The Challenge of Empirical Research on Business Compliance in Regulatory Capitalism

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Abstract

Regulatory capitalism—a social, political, and economic order characterized by a proliferation of both markets and state and nonstate attempts to regulate markets and business conduct—creates the opportunity for theoretically and politically significant research on compliance. The plural and decentered nature of regulation, and therefore of compliance, in regulatory capitalism creates significant complexity and difficulty for social scientists in the conceptual definition and operationalization of regulatory compliance, however. We survey the different ways in which empirical researchers have studied business compliance with regulation, and their strengths and weaknesses. In doing so, we review and interrogate the literature on regulatory compliance to understand what it is that researchers study when we study business compliance with regulation, and what we might have been missing or assuming.

INTRODUCTION

Many of our most significant global policy challenges require either radical changes in industry behavior or large-scale government action: to arrest global warming (Haines & Reichman 2008), to keep people's livelihoods safe from financial meltdown (Partnoy 2003), and to achieve justice and social inclusion for those producing goods and services in the Global South (Hutchens 2009). Similar challenges face governments and businesses at the local and national levels, too: environmental degradation and overconsumption, health and safety of work practices and of food and beverage consumption, the security of employment and financial investments, and the capacity to deliver a range of essential services (including power, water, housing, transport, and communication) in a just and inclusive way.

Yet contemporary Western society trusts neither government nor capital to promote and achieve social goals (Putnam 1993, Fukuyama 1995). Instead, Western polities and, increasingly, global ones are now built on the hope that we can govern big business to meet social goals as we redesign public governments to facilitate and work with private and civil society governance. Ours is an age of regulatory capitalism. The distribution of power at both national and global levels is shaped by interactions between state-based regulation, business activity, and civil society (Levi-Faur 2008, p. viii; also Braithwaite 2008, pp. 1–31; Levi-Faur 2005; Schneiberg & Bartley 2008; Vogel 1996). The expanding part of public government is regulation, not the direct provision of public and private services. Capital is increasingly expected to be responsive to social goals and regulation.

Regulatory capitalism creates a demand for social science research on business regulation: to map out the genesis and implementation of various attempts at regulation, uncover what overt and covert purposes they serve, and interpret and explain what intended and unintended impacts they have (Jordana & Levi-Faur 2004a, McCahery et al. 1993). In this review, we are concerned with the last question—interpreting and explaining the impacts of regulatory capitalism on business behavior.

Schneiberg & Bartley (2008, p. 33) have commented in a previous review that researchers "have amassed evidence for the recent proliferation of regulation and new forms at the national and transnational levels," but researchers "have barely begun to analyze systematically. . .the extent to which new forms actually reshape markets and organizational behavior on the ground." It is commonsense to suppose that business regulation "has markedly improved the safety of banking, dairy products, electrical systems in housing, pharmaceuticals and motor vehicles" and that it has drastically reduced death rates at work, pollution, and inequality of employment opportunity, and there is much evidence that this is so (Coglianese & Kagan 2007, p. xx; see also Braithwaite 2008, p. 14). Certainly, any form of business regulation can be vulnerable to empty ritualism (J. Braithwaite et al. 2007). But many scholars see in regulatory capitalism an overriding opportunity to harness the power of markets to achieve social goods in efficient, effective, and democratically legitimate ways (Braithwaite 2008, Gunningham et al. 2003, Sabel 2007). Others, however, are skeptical about the ultimate politics and efficacy of regulatory capitalism: Regulatory activity might create a smokescreen for ever more self-aggrandizing corporate power. Regulatory capitalism represents the economization of the social—the domination of economic over social values—rather than the socialization of capital (Shamir 2008; see also Garsten & Jacobsson 2007).

Either way, it is clear that empirical research into the nature, workings, and impacts of regulatory capitalism is necessary to understand and explain contemporary social, political, and economic power relations. Empirically understanding and explaining the impact of different regulatory developments in an independent and rigorous way is also an important aspect of policy evaluation and accountability. We cannot evaluate the true "political colors" (Jordana & Levi-Faur 2004a, pp. 10–11) of regulatory capitalism without empirical evidence of its impacts.

In the first section of this review, we briefly outline two key features of regulatory capitalism—the "responsibilization" of business and the plural, decentered, and networked nature of regulation. We go on to argue that these developments create a practical and theoretical demand for at least two types of social science research on regulatory compliance: research aimed at understanding how people conceptualize and socially construct compliance, and research that seeks to explain the causes and effects of compliance. In the second and third sections, we consider the challenges and opportunities for each of these types of empirical compliance research in regulatory capitalism.

We argue that much empirical research on business compliance has been concerned with the considerable challenge of interpretive understanding of compliance. Much very fruitful research has focused on conceptualizing compliance from the viewpoints of different actors and the social processes of construction of compliance in which they together engage. We go on to argue, however, that the operationalization of compliance for the purposes of causal explanation and prediction is also crucial for theoretical development of the social sciences as well as policy accountability. We argue that plural and decentered understandings of compliance in regulatory capitalism—often pointed to by social constructivist research—lead to particular difficulties for researchers doing explanatory research. These difficulties put a particular demand on researchers to legitimize and make explicit their own operationalization of compliance. They also make it even more relevant—but also more difficult—for the researcher to deal with classic methodological problems like biased data sources and shaky information.

REGULATORY CAPITALISM AND THE NEED TO UNDERSTAND AND EXPLAIN REGULATORY COMPLIANCE

Regulatory Capitalism

The regulatory state was invented in the Progressive and New Deal eras in the United States in response to public social concerns about the rise of big business (Lobel 2004). Late-nineteenth- and early-twentieth-century European nations, on the other hand, responded to the same concerns with nationalization and state provision of goods and services (including welfare, health care, public transport, utilities, industrial infrastructure, steel, coal, banking, airlines, and so on). In the 1970s and 1980s, the European provider state gave way to the regulatory state under the neoliberal agenda of privatization, deregulation, and nurturing of markets (see Braithwaite 2008, pp. 4–29; Levi-Faur 2005).

Although neoliberalism preached deregulation, in fact it expanded and extended regulation first in Europe and then globally (Jordana & Levi-Faur 2004a, p. 7; Vogel 1996). For example, Levi-Faur (2005) has analyzed the decision to privatize telecommunications and electricity and the decision to create regulatory agencies in 171 countries, showing the "intimate association" between privatization and the creation of independent regulatory agencies and the exponential increase in both since the 1980s. Similarly, Jordana & Levi-Faur (2004b; Levi-Faur 2008, p. vii) studied regulation in 16 sectors across 49 different countries from the 1920s to 2002 and found that the number of regulatory agencies rose sharply in the 1990s, with an autonomous regulatory agency in about 60% of the possible sector niches by the end of 2002. The diffusion of regulation is not consistent: Gilardi et al. (2006) find that economic regulatory reforms are more widespread than social ones and that social regulation is more widespread in Europe than elsewhere. Yet it is a global phenomenon.

The neoliberal agenda of freer markets and, ultimately, more rules or good governance was internationalized and projected globally to Asia and the developing world via bilateral trade negotiations, the International Monetary Fund, and the United Nations Conference on Trade and Development in the 1980s and 1990s (Braithwaite & Drahos 2000). It is likely to be further developed through responses to the global financial crisis of 2008. Government and

civil society are responding by increasing their regulation of financial services with the intention of rehabilitating the capacity of regulated corporate capital to provide financial services in a way that adequately protects investors. Even governments that are taking an ownership stake in financial institutions are doing so to regulate corporate capital to function better, not to provide financial services (MacNeil 2008).

