *Law and Economics Discovers Social Norms*, 27 J. LEGAL STUD. 537, 542 (1998). *See also* Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 343–54 (1997).

⁴ See Ryan Goodman, Beyond the Enforcement Principle: Sodomy Laws, Social Norms, and Social Panoptics, 89 CAL. L. REV. 643 (2001).

⁵ *Id.* at 643. *See also* Lessig, *supra* note 3.

⁶ See, e.g., Cass R. Sunstein, Social Norms and Social Roles, 96 COLUM. L. REV. 903 (1996); Cass Sunstein, On the Expressive Function of Law, 144 U. PA. L. REV. 2021 (1996); Lawrence Lessig, The Regulation of Social Meaning, 62 U. CHI. L. REV. 943 (1995); Robert Cooter, Expressive Law and Economics, 27 J. LEGAL STUD. 585, 598 (1998); Richard H. McAdams, An Attitudinal Theory of Expressive Law, 79 OR. L. REV. 339 (2000); RICHARD H. MCADAMS, THE EXPRESSIVE POWERS OF LAW: THEORIES AND LIMITS (2015); Dan M. Kahan, What Do Alternative Sanctions Mean?, 63 U. CHI. L. REV. 591 (1996); Dan M. Kahan, A Social Influence, Social Meaning, and Deterrence, 83 VA. L. REV. 349 (1997). See also McAdams, supra note 3, at 346–47. But cf. POSNER, supra note 1 (cautioning against norm management approaches).

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DAVID LEWIS, CONVENTION: A PHILOSOPHICAL STUDY (1969); EDNA ULLMANN-MARGALIT, THE EMERGENCE OF NORMS (1977); THOMAS C. SCHELLING, MICROMOTIVES AND MACROBEHAVIOR (1978); ROBERT AXELROD, THE EVOLUTION OF COOPERATION (1984); JON ELSTER, THE CEMENT OF SOCIETY: A STUDY OF SOCIAL ORDER (1989); H. PEYTON YOUNG, INDIVIDUAL STRATEGY AND SOCIAL STRUCTURE: AN EVOLUTIONARY THEORY OF INSTITUTIONS (1998); ERIC A. POSNER, LAW AND SOCIAL NORMS (2000); ROBERT BOYD & PETER J. RICHERSON, THE ORIGIN AND EVOLUTION OF CULTURES (2005); CHRISTINA BICCHIERI, THE GRAMMAR OF SOCIETY: THE NATURE AND DYNAMICS OF SOCIAL NORMS (2005).

² Under a law and economics analysis of social norms, "inefficiency" is defined in different ways. It can be defined by Pareto efficiency, cost-benefit efficiency, and welfare maximization. *See* Emanuela Carbonara, *Law and Social Norms*, 1 OXFORD HANDBOOK L. & ECON. 466 (Francesco Parisi ed., 2017).

population,⁷ that waste disposal regulations changed recycling patterns,⁸ that legal bans on duelling weakened social norms obligating offenses to one's honour be addressed through duelling,⁹ and that civil rights legislation helped to lessen racial discrimination.¹⁰

While the idea that law can change inefficient social norms has engendered a fair degree of optimism, I argue that this enthusiasm is unsupported because it is methodologically difficult, if not impossible, to assess how effective law actually is at changing social norms. To make my case, I first explain why social norms tend to be so sticky. I argue that social norms produce network effects that cause norms to become locked in and resistant to change.¹¹ A network effect occurs when the value of a standard increases as more people use it because its value is tied to the size of the network. For example, as more people speak a language, the value of that language increases because there are more people with whom one can potentially communicate using that language. Anything that facilitates interaction between people is a standard.¹² Currencies, radio frequencies, emojis, Facebook, traffic lights, and even the words in this sentence are all standards.

Social norms are also standards. Social norms tend to elicit sanctions from others when they are violated.¹³ This might come in the form of a gentle reprimand or a dirty look, or it might be far more serious. Dirty looks are reserved for those who cut the line; we impose much harsher sanctions for rapists and cannibals. If you and I do not recognize the same social norm, the chance of conflict between us increases; however, if we recognize the same social norm, the chance of conflict between us decreases. Whatever else they are, therefore, on a purely practical level, social norms function as coordinating standards that reduce potential conflict with others. Just as following the same rules of the road helps minimize traffic collisions, following the same social norms helps

¹¹ My argument draws on the idea of institutional lock-in advanced in the institutional economics literature, most notably by Douglass C. North. *See* 1 NORTH, *infra* note 36. My model, however, differs in certain key respects.

¹² A 'standard' is defined here as any shared norm or practice that allows agents in the network to interact, facilitating coordination. *See* DAVID GREWAL, NETWORK POWER: THE SOCIAL DYNAMICS OF GLOBALIZATION 21 (2009).

¹³ For our purposes, we need not speculate as why social norms do this. It is enough to simply note that they do.

⁷ 2 Sunstein, *supra* note 6, at 2033–36.

⁸ 1 Sunstein, *supra* note 6.

⁹ See Lessig, supra note 6, at 968–72.

¹⁰ Richard H. McAdams, *Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination*, 108 HARV. L. REV. 1003, 1074–82 (1995). Scholarship discussing the impact of civil legislation on racial discrimination commonly cites Title VII of the Civil Rights Act of 1964, which prohibits employment discrimination based on race, color, religion, sex and national origin.

minimize social collisions.¹⁴ And, just like a traffic rule, the more people who follow a social norm, the more valuable it becomes as a conflict-minimizing standard.

Lock-in occurs when it becomes costly to switch between standards. Because the value of a social norm is largely determined by the number of other people who also subscribe to it, there is a cost for failing to follow the same social norms other people are following.¹⁵ This is why social norms tend to be sticky and resistant to change – they are locked-in coordination standards.

My central point is that sticky norms make it difficult to assess just how effective law is at changing social norms.¹⁶ The reason for this is that, because norms tend to be sticky, they will always seem stable. This is true if they enjoy deep internal support, and it is true if they enjoy little to no support and are merely held together by lock-in pressures. Thus, even in the cases where attempts at using law to change social norms appear successful, it is methodologically impossible to determine how important a role law played in causing the change and how much of it was simply because the social norm was fragile and already primed to collapse.¹⁷ It may be the case that legal attempts to reinforce, bend, and modify social norms are very effective, or it may be that its impact is trivial, or it may be somewhere in between. The problem is there is simply no way to know. In making its claims, the law and norms literature does not take this into

¹⁴ They are, as David Lewis describes conventions more generally, "customary rules of behaviour that coordinate our interactions with others." *See* LEWIS, *supra* note 1. Conventions are typically distinguished from the more general category of social norm in that conventions are understood as solutions to coordination games where agents must select from among multiple strategies and there is no intrinsic reason to prefer one over the other (e.g., which side of the road we drive on). According to the present model, however, all social norms are conventions because all social norms produce sanctions: they are solutions to the coordination game their very emergence and subsequent standardization creates.

¹⁵ If social norms are formally codified in the law, the possibility of facing legal sanctions for failing to follow said norms will further limit your freedom.

¹⁶ The term 'sticky norm' was first coined by the legal scholar Dan Kahan to describe what he calls the 'sticky norms problem.' For Kahan, this problem occurs when the prevalence of a social norm makes decisionmakers less likely to enforce a law intended to change that norm. *See* Dan M. Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. CHI. L. REV. 607 (2000). The term 'sticky norm,' however, is used here simply to mean any norm that is resistant to change.

¹⁷ Note that even if we are able compare two similar societies in which one implemented a law and saw a subsequent change in a social norm and the other did not implement the law nor saw any change in the social norm, this will not help so long as we are unable to determine how fragile the norm already was in the respective societies. Without being able to nail down this variable, having a control group offers little help. The difficulties involved in measuring a norm's fragility is discussed at length later in the Article. *See* discussion *infra* Section III.B.2.

account. This methodological problem undermines the entire project of norm management because we are ultimately limited in what we can say regarding law's ability to effect normative change if we cannot even reliably gauge the extent of its impact.

