


Accountability infrastructures: Pragmatic compliance inside organizations

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Abstract

We trace the pragmatic turn in regulatory governance from the level of the state and civil society to the coalface of the regulated organization. Since the 1980s, an array of new regulatory models has emerged. These models, while distinct, are unified in two related tendencies. First, they support the devolution of responsibility for standard setting, program design, and enforcement to the regulated organization. This delegation of governance to the organization itself has catalyzed the creation of *accountability infrastructures* within organizations, a network of offices, roles, programs, and procedures dedicated to aligning the organization's operations with external standards, codes of conduct, ethical and normative expectations, and regulations. Second, the diverse regulatory models depend, often implicitly, on organizational accountability infrastructures that incorporate the tenets of pragmatist philosophy: inquiry through narration, adaptation to context, and problem-solving through experimentation. Reviewing the empirical literature on organizational compliance, we find ample evidence of inquiry through narration at the organizational coalface. However, we find limited evidence of narrating plurality in the organization and narrating experimentation as problem-solving, as these activities create tensions with internal and external parties who expect singular, stable representations of governance. These tensions reveal an important incongruity between pragmatic governance across organizations and pragmatic governance within organizations. We contribute to the regulatory governance literature by documenting this important shift in the locus of governance to the organizational coalface and by charting a new research agenda. We argue that examinations of regulatory governance should be retraced in three ways. First, attention should shift to the organizational coalface, recognizing and analyzing accountability infrastructures as the central contemporary mechanism of governance. Second, the long-standing focus in regulatory studies on *why* parties comply should shift to understanding *how* regulated parties manage themselves to achieve compliance. Third, analyses of compliance should examine the tensions in narrating adaptation and experimentation, and the implications of such tensions for the achievement of prosocial outcomes.

Keywords: accountability, compliance, governance, organizations, pragmatism.

1. Introduction

Pick up any contemporary work on regulation and you will be confronted with an abundance of different regulatory governance models, including performance-based regulation (Coglianese & Nash 2001; Coglianese & Lazer 2003), light-touch regulation (Esbin & Marcus 2008; Blevins 2019), right-touch regulation (Russell 2016), third-party regulation (Gunningham & Sinclair 1999), responsive regulation (Ayres & Braithwaite 1992), private regulation (Vogel 2010; Locke 2013), risk-based regulation (Hutter 2005), intermediary-managed regulation (Canan & Reichman 2002; Abbott *et al.* 2017a,b; Brès *et al.* 2019), experimentalist regulation (Overdevest & Zeitlin 2014), and so on. One recent publication includes a spinning wheel image of no fewer than 22 ostensibly distinct paths from which regulatory designers – whether government agents, organizational managers, or private consultants – can select (Sparrow 2020). Regulatory governance can no longer be accurately characterized by a

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singular style (although it often is) but rather by a panoply of models and approaches (Black 2001, 2008; Levi-Faur 2005, 2011).

Although these regulatory prescriptions vary in their approaches to compliance, they share underlying features. First, most promote the idea that regulated parties should self-regulate (Short 2011). The regulated organization is made responsible for designing and managing systems – offices, roles, policies, and processes – to achieve externally mandated standards. Second, in designing such systems, regulated parties are encouraged to tailor their responses to their locally specific and diverse cultural practices yet align these operations with external standards (Coglianese & Lazer 2003). The focus is on managing processes of compliance and tracking outcomes in a recursive manner, rather than adhering to one-size-fits-all prescriptions. Thus, a plurality of organizational responses to an external requirement signals consideration of local variation and the need to experiment in relation to feedback (cf. Coglianese & Nash 2001, 2006; NAS 2018). Third, as every regulated organization becomes “its own enforcement agency” (Parker & Nielson 2006, p. 445), they are, crucially, responsible for providing an account – a comprehensive structured narrative – to external standard-setters of how they produce compliance (or not) through this organization-level system.

These features of contemporary regulatory models reflect central themes of philosophical pragmatism (Haack 2006). By choosing from courses of action and inaction, regulated organizations become the agents of clarification and elaboration of standards, norms, as well as law (Bardach 1977). “Rules, models, and conceptions of compliance get reshaped in the process of implementation, [because] legal and organizational blueprints rarely emerge unscathed in the trip from one setting to another” (Schneiberg & Bartley 2008, p. 49). In contrast to those who see enforcement styles and compliance strategies as independent variables that determine regulatory outcomes, the pragmatic perspective recognizes the continuous struggle of social actors working within the “uncertain flux of experience” to adapt to the realities of their time and place, at the micro as well as meso and macro levels of social action (Sabel 2012). For the pragmatists, knowledge of the world is inseparable from action in the world, and thus what we know is produced through what we do, especially empirical experimentation; moreover, a claim to knowledge or truth should survive only if it is useful in action. Finally, experience, inquiry, and experimentation are social transactions engaged on the basis of a “deep bed of human practices that can never be fully ‘made explicit’.”¹

Regulation and governance scholars have devoted ample attention to examining the plurality of regulatory models, at times explicitly noting their pragmatist features. Yet studies often end at the boundary of the regulated organization, implicitly conceptualizing them as monolithic actors (cf. Gray & Silbey 2014; Huising & Silbey 2018). At the same time, organizational scholars have documented efforts to signal and achieve compliance with external demands, theorizing these as processes of institutional or organizational change (Kalev *et al.* 2006; Kellogg 2009, 2011; Huising 2014; Dobbin & Kalev 2016). We argue that between these two fields, *accountability infrastructures* – the concept we use to name the array of roles, offices, programs, and processes dedicated to aligning an organization’s operations with external standards, codes of conduct, ethical and professional norms, and regulations – are not adequately recognized and analyzed as the central form of governance in contemporary societies.

The growing profusion of regulations, external standards, codes of conduct, and normative expectations require that organizations devote increasing attention and resources to managing myriad self-regulation processes to comply with these externally generated performance norms. Systems for managing health and safety, environmental sustainability, physical accessibility, enterprise risk, diversity and inclusion, quality, privacy, and corporate social responsibility are relatively new in most organizations. This is despite the long, primarily Anglo, history of the intertwining of legal criteria, reasoning, and rhetoric into organizational structures and practices (Selznick 1969; Pfeffer & Salancik 1978; Sitkin & Bies 1993; Hutter 2001). Organizations have responded by creating networks of experts, programs, reporting channels, digital technologies, trainings, and audit tools to manage these responsibilities, expanding their cadre of staff. Because the details of how to achieve compliance are rarely given, organizations must develop home-grown responses or adapt off-the-shelf systems so that they are locally meaningful and workable, and provide accounts to external parties of how their tailored responses work to achieve compliance (Laufer 2018).

Through a review of empirical studies in the distinct scholarly fields of regulation and organization studies, we introduce the concept of accountability infrastructures. This concept signals the fundamental shift in the

location of regulatory governance from parties external to the organization to the coalface of the organization. Common features of new regulatory governance models suggest that the design and operation of accountability infrastructures is a pragmatic enterprise, depending on narration, adaptation to context, and problem-solving through experimentation. This stylized portrait of accountability infrastructures conceptualizes regulatory compliance not as a singular alignment in a specified chain of action connecting rule to implementation on the ground but instead as the mutual constitution of expectations and performances that become securely integrated into taken-for-granted organizational routines (cf. Hawkins & Hutter 1993). Yet, we show that incorporating pragmatist tenets into accountability infrastructures is difficult. Doing so depends on several conditions internal and external to the organization, including the availability of slack time and resources that facilitate ongoing reflection, deliberation, and experimentation; acceptance of a multiplicity of compliance approaches tailored to the ubiquitous variation observed within organizations; and tolerance for experimental problem-solving focused on altering routines over time. A pragmatist approach is difficult to achieve because the narration of compliance is more easily, perhaps more convincingly, told as a singular tale without digressions that address adjustments to local conditions and learning over time. Thus, there is an incongruity between pragmatic regulatory governance across organizations and pragmatic regulatory governance within organizations. Importantly, enacting pragmatic regulatory governance within organizations depends on external audiences' tolerance for multiplicity, heterogeneity, and trial and error, not only across organizations but within organizations. Figure 1 provides an overview of the pragmatic turn in regulatory governance and the observation that accountability infrastructures depend on pragmatic mobilization and enactment.