The national regulatory state is itself now giving way to a situation of global and national regulatory governance (Lobel 2004). Nonstate-based regulation, including voluntary industry and internal corporate systems of self-regulation and nongovernmental organization (NGO) certification and management systems, is growing at the national and international levels (Bernstein & Cashore 2007, Braithwaite & Drahos 2000, King & Lenox 2000, Lehmkuhl 2008, Rees 1997, McBarnet et al. 2007, Wolf 2008).

Features of Regulatory Capitalism: Responsibilization and Networked Governance

Two distinguishing characteristics of regulatory capitalism include the responsibilization of business to self-regulate to achieve policy goals and values, not just financial profits (Shamir 2008, pp. 379–83), and the decentering of regulation away from the state to plural networks of regulation (Black 2001, Parker et al. 2004, Solomon 2008).

These two characteristics are inherent in the very nature of regulatory capitalism, which involves power sharing between state, business, and civil society. A tendency toward these two characteristics has therefore been evident since the United States's invention of the regulatory state in the late nineteenth century. But neoliberalism and the challenge of global regulatory governance have made responsibilization and networked governance more prominent. Since the rise of neoliberalism in the 1970s and 1980s, there has also been a much greater demand for state-based regulation to be less centered on hierarchical rule-based command-and-control strategies (Lobel 2004). The challenges of transnational and global governance have made activists, academics, and policy makers look for less hierarchical governance possibilities at the international level as well (Braithwaite & Drahos 2000, De Búrca & Scott 2006, Teubner 1997).

First, regulatory capitalism privileges business rather than state provision of goods and services with a concomitant emphasis on business responsibility for how goods and services are provided (Braithwaite 2008). State provision of goods and services is limited, but there is a profusion of regulation that attempts to make businesses responsible to state and civil society regarding the values and goals that should be observed in the provision of goods and services. For example, although government may not provide transportation, housing, or consumer goods, regulation by government and by some international and industry organizations specifies that provision must meet standards for environmental, health and safety, competition, consumer protection, fair trade, and social inclusion, among other policy goals and values (Shamir 2008).

The fact that businesses are responsibilized to a large degree by the policy goals and values set by regulation means that compliance is an exceedingly broad concept. Compliance is often not a unitary response by a regulatee to an official rule promulgated and enforced by official agencies. Rather it is the result of a process of construction and negotiation of compliance between official regulator and regulatee (Edelman et al. 1991, McBarnet 2003, Reichman 1992). Moreover, it is not just official state regulators who negotiate compliance with business, but a range of civil society, professional, industry, and NGO regulators. The power of these third parties to regulate organizations often depends to a greater or lesser extent on voluntary consent to being regulated (Meidinger 2008).

Second, in regulatory capitalism, regulation is plural, decentered, and networked. State and nonstate regulators proliferate at both the national and transnational levels. Empirical scholarship on regulatory compliance has long

pointed out that various stakeholders representing social and economic pressures support, counteract, or compete with pressures to comply with state-based regulation (Gunningham et al. 2003, pp. 35–40; Scott 2001). Increasingly, industry, civil society, and NGO associations are explicitly taking on regulatory roles to require standards of behavior that go beyond compliance with the law or that fill gaps in legal regulation. For example, there are multiple environmental certification schemes that businesses can opt in or out of, and state-based regulators recognize and reward or enforce participation in these schemes to various degrees (Coglianese & Nash 2006, Prakash & Potoski 2006, Meidinger 2008). State-based regulators often work purposely with civil society and industry actors to create collaborative regulatory and self-regulatory schemes. And all these regulators compete with and regulate one another at both the national and transnational levels. This results in plural, networked regulatory regimes in which public and private regulation are intertwined (Parker et al. 2004, Schepel 2005, Shearing & Wood 2003). Scholars now often talk about regulatory governance rather than regulation to indicate that hierarchical, one-way regulation of businesses by official state agencies is no longer typical (De Búrca & Scott 2006, Solomon 2008).

Consider, for example, responsibilization of business and decentering of regulation in financial services (Black 2003, Krawiec 2008). There are global prudential standards (transnational regulation) that require state-based regulators to give financial service institutions both assigned responsibilities and degrees of freedom to define appropriate risk management for themselves (national regulation that responsibilizes business). To a large extent, national regulation and internal corporate self-regulation also depend on standards of behavior defined by diverse stakeholders and on nonstate-based regulators (such as securities exchanges, institutional investors, and auditors) following public accounting standards and quality standards for internal compliance and risk management systems (decentering of regulation).

The Demand for Social Science to Understand and Explain Compliance in Regulatory Capitalism

This proliferation of regulation—in terms of its sources (decentering) and values (responsibilization)—puts demands on social science to understand, explain, and predict how and why those who are the objects of regulation respond to it and what effects it has.

There is always a policy pull from legislators, regulators, businesses, and citizens toward empirical research that is certain, authoritative, and programmatic (Sarat & Silbey 1988, p. 131) in measuring the impact of regulation: Does it make any difference to the behavior of those it seeks to regulate? Which regulatory enforcement tools, interventions, or strategies work most effectively and efficiently? In what circumstances and for what reasons are businesses most likely to comply with different types of regulation? And, when businesses do comply, does their compliance behavior achieve the public policy goals that motivated the regulation in the first place?

These traditional policy questions for researchers have become more complicated in regulatory capitalism. The responsibilization of business and decentering of regulation mean there are multiple parties seeking to hold each other accountable by revealing what each is doing to comply and whether their compliance behaviors actually achieve policy goals. To the extent that government regulators use lighter-touch regulation, they depend more than ever on external research to find out whether it is having any impact on market behavior because government's own regulatory enforcement agents are not in the field as much monitoring compliance. The more optimistic theories about the democratic potential of regulatory capitalism see this kind of research and evaluation as fundamental to new forms of policy development and implementation. The "democratic experimentalism" (Dorf & Sabel 1998) and "evidence-based" regulation (Braithwaite 2000, Bennear & Coglianese 2005) movements propose that communities should experiment

with regulatory strategies to solve policy problems, collect evidence to evaluate their success, and learn from the results for future policy development and implementation.

Understanding and explaining regulatory compliance is also of critical theoretical significance to the social sciences. The relations between corporate power, state power, and civil society are always fundamental issues requiring explanation, especially as situations change and previous explanations may be tested or revised. Regulatory capitalism, understood as regulatory governance of business, is a particular institutionalization of the relationships among corporate power, state power, and civil society. Research that uncovers whether and how the regulation of corporate capitalism works, as well as the power relations, values, and goals represented in the way that compliance is constructed, should be a core concern of social science theory building. Research that uncovers, evaluates, explains, and critiques the workings of regulatory capitalism is therefore important for pragmatic, policy-oriented reasons, and also for more fundamental theory-building reasons.

Empirical Compliance Research

The goal of the social sciences—and therefore also of studies of regulatory compliance by business—is for researchers to understand various people's conceptualizations of these phenomena and the social structures and processes by which they arrive at these conceptualizations; that is, it is to produce an accumulating body of valid knowledge that enables us broadly to understand and explain an empirical phenomenon that interests us. Looking at compliance, this leads to two different—but equally important—research projects.

