

1

Introduction: Compliance as the Interaction between Rules and Behavior

Benjamin van Rooij and D. Daniel Sokol

Abstract: Compliance has become important in our contemporary markets, societies, and modes of governance across very different public and private domains, stimulating a rich body of empirical work and practical expertise. Yet, so far, we do not have a comprehensive understanding of what compliance is and what mechanisms and interventions play a role in shaping it, or how compliance shapes various fields. Thus far, the academic knowledge of compliance has remained siloed in different disciplinary domains, and along different regulatory and legal spheres and different mechanisms and interventions. This chapter, which is the introduction to *The Cambridge Handbook of Compliance*, offers a comprehensive view of what compliance is. It takes a broad approach in seeing compliance as the interaction between rules and behavior. It discusses what different mechanisms and interventions are at play in shaping such compliance. And it reflects on the different methods for studying compliance and their inherent limitations.

The 2020 Coronavirus pandemic presented one of contemporary humanity's largest behavioral challenges. In order to contain the spread of the virus, human behavior had to change fundamentally. And it had to do so rapidly and most likely for a prolonged period of time. At the core of this behavioral change operation were sets of rules about hygiene, consumer behavior, and social distancing and isolation. Some of these behavioral changes were adopted in private organizations, directed at employees, at members, or at customers. And some were governmental, directed at businesses, at public organizations, and at the general public. To contain the spread of the virus, these rules (and, in some cases, formal government mandates) could be effective only if individuals and organizations followed them. In other words, to fight the Coronavirus required a worldwide effort to boost compliance. This crisis thus presents a good example of how important compliance has become in our contemporary markets, societies, and modes of governance.

Prior to this crisis, compliance had already become a highly important issue across very different public and private domains, stimulating a rich body of empirical work and practical expertise. Often this work across fields was done in isolation from other fields. For example, there has been much attention paid to compliance in the corporate world. As countries have adopted legal incentives or duties for corporations to develop compliance and ethics management programs, like the US Federal Sentencing Guidelines of 1991, corporations have

This research was made possible through a generous grant from the European Research Council (ERC-2018-CoG - HomoJuridicus - 817680).

instituted a range of compliance measures, including codes of conduct, dedicated compliance officers, training programs, and whistleblower protection rules both for core financial crime-type functions such as audit that fundamentally impact board governance (Chhaochharia and Grinstein 2007; Iliev 2010; Alexander et al. 2013) and across other more specialized areas (Coglianese and Lazer 2003; Parker and Gilad 2011; Parker and Nielsen 2009b; Van Rooij and Fine 2019).

Compliance has become an industry complete with its own professional organizations and is creating an ever-growing stream of jobs. While some of these jobs are purely legal and about setting up systems of rules and codes of conduct, corporations have also turned to auditors, management consultants, behavioral economists, psychologists, and organizational scientists to understand how they can effectuate these rules in practice.

There has also been much attention paid to compliance in the public sector. Governmental regulators, including environmental, tax, antitrust, data protection, and occupational health and safety, have increasingly moved from a pure law enforcement to a compliance perspective, where they try to understand how they can best stimulate regulated actors to change their conduct as required (Gray and Silbey 2012, 2014; Kagan and Scholz 1984). Regulators have developed specialized compliance units that focus on behavioral change, and some even have behavioral specialists with backgrounds in psychology, behavioral economics, or other social sciences. In the criminal justice sphere, compliance has always been vital, although the term is less used.

Criminal justice has always conceptualized how best to reduce criminal behavior and thus is always about how the law can shape human and organizational conduct. Here, police and prison and parole authorities, and to some extent also prosecutors, have teamed up with criminologists, psychologists, sociologists, and other social scientists to understand what enforcement strategy and what other interventions may work best to reduce crime.

Another good example is compliance in the medical world, where much attention has gone out to whether patients comply with doctors' orders (Memon et al. 2017; Jin et al. 2008; Reardon et al. 2011; Costa et al. 2015) and whether medical workers comply with hygiene norms (Erasmus et al. 2010; Labrague et al. 2018; Gammon et al. 2008). Compliance in health has also focused on how government and the private sector can nudge individuals to be healthier through various compliance schemes (Bachiredy et al. 2019).