We build on these observations to chart a new research agenda for regulation and governance scholars. We argue that significant regulatory action has moved from the realm of governance actors such as states, non-governmental organizations, and other external standard-setters, and into the realm of the regulated parties themselves. Given this, our future examinations of regulatory compliance should be retraced in three ways. First, to

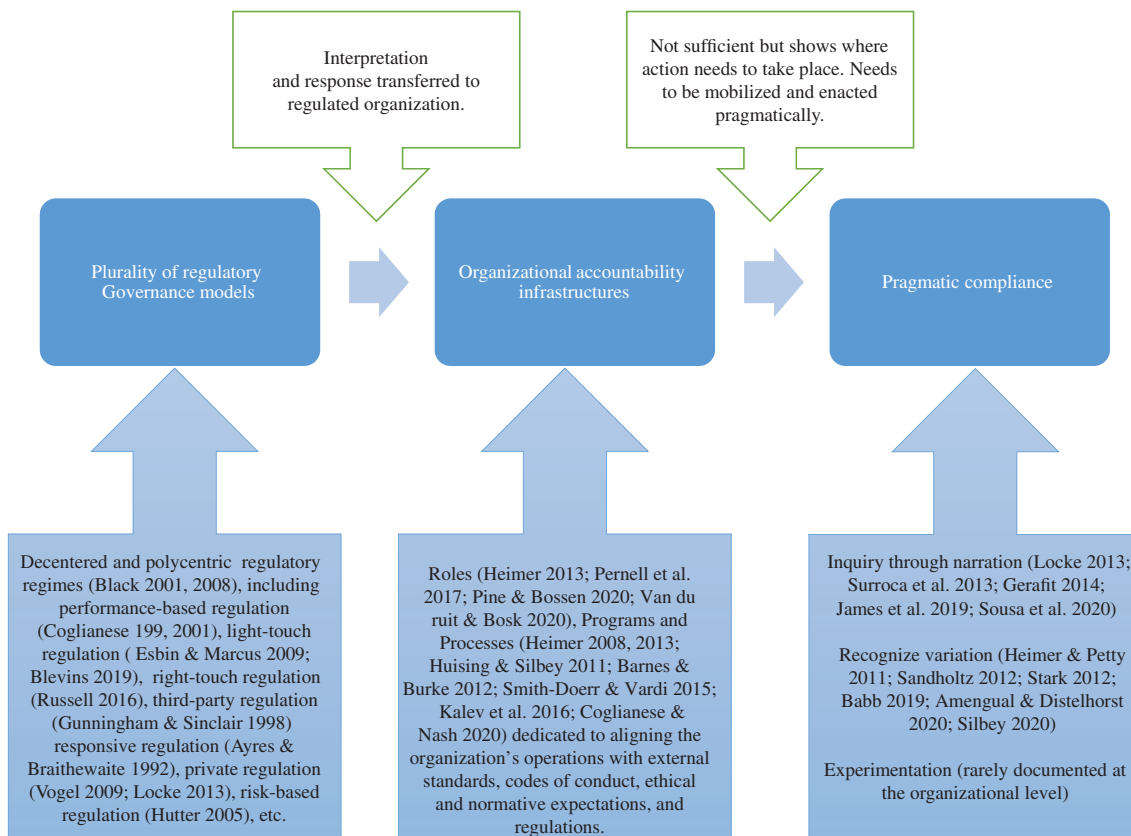


Figure 1 The pragmatic turn in regulatory governance.

understand how regulatory governance is produced, we should focus on the accountability infrastructures built *within* organizations to align routines with external demands, often with help from emerging professions, consultants, and technologies but ultimately relying on the integration of new habits across the organization. Second, the long-standing focus in regulatory studies on *why* organizations comply should shift to understanding *how* organizations manage themselves to achieve compliance. When regulation was more appropriately (but never entirely accurately) described as command and control, it was reasonable to inquire *why* compliance takes the forms it does. Given the variety of current regulatory approaches, the question is no longer *why* actors comply but *how* regulated actors meet external obligations. Because the ostensible goal of regulation must surely be to transform legislated expectations into normalized routines and taken-for-granted habits, we need to understand not only whether but also *how* these alternative paths can actually promote compliance with mandated prescriptions and requirements. Third, analyses of governance actors should examine the tensions in narrating adaptation and experimentation and the implications of such tensions for the achievement of prosocial outcomes in line with democratically developed ambitions and policies. Notably, we recommend close attention to the ways in which compliance practices are narrated, including adoption of numeric rating and indicators, but more importantly self-reflective accounts depicting and assessing processes, outcomes, and adaptations within diverse local settings and conditions.

In the next section, we introduce the concept of accountability infrastructures, illustrating common practices through which a range of offices and roles commonly found in contemporary organizations attempt to meet external performance standards. Following this, we review empirical studies of regulatory compliance within organizations to show how accountability infrastructures can be understood through philosophical pragmatism and depend on a form of pragmatic compliance. We observe whether and how central features of pragmatism are enacted in organizations, including inquiry through narration, adaptation to and embrace of contextual variation, and experimental problem-solving. The enactment of these principles, in particular adaptation to context and problem-solving through experimentation, creates tensions in narrating accountability, especially to external parties. We discuss the implications of “pragmatist turtles all the way down” in the concluding and final sections.

2. Accountability infrastructures

We offer the concept “accountability infrastructures” to name an increasingly ubiquitous array of organizational roles, offices, programs, and processes dedicated to aligning the organization’s operations with external standards, codes of conduct, ethical and normative expectations, and legal regulations. Accountability, in the simplest terms, is a process for “holding individuals and organizations responsible for performance” (Paul 1992, p. 1047; cf. Strathern 2000). Accountability as a process relies at its core on “account giving ... the giving and monitoring of the accounts that we and others provide of ourselves and of our actions ... that [is how] the fabric of normal human exchange is sustained ... account giving is fundamental to everyday structures of reciprocity, [and] concrete practices of checking or auditing can vary considerably” (Douglas 1992, p. 132). Accountability infrastructures require internal parties (managers and employees) to account for their actions by narrating to themselves how they more or less align with commitments to external parties, and by narrating to external parties accounts of how this alignment, more or less, is designed and achieved. The intentional, self-conscious reflexivity of this narration varies greatly, perhaps generating much of the heterogeneity in “concrete practices of checking and auditing” that Douglas (1992, p. 132) predicts.

Dedicated accountability offices and roles oversee the organization’s commitment to diversity, the environment, health and safety, codes of conduct, technical standards, risk management, accessibility, corporate social responsibility, privacy, and so on. The list of expert techno-legal professions responsible for developing and managing the organization’s responses to these regulations, standards, codes, and ethical expectations is continuously growing, including, for example, health and safety managers, standards managers, quality assurance managers, risk managers, sustainability managers, human resource managers, internal counsel, chief risk officers, and applied ethicists (Lounsbury 2001; Chandler 2014; Huising 2014, 2015; Kellogg 2014; Pernell *et al.* 2017; Risi & Wickert 2017; Pine & Bossen 2020; van de Ruit & Bosk 2020). According to Laufer (2018, p. 393), “There soon will be as many enterprise-wide risk, audit, legal and compliance professionals on the payroll of corporations in

the United States as municipal police officers keeping ... streets safe." Spending, staffing, and attention to self-regulation only promise to grow.²

The core of this work involves interpreting external expectations and transforming them into organizational programs with related trainings, implementation procedures, guidelines, corrective actions, communications, data management tools, audits, and reporting structures. The ultimate goal of such work is to ensure that the daily operations of the organization comply with the external standards. We use the term *compliance* not to imply the impossible achievement of perfect conformity between internal performances and external expectations. By compliance we refer to the management of situated action "within a band of variation surrounding, but not perfectly coincident with, regulatory specifications" (Huising & Silbey 2011, p. 36). The gap between actions and expectations should be expected and must be continuously governed to achieve close to compliance rather than compliance. Hence, gaps are not merely spaces of account-giving, learning, and improvement through continuous feedback but also spaces where the very notion of compliance, what counts, is negotiated. From this perspective, accountability infrastructures are places where the constitution and politics of compliance plays out.

Prior to developing an organizational response, techno-legal experts engage in considerable, important interpretation work related to external performance expectations and exploring appropriate means of achieving such expectations (Laufer 2018). This interpretative work may be informed by professional training and background (Edelman *et al.* 1999). For example, Grassin-Drake (2016) found that chief risk officers interpret regulatory standards differently depending on whether they have a background in law or finance, explaining variations in organizations' risk-avoiding or risk-embracing interpretations. These interpretations may also be informed by intermediaries, including industry associations (Babb 2020), professional associations (Augustine 2021), and consultants (Gond & Brès 2020). Whatever the case, this interpretative work is continuously shaped by interactions among the techno-legal representatives of organizations, intermediaries, and external standard-setters (Edelman *et al.* 2011; Edelman 2016). Given this, the accountability staff in organizations, or what Heimer (2013a, p.141) calls "regulatory wranglers," are *the* crucial link between the regulated activities of actors inside the organization and the external standard-setters.