This Article proceeds in three parts. Part I discusses how social norms generate network effects. Part II explains why many norms are 'sticky' and how this accounts for the persistence of inefficient, often senseless social norms. Part III then makes the case that, because many norms are sticky, it is difficult to gauge law's effectiveness at changing social norms. I present a summary of the norm management theories in this section, and then outline the methodological problem that sticky norms create. The final section concludes.

I. NORMS AND NETWORK EFFECTS

A. Social Norms Arise with Sanctions

For whatever reason social norms emerge. There are many theories as to why they do so; however, why social norms emerge is not relevant to my present argument.¹⁸ The present discussion is concerned, rather, with what occurs after they do so. For our purposes, the relevant point is that, regardless of why social norms emerge, they arise with sanctions if they are violated. These sanctions may be as trivial as a disapproving glance or as severe as the loss of one's life. For many theorists, sanctions are the constituent hallmark of a social norm. While the law and norms literature offers different definitions, most of the law and norms scholars, such as Eric A. Posner, Robert Ellickson, Lessig, McAdams, and Sunstein, share a common conception of a social norm as "a rule governing an individual's behavior that is diffusely enforced by third parties other than state agents by means of social sanctions."¹⁹ "[A] norm," Cooter explains, "can be defined as an obligation backed by a nonlegal sanction."²⁰ Similarly, Posner conceptualizes a norm's primary purpose and social function as a rule that distinguishes "desirable and undesirable behavior and gives a third party the authority to punish a person who engages in the undesirable

¹⁸ The more prominent rational choice models posit that norms are (1) equilibria of strategic interaction (*see* LEWIS, *supra* note 1; ULLMANN-MARGALIT, *supra* note 1; BICCHIERI, *supra* note 1), and (2) costly signals (POSNER, *supra* note 1). These norms arise because they are the products of 'norm entrepreneurs' and cascade effects. 1 Sunstein, *supra* note 6. Because all norms produce sanctions, our model is compatible with any or all of these. The only requirement is that norms emerge with sanctions, which they do.

¹⁹ Robert Ellickson, *The Market for Social Norms*, 1 AM. L. & ECON. REV. 1, 3 (2001).

²⁰ Robert Cooter, *Do Good Laws Make Good Citizens? An Economic Analysis of Internalized Norms*, 86 VA. L. REV. 1577, 1580 (2000) (emphasis added).

behavior."²¹ Ellickson asserts that, provided that there is a sufficient level of informal social enforcement by third parties, "[a] norm can exist even if no one has internalized it . . ."²² In all these definitions, sanctions are a key element in defining a social norm. For our purposes, the presence of sanctions is crucial because it is what gives rise to network effects.

B. Network Effects

The idea of network effects is relatively simple. It was first identified in the economics literature on technological standards.²³ Network effects (or network externalities) appear in commercial markets where a product or service ties consumers into a networked relationship with one another.²⁴ Network effects occur where the value of a product or service increases as the number of other agents using the same product grows. As more users begin to use the standard, its utility grows, which in turn causes more consumers to select to use the product. This positive feedback dynamic reinforces patterns and causes them to become gradually more entrenched over time. There are many examples of network effects - video tape standards, keyboard designs, telephone networks, railway gauges, credit cards, electrical outlets, etc.²⁵ Regardless of the specific form the dynamic takes, the basic principle is the same: the value of the standard increases with each additional user because the user's ability to synchronize with others is enhanced. Network effects arise from the need for compatibility between standards and will emerge in any situation in which the utility that a given user derives from a standard is tied to the number of other users who are also in the same network.²⁶

This phenomenon is not limited to merely products in the marketplace. It is possible to "interpret the idea of network effects much more broadly than the economics literature in which this concept originated has done."²⁷ Anywhere that we can "identify a pattern of consistent social behavior that operates like a standard – regulating access to others by

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²¹ Eric A. Posner, *Law, Economics, and Inefficient Norms*, 144 U. PA. L. REV. 1697, 1699 (1995).

²² Robert Ellickson, *The Evolution of Social Norms: A Perspective from the Legal Academy*, in SOCIAL NORMS 36.

²³ The dynamic was first discussed in relation to communication technology. *See generally* Jeffrey Rohlfs, *A Theory of Interdependent Demand for a Communications Service*, 5 BELL J. ECON. & MGMT. SCI. 16 (1974).

²⁴ Some of this section draws from other work by Druzin. *See* Bryan H. Druzin, *Rights, Power, and Inequality*, OKLA. L. REV. (forthcoming 2023).

²⁵ For a good overview of other network effect examples in a wide range of contexts, *see* Joseph Ferrell & Paul Klemperer, *Coordination and Lock-In: Competition with Switching Costs and Network Effects* 46–54 (2006).

²⁶ See Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 AM. ECON. REV. 424 (1985).

²⁷ GREWAL, *supra* note 12, at 66.

providing framework for social coordination through conventionality – we should expect to see a positive feedback dynamic that makes it increasingly attractive for outsiders to adopt the same behavior."²⁸ Anything that allows actors to interface with one another is a standard and will produce network effects. Language is a standard, as is gold, the days of the week, legal rights, legal systems, and international institutions.²⁹

C. Social Norms Generate Network Effects

Because the value of a norm increases as more people subscribe to and abide by it, social norms generate network effects. An agent who violates a social norm can face sanctions for doing so. Thus, compliance with a social norm, irrespective of its practical usefulness or lack thereof, has intrinsic value in that it allows an agent to avoid sanctions. All else being equal, there is therefore an advantage in adopting (at least publicly if not internally) a commonly recognized standard.³⁰ Absent a compelling reason to deviate from a standard, an established social norm confers utility

³⁰ Agents engage in preference falsification (outwardly expressing preferences that differ from what they genuinely believe) in order to publicly conform. *See* TIMUR KURAN, PRIVATE TRUTHS, PUBLIC LIES (1995). This is also termed normative social influence, *i.e.*, conformity for the purpose of being liked and accepted by others. *See* JOSEPH P. FORGAS & KIPLING D. WILLIAMS, SOCIAL INFLUENCE: DIRECT AND INDIRECT PROCESSES 187 (2001).

²⁸ Id.

²⁹ I have applied network effects to the emergence of legal order in a variety of contexts, See, e.g., Bryan H. Druzin, Can the Liberal Order be Sustained? Nations, Network Effects, and the Erosion of Global Institutions, 42 MICH. J. INT'L. L. 1 (2021) (arguing that it is possible to strengthen the cohesion of international organizations by manipulating the underlying network effect pressures they produce); Bryan H. Druzin, Tipping Points and the Formation of the European Union: Birth, Brexit, and Beyond, 27 COLUM. J. EUR. L. 68 (2021) (analyzing the institutional growth of the EU as a function of network effects and evaluating the potential dissolution of the EU as consequence of Brexit); Andrea K. Bjorklund & Bryan H. Druzin, Institutional Lock-in Within the Field of International Investment Arbitration, 39 U. PA. J. INT'L. L. 101 (2018) (applying network effects and lock-in to competition between international organizations in international arbitration); Bryan H. Druzin, Towards a Theory of Spontaneous Legal Standardization, 8 J. INT'L. DIS. SETTLEMENT 403 (2017) (arguing that transnational legal norms evolve as a consequence of network effect pressures and increased interconnectivity); Bryan H. Druzin, Why does Soft Law Have any Power Anyway? 7 ASIAN J. INT'L. L. 361 (2016) (arguing that many areas of soft law exhibit strong network effects that render it uniquely calibrated to induce voluntary adoption); Bryan H. Druzin, Buying Commercial Law: Choice of Law, Choice of Forum, and Network Effect, 18 TUL. J. INT'L. & COMP. L. 131 (2009) (arguing that commercial parties selecting law through choice of law and choice of forum clauses are susceptible to network effect pressures).

because it minimizes unnecessary conflict.³¹ As the user base of a given social norm grows, so too will the inherent value of the norm as a conflictminimizing coordinating standard. The more followed a social norm is, the more utility it provides. Thus, the normative language that is most widely 'spoken' provides the greatest value, and this produces network effects.