The first is research that treats the understanding and conceptualization of compliance as endogenous to the project. The research object in this kind of study is how compliance is understood and conceptualized. Some of these compliance-endogenous research projects have an interpretative ambition because their main focus is to discover the plural meanings of compliance that exist among key actors in the regulatory field. Others have a more constructivist research ambition, given that their focus is both on uncovering the network of social construction processes that create understandings of compliance and on the power relations between the actors involved. These power relations might result in one understanding being socially accepted as more legitimate than others. The challenge in this kind of research is to achieve a balanced, not biased and nonnormative discovery of understandings and social construction processes.

The second kind of research project treats the understanding of compliance as exogenous to the research. How compliance is understood is not an object for research in such projects. The researcher predefines compliance—hopefully in line with generally accepted definitions or understandings. Therefore, the understanding of compliance is not treated as a dynamic and changeable concept. Compliance in this type of research is a fixed variable. It may be narrowly or broadly defined, but it must be predefined and then used as either a dependent or independent variable in discovering causal relations between compliance and other variables. The ambition in this kind of research is to explain what causes compliance (as predefined), or what effect compliance (as predefined) has. The main challenge to this second type of research is the operationalization of compliance. How well does the researcher actually measure the definition of compliance she or he claims to measure?

Even though regulatory compliance may often be constructed in complex social processes through networks of regulation and negotiation, this does not mean that researchers cannot also seek to explain and predict compliance behavior and its effects. It does mean, however, that it is necessary to discuss and argue very explicitly for one's choice of theoretical and operational definitions of compliance because there is not one thing called compliance that everybody can agree on. The policy demand to develop quantitative measures of levels of compliance that can be used to evaluate the effectiveness

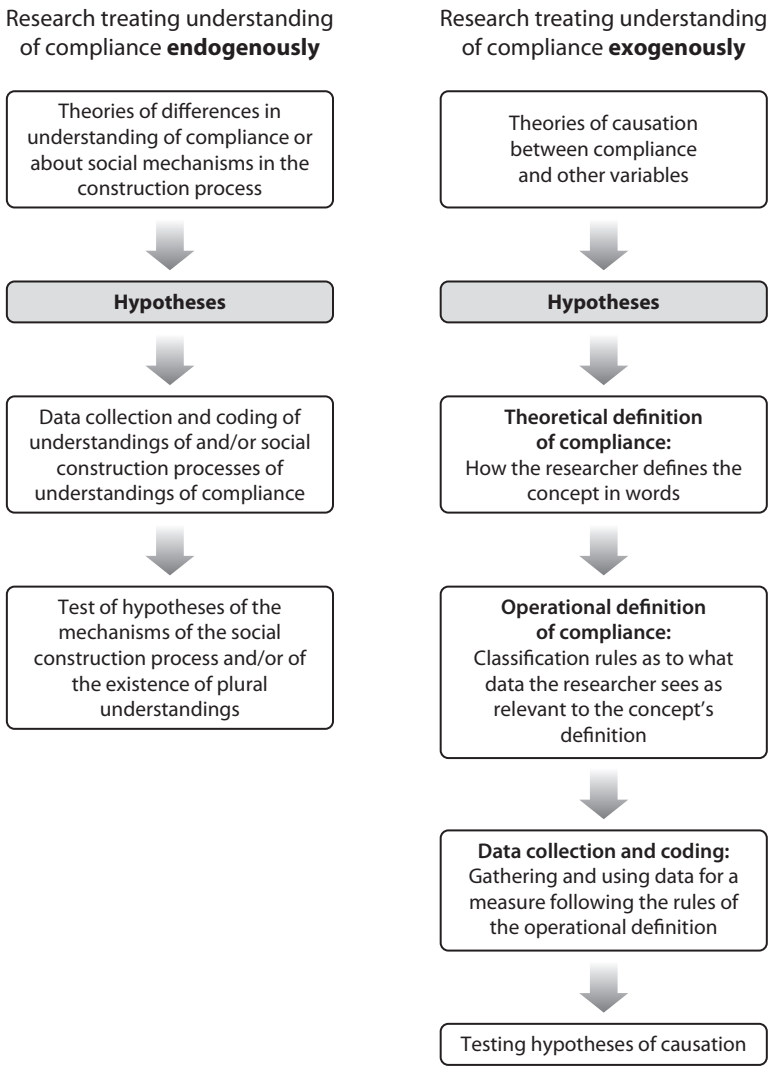

Figure 1

Two different research projects.

of a particular regulatory intervention and spit out a policy prescription often underestimates the debatability of the used measures and forgets that simple measures are not beautiful if they do not reflect legitimate understandings of compliance.

Examples of the two different kinds of research are illustrated in **Figure 1**. Both illustrated research projects are examples of inductive ways of doing research because the difference between compliance-endogenous versus compliance-exogenous research is only a matter of whether the understanding of compliance is the very research object or not. It is not necessarily a question of deductive versus inductive research methods. Likewise the choice between endogenous and exogenous research projects does not in itself predetermine whether one uses quantitative or qualitative data collection methods, even though compliance-endogenous researchers—for good reasons—generally have a preference

for qualitative research methods because these methods are especially good at collecting information about meanings and understandings in an open-minded way.

Furthermore, even though the two research projects illustrated in the figure are both set out as involving testing of hypotheses, not every endogenous or exogenous research project needs to do that. For example, many studies measure the level of compliance on one or a broad variety of exogenously defined measures of compliance without testing theory-driven hypotheses about the causes or effects of the variation in compliance level. Many official reports, statistics, and mapping exercises do this.

Any type of social research also faces challenges at the data collection stage. The biased data source problem—in relation to compliance—refers to the fact that each data source is conceptually filtered or biased according to the understanding of what should count as important for compliance by the individual or agency creating the data. Regulatory agencies, industry or professional associations, businesses, and other researchers each might filter data according to their own conceptualizations of what should count as compliance. The problem of biased data sources is relevant to compliance-endogenous research in that the researcher uses a limited number of information sources, which might result in limited understandings of the meanings of compliance and their construction processes. On the other hand, biased data sources are only relevant to the compliance-exogenous researcher if the bias in the accessible sources does not fit the researcher's definition of compliance. For the compliance-exogenous researcher, biased data sources might mean that he or she ends up measuring something other than what he or she predefined to be compliance.

The shaky information problem refers to the fact that there are always communicative problems with collecting accurate data from any source, including that (*a*) informants do not always understand the question asked and the information required in the way expected by the researcher; (*b*) sometimes informants lie (whether consciously or subconsciously); and (*c*) sometimes informants do not know the correct answer for practical reasons (even when they understand the question and have no incentives to lie). Shaky information is a great challenge in compliance-exogenous research projects, as explained further below. In compliance-endogenous research, the respondents' "understanding of the concept" is the research object; hence, the reliability and validity of this research object cannot and shall not be evaluated against an external/predefined definition or standard of compliance. It simply has a value in itself.

The following two sections respectively discuss the two types of research—discovering understandings and social constructions of compliance first, and then research operationalizing and explaining compliance.