All of this shows that compliance is everywhere. Yet, so far, we do not have a comprehensive understanding of what compliance is and what mechanisms and interventions play a role in shaping it, or how compliance shapes various fields. So far, the academic knowledge of compliance has remained siloed in different disciplinary domains, and along different regulatory and legal spheres and different mechanisms and interventions. The aim of this *Handbook* is to bridge these silos and show a comprehensive view of what compliance is, how we can best study it and what different mechanisms and interventions are at play in shaping it.

This *Handbook* takes a very broad view of compliance. It sees compliance as *the interaction between rules and behavior*. We can portray it in a simple formula, with R for rules and B for behavior:

$$R \longleftrightarrow B$$

By taking this broad approach, the *Handbook* spans the different disciplinary perspectives. First, it takes a broad approach to rules (the R in the formula). These can include legal rules in formal legislation. Here we can think of the criminal law rules that are binding formal law, violations of which constitute misdemeanors or felonies punishable

with governmentally backed sanctions. In another category of formal rules are the administrative law regulatory rules that guide individual and organizational behavior through administrative sanctions. And there are private law rules, too, most notably those flowing out of tort liability and contracts; these also guide human conduct but their enforcement goes through private law enforcement mechanisms. Our broad approach to rules may also include rules that are directly related not to the formal legal system but to private ordering. Here we can think of internal organizational rules that bind organizational members. Or we can think of informal rules as they exist, for instance, between doctors and patients (where patients are asked to follow doctors' orders), in sports (the rules of the game), and within communities.

Second, the *Handbook's* broad approach also spans different forms of behavior (the B in the formula). It includes both individual and organizational conduct, and sees that most behavior is a combination of both. As such, it does not see organizational behavior as solely that of the organization but also as the sum of the interactions among the individuals in the organization. And individual conduct is always embedded in the broader social, organizational, and cultural settings in which individuals exist, where there is always an influence of social norms (Cialdini 2007; Cialdini and Goldstein 2004; Elster 1989; Goldstein et al. 2008; Schultz et al. 2007) and social learning processes (Akers 2017; Akers et al. 1979). The *Handbook* covers both clearly deviant and unacceptable behavior, often framed in society as done by "criminals" or "bad people," and behavior that, while in violation of the rules, may be quite common and done by "good people." Here, by combining the criminological approaches that focus on deviancy and the other social science approaches, including, for instance, social psychology (Ariely 2012), behavioral economics (Jolls et al. 1998; Thaler 2015), and behavioral ethics (Feldman 2018; Bazerman and Tenbrunsel 2012), the *Handbook* shows that there are remarkable communalities among these studies and that the distinction between good and bad people breaking rules may not be as stark as some hold (Feldman et al. 2019). Finally, the *Handbook* covers a range of behaviors, including street crime, fraud, bribery, cybercrime, intellectual property rights infringement, traffic violations, medical errors, doping in sports, human rights violations, unsafe food production, and occupational health and safety violations.

A core aspect in the *Handbook's* approach to compliance is the interaction processes between rules and behavior. The two arrows (\longleftrightarrow) in the formula show that we take a bidirectional approach to such interaction processes. On the one hand, we look at how rules come to shape behavior. For many this is how compliance is traditionally understood: how people respond to rules and come to adapt their behavior to the rules. But the *Handbook* also follows a growing body of research in sociology and anthropology that looks in the opposite direction, namely, at how people's responses to rules shape the meaning and functioning of such rules (Edelman et al. 1991; Edelman and Talesh 2011; Talesh 2009; Talesh and Pélisse 2019; Lange 1999; Falk Moore 1973). The *Handbook* thus combines the instrumental view of law, where law is seen in terms of its function in achieving a certain behavioral goal, with a constructive view of law, where society constructs what law means and the functioning of law (Griffiths 2003). Here, our approach is similar to the way in which Anthony Giddens' sociological theory combines structure and agency in a reflexive manner through the idea of structurization (Giddens 1984, 1990).

The largest part of the book looks at how rules come to shape behavior. Here the focus of the field of compliance is markedly different from the traditional view in the field of law. In existing legal scholarship and education, the relationship between legal rules and human

behavior is often backward-looking, with discussions about what the appropriate law is for behavior that has happened in the past. This presents an *ex post* view of law and behavior, where law comes after behavior. In such a view, the behavior is given, and the core question is legal and normative (van Rooij in press). The view on compliance in this *Handbook* is mostly *ex ante*, where law seeks to shape future conduct (Darley et al. 2001). Such a view is focused on what mechanisms play a role in how law comes to shape behavior (behavioral mechanisms) and what interventions (behavioral interventions) can successfully activate such mechanisms. The *ex ante* view of law and behavior requires an empirical analysis as well as causal inference in order to gain knowledge about the functioning of such mechanisms and processes, before developing a normative view about which legal and other interventions are to be promoted. The nature of empiricism varies across fields, mostly notably between quantitative and qualitative approaches. However, even within quantitative approaches, the nature of how to structure research and the types of question that different fields ask vary.