While I invoke a rational choice model of social norms, this should not be understood as implying that norm adoption is always a rational decision. The extent to which the law and norms literature discounts the significance of internalization, it is in danger of oversimplification. Norm adoption is often (if not mostly) motivated by a genuine belief in the inherent 'rightness' of the social norm.³² As Jon Elster notes, norms have a certain "grip on the mind."³³ The indignation that one feels upon seeing a person cut the line is neither rational nor a choice. Rational conformity and internalization, however, are not independent of one another. One often begets the other: actors' initial adoption decisions, performed in a calculated fashion motivated by a desire to avoid sanctions, often brings about internalization at a later stage.³⁴ The focus here, however, is not on internalization but rather on rational adoption decisions, as this allows us to keep the analysis within the bounds of a rational choice model. Rational choice theory has a certain methodological elegance. While it is often reductionist, it offers a degree of clarity and predictability regarding human psychology that is otherwise difficult to achieve.

³² Most people "bound by [norms] feel an emotional or psychological compulsion to obey the norms; norms have moral force." Posner, *supra* note 21, at 1709.

³³ Jon Elster, *Fairness and Norms*, 73 Soc. Res. 365, 368 (2006).

³¹ The claim that agents prefer to minimize unnecessary conflict should be qualified; it does not mean that people always avoid conflict with others. People will engage in conflict if they feel the payoff is worth it to them. What people want to avoid is unnecessary conflict. By unnecessary conflict, I mean situations in which the likely cost of conflict will be greater than the payoff they will get from engaging in that conflict. If an agent, however, has an opportunity to engage in conflict and get the better end of it, then they will do so, but in situations where they stand to lose, or there is a reasonable chance that they will lose, agents will generally shy away from conflict.

³⁴ This tendency to internalize prevailing norms has been attributed to a desire to reduce cognitive dissonance. *See* JON ELSTER, SOUR GRAPES: STUDIES IN THE SUBVERSION OF RATIONALITY 109–40 (1983); for a discussion of the way in which private rejection gradually fades due to lack of public use, *see* KURAN, *supra* note 30, at 176–95. Given that minimizing unnecessary conflict is fitness enhancing, one could posit an evolutionary explanation as to why internalization tends to set in; there is every reason to believe that such a trait would be subject to selective pressures. Evolutionarily speaking, having a common set of behavioral standards as guardrails around our behavior was not only useful, but the lack of it may have jeopardized the ability to sustain relationships, and therefore individual survival.

Social norms, like any other standards, produce network effects. Network effect markets possess certain peculiar dynamics. Among these, what is known as switching costs and lock-in are the most important for our purposes. The section that follows examines their importance for our model.

II. WHY SOME NORMS ARE 'STICKY'

The idea of 'lock-in' has been discussed extensively in the literature on standards and path dependence.³⁵ Building on this work, Douglass C. North argues that increasing returns can trigger 'institutional lock-in' in which institutions become entrenched over time and difficult to change.³⁶ For North, institutions are "the rules of the game in society or, more formally, are the humanly devised constraints that shape human interaction."³⁷ They are both formal constraints (e.g., constitutions, laws, property rights) and – most relevant to our discussion – they are also informal constraints (e.g., taboos, customs, and traditions).³⁸ North cites four causes of institutional lock-in: (1) the high start-up costs involved in setting up alternative institutions from scratch, (2) learning effects for an organization, (3) coordination effects arising from contracts between organizations as well as indirectly by investment through the polity in complementary activities, and (4) a reduction in uncertainty surrounding specific rules

³⁸ *Id.* at 4

³⁵ For the foundational work in this area, see Paul A. David, Clio and the Economics of QWERTY, 75 AM. ECON. REV. 332 (1985); W. Brian Arthur, Competing Technologies, Increasing Returns, and Lock-in by Historical Events, 99 ECON. J. 116 (1989); W. Brian Arthur, Positive Feedbacks in the Economy, 262 SCI. AM. 92 (1990); W. BRIAN ARTHUR, INCREASING RETURNS AND PATH DEPENDENCE IN THE ECONOMY (1994); Stan J. Liebowitz & Stephen E. Margolis, Path Dependence, Lock-in and History, 11 J. L. ECON. & ORG. 205 (1995). While lock-in and path dependence has been widely discussed in the legal literature, the analysis remains underdeveloped as it applies to social norms and the law. See, e.g., Clayton P. Gilette, Lock-in Effects in Law and Norms, 78 B. U. L. REV. 813 (1998) (discussing how coordination norms can become entrenched and lock-in); Richard A. Posner & Eric Rasmusen, Creating and Enforcing Norms, with Special Reference to Sanctions, 19 INT'L. REV. L. & ECON. 369, 377 (1999) (discussing norm 'traps' in relation to norms of coordination); Ellickson, *supra* note 22, at 57-58 (discussing transaction costs arising in relation to network externalities preventing inefficient coordination norms from changing).

³⁶ For a comprehensive overview of Douglass C. North's work, *see* DOUGLASS C. NORTH, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE (1990); Douglass C. North, *Institutions*, 5 J. ECON. PERSP. 97 (1991); DOUGLASS C. NORTH, UNDERSTANDING THE PROCESS OF ECONOMIC CHANGE (2005); NORTH, *supra* note 11. *See also* Paul Pierson, *Increasing Returns, Path Dependence, and the Study of Politics*, 94 AM. POL. ScI. REV. 251 (2000) (arguing that political institutions are particularly vulnerable to this process).

³⁷ 1 NORTH, *supra* note 36, at 3.

which arise from their increasing prevalence.³⁹ My model of lock-in differs from North's as it relies on fewer assumptions. It is based solely on the value of a social norm as a coordination standard that reduces unnecessary conflict. All that is required for the model to work is that social norms arise with sanctions for noncompliance. Because all social norms tend to elicit sanctions to some degree when they are violated, the model applies universally to all social norms. This section unpacks the concept of lock-in as it applies to social norms. As I will show, the concept has direct implications for assessing law's ability to change social norms.

A. Switching Costs

Switching costs are central to the idea of lock-in. Switching costs are the costs associated with switching between standards.⁴⁰ While network effects typically confer positive benefits in adhering to a single standard, the inverse of this is that straying from a recognized standard incurs costs. In commercial markets, users may have incentives to use alternative products; however, due to the transaction costs involved in switching, it is more efficient (for them) to just carry on using the product. In the case of social norms, the switching costs flow from the fact that non-compliance with a majority norm increases the likelihood of conflict. Whatever other purpose they may or may not serve, all social norms function as coordinating standards that reduce the risk of social conflict. There is therefore a cost to adopting a norm that is not followed by others. Switching costs tend to reinforce dominant norms and discourage deviance from them. As the number of adopters goes up, the value of the social norm increases and there arises a general reluctance to employ new and not widely used normative standards. In this way, switching costs (in the form of unnecessary conflict) generate powerful lock-in effects.

Network effect markets tend to be winner-take-all markets, meaning that one standard will tend to dominate the entire network.⁴¹ Although they may initially exhibit multiple equilibria, network effect markets will eventually lock into a single monopoly with one standard cornering the entire market.⁴² Once normative behavior converges upon a single standard, it will stymie the emergence of alternative standards because "no actor is willing to bear the disproportionate risk of being the first adopter of a standard and then becoming stranded in a small network."⁴³ The result is that it is extremely difficult to dislodge a social norm buttressed by powerful network effects, and the market will remain locked in with no one

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³⁹ *Id.* at 95.

⁴⁰ Stan J. Liebowitz & Stephen E. Margolis, *Policy and Path Dependence: From QWERTY to Windows* 95, 3 CATO REGULATION REV. BUS. & GOV'T. 33 (1995).

⁴¹ TIM WEITZEL, ECONOMICS OF STANDARDS IN INFORMATION NETWORKS 24 (2004).

⁴² See 1 Arthur, supra note 35, at 126.

⁴³ See WEITZEL, supra note 41, at 16.

willing to bear the initial incompatibility costs.⁴⁴ Normative systems face the same challenge: it is difficult to change a dominant social norm because nobody wants to be the first to switch to a norm that no one else (or very few people) follow. The result is that everyone is locked into the norm.