Most contemporary regulatory governance models require that organizations go beyond providing evidence of compliance or performance to also provide an account of how such outcomes were achieved, how good results will be sustained, and how poor results will be addressed. That is, external standard-setters want to understand the process through which compliance or performance is produced. Given this, many accountability infrastructures take the form of management systems (Coglianese & Nash 2001, 2020; Hoffman 2001; Boiral 2007, 2011; Makin & Winder 2008; Dekker 2014; NAS 2018; Dekker 2020). Lacking a general recipe for what will produce compliance in particular organizations and specific situations, management systems rely on each organization to identify for themselves the locally appropriate and effective actions, which includes a structure of linking policies, operating procedures, and guidelines supported by training, handbooks, forms, checklists, and audits. They "give regulated firms the ability to customize their systems in accordance with the firms' circumstances ... to develop and execute their own internal methods for risk analysis and prioritization, systems for facility and equipment monitoring and maintenance, and procedures for managing change" (NAS 2018, p. 2).

Management systems incorporate the "plan-do-check-act" process into all aspects of compliance. These systems draw inspiration from and thus resemble the quality movement of the mid-twentieth century, sparked by the appointment of quality control consultants Joseph Juran and Walter Deming as advisors to the post-World War II industrial revival of Japan (Evans & Lindsay 2008), a period during which the International Standards Organization was also founded (Yates & Murphy 2019). Quality standards are supported by an ideology of continuous improvement through analysis of and learning from the past. The idea of *system* draws concerted attention to the role of informational conduits and feedback loops in the management and control of organizational action over time. Management systems are control systems in which some proportion of the system's output – the quantitative or textual information – is fed back into the system to dynamically readjust action over time. Thus, a management system routinely observes, records, and self-reflexively responds to ongoing efforts to comply.

In developing a management system, external expectations are transformed into policies, standard operating procedures, and guidelines. Empirical descriptions of management systems (Hoffman 2001; Huising 2014) trace the coordinated components that provide accountability staff a means of integrating external requirements into

the operation of the organizations and systematically managing them (e.g. training, manuals, signs, checklists, forms, audits, and databases). These systems are often supported by the use of digital systems that house electronic traces of action, facilitating auditing, and reporting (Silbey & Agrawal 2011).

In effect, such accountability infrastructures articulate and make transparent the requirements, accountable parties and actions, and actual performance. Importantly, the inevitable gaps among these components can become spaces of account-giving, learning, and improvement through continuous feedback. Managing learning and improvement within these systems can leverage a mix of individual nudges, rules and procedures, values, and relational work (Huising & Silbey 2018). However, the core of the internal accountability and account-giving emerges from the particular way (which can vary widely) in which an infrastructure *designates roles* (the accountability staff, managers, and employees), *articulates responsibility and routines* (standard operating procedures), *elevates audit work* (training, inspection, and accident/deviation reports), and *requires reflexivity*, remediation, and ultimately improved outcomes. Together, these features require that actors distributed through the organization generate accounts of past, present, and future alignment with both internal and external expectations.

2.1. Enacting accountability infrastructures

Accountability infrastructures bridge external expectations and compliant performances. By their existence alone they do not produce and sustain compliance (Simpson *et al.* 2013). To protect machine operators, safety guards must be installed and continuously kept in place (Gray 2011). To responsibly treat a premature baby while respecting parents' legitimate control, consultation must be integrated into every treatment decision (Heimer 1999). To ensure equal public access for differently abled persons, money must be earmarked in capital budgets to create wheelchair ramps (Barnes & Burke 2012). Several factors prevent the meaningful enactment of accountability infrastructures. These include power and resources, mimetic one-size-fits-all design forces, and singular, centralized designs focused on minimizing variation.

While senior managers and accountability professions (Parker 2002; Gunningham *et al.* 2003; Haines & Gurney 2003; Haines & Sutton 2003) have an important role in setting the direction and providing resources, most accountability systems distribute the daily work of producing compliance to employees throughout the organization. This distribution of responsibility, however, may not be accompanied by the knowledge, authority, or time to fulfill this responsibility. The disconnection between compliance responsibility and resources that enable effective, purposive action (Wrong 1979) is well documented (Gray 2009; Agreli *et al.* 2019). Employees, particularly those on the literal or virtual shop floor, do not have the authority or security to question practices and directions that violate external expectations. They may be pressured into noncompliance and concealing breaches (Gray 2009). The knowledge needed to manage compliance may not be translated and distributed in the organization (Gherardi & Nicolini 2000; Huising 2014). Sufficient human and financial resources may not be available in all cases (Parker & Nielson 2006). Rules and requirements considered peripheral to the core work of a profession may be ignored and offloaded to administrative support roles rather than to substantively expert workers (Huising & Silbey 2013; Nigam *et al.* 2016).

The distance and complexity of relations from the top to the bottom of the organization can insulate, intentionally or inadvertently, senior managers from compliance issues at the coalface (Jackall 1988; Gray & Silbey 2014). Self-regulatory paradigms, an attempt in part to reduce regulatory burdens (Hale *et al.* 2015), may in fact just push those burdens deep within the organization to some of the lowest-level employees who are tasked with implementing external expectations. If, however, higher-status actors within the organization resist or reverse decisions of subordinate actors with compliance responsibilities, the accountability infrastructure becomes window-dressing. For example, recent history shows how organizations with large accountability infrastructures, such as Volkswagen and Wells Fargo, engaged in centrally organized subversion of both legal constraints and their own master narratives, as Arthur Andersen did as well (cf. Rostain & Regan Jr 2014). The enactment of accountability infrastructures is challenged by the effects of hierarchy; differential power, authority, and expertise; and conflicting individual/group interests (Gray & Silbey 2011, 2014).

Beyond such variations inside of organizations, the enactment of accountability infrastructures is challenged by differential distributions of operational and organizational experience between insiders and outsiders, in this case external inspectors, auditors, accreditors, and regulators. Toffel and Short (2011), for example, show that

self-auditing firms – those with accountability infrastructure and staff – have fewer violations when subsequently audited by external parties, highlighting the important role of external auditors. Under contemporary regulatory governance models, external parties are not concerned with observing and evaluating the organization's demonstration of compliance such as checking the proper functioning of technical devices, viewing the inventories of materials, or observing the evacuation of a building in a designated time (NAS 2018, p. 27). Instead, public and private auditors evaluate the quality of the infrastructure in place to ensure that such things are achieved. Their work is to ascertain the existence and functioning of organization's programs and policies meant to ensure that devices work, materials are inventoried, and buildings are safely evacuated. Moving beyond knowledge of the regulations and requirements, accountability infrastructures require that external auditors have operational knowledge and experience relevant to effectively evaluate the local system meant to produce compliance. Overall, these infrastructures require regulators to command a wider set of capabilities (NAS 2018, pp. 97–100, 133–137). Alternatively, some argue that accountability infrastructures relieve external regulators of much of their responsibility and shift the burden and costs of checking to regulated parties (Laufer 2018).

While accountability infrastructures are ideally adapted to local contexts, there are many off-the-shelf packages that integrate and generalize so-called best practices. Organizations may adopt such on-size-fits-all approaches. Regulatory intermediaries – such as consulting firms, nongovernmental organizations, and other nonstate actors – help firms adopt and implement external standards (Brès & Gond 2014; Abbott *et al.* 2017a,b; Brès *et al.* 2019). They are a mimetic force of institutional isomorphism (DiMaggio & Powell 1983). While most intermediaries carry a single model, management process, and set of techniques, for example “the balanced scorecard” or an ISO standard, some offer flexibility to tailor enforcement and compliance within different firms and market conditions (Piore 2011; Piore & Schrank 2018).

The challenge for enactment is not only that organizations may adopt preformed accountability infrastructures that are poorly suited to their context but also that they may rely on singular, centralized accountability infrastructures. Such infrastructures reflect and perpetuate the understanding of organizations as monolithic actors. Accountability infrastructures offer a means – often digitally supported – of monitoring and assessing compliance indicators over time and organization spaces. As measures of compliance proliferate (Silbey & Agrawal 2011) and data accumulates, analyses of variation in performance and conditions become more sophisticated. This is the advertised benefit of a digitized management system (Yoo *et al.* 2012). It allows managers to assess the distribution of performance in the organization and consider what to do about the tails of the distribution. While accountability infrastructures support learning through reflexivity and remediation, centralized infrastructures are likely to focus on eliminating variations in performance across the organization by proliferating and expanding standards or rules to “catch” deviations rather than experimentations with new ways of working. Yet, this approach creates additional burdens for the “good” actors and rarely changes anything for the “bad” actors. Even if locally developed and tailored to the organization, accountability infrastructures may be designed as singular with uniform, standardized tools that may be more or less appropriate across the organization. As such, they generate singular accounts – internally and externally – of how the organization produces some degree of conformity with external standards.