The *Handbook* shares much of the available empirical knowledge we have about how rules shape behavior. As such, it forms the basis for an *ex ante* approach to law and a behavioral jurisprudence that corrects legal assumptions about behavior, just like the field of behavioral economics did for traditional neoclassical economic thought (van Rooij in press). The *Handbook* looks at different mechanisms and interventions at play in how rules shape behavior. As a general structure, the Handbook first looks at punishment, incentives (such as tort and positive incentives), legitimacy (including procedural justice and the general duty to obey the law), social norms, shame (neutralization of shame), capacity for compliance (including legal knowledge and self-control), opportunity for rule violation, cognitive processes, and finally organizational processes.

For each of these different parts of the *Handbook*, there are complex interactions between different behavioral mechanisms and different behavioral interventions. Consider, for instance, punishment. Punishment as a behavioral intervention, in different forms, can shape behavior in different ways through different behavioral mechanisms. And some of these are positive, in that punishment, if it works well, can reduce rule-breaking, and some are negative, in that punishment can result in more crime. See Table 1.1 for an overview.

On the positive side, punishment can deter people from breaking rules because they can come to fear punishment (Nagin 2013; Nagin et al. 2009; Nagin and Pepper 2012; Schell-Busey et al. 2016; Simpson et al. 2014). It can incapacitate: people cannot break rules when

TABLE 1.1 *The potential behavioral effects of punishment*

Positive		Negative
		Erode positive social norms
		Strengthen negative social norms
End impunity (set a norm)		Disperse illegal behavior
Be a specific deterrence		Cause criminogenic effects
Be a general deterrence		Cause brutalizing effects
Reassure compliers	→ Behavior←	Make people evade detection
Incapacitate		Enhance blame shifting
Rehabilitate		Undermine procedural justice
Shame		Stigmatize offenders
		Enhance neutralization

they are locked away from society (Cohen 1983; Kessler and Levitt 1999; Miles and Ludwig 2007; Travis et al. 2014) or when professionals are debarred or when organizations lose licenses or are closed down. It can rehabilitate offenders by forcing them to go through treatment for underlying causes that made them commit offenses (Lipsey and Cullen 2007). Punishment can also shame people and activate social and personal pressures on people to motivate them to correct their conduct (Kahan and Posner 1999; Makkai and Braithwaite 1994; Van Erp 2011). And, of course, punishment can set a norm and end impunity as well as reassure those that are complying that they are not doing so without reason (Gunningham et al. 2005; Thornton et al. 2005).

On the negative side, depending on the type of punishment, the execution of such punishment, the type of behavior, the type of offender, and the existing social norms and social and economic conditions, there are ways that punishment can make behavior worse. Punishment can erode existing positive social norms (Gneezy and Rustichini 2000) and strengthen negative social norms (Cialdini 2007; Cialdini et al. 2006; Schultz et al. 2007). Imprisonment can have criminogenic (Cullen et al. 2011) and stigmatizing (Alexander 2012) effects, making ex-cons more likely to reoffend, in part because prison socializes them in how to commit crime and in part because the stigma of being an ex-con keeps them from the employment, housing, and educational opportunities they need to lead a law-abiding life. Punishment can also result in a cat-and-mouse game, where the higher the punishment, the more people are incentivized to try to evade getting caught (Plambeck and Taylor 2015). Strong and violent punishment, like capital punishment or lifelong imprisonment, may also have brutalization effects in pushing offenders toward more violent crime (Cochran and Chamlin 2000; Cochran et al. 1994; Shepherd 2005; Marvell and Moody 2001). And law enforcement can result in offenders seeking elaborate ways to avoid detection (Gray and Silbey 2014). Punishing one offender may also create opportunities for other offenders and thus displace and disperse offending; at worst, there can be a Hydra effect where eliminating one offender creates many others (e.g. Ryan 1998). In order not to face strong punishment, offenders can seek to shift blame to others and to neutralize their own shame and guilt (e.g. van Rooij and Fine 2018). And finally, punishment can backfire if it is done in a procedurally unfair manner that undermines people's sense of legitimacy and their willingness to obey rules out of a sense of obligation (Nagin and Telep 2017; Jackson et al. 2012; Tyler 2017; Walters and Bolger 2019).