B. Lock-in and 'Sticky' Inefficient Norms

The fact that norms are often useful have led many to conclude that social norms arise because of their usefulness – that is, because they serve a specific *function*.⁴⁵ It is very tempting, for example, to try to explain away social norms as solutions to collective action problems. Many scholars, such as David Lewis and Edna Ullmann-Margalit, argue that norms have a purely functional basis as solutions to coordination problems.⁴⁶ Sanctions against unprovoked aggression, theft, and murder are good examples.⁴⁷ However, many norms defy such an explanation. Lewis' account of social conventions as solutions to recurrent co-ordination dilemmas is insightful, and no doubt true in many instances.⁴⁸ The problem, however, arises regarding the generality of this thesis.⁴⁹ Many social norms are grossly inefficient from both an individual and a societal perspective.⁵⁰ Social norms may encourage excessive alcohol consumption, violent behavior, domestic abuse, racist attitudes, etc.⁵¹ Dysfunctional norms are impossible to explain through a functionalist prism. Many norms are

⁴⁶ See generally ULLMANN-MARGALIT, *supra* note 1; LEWIS, *supra* note 1. See also COLEMAN, *supra* note 1; Thomas Voss, *Game-Theoretical Perspectives* on the Emergence of Social Norms, in SOCIAL NORMS 105–36 (Michael Hechter & Karl-Dieter Opp eds., 2001).

⁴⁴ Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation, 76* AM. ECON. REV. 940 (1986).

⁴⁵ See, e.g., ROBERT ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991) (citing informal enforcement mechanisms amongst cattle ranchers in Shasta County, California to argue that social norms are efficient when they arise in close-knit groups). In his later work, however, Ellickson recognizes that many social norms are inefficient solutions to social problems. *See generally* Ellickson, *supra* note 19.

⁴⁷ See Richard E. Pepiton & Duane T. Wegener, *Attitude Change: Multiple Roles for Persuasion Variables, in* HANDBOOK OF SOCIAL PSYCHOLOGY 323–90 (D. T. Gilbert, S. T. Fiske, G. Lindzey eds., 1998).

⁴⁸ See LEWIS, supra note 1.

⁴⁹ Andrei Marmor, On Convention, 107 SYNTHESE 349, 364 (1996).

⁵⁰ H. Peyton Young, *Social Norms*, 7 ANN. REV. ECON. 359 (2015). This problem of inefficiency has led to a virtual wholesale rejection of the functionalist explanations of social norms. "Functionalism—the view that social practices and norms are efficient or adaptive in some way—is empirically false and methodologically sterile." POSNER, *supra* note 1, at 172.

⁵¹ 1 Sunstein, *supra* note 6, at 916.

arbitrary, nonsensical and possess no functional purpose at all.⁵² While "many social norms," Posner writes, "contribute to social welfare, many social norms harm social welfare⁵³ we simply "cannot conclude that societies will opt for efficient norms. It is doubtful, for example, that norms of retribution are efficient, or that pushing is superior to queuing. Yet these are the operative norms in quite a few cases."⁵⁴ Drawing on evolutionary game theory, Paul Mahoney and Chris Sanchirico show that efficient norms will prevail only in certain settings.⁵⁵ Robert Sugden argues that normative patterns of behavior are not necessarily efficient and do not "serve any overarching social purpose; thus they cannot, in general, be justified in terms of any system of morality that sees society as having an overall objective or welfare function."⁵⁶ The beneficial nature of norms, Elster notes, is often unclear.⁵⁷ Many norms are totally dysfunctional or just downright bizarre.⁵⁸ Even in situations where a norm can be said to be welfare enhancing – such as distribution, retribution and cooperation – it is usually not the sole means by which that end can be achieved.⁵⁹

So why do inefficient norms persist? The short answer is that they either had a functional basis at one time and later lost it or they never had one to begin with and simply gained ascendancy through network effects. That is, they are random behavioral patterns that serve no purpose at all that were simply amplified through positive feedback pressures. Under this latter explanation, norms may be completely arbitrary. All that is needed is an initial 'spark' of sanctions associated with a behaviour – the perception that there is a preferred way to comb one's hair or to fold a flag – and network effects will then take care of the rest, amplifying the behavioral standard at scale.⁶⁰ Under this model, the mere hint of regularity, and potential sanctions, may be sufficient to cause agents to reflexively mimic a patterning to foreclose the possibility of conflict, which then gains

⁵² John Elster, *Social Norms and Economic Theory*, 3 J. ECON. PERSP. 99 (1989).

⁵³ POSNER, *supra* note 1, at 8.

⁵⁴ *Id.* at 8.

⁵⁵ See Paul G. Mahoney & Chris. W. Sanchirico, Norms, Repeated Games, and the Role of Law, 91 CAL. L. REV. 1281 (2003).

⁵⁶ Robert Sugden, *Spontaneous Order*, 3 J. ECON. PERSP. 85, 97 (1989). *See also* Gilette, *supra* note 35.

⁵⁷ JON ELSTER, STRONG FEELINGS: EMOTION, ADDICTION, AND HUMAN BEHAVIOR 88 (2000).

⁵⁸ See, e.g., ELSTER, supra note 1, at 125–51.

⁵⁹ See BICCHIERI, supra note 1, at 8–38.

⁶⁰ Much of the literature on norms is concerned with answering why, given that many normative equilibria are possible, one is selected, and others are not. *See* Carbonara, *supra* note 2, at 467. Network effects explain this: random, meaningless behavioral patterns can self-standardized through network effect pressures, which are then held in place by the resulting lock-in effects.

traction and standardizes.⁶¹ Fleeting fashion trends and cultural fads are good examples of such norms.

The concept of lock-in is well-equipped to explain the persistence of norms that are inefficient from an individual or social welfare perspective.⁶² Network lock-in holds them in place and prevents the emergence of alternative norms. Although a social norm may be inefficient, or even nonsensical, each agent is individually as unable to abandon the social norm as a driver is able to drive on the wrong side of the road. They may be technically free to ignore the social norm but, practically speaking, the coordination pattern into which they are locked prevents them from doing so. At the end of the day, people are as free to ignore social norms as English speakers are free to use the word 'stop' to mean 'go' and the word 'yes' to mean 'no.' On a practical level, no individual agent can abandon the social norm unless they all (or at least a sufficient number) simultaneously do so. Because no one dares deviate, social norms can persist even if very few, or no one, believes in their legitimacy.

Social norms that initially arose due to their functional character can become locked in and persist long after their usefulness disappears. The norm that we shake hands using our right hand, for instance, originates from a historical time in which a handshake was utilized as a social mechanism to ensure that the person you encountered was not holding a weapon.⁶³ Although this is no longer a concern in the modern age, the practice persists. Many seemingly senseless religious customs can also be explained in this manner. For instance, some speculate that the origins of kosher dietary laws in Judaism related to issues of cross-contamination.⁶⁴ Similarly, some have sought to explain the Hindu prohibition against meat-eating as springing from the more mundane fact that plough animals

⁶¹ It has been shown that going along with or mimicking others tends to produce liking, which reduces the potential for conflict. *See* Tanya L. Chartrand & John A. Bargh, *The Chameleon Effect: The Perception-Behaviour Link and Social Interaction*, 76 J. PERSONALITY SOC. PSYCH. 893, 903 (1999); Elaine Hatfield et al., *Emotional Contagion*, 2 CURRENT DIRECTIONS IN PSYCH. SCI. 96 (1993).

⁶² See JAMES COLEMAN & THOMAS FARARO, RATIONAL CHOICE THEORY: ADVOCACY AND CRITIQUE 33 (1992) (discussing lock-in in relation to social structures and inefficiency).

⁶³ For this explanation for the origins of handshaking, *see*, *e.g.*, ANNETTE BAIER, REFLECTIONS ON HOW WE LIVE 80 (2010).