Like all organizational systems, accountability infrastructures are likely to increase compliance only if they are mobilized, eventually routinized, substantively and practically enacting the organization's reference narrative, a story that is an expression of the organization's actual and realistic expectations (King & Kay 2020, p. 122). Critically, however, these need to be recognized, acknowledged, and narrated, demanding habitual self-observation, reporting, reflection, and responsiveness. In the next section, we examine how challenges described above – issues of power and resources, mimetic one-size-fits-all design forces, and singular, centralized designs – may be addressed.

3. Pragmatic compliance

Accountability infrastructures do not by themselves ensure better compliance; however, their design reveals where action can be mobilized and coordinated to increase the likelihood of compliance. In this section, we begin by identifying how the central concepts of pragmatist philosophy (Dickstein 1998; Haack 2006; Reed *et al.* 2020) can be operationalized and integrated into accountability infrastructures to improve compliance at the organizational

ground-level. If the ostensible goal of regulation is to transform publicly established expectations and requirements into normalized activity, regulatory scholars need to understand how accountability infrastructures can produce new and sustainable habits. Importantly, for Dewey, habit is not merely a repeated action, and can be compared with Bourdieu's (1977) concept of habitus, the expression and embodiment of cultural capital. While habitus, like habit, refers to deeply ingrained skills and dispositions possessed as a consequence of life experiences, the organizational habits enabled by accountability infrastructures are more particular and routinized but no less flexible and contingently enacted. For Dewey (1927, p. 61), habit is an acquired predisposition to *ways* or modes of response that "economize intellectual as well as muscular energy." Habit means "a special sensitiveness or accessibility to certain classes of stimuli, standing predilections and aversions, rather than bare recurrence of specific acts. It means [and depends on] will" (Dewey 1922, pp. 31–32). Habit is not, in this vein, a simple chain of stimulus and response but demands thought and intelligence, which is itself, according to Dewey (1922, p. 124), a collection of habits: concrete habits do all the perceiving, recognizing, imagining, recalling, judging, conceiving, and reasoning. How do regulatory requirements become transformed into habits?

Pragmatism is distinguished from other philosophies of knowledge (and politics) by "its distinctive theory of truth." Rather than "an ideational copy" or faultless representation of reality (Rorty 1981), we act on and take as true "those ideas that an unfettered community of human inquirers would eventually find the most suitable for bringing about particular consequences" (Reed *et al.* 2020, p. 6). As William James (1907, p. 7) argued, "the true is the name of whatever proves itself to be good" for particular persons in specific contexts, struggling with diverse problems, needs, and satisfactions. At pragmatism's core lies "a theory of social action emphasizing the creative and intrinsically social problem-solving potential of the human species" (Joas 1997). From this pragmatist perspective, our operating and sociological theories of social structure and political power must be "articulated in relationship to ambitious normative goals for human individuals and groups: community, democracy, transparent communication, and fulfilling aesthetic experience" (Reed *et al.* 2020, p. 18; cf. Ewick & Silbey 2003; Garfinkel 1964). Values are what people strive for within the situations and circumstances in which they find themselves, the elements and contours of which may be either familiar and comfortable or novel and perplexing.

Although pragmatists distinguish scientific experimentation from the everyday inquiries of ordinary people, they insist on the primacy of inquiry and experimentation to social action, human agency, and creativity derived from incessant and relentless problem-solving – trial and error – within the contexts of action. The human being is "a creature of sinews and nerves, negotiating its varying environments and beset with problems that must be overcome" (Reed *et al.* 2020, p. 18). Inquiry is understood as the experimental investigation of different possibilities for action. But, just as importantly, inquiry makes no sense except in relation to value (ends in view), demanding situationally or contextual adjustment. Pragmatism's essential experimental adjustment of means to ends adapted to local situations leads to an embrace of variation across diverse actors and settings (i.e. tolerance for heterogeneity). For scholars of regulation, pragmatism's primary relevance and contribution may derive from its insistence, by Dewey (1927) most forcefully, that collective, democratic experimentation is essential to better adjust public policies to the social realities of historical contexts and eras.

Below, we review recent empirical studies of regulatory compliance within organizations under three categories derived from pragmatist epistemology: inquiring and reflecting through narration, recognizing context through acceptance of variation, and problem-solving through experimentation. The goal of this analysis is to discover how organizations can coordinate among their myriad accountability infrastructures to transform regulatory requirements into routinized habits.

4. Pragmatic compliance through narration

4.1. Narrating and enacting the organization

While organizational charts depict the allocation of responsibilities by the boxes and lines marking channels of communication and reporting obligations, the actual work of identifying compliance challenges and responses is performed through ordinary, face-to-face conversations within, outside, and across those boxes and lines. Conversation is so commonplace and fundamental to human behavior that, for the longest time, it was an unnoticed variable in analyses of organizational practices (Toby 1951). However, recent studies of regulatory compliance have pointed to the role of talk and narration as the medium through which organizational accountability is

constructed or performed (Huising & Silbey 2011). As the fundamental material of human relations, talk, discourse, conversation – or however one names human face-to-face linguistic communications – is a highly organized and structured means of simultaneously enacting and describing the worlds we inhabit (Scott & Lyman 1968).

From a pragmatic perspective, narration is a form of inquiry where talk is used to identify and name the connections among organizational processes and regulatory expectations. Because uncertainty is a normal part of social life (King & Kay 2020), conversations develop, carry, and convey knowledge. Talk works to interpret the ambiguities and possibilities involved in the application of a general rule to a specific context. Open exchange among members of a community, and opportunity for independent and collective reflection, enables inquiry through narration. Such inquiry deliberates and assesses events in the past and the present in order to identify paths forward.

Talk, as a form of inquiry, is integral to accountability (Douglas 1992). Talk provides a report of one's conduct to an inquiring audience (internal or external), connecting one's intentions to the audience's expectations (Paul 1992, p. 1047). An account provided in face-to-face conversation can also offer an excuse or justification for what was interpreted as unanticipated or untoward behavior (Scott & Lyman 1968). It can offer motive, “a complex of subjective meaning which seems to the actor himself or to an observer as an adequate ground for the conduct in question” (Weber 2009, pp. 98–99; cf. Mills 1940). Finally, but contrary to the pragmatist orientation, talk can be used to accomplish power and dominate by “insisting that all accounts meet a formal test of literal, objective truth—a test that no account can pass” (Molotch & Boden 1985).

Talk is a means of building and distributing cultural, human, and social capital, for example through giving advice (Waring 2007), sharing job references (Smith 2005), showing resistance to authority (Ewick & Silbey 2003), or mobilizing for legal change (Ganz 2009; Polletta 2009). Conversations can undermine taken-for-granted conventions when constructed as a story explaining how particular events and persons contribute to and illustrate common expectations (Freeman 1973). Of course, ordinary conversations more often sustain the taken-for-granted world, reproducing hegemonic accounts, by effacing those very connections between particular actions and general patterns (Ewick & Silbey 1995, 1998). Thus, commonplace conversational exchanges are “a crucial element in the social order since they prevent conflicts,” repair breaches, and also initiate change “by verbally bridging the gap between action and expectation” (Scott & Lyman 1968, p. 46). The stories people tell one another in everyday conversation, whether as part of intimate or organizational role performance, are not just *about* social relations, “social reality happens in stories” (Abbott 1992, p. 435).

4.2. Narrating accountability

We consider the ways in which narration among organizational members becomes part of regulatory compliance. As organizational actors go about their jobs, the stories they tell often identify regulatory expectations and challenges and, as some recent work illustrates, help construct responses, including compliance. When managers are visibly accountable for a decision and the logic of their decisions are articulated, they are more likely to make decisions that achieve compliance goals (Kalev *et al.* 2006; Castilla 2015). For example, Kalev (2014) demonstrates that managers are more likely to make decisions that achieve compliance goals when the organization's policies and procedures require that they provide an account for their decisions and indicate that decisions will be reviewed by internal legal counsel. Managers are more likely to implement regulatory requirements when the management system is designed to (i) make managers (vs. employees) responsible for compliance, (ii) hold managers to account for their decisions, and (iii) make decisions visible, and ensure that decisions will actually be reviewed. Such a design ensures that decision-making has a logic that aligns with regulatory considerations.