All of this shows how just one particular intervention we use in law to shape behavior can trigger many different behavioral mechanisms and have both positive and negative effects, depending on the circumstances of the punishment, the offense, the offender, and the wider context. The contributions in the *Handbook* cover distinct interventions and mechanisms, or aspects of each, as that is mostly how the existing literature has developed. A full reading of the *Handbook* will show the necessary comprehensive picture of how these different aspects of how rules shape behavior interact.

To study compliance and the interaction between rules and behavior requires both legal and empirical analysis. The legal analysis studies what interpretations of rules exist and may also establish how such interpretations may leave room for discretion and interpretation in practice. The empirical analysis looks both at what the behavior is in response to the rules and at how, in practice, the rules come to be interpreted and applied, what different influences there are on such behavior, and how these influences come to interact and shape the behavior. The combination of the two styles gets us past the debate of "Does law matter?" to "How does law matter?"

The empirical methods used to study compliance present fundamental challenges for research. A first problem is practical and ethical. While, for some, compliance research involves behavior that is not clearly illegal or legal, much other compliance research is about finding out whether there was legal or illegal behavior. Studying illegal behavior through surveys is highly challenging as most people who break the law do not want to share this with researchers (Parker and Nielsen 2009a). At the same time, for most types of illegal behavior (with the exception, for instance, of homicides, which are normally reported to the authorities), reliance on enforcement data to establish patterns in rule-breaking is problematic as this makes it impossible to know whether enforcement detection has improved or whether illegal behavior has gone up. Part of this is due to shifts in enforcement where behavior that was once prosecuted may no longer be a priority. Doing experiments has the advantage that real rule-breaking can be directly observed, but the disadvantages are that laboratory experiments may have low external, or real-world, validity and that field experiments are possible only in certain areas of conduct but not in many others. Ethnography, finally, allows for direct observation of illegal behavior and complex processes in real life, but it has the disadvantage that it is hard to generalize to a larger set of cases or populations.

Another issue is what the research focuses on. Much scholarship assesses compliance with a limited set of rules, and at one or two or maybe three points of time (here, of course, exceptions are research data using automated monitoring or satellite monitoring, such as when measuring pollution emissions or contact movement for public health, governmental inspection data, or studies using publicly traded company data). Such research, whether through surveys, experiments, or governmental data, gets us a clear picture of behavior with regard to the selected rules at the given times. Yet, the reality of compliance is that individuals and especially organizations face a multitude of rules and do so often on a continual basis. What this means is that compliance research, where no continuous data or data across different sets of legal rules are available, may come to show a static picture of something that is inherently dynamic (Wu and van Rooij 2019). Put differently, the more complex the situation to be studied, the more difficult it is to create a set of testable hypotheses that capture its richness.

Yet another challenge in the study of compliance is how to establish a causal relationship among the rules, the behavior, and the different mechanisms and interventions that can shape individual and organizational responses to rules, and here methods that allow for more causal inference (experimental and natural experimental designs) may have trouble capturing the complexity of how a multitude of mechanisms are at play in reality, while those that capture such reality (ethnography and, to a lesser extent, enforcement data and nonexperimental surveys) allow for less causal inference.

In all of this, scholars also face ethical challenges if, through their study of people, they come to know of illegal behavior that, in most instances, they cannot protect as privileged information. This is especially so for studies that use direct observation of real behavior, such as field experiments and ethnography (Parker and Nielsen 2009a).

To study compliance means to embrace the inherent limits of empirical methods. The *Handbook* provides a state-of-the-art overview of the different approaches to capturing compliance and making causal inferences about the influences at play. The *Handbook* does not favor one method over another but, rather, sees that all methods have inherent advantages and disadvantages and that researchers must make choices about the generalizability, simplicity, and preciseness of data (Fine and Elsbach 2000).