⁶⁴ DAVE WINTER, ISRAEL HANDBOOK: WITH THE PALESTINIAN AUTHORITY AREAS 52 (1999); David Macht, *An Experimental Pharmacological Appreciation of Leviticus XI and Deuteronomy XIV*, 27 BULL. HIST. MED. 444 (1953). However, while this might have been its core roots, many prohibited foods have no relationship with hygiene. *See* Gary Gilbert & Alan F. Segal, *The Hebrew Bible: Role in Judaism, in* COMPANION ENCYCLOPEDIA OF THEOLOGY 28, 38 (Peter Byrne & Leslie Houlden eds., 1995); Elizabeth Ramsey, Judaism, in ENCOUNTERING RELIGION: AN INTRODUCTION TO THE RELIGIONS OF THE WORLD 286, 288 (Ian S. Markham & Tina Ruparell eds., 2001).

were highly valued for their milk and dung, which was used as fuel and fertilizer.⁶⁵ There are taboos of a similar economic origin against eating horsemeat, which vary predictably by region.⁶⁶ A social norm related to water consumption, for instance, may emerge as a consequence of factors such as population size, agricultural practices, and climate.⁶⁷ If there is an exogenous change (e.g., the drought ends) and the norm's usefulness disappears, the norm may nevertheless persist. The use of neckties, for instance, once served the functional purpose of cinching the collar; now the practice is simply locked in. Once a social norm has been established, the network effect it generates can lock it in place and the social norm can become extremely sticky.

Irrespective of why they arise, all norms, once arisen, carry sanctions if they are violated. Consequently, all norms generate network effects, which cause them to become sticky and lock in.⁶⁸ Inefficient social norms may thus persist long after all traces of the function it once served (if it even ever had one) vanishes. Network lock-in elegantly explains the persistence of inefficient and even senseless norms because it explains why norms may be sticky. However, for our purposes, the broader significance of sticky norms is what they imply for our ability to assess law's effectiveness at changing social norms. The final section of this Article discusses this point.

III. THE ABILITY OF LAW TO CHANGE SOCIAL NORMS

The previous section explained why many social norms are sticky and inefficient. This section answers the second part to our question: what, if anything, can sticky norms tell us about law's ability to change social norms and influence behavior? In this section, I first present a summary of the various norm management theories, and then discuss what sticky norms imply for assessing law's effectiveness at changing social norms.

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⁶⁵ See MARVIN HARRIS, GOOD TO EAT: RIDDLES OF FOOD AND CULTURE 57 (1998). But see STEVEN PINKER, THE BETTER ANGELS OF OUR NATURE: WHY VIOLENCE HAS DECLINED 462 (2011) (questioning this explanation).

⁶⁶ DAVID SHERMAN, TENDING ANIMALS IN THE GLOBAL VILLAGE: A GUIDE TO INTERNATIONAL VETERINARY MEDICINE 56–57 (2002). This norm is evident in North America, where horse culture has loomed large in recent centuries.

⁶⁷ For an interesting discussion regarding irrigation norms and fish stocks of James Bay, *see* Elinor Ostrom, *Collective Action and the Evolution of Social Norms*, 14 J. ECON. PERSP. 137, 150 (2000).

⁶⁸ This not to say that norms do not change. They do change and do so frequently. When viewed across an entire culture, norms are in a state of incremental flux. On this point, *see* 1 NORTH, *supra* note 36, at 6, 89.

1. Using the Brute Force of Legal Sanctions to Change Social Norms

In the law and norms literature, Kenneth Dau-Schmidt and Sunstein were among the earlier advocates of the idea that law can shape preferences and promote certain social norms.⁶⁹ Dau-Schmidt contends that law can directly shape individual preferences through its use of sanctions and rewards.⁷⁰ Criminal law's preference-shaping function, he argues, explains many characteristics of criminal law: "[I]n addition to creating disincentives for criminal activity, criminal punishment is intended to promote various social norms of individual behavior by shaping the preferences of criminals and the population at large."⁷¹ Similarly, Sunstein argues that law can induce "adaptive preferences" by foreclosing certain options to its citizenry.⁷² Core to Sunstein's argument is the idea that, as he writes, "what people want is sometimes a product of what they can get."⁷³ In order to stomach their own obedience, individuals, Sunstein argues, often come to internalize these new norms in line with the restrictions imposed by the law in a kind of operant conditioning.⁷⁴

2. Using the Expressive Power of Law to Change Social Norms

Sunstein and other scholars have also explored law's ability to affect norms through its capacity to signal a collective moral sentiment, in what Sunstein calls the expressive function of law.⁷⁵ By expressive function,

⁶⁹ See Cass R. Sunstein, Legal Interference with Private Preferences, 53 U. CHI. L. REV. 1129 (1986) (exploring the potential of law to affect private preferences); Kenneth G. Dau-Schmidt, An Economic Analysis of the Criminal Law as a Preference-Shaping Policy, 1990 DUKE L.J. 1 (1990).

⁷⁰ Dau-Schmidt, *supra* note 69, at 14–22, 25–38.

⁷¹ *Id.* at 2.

⁷² Sunstein, *supra* note 69, at 1146–47. On the idea of adaptive preferences, *see also* MARTHA C. NUSSBAUM, WOMEN AND HUMAN DEVELOPMENT: THE CAPABILITIES APPROACH 112–13 (2001); Thomas Nagel, *Equal Treatment and Compensatory Discrimination*, 2 PHIL. & PUB. AFFAIRS 348, 350 (1973); ELSTER, *supra* note 34, at 126–34; Luc Bovens, *Sour Grapes and Character Planning*, 89 J. PHIL. 57, 58–59 (1992). On the similar concept of preference adaptation – the idea that agents have evolved a meta-preference for conformity and the ability to modify their preferences accordingly – *see* Jonathan Klick & Francesco Parisi, *Social Networks, Self-Denial, and Median Preferences: Conformity as an Evolutionary Strategy*, 37 J. SOCIOECON. 1319–27 (2008).

⁷³ Sunstein, *supra* note 69, at 1146.

⁷⁴ 1 Sunstein, *supra* note 6, at 929.

⁷⁵ 2 Sunstein, *supra* note 6. *See also* CASS R. SUNSTEIN, FREE MARKETS AND SOCIAL JUSTICE 32–107 (1997); Lessig, *supra* note 6, at 962–91; ELIZABETH ANDERSON, VALUE IN ETHICS AND ECONOMICS (1993); 1 McAdams, *supra* note 6, at 340–41; Jason Mazzone, *When Courts Speak: Social Capital and Law's Expressive Function*, 49 SYRACUSE L. REV. 1039 (1999); Richard H. Pildes, *Why*

Sunstein means the "function of law in 'making statements' as opposed to controlling behavior directly."⁷⁶ The basic idea here is that law's expressive power can influence public behavior independent of the actual effect produced by legal sanctions.⁷⁷ A law may operate on multiple levels. While it may achieve a specific goal (e.g., preventing hate speech), the expressive function of law may also help shape societal norms more broadly (e.g., norms of racial discrimination). As Sunstein observes,

If the Supreme Court says that segregation is unlawful, that certain restrictions on hate speech violate the First Amendment, or that students cannot be asked to pray in school, the real-world consequences may be much smaller than is conventionally thought. But the close attention American society pays to the Court's pronouncements is connected with their expressive or symbolic character.⁷⁸

The basic idea here is that law can change public behavior by signaling the community's underlying attitudes.⁷⁹

Kahan posits a similar argument; however he focuses instead on how effective law is at successfully enforcing legal rules as playing the key role in changing social norms.⁸⁰ Kahan claims that because legal punishment signals a general social consensus regarding the moral acceptability of particular behaviors, law's ability to deter these acts can generate norms: if deterrence is effective and individuals perceive few people around them violating the rule with impunity, their concern to avoid stigmatization or approbation from others will cause them to comply and eventually internalize the norm.⁸¹ However, if deterrence is seen as ineffective and enough individuals regularly flout the rule with impunity, individuals will begin to disregard the norm for fear of being labeled a law-

⁷⁶ 2 Sunstein, *supra* note 6, at 2024.

⁷⁷ See 1 McAdams, supra note 6, at 339; 2 MCADAMS, supra note 6, at 6.

⁷⁸ Cass R. Sunstein, *Law's Expressive Function*, 9 GOOD SOC'Y. 55, 57 (1999).

⁷⁹ See 1 McAdams, supra note 6, at 340.

⁸⁰ 2 Kahan, *supra* note 6, at 354–56. This builds on the seminal work of Garry Becker. *See* Gary Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

⁸¹ 2 Kahan, *supra* note 6, at 352–55. Similarly, McAdams argues that violating a legal rule perceived as representing a social moral consensus can induce a sense of shame in the individual, which can then ripen into guilt and eventually, over time, into internalization of the norm. *See* 1 McAdams, *supra* note 6, at 380– 82.