We first recognized the role of narration – telling stories about persistent problems in meeting safety requirements – when we observed environmental, health, and safety staff (EHS) in a research university (Huising & Silbey 2011). The EHS personnel were charged with numerous tasks, such as training laboratory personnel; assuring availability and wearing of personal protective equipment; checking the adequacy of safety showers and airflow in chemical hoods; addressing concerns about chemical and biological waste; handling radioactive materials; and conducting periodic inspections. The EHS staff were distributed across the university, housed within different departments (including science, engineering, arts, and theater production) with quite diverse hazards, laboratory

architecture, organizational structures, and ways of doing research (Silbey 2021). Widely distributed across such varied conditions, the EHS staff felt isolated and unsure of their roles and how to do the job successfully.

Despite being essential personnel without whom the organization's major production (research and teaching) could not proceed safely or legally, they were staff, neither protected nor privileged as were faculty. However, when they began to meet regularly and talk about the conditions and work practices in the different departments and labs, they discovered that they had much to learn from each other. They shared information about safety as well as hints for dealing with difficult and often recalcitrant researchers. They learned from each other what they were doing, what problems occurred elsewhere that were similar to their own, what problems they may have overlooked, and what solutions others had already tried and either failed or succeeded with. "In these meetings, but also over coffee, via email, and in the halls, the (EHS) coordinators worked to create a coordinator's perspective on compliance. The EHS coordinators made sense for themselves not only of the legal regulations and scientific work that had been identified as requirements for the position, but also the institutional and material infrastructure of the university, which they discovered and actively mobilized to promote compliant practices" (Huising & Silbey 2011, p. 26).

Similarly, when managers adopt what observers call a commitment rather than compliance approach, labor conditions and production improved and became more compliant with international labor standards in internationally distributed networks of apparel factories (Locke *et al.* 2007, 2009; Locke & Romis 2010; Short *et al.* 2016). *Commitment* refers to information sharing and joint problem-solving as the means of uncovering, analyzing, and correcting persistent and challenging conditions. Without naming the role of talk per se as the medium through which information is shared and problems solved, the authors describe the role of narration: diffusion of best practices, capacity building, and learning through mutual exchange. However, because most commitment or capability-building practices seem to be targeted at workers on the shop floor, they may not sufficiently address the "root causes" of many labor violations, which come from the upstream business practices of global retailers and brands where mutual problem-solving, learning, and sharing seem irrelevant (Surroca *et al.* 2013; Gereffi 2014). Nonetheless, in a different field, the 2013 Accord on Fire and Building Safety, created in response to the 2013 Rana Plaza and 2012 Tazreen garment factory disasters, suggests that narration may be used to address upstream root causes. Through shared conversation and mutual problem-solving, inspectors improved safety in Bangladesh garment factories, even in the absence of strong public regulatory support (James *et al.* 2019).

"Resilient compliance" is achieved, Sousa *et al.* (2010) report in a study of research managers in a university, by constant negotiation of the terms and directions of work, molding and legitimating the diverse performances and the collective representation by working back and forth among simultaneously competing and cooperating stakeholders. "Rather than being defined a priori," the research focus and organizational coordination was "constructed and continuously sharpened" through repeated conversations. This enhanced "group performance, providing that it [was] sufficiently open to accommodate differences in research interests yet sufficiently closed to give coherence to group outcomes." Participation in ongoing self-reflective discourse produced something like an epiphany, a common, strongly validated yet unexpected account, "an eye-opener," of what needed to be done and how it should be done. "In a pragmatic, though not uncritical way, research managers" were able "to reproduce the reasoning that underlies the performance system," that was otherwise invisible to the researchers but, importantly, from an experimentalist perspective were not comparatively assessed (Sousa *et al.* 2010, p. 1451).

The profusion of regulations may demand active narration because of conflicting requirements that depend on local harmonization. A certain amount of regulatory compliance may demand violating some rules in order to meet the standards of yet other regulations. In these circumstances, employees may in effect co-conspire, explaining to each other through conversations in hallways and restrooms, as well as at one's desk, how to achieve regulatory goals while nonetheless breaking rules. This is a common form of narration (Hannah & Robertson 2015).

Although narrative processes can be mobilized to promote compliance while developing accurate accounts of how work gets done (Jasanoff 1994; Perin 2006), they can also become the means of co-opting subordinate actors to work against the regulatory goal. Line workers, the ostensible victims of unsafe practices, have been shown through diverse conversational strategies to help construct the employers' claim to provide safe working conditions (Rasmussen 2011). Skeptical that "slip and fall" metrics, a common occupational health and safety indicator,

provided an honest picture of plant safety, the workers created what they called the “ugly list” of their own missteps and safety failures. Through vague, wandering conversations during mandated and managerially orchestrated safety meetings, workers and management produced these narratives to be able to display equal participation in the commitment to safety and performance of corporate accountability. Here, drawing on Foucault, Rasmussen shows how the “humble modalities and minor procedures” of ordinary talk in group settings eventually aligned workers with managerial interests, collaboratively producing a deceptive performance of safety accountability.

Even the world of finance, “oblivious to legal and ethical obligation,” can be transformed by telling different kinds of stories (Braithwaite 2013, p. 272; Ford 2013). Although “hope, humility and history never rhyme on Wall Street,” legal processes can “draw out stories in a more timely fashion to reset society’s compass” (Braithwaite 2013, p. 273). Post hoc accounts of highly complex transactions, within tightly controlled hierarchical organizations, can provide warning and instruction (cf. Rostain & Regan Jr 2014). Stories of financial misconduct and misfortune can also offer “redemption narratives [that] have a special power over people’s ethical imaginations because they involve humility of wrongdoers shaming their own past” (Braithwaite 2013, p. 272). Braithwaite suggests that institutionalized storytelling, while crucial by itself, would certainly be helped by legal reform.

4.3. Varieties of compliance narratives

From a regulatory governance perspective, compliance narratives may be required or offered voluntarily and may be offered to internal or external audiences. *Required internal narratives* may help increase compliance. Kalev (2014) shows that managers are more likely to make decisions that achieve compliance goals when they are required to provide an account for their decisions. Here, narrating is required internally as partially organizational self-observation, partially review of performance, and always enactment of hierarchy. *Voluntary internal narratives* may be offered primarily for information sharing, undertaken for organizational learning purposes, or perhaps performed as conversational strategies designed to display competitive achievement and enhance status (Huising & Silbey 2011). Similarly, *voluntarily external narratives* may be offered for public relations and marketing purposes, intended to enhance the organization’s reputation and status. Finally, *required external narration* occurs when organizations demonstrate and account for performance with respect to external expectations or standards. While *required* external narration produced by accountability infrastructures raises their priority and status, *voluntary* external narration, more often associated with sustainability initiatives, social responsibility commitments, and similar prosocial policies, may characterize the accountability infrastructure as overhead costs (Augustine 2021).

The *form* of narrative can also vary widely from simple checklists and training materials to extensive written reports and statistical analyses. Further, narratives may report on ongoing processes, focus on outcomes achieved, or weave some complex combination of continuous action and outcomes. As organizations make themselves and their accounts amenable to being checked (Power 1997), the manifestation, meaning, and consequences of these variations diverge in important ways. Power (2021) claims that the systems of roles, routines, and rules that produce numeric narratives of performance outcomes are “strongly performative” (MacKenzie 2006, p. 17). As these aggregate representations reconstruct not only the organization – both the organizational action and the reporting of the action – they also alter the dispositions of actors in the organization, inventing or ennobling internal elites responsible for producing these numbers.

However, as empirical studies illustrate, financial and performance reporting through quantified indicators is a special case of an accountability infrastructure where both the creation and giving of accounts is reductive and amenable not only to those who prefer to count rather than read but to those who seek commensurate reports (Sauder & Espeland 2009; Espeland & Sauder 2016). Many accountability infrastructures are required to narrate process, outcomes, and the challenges of continuously adjusting process to improve outcomes in both qualitative and quantitative terms. Empirical studies of such accountability infrastructures note how the accountability infrastructures are often treated as peripheral to organizational operations. Across various areas of compliance – ethics (Babb 2020), health and safety (Hynes & Prasad 1997; Gray 2009; Huising 2019), environmental protection (Huising & Silbey 2011; Augustine 2021), human resources (Sandholtz & Burrows 2016; Sandholtz *et al.* 2019),

patient protection (Heimer & Staffen 1998; Kellogg 2014) – empirical work shows that accountability systems and actors struggle to make their compliance mandates central to the organization’s strategic and operational routines (Kaplan 2019, 2020). Unlike the financial and performance-based accountability work described by Powers and others, these areas of accountability work neither draw significant organizational attention nor have comparable influence within the organization. Accountability professionals struggle to change the organization from peripheral positions with limited resources and authority. These studies describe accountability infrastructures where market values do not permeate, are not powerful internal actors, and thus do not signal power shifts within the organization.