The Cambridge Handbook on Compliance seeks to bring together knowledge about rules and behavior from across the legal and social science disciplines. In doing so, it also seeks to stimulate legal thinking and theory, to focus more on the question of how law comes to shape behavior, and thus more on the *ex ante* approach to law's influence on future conduct (Darley et al. 2001). Here, it is hoped that the massive body of knowledge contained in its chapters will help to clarify assumptions that exist in law about human and organizational conduct. These include, for instance, assumptions about whether people know the law, how people respond to punishment, how people respond to the law's other incentives such as tort, whether people make individual and amoral and rational decisions in response to legal rules, and whether organizations (both private and public) respond to the law just like individuals do. It is hoped that this body of knowledge will show which assumptions in law require correction and that compliance scholars stand at the forefront in capturing and changing flawed legal assumptions about behavior and in building a behavioral jurisprudence (van Rooij 2020).

The *Handbook* also hopes to reduce some disciplinary siloes by introducing work from certain approaches and fields to others. All too often, researchers across fields are unaware of related work (albeit with some different assumptions and research questions), which can prevent potential policy steps from being fully informed. Indeed, one hope for the *Handbook* is that its use is not merely academic but will influence policy across a number of legal and regulatory fields. Chapter authors do not merely discuss the extant literature. Rather, they take care to synthesize the literature and provide some overall thoughts on existing gaps of research as well as potential policy prescriptions where appropriate. As the use of data analytics and machine learning play a larger role in empirical research across fields over time, this may lead to new use of existing data sets or of new data sets being developed.

Ultimately, while each *Handbook* chapter can be read independently, the overall collection of work is itself a distinct product that can help challenge certain previously held beliefs of both researchers and policymakers. One basic divide is that those researchers who focus on government-related compliance often do not understand how some of the assumptions and research focuses of private organizational compliance and governance differ in certain respects. Nor do they always understand some of the similarities. If we have identified new research questions for researchers and policymakers and challenged some prior beliefs, we have done our jobs as editors.

REFERENCES

- Akers, R. L., M. D. Krohn, L. Lanza-Kaduce, and M. Radosevich. 1979. "Social Learning and Deviant Behavior: A Specific Test of a General Theory." *American Sociological Review* 44:635.
- Akers, Ronald. 2017. *Social Learning and Social Structure: A General Theory of Crime and Deviance*. Abingdon, UK and New York: Routledge.
- Alexander, Cindy R., Scott W. Bauguess, Gennaro Bernile, Yoon-Ho Alex Lee, and Jennifer Marietta-Westberg. 2013. "Economic Effects of SOX Section 404 Compliance: A Corporate Insider Perspective." *Journal of Accounting and Economics* 56(2):267–90.
- Alexander, Michelle. 2012. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. New York: New Press.
- Ariely, Dan. 2012. *The (Honest) Truth about Dishonesty: How We Lie to Everyone—Especially Ourselves*. New York: HarperCollins UK.
- Bazerman, Max H., and Ann E. Tenbrunsel. 2012. *Blind Spots: Why We Fail to Do What's Right and What to Do about It*. Princeton, NJ: Princeton University Press.