DISCOVERING UNDERSTANDINGS AND SOCIAL CONSTRUCTIONS OF COMPLIANCE IN REGULATORY CAPITALISM

Indeterminate Rules and Regulatory Discretion in Regulatory Capitalism

Critical criminology has long recognized that even apparently clear criminal laws are not necessarily clear. Police and other regulators exercise a great deal of discretion that influences what gets counted as a crime through their decisions about which crimes to record, investigate, and prosecute (Jupp 1989, pp. 90–103; Edwards 2006; Mosher et al. 2002). Regulatory capitalism amplifies an imprecise approach to sanctioning business misconduct. State legislation on corporate crime and misconduct is often imprecise. Many rules created in regulatory capitalism are expressed as broad, potentially indeterminate principles, rather than as narrower, more easily determinable prohibitions. Many statements of rules explicitly and intentionally leave regulators the tasks of applying and enforcing the rules or at least working out guidance for the regulatees about what

is required. Even where this is not intentional and explicit, the haste with which regulation proliferates makes it more likely that new rules are poorly drafted. Thus, sorting out what they mean is left de facto to regulators' discretion. Limited political support for state-based business regulation means that in many cases regulation may be seen as being promulgated to address a problem, but because of fear of business backlash, prohibitions are not clearly defined, authoritatively prohibited, or criminalized (Snider 1991). Indeed, much regulation of corporate misconduct is done via noncriminal civil and regulatory offenses or delegated to civil society or business and industry themselves.

Regulatory capitalism prefers to be flexible and vague about what business activity is allowed in which circumstances and what business conduct will be prohibited or limited. This is evident at the international level, too, where the push for international criminal law and courts for individuals is not matched by equally coercive attempts at corporate regulation, but by voluntary, soft regulation by civil society and industry (McBarnet et al. 2007, Ruggie 2002). The diverse sources of rules (decentered regulation) increase the complication of imprecise standards, rules, and expectations. Diverse enforcement agents geometrically increase the complexity of regulatory capitalism.

Much empirical research is concerned with understanding what different actors—regulatory agencies (state or nonstate), regulated businesses, and a range of other stakeholders—mean by compliance and how their attitudes and activities converge, diverge, and interact. This research is often particularly concerned with what emerges as socially accepted meanings of compliance or what remains contested and why (Edelman et al. 1991, pp. 74, 92; Fairman & Yapp 2005; Lange 1999; McCaffrey et al. 2006). Many empirical studies use qualitative interviews and participant observation to investigate how different organizations and individuals within them respond to legal and nonlegal regulation, including what motivations, attitudes, and perceptions regulatees have toward regulation, regulators, and compliance; what actions they take in response to regulation; and to what extent they take responsibility for their own regulation and compliance (e.g., Geis 1967; Genn 1993; Haines 1997, 1999; Heimer 1996; Hutter 2001; McCaffrey & Hart 1998; Rees 1988, 1994; Silbey et al. 2009).

For example, Ericson & Doyle (2006) point out that rarely do either government or industry regulators discover, prosecute, and officially record criminal fraud by insurance agents. Yet their own research via interviews and ethnography with people inside the insurance agency identified five sources of moral risk that are "institutionalized in the structure and culture of life insurance sales" that give rise to "institutionally endorsed manipulation, deception and sometimes fraud" that could be prosecuted as criminal fraud (Ericson & Doyle 2006, p. 994). These activities are euphemistically described as "misselling" within the life insurance industry itself (Ericson & Doyle 2006, p. 994). This misselling certainly violates industry rules, guidelines, and codes of ethics, yet it rarely even becomes an issue whether it constitutes a breach of criminal law.

Such studies also look at regulators' understandings of, and influence on, meanings of compliance. Many of the most significant studies in empirical regulation research have been based on surveys, interviews, or participant observation study of regulatory staff and their behaviors, what they understand to count as compliance in different circumstances, how they choose to use their discretion in regulation and enforcement, what attitudes they hold toward different businesses in which circumstances, and how these affect business attitudes or behaviors (e.g., de Bruijn et al. 2007; Grabosky & Braithwaite 1986; Hawkins 1989, 2002; Hawkins & Hutter 1993; Gilad 2008; May & Wood 2003; May & Winter 2000).

These studies of regulatory enforcement agents' behavior and enforcement style often reveal hidden biases in official statistics and statements about compliance. Studies have shown that official enforcement decisions about compliance or noncompliance are often the

result of regulatory agents' less tangible, subjective appraisals of compliance, such as a firm's overall standard of compliance and its will to improve. Hawkins's (2002) study of prosecution decision making in the UK Health and Safety Executive uncovered the significance of the way individual decision makers framed enforcement discretion—especially their evaluations of moral (not just legal) guilt, despite the fact that moral judgments are not legally relevant for prosecution of health and safety offenses in the UK. As Hawkins had found in an earlier study, many regulatory inspectors themselves judge compliance quite subjectively: Their assessments of compliance are "fluid and abstract, rather than concrete and unproblematic. 'Attitudes' are judged [by enforcement agents] as much as activities" (Hawkins 1989, p. 109).

Similarly, in Nielsen's (2002) study of fire precaution, environmental, and health and safety regulators in Denmark, she asked regulatory inspectors to rank the willingness to comply of each regulatee and then compared the results with their average annual number and gravity of offenses (as rated by independent experts on the basis of official records of inspections conducted by the same inspectors). She found little correlation between the two. Inspectors' rating of willingness to comply seemed to be based on a sense of how things are and not on whether various breaches had occurred in the past.

Regulators also frequently leave businesses and other organizations alone to construct their own meaning of compliance. This might occur because the regulator uses enforced self-regulation, designates some businesses as low risk, or simply never inspects many businesses. In these circumstances, the regulator never enforces his or her own interpretation of compliance on the regulated business: What the regulatee does to comply with the law is the main influence on what compliance means in practice. It also influences what regulators and courts will be able to count as compliance later on (Reichman 1992; also McBarnet 2003).

It is not just regulators and regulatees who have a say in negotiating the meaning of compliance in regulatory capitalism. There are a range of other stakeholders affected by business behavior (employees, customers, shareholders, local communities) with varying interests in what regulatory compliance means in each situation. These stakeholders have various capacities to influence both regulators and businesses in their understandings of what it should mean to comply with regulation in various situations (Black 2003; Gunningham et al. 2003, pp. 35–40; Hutter & Jones 2007). In regulatory capitalism, there are especially likely to be plural meanings of compliance where there are voluntary schemes, networks of regulation, or reliance on third parties to certify or enforce compliance with legal or voluntary regulation (e.g., Meidinger 2008, Prakash & Potoski 2006).

Limits of Compliance-Endogenous Research

Description and explanation of processes of social construction of compliance should not replace description and explanation of compliance behaviors. Studies of processes of compliance construction focus on the definitions of compliance that emerge from existing social structures. Certain meanings of compliance can become socially accepted even though they were self-servingly put forth by interested parties, or even though they are quite different from what was originally envisaged by those who made the rule. Studies of social processes of construction of compliance can show how existing power relations influence socially accepted meanings of compliance and thus can aid in critique of current practice. But they do not articulate an alternative standpoint against which actual business behavior and its outcomes can be evaluated and critiqued. The study and critique of regulatory capitalism needs research that evaluates its substantive behavioral and policy outcomes, as well as research that excavates its social origins.

It would be circular to adopt socially accepted definitions of compliance in research that seeks to identify and explain substantive

compliance behaviors and their outcomes: The definitions of compliance that emerge from social negotiation have often been put forth specifically because they represent a standard of behavior that can easily be achieved in practice. This standard will likely be lower than or different from the standard required by the policy goals that initially motivated the regulation or that the community or stakeholders might have thought were or should be the intent of the rule. If we adopt the bottom-up perspective of understanding parties' interpretations of compliance in practice, we cannot evaluate and explain compliance unless we compare it with someone else's. Social science researchers therefore need to be able to conceptualize for ourselves what compliance means in each situation we seek to research either by developing, justifying, and making explicit our own substantive evaluation criteria or by explicitly acknowledging that we are adopting the evaluation criteria espoused by one or other of the parties with an interest in regulation. In the latter case, we need to be clear about its biases and limitations.