Rights are Not Trumps: Social Meanings, Expressive Harms, and Constitutionalism, 27 J. LEGAL STUD. 725, 726 (1998); Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 NW. U. L. REV. 453, 471 (1997). For numerous expressive theories of law, see Elizabeth S. Anderson & Richard H. Pildes, Expressive Theories of Law: A General Restatement, 148 U. PA. L. REV. 1503 (2000).

abiding 'sucker.⁸² Assuming a slightly different tack, Lessig adopts a semiotics approach. Lessig argues that state law can reshape normative behavior by fixing new social meaning to specific actions, representing popular opinion in a specific light to induce compliance and eventual internalization.⁸³ Although they differ slightly, all of these theories relate to the expressive power of law.

3. Using the Coordinating Power of Law to Change Social Norms

Extending this expressive theory of law, scholars such as McAdams and Cooter argue that in certain situations law can function as a powerful coordinating instrument for parties wishing to do so.⁸⁴ Actors in a pure coordination game want to coordinate but are unsure how to behave. In such situations, law can function as a 'focal point' around which agents can coordinate. McAdams borrows from Thomas C. Schelling's work on focal points. Schelling argues that people's decisions are influenced by seemingly extraneous but salient factors that he terms 'focal points.'⁸⁵ The simplest example is that of two motorists who may drive on either the left or right side of the road but need to coordinate their choice. For the motorists, the concern is that they coordinate – either side will do so long as everyone sticks to the same side. Situations involving multiple equilibria in which agents overriding concern is to coordinate are primed for law to step in and simply designate a normative standard, a focal point, around which parties will then quickly rally. An important point McAdams emphasizes is that law may achieve this entirely independent of its use of

⁸⁵ For the idea of focal points and salience, *see* THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT 57–59, 68, 70, 80, 144 (2d. ed. 1981) (1960).

⁸² 2 Kahan, *supra* note 6. For experimental work showing that the perception that the norm is collectively shared and will be followed by others is crucial to norm-compliance, *see* Christina Bicchieri & Erte Xiao, *Do the Right Thing: But Only if Others Do So*, 22 J. BEHAV. DECISION MAKING 191 (2009); Christina Bicchieri & Alex Chavez, *Behaving as Expected: Public Information and Fairness Norms*, 23 J. BEHAV. DECISION MAKING, 161 (2010). It has been empirically shown that in situations where the individual predicts that everyone else in the group will not recognize the norm, the actor is likely to consciously decide to not follow it. Bicchieri & Xiao, *supra* note 82, at 202. This makes perfect sense under the present model: norms only have value when they are commonly adopted and lose value when they are not.

⁸³ Lessig, *supra* note 6, at 947.

⁸⁴ See Richard H. McAdams, A Focal Point Theory of Expressive Law, 86 VA. L. REV. 1649, 1666–68 (2000) (using game theoretic terms to explain how law can change norms merely by creating focal points without the need for actual enforcement); 2 MCADAMS, *supra* note 6. See also Cooter, *supra* note 6, at 598. Note that this scholarship could also be treated simply as another expressive theory of law (McAdams conceives of it in this way). However, I class it here as a distinct category because of its specific focus on coordination games, which makes it especially relevant to the discussion of sticky norms and lock-in.

sanctions:⁸⁶ In situations where people are "at a loss for how to coordinate, it takes surprisingly little to guide expectations and behavior."⁸⁷ Over time, parties may then internalize the new norm.⁸⁸

The situation gets slightly more nuanced when the issue is no longer one of pure coordination (i.e., which side of the road to drive on) but rather one in which the players each prefer a different outcome.⁸⁹ Even here, however, law can still play a crucial coordinating function.⁹⁰ Even when agents' interests are imperfectly aligned and partly in conflict, they may still share an interest in coordinating their behavior. In this kind of game dynamic, what in game theory is known as the battle of the sexes, one party for instance wants to eat Thai food and the other wants to eat Italian food, but neither wants to dine alone.⁹¹ In such situations, with each party pulling in separate directions, coordination is elusive if left to the parties to figure out. Law, however, can provide a focal point around which they can coordinate, and which may form into a norm. McAdams uses the example of smokers and non-smokers, the former preferring to smoke, the latter desiring a smoke-free environment, but both wishing to avoid costly confrontation.⁹² In such a dynamic, law can create focal points – an expectation of others' behavior that benefits everyone because the players will be able to coordinate around a specific standard of behavior. By curating the information available to the public, law can cause individuals to update their beliefs about what other will do, and, in this way, create new focal points that changes their behavior, knocking them into a new behavioral equilibrium – a new norm.93

Among these theories, the last one – the coordinating function of law – has the clearest connection to our model of lock-in and sticky norms.⁹⁴ However, the problem with all these theories of norm management is that it is ultimately difficult to assess their validity. It is to this, the main idea of this Article, that I now turn.

⁸⁶ McAdams, *supra* note 84, at 1728.

⁸⁷ *Id.* at 1652.

⁸⁸ See Eric Fleisig-Greene, Law's War with Conscience: The Psychological Limits of Enforcement, BYU. L. REV. 1203, 1209 (2007). Cooter calls this "Pareto self-improvement." See Cooter, supra note 6, at 598–605.

⁸⁹ In a pure coordination game, nobody cares what equilibrium emerges (i.e., which side of the road they drive on), they just care that some equilibrium emerges (i.e., that everybody can agree on one side).

⁹⁰ McAdams, *supra* note 84, at 1673.

⁹¹ McAdams also models his theory on an even more confrontational dynamic: "Chicken" or "Hawke/Dove." *Id.* 1674–76.

⁹² *Id.* at 1684–86, 1714–22.

⁹³ See 2 MCADAMS, supra note 6, at 6.

⁹⁴ Because all social norms arise with sanctions when they are violated, all norms bring about a coordination problem – i.e., to identify and adopt the normative behavior that is most recognized by others to minimize conflict. *See* LEWIS, *supra* note 1, at 46.

B. The Problem of Sticky Norms

So, what, if anything, do sticky norms tell us about law's ability to change social norms? The answer is that it tells us we cannot clearly answer this question. Sticky norms make it impossible to say authoritatively just how effective law is at changing social norms.

1. When Norms Become Brittle

The problem is that even in the cases where attempts at norm management appear successful, it is impossible to definitively say how much of this change was due to these efforts, or if the social norm was already primed for change and the intervention of the law merely played a minimal role in triggering the change, or if the impact of the law falls somewhere in between. This is because the sticky quality of social norms makes it hard to assess the degree of genuine commitment to a norm that exists among the public. The difficulty here is that a social norm may enjoy little to no genuine support but may nevertheless be propped up and held in place simply because the coordination standard is locked in by network effects. The result is that a social norm that is strongly supported by the public and one that has little, or even no, support may look the same. Sticky norms provide no indication of the actual level of internal support for the norm. On the surface, actors follow the prescribed social norms of their specific network: they send moon cookies at Chinese New Year, disapprove of extramarital affairs, support the troops, advertise their comfort with gay marriage, espouse their belief in the existence of God, decry the immorality of pre-marital sex and adultery, support transgender rights, or scoff at the seriousness of climate change, but they may not privately believe in any of these things. This is the nature of sticky norms – lock-in effects mean that actors' public behavior is not necessarily reflective of their private beliefs. Millions of people may scrupulously follow a social norm that not one of them actually believes.⁹⁵

I will use the term 'brittle' to describe a social norm where internal support for it has hollowed out, but it nevertheless persists. Such norms are followed primarily because the behavioral pattern is locked in. Lock-in effects create the illusion of stability. On the surface, norms that are brittle can appear robust when they are in fact primed to collapse. Absent a regulator that can signal (or mandate) a simultaneous jump to a new normative standard by everyone in the network, it is very difficult for users to break free from the dominant standard. The result is that agents will just continue following the norm even if they all privately reject it.⁹⁶ So while

⁹⁵ For an in-depth treatment along these lines, specifically how preference falsification shapes collective decisions, *see* KURAN, *supra* note 30, at 40–42.