- Bachiredy, Chethan, Andrew Joung, Leslie K. John, Francesca Gino, Bradford Tuckfield, Luca Foschini, and Katherine L. Milkman. 2019. "Effect of Different Financial Incentive Structures on Promoting Physical Activity Among Adults: A Randomized Clinical Trial." *JAMA Network Open* 2 (8):1–13.
- Chhaochharia, Vidhi, and Grinstein Yaniv. 2007. "Corporate Governance and Firm Value: The Impact of the 2002 Governance Rules." *Journal of Finance*, 62 (4):1789–825.
- Cialdini, Robert B. 2007. "Descriptive Social Norms as Underappreciated Sources of Social Control." *Psychometrika* 72 (2):263–8. doi: 10.1007/s11336-006-1560-6.
- Cialdini, Robert B., and Noah J. Goldstein. 2004. "Social Influence: Compliance and Conformity." *Annual Review of Psychology* 55:591–621. doi: 10.1146/annurev.psych.55.090902.142015.
- Cialdini, Robert B., Linda J. Demaine, Brad J. Sagarin, Daniel W. Barrett, Kelton Rhoads, and Patricia L. Winter. 2006. "Managing Social Norms for Persuasive Impact." *Social Influence* 1 (1):3–15.
- Cochran, John K., and Mitchell B. Chamlin. 2000. "Deterrence and Brutalization: The Dual Effects of Executions." *Justice Quarterly* 17 (4):685–706.
- Cochran, John K., Mitchell B. Chamlin, and Mark Seth. 1994. "Deterrence or Brutalization: An Impact Assessment of Oklahoma's Return to Capital Punishment." *Criminology* 32:107.
- Coglianese, Cary, and David Lazer. 2003. "Management-Based Regulation: Prescribing Private Management to Achieve Public Goals." *Law & Society Review* 37 (4):691–730.
- Cohen, Jacqueline. 1983. "Incapacitation as a Strategy for Crime Control: Possibilities and Pitfalls." *Crime and Justice*:1–84.
- Costa, Elisio, Anna Giardini, Magda Savin, Enrica Menditto, Elaine Lehane, Olga Laosa, Sergio Pecorelli, Alessandro Monaco, and Alessandra Marengoni. 2015. "Interventional Tools to Improve Medication Adherence: Review of Literature." *Patient Preference and Adherence* 9:1303.
- Cullen, Francis T., Cheryl Lero Jonson, and Daniel S. Nagin. 2011. "Prisons Do Not Reduce Recidivism: The High Cost of Ignoring Science." *Prison Journal* 91 (3 suppl.):48S–65S.
- Darley, John M., Kevin M. Carlsmith, and Paul H. Robinson. 2001. "The ex ante Function of the Criminal Law." *Law and Society Review* 35 (1):165–90.
- Edelman, Lauren B., and Shauhin A. Talesh. 2011. "To Comply or Not to Comply – That Isn't the Question: How Organizations Construct the Meaning of Compliance." In *Explaining Compliance: Business Responses to Regulation*, edited by Christine Parker and Vibeke Lehmann Nielsen, 103–22. Cheltenham, UK: Edward Elgar.
- Edelman, L. B., S. Petterson, E. Chambliss, and H. S. Erlanger. 1991. "Legal Ambiguity and the Politics of Compliance: Affirmative Action Officers' Dilemma." *Law & Policy* 13 (1):73–97.
- Elster, Jon. 1989. "Social Norms and Economic Theory." *Journal of Economic Perspectives* 3 (4):99–117.
- Erasmus, Vicki, Thea J. Dahan, Hans Brug, Jan Hendrik Richardus, Myra D. Behrendt, Margreet C. Vos, and Ed F. van Beeck. 2010. "Systematic Review of Studies on Compliance with Hand Hygiene Guidelines in Hospital Care." *Infection Control & Hospital Epidemiology* 31 (3):283–94.
- Falk Moore, S. 1973. "Law and Social Change: The Semi-autonomous Social Field as an Appropriate Subject of Study." *Law & Society Review* 7 (4):719–46.
- Feldman, Yuval. 2018. *The Law of Good People: Challenging States' Ability to Regulate Human Behavior*. New York: Cambridge University Press.
- Feldman, Yuval, Melissa Rorie, and Benjamin van Rooij. 2019. "Rule-Breaking without Crime: Insights from Behavioral Ethics for the Study of Everyday Deviancy." *The Criminologist* 44 (2):8–11.
- Fine, Gary Alan, and Kimberly D. Elsbach. 2000. "Ethnography and Experiment in Social Psychological Theory Building: Tactics for Integrating Qualitative Field Data with Quantitative Lab Data." *Journal of Experimental Social Psychology* 36 (1):51–76.
- Gammon, John, Heulwen Morgan-Samuel, and Dinah Gould. 2008. "A Review of the Evidence for Suboptimal Compliance of Healthcare Practitioners to Standard/Universal Infection Control Precautions." *Journal of Clinical Nursing* 17 (2):157–67.
- Giddens, Anthony. 1984. *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley: University of California Press.
- Giddens, Anthony. 1990. *The Consequences of Modernity*. Stanford, CA: Stanford University Press.
- Gneezy, Uri, and Aldo Rustichini. 2000. "A Fine Is a Price." *Journal of Legal Studies* 29 (1):1–17.