Perhaps the most common form of regulation relevant narration is found in the investigation reports written following major accidents or technological failures. Frequently, an “ad hoc, high profile committee or panel, often commissioned by governments,” is formed “ostensibly to investigate, reflect on and learn from what happened” (Hardy *et al.* 2020, p. 18). These can be spectacular, headline-grabbing inquiries such as that following the Challenger and Columbia space exploration disasters (Vaughan 1996, 2006, 2020); the Exxon Valdez and Erika oil spills (Fourcade 2011); the Deepwater Horizon (Mills & Koliba 2015), Chernobyl (Ballard 1988; Medvedev 1992; Petryna 2004), and Bhopal explosions (Fortun 2001); contaminated blood transfusions (Setbon 1993); and a host of less-spectacular catastrophes. When these are history-making events and reports, the accountability is usually directed outside the organization, to the public. Yet despite the broad and unspecified audience, the task is clear: to connect the sequences of actions in such a way that explains to both external and internal audiences why what happened actually occurred. This can be a way of “reclaiming a sense of normalcy ... [by] placing the episode securely within a narrative frame that restores confidence in the capacity of social institutions, especially the state, to protect the citizenry” (Hilgartner 2007, p. 154). Ironically, official reports often fail to repair the organizational and regulatory failures (US Congress 2020) or to improve practices because they normally aggregate and abstract the partial knowledge of the many participants rather than rework organizational routines.

Critically, the holistic “narrative is ... revised and fine-tuned” by lawyers, safety experts, and technical advisors so that “the viewpoints of multiple stakeholders are literally written into the regulatory process” (Sauer 2003, p. 47). This ex-post-facto knowledge – “know-that,” in Ryle’s (1949) terms – is “very different from ‘know-how,’ i.e. the knowledge of those immersed in action” (Dekker 2002). “When carrying out their work in situated contexts, actors have only partial views of risk and know only of conditions as they unfold around them. In contrast, for investigators reviewing an incident the outcome is known and the sequence of events leading to it is reconstructed with the outcome in mind” (Hardy *et al.* 2020, p. 20). Herein lies an important distinction between narrating for external or internal audiences. Hindsight is not foresight; and post hoc knowledge is unlikely to capture “the complexities and uncertainties facing [on the ground personnel] and why their actions made sense at the time” (Henriksen & Kaplan 2003, p. ii46) and may offer limited instruction for decision-making in the immediate context of action.

In sum, the mundane instruments of inquiry and reporting matter both to how regulatory compliance is performed within the organization and to how it is appraised, accepted or not, by external regulators and reviewers. In addition to the forms of narration, the differential social statuses among narrators and audiences affect the authority and legitimacy of different accounts. These dimensions intersect to create recognizable patterns. When people feel that they have not gotten access to narrative opportunities, regulation is more likely to feel imposed or irrelevant; they may be more likely to feel alienated from the rules, reinforcing social stigmas or subordinate status. Although we focus primarily on accountability infrastructures, it is the regulators that do or do not accept compliance narratives, who tolerate variation and permit experimentation. Regulators are very much dependent on the production of compliance knowledge by the organizations, encouraging accountability infrastructures to be more auditable, sometimes partnering in their design and mobilization (Black 2001).³

Clearly narration and storytelling alone do not enhance compliance. However, they are the means of discovering together what needs to be done. Because neither regulatory models nor specific regulations are calibrated to particular circumstances, they are experienced and interpreted as abstractions, archetypes, and perhaps unrealistic ideals, that is, models, removed from what actually happens in the material and physical world of human transactions. In practice, regulatory implementation and compliance are very different from the clean, ordered designs presented in policy proposals. The habitual routines of enforcement agents and organizational compliance officers depend less on command and control, rationally calculated self-interest, or exacting protocols than on their

flawed, imperfect judgments developed while navigating uncertain and fluid circumstances. Thus, successful enforcement and compliance more often rely on narration among relevant actors describing and explaining how the trial-and-error problem-solving, bricolage, and situationally driven work-arounds can meet regulatory expectations. To fashion reasonable and pragmatic organizational responses to regulations, the relevant actors need to ask themselves “What is going on here?” “The question sounds banal,” King and Kay (2020, p. 20) write, in *Radical Uncertainty*, “but it is not. In our careers we have seen repeatedly how people immersed in technicalities, engaged in day-to-day preoccupations, have failed to stand back and ask, ‘What is going on here?’” As Rumelt (2011, p. 79) writes, figuring out what is going on here is “not just deciding what to do, but the more fundamental problem of comprehending the situation” (cf. Goffman 1974).

If narration alone does not enhance compliance, neither does narration alone make compliance pragmatic. Organizational actors need to respond to local contingencies, recognizing that uniformity is unlikely if not impossible, and expecting, if not actually accommodating, variation: multiple ways of achieving desired outcomes. In the next section, we turn to a discussion of the importance of recognizing contextual variation before turning to experimentation in the following section.

5. Pragmatic compliance by recognizing context and accommodating variation

Pragmatism recognizes contingency in and of social life, observing that variations across phenomena, situations, and contexts are inevitable and thus should be anticipated. Given this inescapable universal feature of social transactions and organizations, actions are assessed on the basis of the circumstances and context in which they take place. Ideas, actions, and choices cannot be evaluated as inherently good or useful, or as always effective. Evaluation should occur in relation to the particular features of the situation. Thus, tendencies to value uniformity should be questioned and efforts to induce uniformity resisted. When this pragmatist perspective is applied to regulatory governance, varied compliance processes are acceptable and embraced. Further, responsiveness to local contingencies is understood as likely to enhance local responsibility.

Several extant models of regulatory governance recognize that responses should vary according to the situation. For example, the idea of contingent-specific compliance informs models of performance-based regulation (Coglianese & Nash 2006), relational regulation (Silbey 2021), or national styles (Kagan & Lee 2000). Responsive regulation (Ayres & Braithwaite 1992) recommends a hierarchy of diverse tactics for enforcement agents to deploy according to the context and situated responses of the regulated actor. Respecting contingencies in the application and enforcement of the law is thought to increase compliance through learning, customizing solutions, and creating more embedded relationships. Performance-based regulation accepts variation in conditions and responses across organizations so long as performance outcomes remain within expectations.

Yet, variation within organizations is commonly interpreted as failure or deviance (stigmatized variation) because management conventionally values uniform, organization-wide expectations and standards. Best practices, digitally constrained reporting, benchmarks, performance indicators, and other managerial tools, are intended to minimize variation and reveal “failures” to do so. Although richly textured empirical accounts of variation in and across organizations demonstrate how variety emerges from and supports situated action (Barley 1986; Fine 2008; Paxson 2012; Bechky 2020), variation is rarely appreciated as such. Importantly, however, by tracing the unstable alignment between normative expectations and situated action, the large and influential networks of neo-institutional organizational scholars have encouraged such interpretations, labeling the observed organizational variations as institutional decoupling (Meyer & Rowan 1977).

Accountability infrastructures are often not different from other rationalized management tools. They are usually centralized and thus singular structures that identify variation in conditions and responses *within* organizations as problematic. Although responding to diverse external initiatives, norms, and policies, accountability structures offer common tools: unified training programs, standardized operating procedures and checklists, and audit trails intended to show upper management and external actors how variation in performance outcomes is minimized, despite persistent variation in conditions. Accountability systems, like many products of modernity, are intended to reduce and eliminate variation. The bureaucratic features of organizations – roles, rules, and routines – in particular are valued for their potential to promote standardization and consistency.