RESEARCH EXPLAINING THE CAUSES AND EFFECTS OF COMPLIANCE

Operationalizing Compliance

Research that has a predefined exogenous understanding of compliance begins with relating abstract concepts to the real world through definition, operationalization, and measurement. The validity of any empirical research will always, therefore, be a matter of the degree to which it captures the concept of interest.

Validly translating between the abstract concept and the real world is often thought of as having several stages, as shown in **Figure 2**. Any social science researcher must deal with a number of obstacles in moving from an abstract concept, such as regulatory compliance, to the point where one has collected valid and reliable data that allow one to draw conclusions about one's research questions, such as levels of compliance, correlations between different aspects of behavior relevant to compliance, and tests of hypotheses about what explains variation in compliance. At the most abstract level is the concept, the underlying theoretical construct that is to be studied. Often there will be a preliminary discovery or exploratory stage of uncovering the concept and the different meanings it has for different people or in different kinds of studies. The theoretical definition gives the concept meaning through a concrete description. The operational definition provides rules of classification to distinguish cases. Measures, also called indicators or variables, are generated through the process of scoring or gathering data by following the rules of classification.

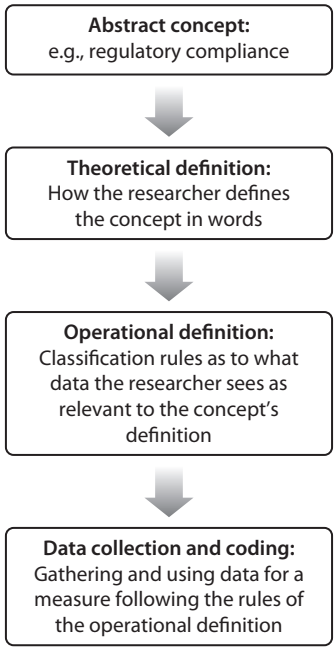

Figure 2

Chain of validity for compliance research measures that are exogenously defined (inspired by McDonald 2005).

If the researcher's hard work at each stage is to be relevant and fruitful for the next stage, the use of the concept at each stage must correspond and correlate to its use at the other stages. This does not mean statistical correlation and correspondence, although statistical tools may be a useful check where the researcher

is working with quantitative data. What is important to both quantitative and qualitative empirical research studies is that within each study there is a logical or epistemic correlation that links the different stages shown in **Figure 2** together (Bryman 2008, pp. 143–53). If that does not exist, statistical rigor will be resting on a very weak logical foundation that means the statistical measures can never be valid. Having established a case for the epistemic correspondence between the abstract concept, theoretical understanding, and operational definition of regulatory compliance, there are still potential obstacles in the sourcing, collection, coding, and analysis of data (the last stage in **Figure 2**). These can, as mentioned above, create two problems of validity: the biased data source problem and the shaky information problem.

In the subsections below, we first consider two different ways in which researchers avoid operationalizing actual compliance by focusing instead on business attitudes and motivations or focusing on the policy goals that business should meet by complying with regulation. We go on to argue that empirical compliance researchers need also to do projects that operationalize compliance by reference to actual compliance behavior for the purposes of discovering causes and effects of compliance. In the final subsections, we discuss the challenges of data collection that attempts to operationalize actual compliance behavior.

Operationalizing Compliance by Reference to Attitudes and Motivations

One tendency in the empirical literature on business compliance is to focus on compliance motivations and attitudes of businesses as the variable of interest, rather than on actual compliance. Studies like this include Valerie Braithwaite and coauthors' work on motivational postures in which constellations of attitudes and motivations toward compliance and regulators are treated as key dependent variables (e.g., V. Braithwaite et al. 1994, 2007), and Peter May and Soeren Winter's (May 2005, Winter & May 2001) studies of various motivations for compliance among Danish farmers in relation to environmental regulation, U.S. homebuilders in relation to building safety, and U.S. marine facilities in relation to water quality.

A number of studies examine the culture and management systems of businesses using either quantitative or qualitative methods or both in order to understand the compliance motivations and attitudes of the business as a business (e.g., Ashby & Diacon 1996, Florida & Davison 2001, Parker & Nielsen 2009, Weaver & Trevino 1999) or its management style, commitment, and organizational culture. For example, Gunningham et al.'s (2003) study of business compliance with environmental regulation finds a high level of actual compliance across all businesses but distinguishes between reluctant compliers, committed compliers, environmental strategists, and true believers and draws some conclusions about what factors influence these different constellations of compliance attitudes and motivations.

This sort of research is attractive because data can be collected on attitudes and motivations more accurately and reliably than on compliant or noncompliant behavior through self-reports (but see discussion of data collection below for the limitations of self-report data from businesses). Attitudes and motivations are likely to be very important explanatory variables for compliance behavior and are therefore worth studying (Parker & Nielsen 2009). Measuring the attitudes and motivations of business firms and individuals about compliance can also be a useful evaluation standard in itself of the success of regulation in terms of its likely effectiveness and its democratic legitimacy, i.e., the regulatee's consent to be regulated (V. Braithwaite et al. 2007). This might be especially useful as regulators and stakeholders may well be more capable of changing business attitudes and motivations toward compliance than of changing other factors that explain compliance such as size, resources, or management capabilities.

Nevertheless, measuring a firm's attitudes and motivations about compliance is not the

same as measuring compliance behavior, and a positive attitude or motivation may not lead to matching behavior. They are therefore not a proxy or substitute for explaining compliance behavior because we cannot be sure that the assumed connection to actual compliance does exist. It is therefore useful to distinguish between behavioral compliance and noncompliance (actual behavior) and psychological noncompliance (attitudes of commitment or resistance). Both are relevant and useful for different research questions (Murphy 2005, p. 570; see also Braithwaite 2003).

Regulatory capitalism's desire to solve problems of corporate power and irresponsibility by responsibilization, self-regulation, and business involvement in networked regulation might make us too eager to see good intentions as a substitute for compliance actions. Compliance attitudes and intentions are worth studying in their own right, but it is important to keep clear that they may not translate into action because they are not made in good faith, they are acted on in a purely symbolic and ineffective way, or they are stymied by other forces (Krawiec 2003, Parker & Nielsen 2009).

Operationalizing Compliance by Reference to Policy Goals

Another way that researchers have tried to overcome some of the vagaries of defining compliance in regulatory capitalism is by focusing on whether businesses meet certain substantive goals such as reduced environmental emissions (Andrews 2003; Berkhout & Hertin 2001; Johnston 2006; Winter & May 2001, 2002), greater employment of women or racial minorities (Braithwaite 1993), fewer worker injuries and fatalities (Mendeloff & Gray 2005), and so on. The policy goal or value outcome that researchers choose to study might come from the researchers themselves or from others. A researcher might adopt the standpoint of the local community or NGO in deciding that he or she wants to evaluate whether certain emissions are down or the standpoint of financial services companies in evaluating whether regulation results in a chilling effect on risk-taking in investment. Or the researcher might seek to determine what the government's original policy goal was in adopting a piece of legislation and then measure whether it was achieved. Or a researcher might develop and justify his or her own set of criteria for evaluating the broad outcomes of regulation.