- Goldstein, Noah J., Robert B. Cialdini, and Vidas Griskevicius. 2008. "A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels." *Journal of Consumer Research* 35:472–82.
- Gray, Garry C., and Susan S. Silbey. 2012. "The Other Side of the Compliance Relationship." In *Explaining Compliance: Business Responses to Regulation*, edited by Christine Parker and Vibeke Lehmann Nielsen, 123–38. Cheltenham, UK: Edward Elgar.
- Gray, Garry C., and Susan S. Silbey. 2014. "Governing Inside the Organization: Interpreting Regulation and Compliance." *American Journal of Sociology* 120 (1):96–145.
- Griffiths, John. 2003. "The Social Working of Legal Rules." *Journal of Legal Pluralism* (48):1–72.
- Gunningham, Neil, Dorothy Thornton, and Robert A. Kagan. 2005. "Motivating Management: Corporate Compliance in Environmental Protection." *Law & Policy* 27 (2):289–316.
- Iliev, Peter. 2010. "The Effect of SOX Section 404: Costs, Earnings Quality and Stock Prices (August 26, 2009)." *Journal of Finance* 65 (3):1163–96. <https://ssrn.com/abstract=983772> or <http://dx.doi.org/10.2139/ssrn.983772>.
- Jackson, Jonathan, Ben Bradford, Mike Hough, Andy Myhill, Paul Quinton, and Tom R. Tyler. 2012. "Why Do People Comply with the Law? Legitimacy and the Influence of Legal Institutions." *British Journal of Criminology* 52 (6):1051–71.
- Jin, Jing, Grant Edward Sklar, Vernon Min Sen Oh, and Shu Chuen Li. 2008. "Factors Affecting Therapeutic Compliance: A Review from the Patient's Perspective." *Therapeutics and Clinical Risk Management* 4 (1):269.
- Jolls, Christine, Cass R. Sunstein, and Richard Thaler. 1998. "A Behavioral Approach to Law and Economics." *Stanford Law Review*:1471–550.
- Kagan, Robert A., and John T. Scholz. 1984. "The 'Criminology of the Corporation' and Regulatory Enforcement Strategies." In *Regulatory Enforcement*, edited by Keith Hawkins and John M. Thomas, 67–95. Boston: Kluwer-Nijhoff Publishing.
- Kahan, Dan M., and Eric A. Posner. 1999. "Shaming White-Collar Criminals: A Proposal for Reform of the Federal Sentencing Guidelines." *Journal of Law and Economics* 42 (S1):365–92.
- Kessler, Daniel, and Steven D. Levitt. 1999. "Using Sentence Enhancements to Distinguish between Deterrence and Incapacitation." *Journal of Law and Economics* 42 (S1):343–64.
- Labrague, L. J., D. M. McEnroe-Petitte, T. Van de Mortel, and A. M. A. Nasirudeen. 2018. "A Systematic Review on Hand Hygiene Knowledge and Compliance in Student Nurses." *International Nursing Review* 65 (3):336–48.
- Lange, B. 1999. "Compliance Construction in the Context of Environmental Regulation." *Social & Legal Studies* 8 (4):549–67.
- Lipsey, Mark W., and Francis T. Cullen. 2007. "The Effectiveness of Correctional Rehabilitation: A Review of Systematic Reviews." *Annual Review of Law and Social Science* 3:297–320.
- Makkai, Toni, and John Braithwaite. 1994. "Reintegrative Shaming and Compliance with Regulatory Standards." *Criminology* 32 (3):361–85.
- Marvell, Thomas B., and Carlisle E. Moody. 2001. "The Lethal Effects of Three-Strikes Laws." *Journal of Legal Studies* 30 (1):89–106.
- Memon, Khalida Naz, Nudrat Zeba Shaikh, Rafique Ahmed Soomro, Shazia Rehman Shaikh, and Anza Mansoor Khwaja. 2017. "Non-compliance to Doctors' Advices among Patients Suffering from Various Diseases: Patients Perspectives: A Neglected Issue." *Journal of Medicine* 18 (1):10–14.
- Miles, Thomas J., and Jens Ludwig. 2007. "The Silence of the Lambdas: Detering Incapacitation Research." *Journal of Quantitative Criminology* 23 (4):287–301.
- Nagin, Daniel S. 2013. "Deterrence in the Twenty-First Century." *Crime and Justice* 42 (1):199–263.
- Nagin, Daniel S., and John V. Pepper, eds. 2012. *Deterrence and the Death Penalty*. Washington, DC: National Academies Press.
- Nagin, Daniel S., and Cody W. Telep. 2017. "Procedural Justice and Legal Compliance." *Annual Review of Law and Social Science* 13:5–28.
- Nagin, Daniel S., Francis T. Cullen, and Cheryl Lero Jonson. 2009. "Imprisonment and Reoffending." *Crime and Justice* 38 (1):115–200.
- Parker, Christine, and Sharon Gilad. 2011. "Internal Corporate Compliance Management Systems: Structure, Culture and Agency." In *Explaining Compliance: Business Responses to Regulation*,