Thus, an incongruity develops between external regulatory models that encourage variation in responses across organizations in relation to their operating context and internal accountability infrastructures that discourage variation in responses within organizations in relation to local operating conditions and cultures. Narrating variation is problematic both because it signals deviance or failure and because accountability infrastructures are rarely designed to support such narratives. However, various studies show that organizations do take into account variation in local circumstances across the organization, rather than pursuing alignment between singular accountability structures and situated action, and that in doing so facilitate compliance. The exigencies of practical action challenge consistent and perfect compliance more often than do purposive opposition or active resistance. This is due in part to the distance between the source of prescriptions (whether legal regulations or professional standards) and the site of action, but more generally to the insufficiency of formalized, prescribed processes to handle the complex, situated demands faced in daily work (Heimer 2013b). Organizations manage as well as they do because “it is the uniquely human ability to vary and adapt actions to suit local conditions that preserves [organizational performance] in a dynamic and uncertain world” (Reason 2000, p. 9). Taking variation in conditions seriously – the tasks, knowledge, resources, constraints, and infrastructure – demands accommodations in what action is necessary to generate compliance. It depends on having detailed knowledge of these conditions so that expectations and enforcement approaches can vary (Heimer & Staffen 1998). This requires that techno-legal professionals working with the accountability infrastructure calibrate their interactions and tactics to particular situations, enacting exactly the discretionary decision-making authority and characteristics of professionals (Huising 2015; Sandholtz *et al.* 2019).

Other studies suggest that organizations need not self-consciously anticipate and accommodate variation but should instead give units or groups some freedom to develop their own responses to external demands. Silbey (2021) documents how management deference to the differences in epistemic cultures (histories, lab practices, organizational processes, and epistemologies) between the biology and chemistry departments at Eastern University increased compliance with regulations. Sandholtz (2012) documents a similar pattern in which an organization delegates the work of attaining certification under ISO 9000 standards to the divisions. The divisions, consistent with their history and culture, use diverse processes to achieve and maintain certification. Significant research on institutional review bodies (Heimer & Petty 2010; Stark 2012; Babb 2020) also shows how research universities understand the need to vary the requirements and review processes according to the research discipline and practices. This variation has evolved over time and with experience.

Recognizing variation across organizational divisions, units, and groups suggests that accountability structures need to be designed to accommodate equifinality. That is, it is a matter not merely of tolerating variation but of actively embracing diversity in approaches. Within organizations, there may be a number of strategies and techniques for achieving compliance, contingent on the local work, resources, culture, and history (Soderstrom & Weber 2020). This may also be contingent on variation in hierarchical structures that shape interpretations of external expectations and regulations (Gray & Silbey 2014). Future research on accountability infrastructures should consider how variation is more or less accommodated and the implications of such accommodation.

6. Pragmatic compliance through experimentation

The pragmatic orientation acknowledges not only the utility of variable practices as effective adaptations to context-specific contingencies but also the importance of treating policies as experiments in search of local as well as general solutions. For a pragmatist, for a statement or knowledge claim to be *true* means that it has been verified by use under test conditions, “tried and true” (Dewey 1922). From this perspective, any given policy is a provisional solution, and responses to the policy are examined as information that can be used to adapt and improve solutions. Such adaptive solutions are expected to vary across contexts, and learning across contexts should also inform improvements in solutions. Equifinality – multiple means to any given end – is an expected outcome of experimentation.

Following Dewey, the “experimentalist” approach to governance has made this dimension of canonical pragmatism the animating concept in public policy proposals (Sabel 2012; Overdevest & Zeitlin 2014). This governance architecture encourages multiple routes to the same goal, usually vaguely specified, giving regulated entities the choice of how to accomplish compliance, moving beyond simply embracing variation to actively seeking

systematic comparisons for better and improved approaches. Frequently justified by its capacity to encourage self-reflection and narration by fostering deliberation among stakeholders, the experimentalist perspective describes “a recursive process of provisional goal-setting and revision based on learning from the comparison of alternative approaches to advancing these goals in different contexts” (Overdeest & Zeitlin 2014, p. 25; cf. Sabel & Zeitlin 2012). As a multilevel architecture especially recommended for harmonizing across transnational coordination, an experimentalist approach develops – in consultation with national and transnational stakeholders – a broad framework of goals, such as “sustainable forests” or “safety culture,” with metrics, serving as indicators for steps toward the goal and for assessing achievements. The more particular specification and implementation of these frameworks is delegated to “contextually situated actors who have knowledge of local conditions and considerable discretion to adapt the framework norms to these different contexts” (De Búrca *et al.* 2014). Given the fundamental pragmatist recognition of inescapable variation in contextually specific contingencies, experimentalist public policy advocates embrace local experience and knowledge.

Beyond this pragmatic acknowledgment of realities on the ground, the key innovations of the paradigm lie in the final elements of the model. As a condition of legitimate autonomy and local adaptation, regulated entities are expected to provide regular performance reporting, participate in a system of peer review for these reports, and undertake corrective action to improve performance. Finally, the idealized version expects that the goals, metrics, and decision-making procedures themselves are periodically revised by a widening circle of actors in response to the problems and possibilities revealed by the review processes through a virtuous circle of iterations that can be interpreted as experiments (Sabel & Zeitlin 2008, 2012).

While experimentation has also become an increasingly common feature of empirical research on regulation and compliance (Huising & Silbey 2018), we find a paucity of references to compliance experiments in which the organization self-consciously appraises different routes to improved compliance through designed alterations in policies and practices. We find limited evidence that organizations systematically compare and assess the multiple and diverse routines they nonetheless enact, even if not specifically planned as such. Despite the repeated observations of variable practices not only between organizations but within a single organization, we do not see evidence that learning over time or across contexts leads to different customized compliance approaches with an organization. For example, where experimentation did occur, one would expect to find decentralized and multiple ways of managing accountability with an organization.

We suggest a few reasons for the absence of experimentation. First, organizations are unlikely to submit their operations to pilot studies and deliberative tinkering by those who have experience with and knowledge of the challenges of integrating external expectations into their work. It is unlikely that management would authorize local experimentation and the needed slack time. More fundamentally, local experimentation is at odds with centralized, best practices focused on core operations. In place of experimentation, ongoing correction is more common because compliance is an ongoing rather than specifically designed recipe, a never closed performance. Gaps between expectations and performance are corrected with adjustments to the centralized, standardized accountability infrastructure.⁴

We also suspect that the scarcity of experimentalist approaches within organizational accountability infrastructures is itself a sign that the pragmatist perspective has not filtered down from regulatory governance models to the organizational coalface or organizational ground-level. The accountability infrastructures produce synthesizing narratives for external audiences and internally rarely acknowledge the wealth of local expertise that could be mobilized to experiment with and develop a multiplicity of approaches to compliance within an organization. Future studies of accountability infrastructures may uncover such experimentation as well as document how accountability infrastructures more or less constrain the possibilities for experimentation.

7. Discussion

In this paper, we trace this pragmatic turn in regulatory governance from the level of the state and civil society to the coalface of the regulated organization, drawing out important tensions and incongruities. Contemporary models of regulatory governance promote, often implicitly, tenets of pragmatist philosophy: specifically, inquiry through narration, adaptation to context, and problem-solving through experimentation. Compliance with external standards is expected to vary across organizations as a reflection of their operations, history, and culture.

Therefore, the locus of governance has shifted to the organizational coalface, responding to the growing collection of regulations, external standards, codes of conduct, and ethical and normative expectations by developing accountability infrastructures.

Reviewing the empirical literature on organizational compliance, we describe the efforts organizations make – through the network of offices, roles, programs, and procedures – to align their operations with external expectations. Because external standard-setters increasingly require more than reports of performance or compliance outcomes, expecting accounts of how organizations produce these outcomes, sustain good results, and address poor results, accountability infrastructures often take the form of plan-do-check-act systems. Such systems support the development of internal and external accounts of how compliance is – more or less – achieved.

While accountability infrastructures are the consequence and manifestation of pragmatist tendencies woven into new regulatory governance models, we identify an important incongruity between pragmatic regulation across organizations and pragmatic regulation within organizations. We find ample evidence of inquiry through narration at the organizational ground-level. However, we find limited evidence of narrating plurality in the organization and almost no evidence of narrating experimentation as problem-solving. We suspect that the centralized creation and oversight of accountability infrastructures characteristic of hierarchical organizations, along with the common representation of the organization as a single actor, favor uniform and singular narratives. Compliance is more easily, perhaps more convincingly, told by a single reporter with a singular narrative without digressions that address the ubiquitous variation actually observed within and across organizational divisions and offices. Accounts describing experimental problem-solving, or repeated trial and error, also may not meet external demands for a neat, clear, measurable outcome.