Such an approach is useful if the aim of the research is critique and evaluation of policy implementation. It takes a substantive social goal and uses it as the evaluation standard. It avoids the problem that rules in regulatory capitalism might be quite vague about how businesses should specifically behave and instead evaluates whether the policy outcome has been achieved. But this approach cannot say whether it is compliance with regulatory rules that delivers the outcome or not. As Tombs (2000) points out, a researcher might use numbers of injuries and deaths as a measure of compliance in relation to occupational health and safety regulation, but injuries and deaths are not always caused by illegal conduct. Rather the researcher is conceptualizing the thing to be studied not as behavioral compliance with a rule, but rather compliance with a substantive objective that the rule is expected to serve, what political scientists would call the overall implementation success of a policy.

Operationalizing Compliance as Compliance Behavior

Ultimately, compliance researchers want to evaluate whether people comply with regulation—even very vague, plural, or decentered regulation—and whether this leads to achieving substantive goals. Researchers are therefore still left with the problem of defining and operationalizing evaluation standard(s) for compliance. Although this task is complex, it is logically important for both policy evaluation and theory testing to be able to explain which regulatory interventions prompt which behavioral responses and whether these behaviors lead to the desired goal.

In doing this, the researcher him-/herself will become part of the process of constructing the meaning of compliance. The researcher

cannot choose an evaluation standard without implicit or explicit use of norms and values. This puts a heavy moral responsibility on the researcher. He or she is to define the evaluation standard for compliance that he or she thinks is reasonable and/or morally defensible. This might mean that the researcher has to define compliance with a rule from scratch, or it might mean owning up to whose normative standpoint the researcher is adopting—a regulator's, some stakeholder's, or regulatees'. From a democratic policy-study point of view, the standard should be one that is closely and loyally defined by a reading of the intentions and interests of the legitimately elected decision makers (Mazmanian & Sabatier 1981, 1983; Olsen 1978; Winter et al. 1994). But from another—more critical—point of view, the researchers' own normative standard or the standard of certain actors in the field (e.g., certain citizen/interest groups, the regulatory agencies and inspectors, or the regulatees) is equally—or even more—legitimate (Guba & Lincoln 1981). There is no standard handbook approach to what role to play as a researcher. It is a matter of individual beliefs and position. But researchers' and evaluators' ambition should be to define explicitly their own positions and measure(s) of compliance.

Researchers' capacities to operationalize compliance their own way might be constrained, however, by the available data sources. Thus, we must address biased data sources and shaky information and what definitions of compliance are implicit in the data sources available for studying compliance in regulatory capitalism.

Collecting Data by Observation of Regulatory Compliance Behavior

Ideally, once social science researchers have defined and operationalized regulatory compliance, they will go out and directly observe relevant business behavior that they can code as compliant or noncompliant according to their definitions, as shown in **Figure 1** (e.g., Burby & Paterson 1993, Fairman & Yapp 2005). They might use secret observation so that there is no interference attributable to the research subject knowing the researcher is watching. They might use an experimental design if they are trying to test the impact of regulation on behavior (e.g., McGraw & Scholz 1991). They might conduct qualitative interviews before observing compliance behaviors to develop and hone their definitions of the concepts they are interested in and also their hypotheses or research questions, and then again after observation to help interpret the results. But, ideally, researcher-controlled observation of compliance behaviors should always form the core of data collection for the purpose of causal explanation.

In practice, however, direct observation of business compliance and noncompliance by researchers is generally impractical, and studies that rely on this method of data collection are extremely rare (but see the studies cited in the previous paragraph). Time and resources for the researcher and his/her assistants to be present for long enough to observe sufficient behaviors are often a particular problem. In many countries, government and university human research ethics committees (institutional review boards in the United States) also heavily restrict or even prohibit observation of illegal behavior, especially if such observation is to be done secretly. There are also obvious ethical and political problems in experimenting with regulatory design and interventions: Randomly assigning a large number of businesses to a more lenient, cooperative inspection regime while a similar number are assigned to a stricter, punitive regime for experimental and statistical purposes raises obvious issues. A control group that is not regulated at all may be the ideal way to test the impact of different regulatory enforcement conditions on compliance behavior, but it is likely to take an unusually persuasive researcher and a very farsighted regulator to achieve this sort of experimental design.

Because the researcher is generally interested in studying business organizations—and often quite powerful ones—he or she can have great difficulty obtaining access to observe relevant behavior. Moreover, even with adequate

access, the researcher will need highly specialized knowledge and even specialist technology to accurately detect and identify legally compliant and noncompliant behavior. For example, it is difficult for laypeople (as most regulatory researchers are in the different arenas of regulation) to detect whether or not a company is violating building codes or environmental, health and safety, and fire precaution laws. One solution, if time and resources allow, is for the researcher to hire an independent rater with specialized knowledge to judge regulatees' behavior (e.g., Braithwaite et al. 1992) or for a researcher to train as an inspector (e.g., Fairman & Yapp 2005).

Some compliance researchers overcome these problems by using quasi-experiments in which regulatees are asked to report their most likely behavioral responses to various hypothetical scenarios in a written questionnaire, interview, or role play (e.g., Edwards 1991, Feldman & Lobel 2008, Gunz & Gunz 2002, Simpson 2002). Some have even used lab experiments in the behavioral economics tradition to measure compliance tendencies (Casey & Scholz 1991). These give the researcher control over both the facts and how they define compliance. But the hypothetical or laboratory nature of this research means that at best we find out about compliance tendencies. We cannot predict for sure what the research subjects would do in real life and to what extent we have elicited an idealistic or politically correct answer. That is, the experiment might result in information that is shaky or biased.

Researcher Dependence on Other Data Sources

Because of the impracticality of observing compliance for themselves, researchers often depend on other sources for data about actual compliance behavior: state-based regulatory agencies, regulated businesses, or various stakeholders and nonstate-based regulators.

Many researchers of regulatory compliance source their data from state-based regulatory agencies and the data these bodies collect on rule violations and enforcement actions: This includes records of the results of compliance monitoring and inspection visits (e.g., Gray & Scholz 1993; Hill et al. 1992; Mendeloff & Gray 2005; Nielsen 2006; Nyland et al. 2006; Prakash & Potoski 2006, pp. 132, 136; Short & Toffel 2007), publicly available records of enforcement action (notices, fines, enforcement and discipline, litigation) (e.g., Baucus & Near 1991, p. 16; Dalton & Kesner 1988; Harrison 1995; McKendall et al. 1999; Simpson 1987), and other records of actions taken to comply with regulatory requirements (Braithwaite 1993, Johnston 2006, Kleindorfer 2006).

State-based regulatory agencies have traditionally been a rich data source because public regulatory agencies' own accountability requirements often authorize or mandate them to make their enforcement and compliance information available to researchers. But as regulatory capitalism places more and more responsibility on business organizations for their own regulation, and as other nonstate-based forms of regulation abound, more and more relevant data may be held by businesses themselves or by industry or civil society–based regulators (such as certification agencies), and less and less by public regulatory agencies.

A second source of information about regulatory compliance is therefore self-reports by regulated businesses or individual officers and employees of regulated businesses: Self-reports may be collected in surveys, open-ended interviews, and, occasionally, internally collected data that is passed on to the researcher. Most researchers collect their data from individuals within larger organizations (e.g., Weaver & Trevino 1999) or the principals of small business organizations (e.g., Kuperan & Sutinen 1998; Murphy 2005; Scholz & Lubell 1998; Wenzel 2001; Winter & May 2001, 2002), not the leaders of larger organizations (e.g., Nielsen & Parker 2008, Parker & Nielsen 2009).