- edited by Christine Parker and Vibeke Lehmann Nielsen, 170–95. Cheltenham, UK: Edward Elgar.
- Parker, C., and V. Nielsen. 2009a. “The Challenge of Empirical Research on Business Compliance in Regulatory Capitalism.” *Annual Review of Law and Social Science* 5:45–70.
- Parker, Christine, and Vibeke Lehmann Nielsen. 2009b. “Corporate Compliance Systems: Could They Make Any Difference?” *Administration & Society* 41 (1):3–37.
- Plambeck, Erica L., and Terry A. Taylor. 2015 [online]. “Supplier Evasion of a Buyer’s Audit: Implications for Motivating Supplier Social and Environmental Responsibility.” <https://doi.org/10.1287/msom.2015.0550>; 2016. *Manufacturing & Service Operations Management* 18 (2):184–97.
- Reardon, Gregory, Sameer Kotak, and Gail F. Schwartz. 2011. “Objective Assessment of Compliance and Persistence among Patients Treated for Glaucoma and Ocular Hypertension: A Systematic Review.” *Patient Preference and Adherence* 5:441.
- Ryan, Kevin F. 1998. “Clinging to Failure: The Rise and Continued Life of the U.S. Drugs Policy.” *Law and Society Review* 32:221.
- Schell-Busey, Natalie, Sally S. Simpson, Melissa Rorie, and Mariel Alper. 2016. “What Works? A Systematic Review of Corporate Crime Deterrence.” *Criminology & Public Policy* 15 (2):387–416.
- Schultz, P. Wesley, Jessica M. Nolan, Robert B. Cialdini, Noah J. Goldstein, and Vidas Griskevicius. 2007. “The Constructive, Destructive, and Reconstructive Power of Social Norms.” *Psychological Science* 18 (5):429–34.
- Shepherd, Joanna M. 2005. “Deterrence versus Brutalization: Capital Punishment’s Differing Impacts among States.” *Michigan Law Review*:203–56.
- Simpson, Sally, Melissa Rorie, Mariel Elise Alper, Natalie Schell-Busey, William Laufer, and N. Craig Smith. 2014. “Corporate Crime Deterrence: A Systematic Review.” *Campbell Systematic Reviews* 10 (4):5–88.
- Talesh, Shauhin A. 2009. “The Privatization of Public Legal Rights: How Manufacturers Construct the Meaning of Consumer Law.” *Law & Society Review* 43 (3):527–62.
- Talesh, Shauhin, and Jérôme Pélisse. 2019. “How Legal Intermediaries Facilitate or Inhibit Social Change.” *Studies in Law, Politics, and Society* 79:11–45.
- Thaler, Richard H. 2015. *Misbehaving: The Making of Behavioral Economics*. New York: W.W. Norton & Company.
- Thornton, Dorothy, Neil Gunningham, and Robert A. Kagan. 2005. “General Deterrence and Corporate Environmental Behavior.” *Law & Policy* 27 (2):262–88.
- Travis, Jeremy, Bruce Western, and Steve Redburn. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Washington, DC: National Academies Press.
- Tyler, Tom. 2017. “Procedural Justice and Policing: A Rush to Judgment?” *Annual Review of Law and Social Science* 13:29–53.
- Van Erp, Judith. 2011. “Naming without Shaming: The Publication of Sanctions in the Dutch Financial Market.” *Regulation & Governance* 5 (3):287–308.
- Van Rooij, Benjamin. 2020. “Behavioral Jurisprudence: The Quest for Knowledge about the ex-ante Function of Law and Behavior.” *Jerusalem Review of Legal Studies* 22(1):57–77.
- Van Rooij, Benjamin, and Adam Fine. 2018. “Toxic Corporate Culture: Assessing Organizational Processes of Deviancy.” *Administrative Sciences* 8 (3):23–61.
- Van Rooij, Benjamin, and Adam Fine. 2019. “Preventing Corporate Crime from Within.” In *The Handbook of White Collar Crime*, edited by Melissa Rorie, 229–45. New York: John Wiley and Sons.
- Walters, Glenn D., and P. Colin Bolger. 2019. “Procedural Justice Perceptions, Legitimacy Beliefs, and Compliance with the Law: A Meta-analysis.” *Journal of Experimental Criminology* 15 (3):341–72.
- Wu, Yunmei, and Benjamin van Rooij. 2019. “Compliance Dynamism: Capturing the Polynormative and Situational Nature of Business Responses to Law.” *Journal of Business Ethics*:1–13.