⁹⁶ See here the concept of pluralistic ignorance. Pluralistic ignorance is a situation in which "virtually all members of a group privately reject group norms yet believe that virtually all other group members accept them." DEBORAH J.

a norm that is brittle appears robust, it is in fact paper-thin and held together only by the collective perception that it is strong.

It is difficult to say what causes this weakening in private allegiance to a social norm. It may be the case that a norm that is brittle never enjoyed much internal support and is simply a random behavioral pattern that, once arisen, gained traction through network effects, and is sustained solely by lock-in pressures. Such norms may not engender deep (or necessarily any) internal support. Or it might be the case that a social norm that once enjoyed strong internal support became brittle over time. This may be triggered by an exogenous shock - a shift in socio-economic conditions, an accident of history, or any number of social, political, historical, cultural, and economic phenomena.⁹⁷ In many cases, it may be a confluence of many factors. The concept of norm entrepreneurs – individuals or groups⁹⁸ able to skillfully exploit private rejection of existing norms to trigger large-scale social change - may account for why norms weaken and change.⁹⁹ Figures such as Martin Luther King, Jr., Adolph Hitler, and Mahatma Gandhi are examples of very successful norm entrepreneurs. As a result of the proselytizing efforts of these change agents, internal belief in a social norm or a set of related norms can change, sometimes with stunning speed.¹⁰⁰ For our purposes, however, what causes norms to weaken

TERRY & MICHAEL A. HOGG, ATTITUDES, BEHAVIOR, AND SOCIAL CONTEXT: THE ROLE OF NORMS AND GROUP MEMBERSHIP 103–05 (1999). What sustains this 'Emperor Wears No Clothes' situation is that people are afraid to act on their privately held attitudes unless they believe others share their views, so they go along with what they think others think. *See* Dale T. Miller & Deborah A. Prentice, *Collective Errors and Errors about the Collective*, 20 PERSONALITY & SOC. PSYCH. BULLETIN 541 (1994). However, like the boy in the fable, law can perform an expressive function and collapse this equilibrium. *See e.g.*, Deborah A. Prentice & Dale T. Miller, *Pluralistic Ignorance and the Perpetuation of Social Norms by Unwitting Actors*, 28 ADVANCES IN EXPERIMENTAL SOC. PSYCH. 161 (1996).

⁹⁷ Ellickson speaks of an exogenous change, such as the Soviet military threat of the 1950s or an environmental occurrence such as a drought that first creates "new cost-benefit conditions that favor a switch to a new norm." Ellickson, *supra* note 19, at 26.

⁹⁸ See 1 Sunstein, *supra* note 6, at 929, 947 (citing religious groups, and environmental and civil rights organizations). See also Ellickson, *supra* note 22, at 45 (explaining how change agents can mitigate costs through coordination with larger organizations).

⁹⁹ Ellickson distinguishes various kinds of change agents and norm entrepreneurs. *See* Ellickson, *supra* note 19, at 36. *See* 1 Sunstein, *supra* note 6, at 909; Eric A. Posner, *The Regulation of Groups: The Influence of Legal and Non-Legal Sanctions on Collective Action*, 63 U. CHI. L. REV. 133 (1996); Eric A. Posner, *Symbols, Signals, and Social Norms in Politics and the Law,* 27 J. LEGAL STUD. 765, 772–89 (1998); POSNER, *supra* note 1, at 29–32.

¹⁰⁰ Sunstein's norm cascade model explains how this can occur. The threat of social sanctions for abandoning a norm diminishes, lowering the cost of expressing new norms, and at the same time, reputational concerns grow. As a

is of secondary importance. The central point for us is that normative change may be occurring long before law even enters the picture. Law is not what is creating the conditions in which it can have an impact; rather, these conditions are brought about by a myriad of socio-economic, cultural, and historical factors that cause the norm to become brittle. This presents a problem for the various theories of norm management.

2. The Methodological Problem Created by Sticky Norms

The problem here is that it is methodologically impossible to accurately assess the effectiveness of norm management techniques because in every case where it appears to have succeeded it may simply have been because the law was dealing with a social norm that was extremely brittle. If that is the case, then law's ability to change inefficient social norms has been overstated in the law and norms literature. This is not to say that law plays no role in triggering normative change (although that might well be true in some cases), it is simply to say that its role may be minor and limited to cases in which the norm is, for some reason, highly brittle. In situations where law succeeds in changing a social norm, the role of law in bringing about this change may be limited simply to redirecting agents already eager to abandon the norm for a new coordinating standard (a la McAdams). It might have even been that cases in which law appears to have succeeded in bringing about normative change, that if left alone, the social norm would have collapsed under its own weight.

Or maybe not. Law may be extremely effective at changing social norms, even in the case of norms that are not brittle and deeply internalized by the public. It could be that law's coordinating function, its expressive power, or the brute force of its sanctions is uniquely effective at shaping behavior and thought. Ultimately, this reduces to a methodological problem: it is difficult to draw any conclusions either way because, in cases of successful norm change, the fact that norms are sticky renders it impossible to determine how significant a role law played in causing the change. It may have been that law was the primary cause of change or that the social norm was brittle, enjoyed no internal support, and was already heading for collapse. Because norms tend to be sticky, they will seem stable in either case. This is true if they enjoy deep internal support, and it is true if they are brittle and held together only by lock-in pressures. Law and norms scholars, of course, do not claim that law alone is sufficient to change social norms. They readily point out that law's ability to do so depends on a "concomitant influence of education, propaganda, peer

consequence, emboldened individuals step forward and embrace the new norm, inducing a bandwagon effect. A tipping point is soon reached where a cascade is triggered and "norms start to push in new directions." 1 Sunstein, *supra* note 6, at 930.

pressure, and other similar forms of social persuasion."¹⁰¹ However, because lock-in makes norms sticky, it is impossible to say how limited or how expansive law's ability to change norms really is because it is difficult determine how brittle a norm might be. It may be that law is an extremely effective instrument of normative change or it might be that is has no impact at all, or it might be somewhere in between.

The problem is that it is impossible to assess the ability of law to change existing social norms without knowing the norm's precise level of brittleness, and it is difficult to measure brittleness. Quantitative methods of measurement, such as opinion polling, are unreliable here because brittleness is not static but rather tied to dynamic changes in an agent's normative environment: individuals might not be clear on the strength of their own private level of allegiance to a social norm until they begin seeing people around them abandon it.¹⁰² Agents often underestimate the ease with which they can abandon a norm until they actually do so. This should be personally familiar to anyone who has experienced a change in their normative views as the result of a sudden shift in the culture – e.g., views on same-sex marriage, smoking, transgender rights, and so forth.¹⁰³ Undoubtedly, many people's reluctance to use seat belts or refrain from smoking indoors collapsed quicker than they anticipated once normative and social pressures kicked in.

To put the problem that sticky norms create in a more technical manner: it is impossible to accurately measure the *dependent variable* (normative change triggered by law) because there is a *confounding variable* (the norm's brittleness) that makes it impossible to assess the effect of the *independent variable* (the law). We can thus never confidently attribute effect to the independent variable. For example, the impact of civil rights legislation on racial norms in the American South (an example often cited in the literature) was undoubtedly significant.¹⁰⁴ However, it is impossible

¹⁰³ The collapse of fashion norms illustrates this well. People feel emotionally committed to a fashion trend until it suddenly falls from fashion and the brittleness of the public's allegiance reveals itself.

¹⁰⁴ See 2 Sunstein, supra note 6, at 2043–44; Daron Acemoglu & Matthew O. Jackson, Social Norms and the Enforcement of Laws, 15 J. EUR. ECON. ASS'N. 245, 246 (2017) ("[T]he enforcement of federal antidiscrimination and antiracist laws, even if not completely eliminating such behaviors, fundamentally changed the norms, with transformative effects on economic decisions, language, and

¹⁰¹ KATHRYN ABRAMS ET AL., NORMS AND THE LAW (John N. Drobak ed., 2006).