A third source of data is third-party stakeholders: These might include potential victims of business noncompliance such as consumers or local residents, professional advisors and other stakeholders who might have

particular knowledge about business compliance behaviors (e.g., Beckenstein & Gabel 1983), and even nonstate regulators. For example, employees might be asked how often they have experienced workplace harassment or unreported occupational injuries (Mayhew et al. 1997), or consumers might be asked how often they have experienced food poisoning or purchased faulty products. But these types of victim surveys are not capable of measuring victimless crimes or misconduct where the harm is diffuse or not able to be detected by victims (e.g., many instances of price-fixing). For these reasons, it is generally accepted that victim surveys underestimate "corporate crime and so-called 'crimes of the powerful'" (Jupp 1989, p. 107).

As already mentioned, however, relying on these various sources of data raises concerns about the reliability and validity of the data that can be obtained in the form of biased sources or shaky information. Even though a researcher has defined and operationalized compliance in a way that makes sense for his or her own research project, shaky information and bias in the data sources might make it challenging or impossible to collect data that actually address the research question. As with the conceptualization of compliance, the nature of regulatory capitalism creates particular challenges of shaky or biased information. We discuss the challenges of collecting valid and reliable information from two of the most popular data sources for compliance research—official regulatory agencies and self-reports from regulated businesses—in turn below.

Data from Official Regulatory Agencies

Criminologists have long recognized that official crime statistics are shaky because they do not account for the dark figure of crime—crime not reported to police in the first place, or not recorded by them (Coleman & Moynihan 1996; Jupp 1989, p. 87). Compliance data collected by business regulators are likely to be even less complete (Shover & Hochstetler 2006, p. 13). Many business violations are never officially discovered or recorded. This is especially true of the records of reactive business regulators (Kagan 1994, p. 387) that only investigate potential breaches when complaints are made to them, rather than engaging in systematic, proactive monitoring and inspection to seek out breaches: Victims will often not report the offense because the harm is diffuse and not seen as worth complaining about (e.g., many consumers who all lose a small amount of money through purchasing a faulty product). Organizations might also hide breaches on purpose (e.g., secret illegal dumping of pollutants in a river, cartel conduct) or unintentionally via complex organizational structures (e.g., a label that represents that a food product is certified organic where not all supplies of that food are always in fact from organically certified producers). Even proactive regulators that actively monitor compliance through inspections or audits miss many violations that come and go during the intervals between inspections and rarely discover all violations even at the time of inspection. Of those that are detected, not all are recorded because of inattention, discretionary leniency, or even corruption (see Hill et al. 1992; Weil 1996, p. 619).

Regulators' discretion means that the data they record about compliance and noncompliance are likely to be normatively biased. We have already seen that social, political, and economic factors influence official enforcement decisions about what counts as compliance or not. In many instances, regulators' understanding and recording of compliance will be based to some extent at least on how regulated businesses have negotiated and constructed the meaning of compliance.

Methodologically, shaky information and biased data sources are two distinct problems that do not necessarily correlate: One might very well imagine an official database with perfectly inclusive data established with reference to a very narrow, biased definition of the breach. But the two problems often feed off each other. Data can be shaky in systematic ways that create

institutional biases, or normative biases in the institution can create shaky data.

Shaky and biased data from regulators are a problem not only because they are biased but because the bias and its criteria are nontransparent. Often researchers will have access only to a set of official enforcement statistics that are the outcome of a range of subjective assessments of behavior. Moreover, regulatory agency personnel's filtering processes and criteria for deciding what is illegal are often unconscious, nonexplicit, and therefore unknown. Ideally, the researcher would have access to the full complaints or inspection records and uncensored observations of individual regulatory staff in order to understand what biases and inaccuracies have affected the creation of official statistics (e.g., Nielsen 2002). This underscores the importance of empirical research that uncovers these biases by examining processes of social construction of compliance and the making of agency records. In addition to being worthwhile and interesting in itself, this type of research helps us interpret and use official statistics effectively, or at least to note their limitations.

In one sense, biased data from regulators are not a problem if the individual researchers' conceptualization and operationalization of compliance fit that which is used in the official data. The problem is that in many situations using official data sources will unacceptably limit our understanding of compliance. Existing data sources will tend to be normatively filtered in ways that reproduce existing positions of power; it is important for policy and theory that researchers also bring different evaluation standards to bear and do not always rely on official data sources.

Self-Report Data from Regulatees

Many empirical studies of regulatory compliance seek to avoid the limitations—and often sheer lack of availability—of official statistics by asking regulatees themselves how much they have broken the law or to what extent they comply with it. In criminology, it is generally accepted that self-reports are most useful for studying low-level criminal activity and victimless crimes that may not be reported to the police and have relatively low levels of social stigma attached to them, especially delinquency among adolescents (Coleman & Moynihan 1996, p. 55). Self-report data may be quite useful in business regulation compliance research for similar reasons. Many regulatory violations are not stigmatized so much that we would never expect people to admit to them in a study with suitable anonymity and confidentiality assurances. Moreover, as we have seen, often the victims will not report business offenses to regulators, or even be aware enough of them to be able to report them to researchers when asked. Self-report data have the advantage that generally the respondents themselves are more likely to know about their own history of compliance with the law than do enforcement officials or anyone else.

There are also, however, a number of well-known shaky information problems with the reliability of self-report data on compliance. Criminological studies have shown that under- or overreporting of crime is common because of simple lapses of memory or more complex tricks of memory such as telescoping in which respondents remember the relevant activity but at the wrong time: Events outside the survey period may be brought forward into it or vice versa (Huizinga & Elliott 1986, pp. 166–67). Individuals admitting to fewer criminal acts prove more reliable than do frequent offenders who have more to remember, report, and potentially cover up (Huizinga & Elliott 1986). Serious offenses are generally recalled with greater accuracy than trivial ones, when they are recalled (Coleman & Moynihan 1996, p. 66).

Self-reports of illegal activity also, of course, provide biased data. People are generally likely (either deliberately or subconsciously) to interpret, remember, and report events in such a way as to exaggerate their compliance with the law and underplay or excuse noncompliance or to overreport trivial offenses and underreport serious offenses (Jupp 1989,

p. 102). Researchers generally seek to overcome social desirability bias by guaranteeing anonymity, by framing questions about illegal activity in neutral and factual ways (e.g., Winter & May 2002, p. 126), and also by giving respondents a range of apparently socially acceptable ways to confess noncompliance. For example, Scholz & Lubell (1998, pp. 402–3) gave respondents the opportunity to report that they definitely did, probably did, probably did not, and definitely did not report all income to the tax authorities—three ways of reporting noncompliance.

Where the respondents are business firms and the topic is regulatory compliance, problems with accurate memory of illegal activity and social desirability bias are more complex than with individual criminal activity. In any organization, but especially in a large organization, the researcher must ask an individual or individuals to fill out the survey or respond to the interview. On the one hand, the individual respondent may not know enough about what goes on inside the organization, or perhaps even about the law or technical processes (in complex areas), to report accurately on organizational compliance. Ideally, self-report studies should include representatives of every part of the organization where the relevant illegal activity might have occurred (e.g., Weaver & Trevino 1999, Key 1999). But this might be impractical for reasons of access or cost. On the other hand, the fact that there are many people within the organization who potentially know about illegal activity means that there may also be a number of access points into the organization with varying levels of knowledge and susceptibility to social desirability bias (e.g., Hutter 2001). There is also the possibility that the researcher can gain access to corporate records that document compliance contemporaneously over a long period in a relatively objective way, e.g., emissions or customer complaints. But any individual or record's knowledge of compliance is institutionally created. Researchers need to understand the internal processes by which any businessperson's knowledge of compliance was created in order to understand the value of that information.