We problematize this incomplete transfer of pragmatist regulatory governance to the organizational coalface, ground-level actions and processes. To understand how compliance can be truly routinized, the same pragmatist inclinations that inform contemporary regulatory policy models need to be incorporated within accountability infrastructures. Failing this, we reproduce at the organizational level the features of command and control that regulatory scholars have rightly critiqued – capture, capacity, and cost – more generally. In other words, the pragmatist perspective needs to inform the full range and hierarchy of regulatory action and actors – policymaking, enforcement, and ultimately enactment within the organization – it is “pragmatic turtles all the way down.”⁵

Our review of scholarship documenting inquiry through narration, accommodation of variation, and experimentation work at the organizational level suggests mechanisms for mobilizing accountability infrastructures for better regulatory compliance. Through persistent and widely shared narration, local regulatory challenges are recognized. Via experimentation, solutions are identified and tested. By encouraging ongoing correction as well as diverse and potentially contradictory models accommodating multiple solutions, organizations can respond to local contingencies while maintaining reliable compliance across their complex and distributed production systems. By embedding solutions within familiar habits, compliance can be integrated within normal organizational expectations. We urge that examinations of regulatory governance be retraced in three ways. First, our focus should be at the coalface of organizational action, examining the accountability infrastructures built to align routines with external demands, recognizing the common practices across what appear to be diverse models. More documentation and rigorous analysis – qualitative and quantitative – of the design of accountability infrastructures and their enactment is needed. The design and enactment of these infrastructures should be studied as both processes and outcomes.

Further, studies of the design of accountability infrastructures are required at the organizational and cross-organizational levels. At the organizational level, design processes can be studied to understand which actors – internal and external – are involved and in what ways. How are the messages as well as expectations of external actors interpreted and translated into roles, rules, and routines? How are organizational challenges, goals, and compromises (from coupling to decoupling) built into this design? How are technologies – new and old – integrated? What are the roles of professional groups in the design, and how does this shape a particular organization’s adopted design? What are the costs to design and operate such infrastructures? How are myriad external demands met, through multiply varied or integrated infrastructures? Our hope is that as such infrastructures are studied across various organizations, they will be specifically recognized as accountability infrastructures, in addition to their current conceptualization in organizational studies as instances of organizational or institutional change.

Many of the questions raised at the organization level should also be addressed through cross-organizational studies, perhaps by industry or cross-industry studies. Such studies could examine, for example, how the design of these structures varies across organizations and what variables account for these differences. It is important to identify under what conditions these infrastructures are centralized or decentralized, integrated or competitive. How do the strategic and operational features of the industry influence the design of these structures? Are the mimetic pressures of regulatory intermediaries evident? Are there “styles” or typologies of structures that can be described based on comparative organizational studies? How do these typologies correlate with compliance?

Beyond documenting and analyzing the design and diffusion of accountability infrastructures as the central form of governance in contemporary societies, we propose a second shift in the research agenda. The long-standing focus in regulatory studies on *why* parties comply should shift to understanding *how* regulated parties manage themselves to achieve compliance. Beyond understanding the constitution of accountability infrastructures as means of creating capacity for compliance with external demands and standards, we argue that studies of the enactment of these structures are needed.

Because regulatory responsibility has been so broadly diffused, at least on paper and in silica, but often deep within the bowels of most large organizations, weak or failed compliance is not primarily the result of motivation, ethical orientations, perceived legitimacy, or other individual-level variables. It is the result of organizational systems that are not functioning as needed. One cannot ask *why* questions of systems. The question thus becomes one of *how* rather than *why*. Research is needed to understand the challenges to enacting compliance within as well as across organizations. How do issues of power differentials, access to resources, distributions of expertise shape the enactment of infrastructures? Power dynamics are eluded by both regulatory paradigms pressing for increased self-regulation and pragmatist philosophy. Regulations, codes, standards, and norms can be understood as acts of power wherein the will of actors (usually distant in time and space) seek to control behavior of others. Further, within most organizations, there is a “lack of genuinely deliberative and participatory engagement with regulation that exists” (Almond & Gray 2017, p. 6). Thus, the power relations within most hierarchical and bureaucratically managed organizations may prevent narration concerning the role of power in compliance (Turco 2016). This suggests that the role of power in the enactment of infrastructures should be a focal research topic.

By urging attention to how accountability infrastructures work, we suggest a focus on the same pragmatist inclinations that inform contemporary regulatory models. Account-giving and narration, internally and externally, should also be central in studies of enactment. For example, how do organizations narrate accountability infrastructures internally and externally? How do these narratives differ from prior compliance narratives identified in the literature? How do the narratives circulating within the organization relate to the narratives the organization pushes externally? Are there more or less effective ways to narrate? How do narratives vary by organizational role? Across organizations, comparative studies of narratives can provide insight into key variables that account for variation. Studies at the cross-organizational level can also search for correlations among types of narrative performances and the relative effectiveness of varied structures in producing compliance.

Third, research on accountability infrastructures and their enactment should examine the tensions in narrating adaptation and experimentation, and the implications of such tensions for the achievement of prosocial outcomes. Examining how inquiry through narrative, accommodation of variation, and experimentation function, or do not, at the organizational or cross-organization level will reveal whether pragmatic principles have moved from the institutional to the organizational level. It may also reveal that we have simply reproduced command and control at the organizational level.

More research is needed to document and examine how accountability infrastructures accommodate variation in conditions found across sites within the organization and facilitate experimentation in relation to these local conditions. How and under what conditions do organizations recognize the variably textured landscape of tasks, knowledge, and capacity, and customize responses? Do organizations, implicitly or explicitly, experiment with different approaches within the same organization? How do structures support (or inhibit) multiple approaches within the same organization? How do organizations reflect on and embed knowledge produced by experiments in the design and enactment of accountability infrastructures? Such questions related to enactment should be studied at the organizational and cross-organizational levels.

Accountability infrastructures and a pragmatic approach to compliance are likely to challenge organizational norms of uniform surveillance and enforcement. Strong cultural forces impede this pragmatic adaptation to the universal observation of inevitable variation in performance. The exigencies of practical action within variable situations are interpreted through conventional ethical and legal discourses concerning fairness, equality, and meritocracy. Embracing variation – working with different criteria for acceptable performance for different situations, groups, or individuals – is sometimes interpreted as unequal treatment and as such a moral, if not constitutional, offense. From this latent but strong cultural framing, tolerating, perhaps even valuing, variable performance is legitimate only on the basis of greater worth: for example, exemptions from regulatory violations for banks or firms that are too big to fail or awarding pay to occupants of the same organizational position on the basis of differential performance (Castilla & Ranganathan 2020).

At both the organizational and cross-organizational levels, interactions with external parties – regulators, auditors, accreditors, and other evaluators – require consideration. Of course, this is not a new focus and was for many decades a central focus of regulatory scholarship (Hawkins & Thomas 1984; Hutter 1989; Kagan & Lee 2000; Hawkins 2002). These should be updated to ask how accountability infrastructures inform and mediate these relationships. What kinds of narratives do external parties find satisfactory? To what degree do external parties encourage (or even permit) variation and experimentation? How do demands for particular forms of reporting and narration undermine the capacity for experimentation and embrace of context-specific variation? Given the reliance of external parties on the production of compliance knowledge at the organizational level and the work of auditing accountability infrastructures, how do external parties influence the design and enactment of these infrastructures?

8. Conclusion

The plethora of contemporary regulatory models, required by the state, promoted by professional norms, or adopted voluntarily, are less reductionist, less partial, less mechanistic, and less idealistic than the earlier mid-20th-century models. Their forms and functions have been studied extensively at the institutional level. Yet, their shared ideology and implications for the internal managements of the regulated organization – to self-regulate in accordance with myriad external regulations, standards, and norms – have been given limited consideration. By introducing the concept of accountability infrastructures and recognizing it as the central contemporary mechanism of regulatory governance, we hope to encourage others to shift their focus to examining how compliance can be pragmatically produced at the organizational coalface.

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Data Availability Statement

Research data are not shared.

Endnotes

- ¹ *Stanford Encyclopedia of Philosophy*, <https://plato.stanford.edu/entries/pragmatism/> [Lst accessed 29 Oct 2020].
- ² Laufer (2018, p. 394) provides numerous examples of spending on self-regulation, including “J.P. Morgan, for example, supports more compliance, risk, and fortress control professionals than all uniformed NYPD officers, and more than three times as many FBI special agents across all U.S. field offices.”
- ³ We are very grateful for the contributions of the reviewers, on which we rely, for this discussion.
- ⁴ This is another one of those suggestions for which we appreciate the reviewers’ suggestions.
- ⁵ The meme “turtles all the way down” refers to infinite regress, but it need not be a problem but a recognition of the continuity of epistemology and also the role, if only as working hypotheses, of foundational assumptions.

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