¹⁰² People's reluctance to disclose their true opinions to pollsters when asked questions of a sensitive normative nature (known as *social-desirability bias*) may also distort the accuracy of polling. This reluctance may even flow from the need of people to, on some level, lie to themselves, which obstructs techniques to blunt the effects of social-desirability bias such as response anonymity. *See* Ivar Krumpal, *Determinants of Social Desirability Bias in Sensitive Surveys: A Liter-ature Review*, 47 QUALITY & QUANTITY 2025, 2030 (2013).

to say how significant because it is difficult to know precisely how brittle these norms were at the time. Clearly, the activism of civil rights campaigners - the sit-ins, boycotts, and freedom rides - had already succeeded in shifting the American normative landscape to some degree before Congress passed the Civil Rights Act of 1964.¹⁰⁵ In the case of normative change related to smoking (an old chestnut in the law and norms literature), it is impossible to clearly assess how instrumental law was in effecting this change. It has been noted, for instance, that U.S. smoking bans in public spaces were followed by substantial drops in smoking even in cases where there was little enforcement of the anti-smoking regulations.¹⁰⁶ But this correlation is not strong evidence of causality. Even if we assume that anti-smoking legislation helped trigger this erosion in pro-smoking norms, (which it likely did), it remains unclear how effective the law was at changing these norms because we do not know the brittleness of smoking norms and whether they were simply propped up by lock-in pressures in the form of social expectations, peer pressure, or various other outside factors. The decrease in smoking does not allow us to generalize about the efficacy of these bans.

We bump up against this same problem in other examples invoked in the law and norms literature. For example, Lessig argues that nineteenthcentury anti-dueling laws in the American South that barred participants from holding public office helped change dueling norms among southern gentlemen: anti-dueling laws altered the social meaning of dueling by associating it with a lower social status.¹⁰⁷ However, the degree to which we may attribute any change in dueling norms to these anti-dueling laws is unclear. Without knowing how brittle these norms were before the legislation was introduced, it is impossible to evaluate the law's effectiveness at changing the norms. To what extent, for example, did the expressive

social relations."); see also David A. Lake, Laws and Norms in the Making of Social Hierarchies, in HIERARCHIES IN WORLD POLITICS 28 (Ayse Zarakol ed., 2017).

¹⁰⁵ WILLIAM D. FERGUSON, COLLECTIVE ACTION AND EXCHANGE: A GAME-THEORETIC APPROACH TO CONTEMPORARY POLITICAL ECONOMY 379 n.31 (2013) ("By 1965, the civil rights movement had shifted social norms and political expectations enough so that the 1965 Voting Rights Act (unlike the 1957 Civil Rights Act) was actually enforced: it became an institution."); KAROL EDWARD SOLTAN ET AL., INSTITUTIONS AND SOCIAL ORDER 69–70 (1998) (arguing that "the civil rights movement ultimately succeeded because [it] adeptly used nonviolence, social protest, and the news media to change social norms"). For an excellent examination of this earlier history of the civil rights movement, *see* TAYLOR BRANCH, PARTING THE WATERS: AMERICA IN THE KING YEARS 1954– 1963 (1988).

¹⁰⁶ See Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1497 (1998).

¹⁰⁷ Lessig, *supra* note 6, at 970–72. Lessig qualifies his point noting that antidueling legislation was largely ineffective, as it was rarely enforced, which suggests that these norms were in fact not very brittle. *Id.* at 970.

function of the U.S. Supreme Court's recognition of the right of same-sex couples to marry in *Obergefell v. Hodges* play a role in changing public opinion regarding gay marriage?¹⁰⁸ It is impossible to say just how much of this change may be attributed to the court's decision because it is difficult to precisely gauge the brittleness of these norms.¹⁰⁹ Clearly, these norms were already poised to change to some degree.¹¹⁰ Many people's opposition to same-sex marriage was undoubtedly brittle and simply hinged on the assumption that others shared this view (whether they were conscious of this or not). Or perhaps the expressive power of the ruling was a major factor in shaping public opinion on gay marriage. It is impossible to say with a high degree of confidence.

This is true in the case of every large-scale shift in normative behavior. We can never know how much of the change is attributable to the law and how much is the result of the norm's potential brittleness. The same methodological problem arises in the case of laws designed to alter social norms around, for example, seat belt use, littering, recycling, tax evasion, drunk driving, segregation, anti-miscegenation laws, and the recreational use of cannabis. Law appears to have had an impact in all these cases, but the extent of this impact is impossible to determine because it is hard to assess the brittleness of these norms (or lack thereof) before the law stepped onto the stage. Technically speaking, even in cases where the introduction of legislation was followed by a pronounced and punctuated change in the targeted social norm, we cannot conclude that law played any role in causing this change. The correlation could, in theory, simply be coincidental.

Brittleness, or more precisely the lack thereof, is ironically easier to assess where the law's efforts at normative change completely fail, as it is only in these situations that we have a clearer picture of the internal support the norm possessed. The Eighteenth Amendment and the disastrous project of prohibition is a case in point.¹¹¹ Clearly, the norms around the consumption of alcohol in early twentieth-century American society were not brittle: the pervasive, often flagrant, flouting of laws prohibiting the

¹⁰⁸ See Obergefell v. Hodges, 576 U.S. 644 (2015).

¹⁰⁹ One year prior to the court's decision in Obergefell v. Hodges, national polling showed support for same-sex marriage at 55% of Americans with 42% opposed (and 4% having no opinion). One year after the ruling, support grew to 61% and 37% opposed (and 2% had no opinion). Justin McCarthy, *Americans' Support for Gay Marriage Remains High, at 61%*, GALLUP, (May 19, 2016), https://news.gallup.com/poll/191645/americans-support-gay-marriage-remains-high.aspx.

¹¹⁰ The same poll also showed a clear trend towards greater support going back to the 1990s.

¹¹¹ The Amendment provides: "After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited." U.S. CONST. amend. XVIII, § 1.

manufacture, transportation, and sale of alcohol exposed the limits of law to uproot entrenched social norms around alcohol.¹¹² Because prohibition was unable to successfully change social norms related to drinking, we can conclude that these social norms were not brittle. But even in this case we must exercise caution when drawing any conclusion: it is possible that drinking norms could have been brittle, but the impact of law was so *de minimis* that it yielded no effect.

Ultimately, assessing law's effectiveness at changing social norms is problematic because we do not know the extent to which the norm is already primed to collapse. In many cases, law's role as a catalyst for change may be so minimal that it borders on insignificance, or it might be the complete opposite – it may be that the law is the primary cause of change in each and every case. Or as is most likely, the reality sits somewhere in between these two extremes. Clearly, for law to successfully change social norms, the norm must already be brittle to some degree, but how brittle is unclear. The sticky nature of norms makes it difficult to assess how brittle a norm is. It is ultimately impossible to determine how important a role law is playing in any normative change and how much of it is because the social norm is already fragile and merely held together by lock-in pressures.¹¹³ We simply have no way of knowing. We cannot even compare the effectiveness of the various norm management theories against one another.

CONCLUSION

This paper asked why many social norms are 'sticky' and slow to change, and what, if anything, this might tell us about law's ability to change social norms. The answer to the first part of this question in effect answers the second part. Norms are often sticky, inefficient, and resistant to change because they are locked in coordination standards. This can range from men wearing ties to norms related to property rights and the rule of law. The fact that social norms are locked in makes it difficult to accurately assess just how effective law is at changing norms. It is impossible to ever know how significant a role law is playing in changing any given social norm because it is difficult to discern how brittle the norm is when the law is introduced. Does it enjoy deep support? Does it enjoy no support and is merely held together by lock-in pressures? Or is it somewhere in between? From a methodological standpoint, the effects of this are significant. Ultimately, the only definitive assertion we can make is

¹¹² See Marcella Bush Trevino, *Hooch, in* SAGE ENCYCLOPEDIA OF ALCOHOL: SOCIAL, CULTURAL, AND HISTORICAL PERSPECTIVES 703 (Scott C. Martin ed., 2014) ("Prohibition is widely considered a failed attempt to legislate morality as illicit, alcohol use became both alluring and socially fashionable while the law itself was widely disobeyed.").

¹¹³ Most social norms probably fall somewhere along a spectrum of brittleness.

that we are limited in what we can say regarding law's ability to effect normative change.

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