Social desirability is also more complex in regulatory compliance research. It is more sociologically and psychologically plausible for offenders and observers to fail to see corporate noncompliance as illegal. Indeed, business firms may be intentionally organized so that information about noncompliance is hidden (Tombs 2000, p. 75). To the extent that regulatory noncompliance is not seen as morally wrong or is not stigmatized in the same way as street crime, respondents may simply be less likely to remember breaking the law because it is not memorable. Similarly, to the extent that regulatory compliance and noncompliance are seen as having fuzzy borderlines, then it may be very difficult to define accurately illegal activity and to get respondents to remember which side of the line their own (or their businesses') activity fell on. However, lack of social stigmatization of regulatory noncompliance may also make it easier to counteract social desirability bias. Questions may be able to be worded relatively neutrally about certain activities so as not to trigger social desirability bias. Moreover, because the reality is that many regulatory breaches are never prosecuted or taken seriously, respondents should have less fear about reporting illegal activity to researchers.

In other areas, researchers generally try to check the reliability of self-report data against other data sources. To the extent that regulatory capitalism uses more and more decentered, plural, and private regulatory governance, more of the information relevant for compliance research will be in private organizations, where access for researchers is difficult and opportunities for reliability checking rare.

Even now, a number of studies that appear to use official statistics from regulators in fact use self-reports because the official statistics are based on more or less unfiltered self-report data on compliance (Bennear & Coglianese 2005). For example, because U.S. environmental regulators have required a great deal of self-reporting of emissions data, a number of

studies of compliance in environmental regulation are in fact based on official data that are themselves based on self-report data from regulatees. The U.S. Toxic Release Inventory scheme, for example, is relied upon by many researchers, but the legislation "does not set a standard for accuracy and gives wide latitude for estimates" (de Marchi & Hamilton 2006, pp. 59–60). Research has shown that at least some emissions data self-reported by businesses are not reliable and do not match data from external monitoring of air pollution (de Marchi & Hamilton 2006), and that firms might also strategically manage their operations to fall under reporting thresholds leading to inaccuracies in researchers' measures of reductions in toxic releases of up to 40% (Bennear 2008, p. 298).

The same type of difficulties can occur with studies of occupational health and safety regulation compliance, which are based on mandatory self-reports of injuries and on mandatory disclosures of incidents of risk (Tombs 2000). Harrison (1995, p. 229) reports that when she asked the Canadian federal environmental regulator for compliance data she was "met with the remarkable response that the data could not be released until it was verified by the regulated industry." This response probably reflects the fact that official compliance data were based at least partly on business self-reporting. It also reflects the power of the industry vis-à-vis the regulator to close off external scrutiny of compliance by a researcher.

Regulatory capitalism increasingly functions by requiring the regulated to take responsibility for regulating themselves to a certain extent by implementing their own internal compliance management and data collection systems and then reporting data about their implementation of management systems and/or their compliance or other performance outcomes back to the regulator and/or to the public (e.g., environmental emissions, employee days off work, number of women or members of racial minorities employed) (Parker 2002, pp. 277–83). But the regulator does not necessarily have any objective data not sourced from the regulated, and neither therefore does the researcher. For example, Winter & May (2001, p. 694) corroborate their self-report data against official data. But we have already seen that in many studies (including Winter & May's) the official data are themselves based largely on self-reports. So if they corroborate one another then it may simply mean that the same biases are replicated in both data sets.

In some cases (e.g., emissions), this will raise issues only of shaky information because the official statistics based on self-reported data ask the regulatees to report fairly detailed and explicit information on phenomena that both the regulator and the regulatee have a fairly alike definition of. The concerns are that the information reported is shaky simply because the regulatees lie or do not know the right answer. But when regulators ask regulatees to self-report on implementation of, for example, appropriate risk management systems, then there is room for bias through different normative judgments about what counts as an appropriate system. Regulatees may have succeeded in influencing the whole way compliance is constructed by the regulatory enforcement system, and neither self-reports nor official data are likely to provide a different viewpoint (Black 2008, Krawiec 2008).

The various reliability problems with different kinds of self-report data from regulatees are not necessarily merely technical problems that can be controlled or corrected for with the addition of data, statistical procedures, or appropriate technique in survey questionnaire design. The danger is that there will develop (or has already developed) a profound ideological/normative match between regulated businesses and the regulatory enforcement system. As a result, corporate illegality may often remain invisible not only to regulators and the public at large, but also to researchers—and perhaps even the regulatees themselves.

The best solution to this problem is to try to find information about compliance from different sources and stakeholders with different viewpoints. There are some studies in which

researchers have attempted to corroborate their self-report data against data from a completely separate source: For example, in Bussmann & Werle's (2006) study of corporate fraud inside companies in a range of countries, they corroborate the overall levels of fraud reported for each country against each country's ranking in the OECD's corruption perception index. One might also test the reliability of self-report or official regulatory agency data by asking a range of stakeholders surrounding the firm, such as employees or customers, about the firm's compliance with the law (e.g., Mayhew et al. 1997).

CONCLUSION

In an age of both proliferating regulation and capital, many of the political, economic, and social research questions that social scientists see as most significant will raise issues of regulatory compliance. To answer these questions, we need to understand what effect regulation has on behavior and policy outcomes. Although this review has been concerned with research that addresses business as the object of regulation, increasingly government bodies, states, and all sorts of agents of civil society and military and quasi-military groups are the subject of regulation. Understanding how and why they are likely to comply is fundamental to understanding the prospects for peace and global justice more broadly (Braithwaite 2002, pp. 169–210; Chayes & Chayes 1998).

The very characteristics of regulatory capitalism—the responsibilization of business and the decentering of regulation away from the state—however, create difficulties in conceptualizing, operationalizing, and measuring compliance. Different regulators, regulatees, and stakeholders involved in plural regulatory regimes will each have their own ideas about what compliance means. To the extent that there are any socially accepted meanings of compliance, they emerge from a process of interaction between these parties. This creates interesting research opportunities, but it does not fit neatly with policy expectations that researchers can measure how different attempts at regulation impact compliance and come up with objective and certain results. To understand compliance adequately, researchers must collect data on information, processes, attitudes, motivations, and, finally and often most difficult and critical of all, actual behavior and its policy outcomes.

The problems this lack of a clear definition poses for social science researchers are familiar. There is no one objective standpoint from which social scientists can study a social phenomenon like compliance. The fact that socially accepted understandings of compliance are often negotiated by regulators with regulated businesses and other stakeholders means that social science researchers need to be particularly wary of uncritically adopting either official or business definitions and measures of compliance. Compliance researchers have to take responsibility to develop, justify, and explicitly explain our own definitions of what counts as compliance or to be clear about the limitations of the definitions we adopt from parties who are involved in the regulation process. Even once the researcher has settled on a satisfactory way of conceptualizing and operationalizing compliance for the purposes of his or her own research, data sources that fit the researcher's approach may not be available. A particular issue in regulatory capitalism is that businesses' potentially self-serving views of what should count as compliance for themselves will often have insinuated themselves into even apparently objective official data, and much compliance research will have to depend on self-report data of one sort or another.

Ultimately, plural conceptualizations of compliance and, consequently, the use of multiple methods for measuring compliance are desirable and necessary. Different research questions and research ambitions place different demands on data—demands that sometimes, because of data validity problems, are difficult to fulfill. Because no one method of measuring compliance is likely to be perfect and corporate compliance itself is a contested concept, multiple methods will build a better social science of regulatory capitalism overall.

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