Invisible Value: How Peripheral Functions Display Their Worth Using Narrative Action

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B.A. East Asian Languages and Civilizations
University of Pennsylvania, 2015

SUBMITTED TO THE SLOAN SCHOOL OF MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN MANAGEMENT RESEARCH

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MAY 2020

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Submitted to the Sloan School of Management on May 8, 2020 in partial fulfillment of the requirements for the Degree of Master of Science in Management Research

ABSTRACT

Within organizations, "core" functions directly contribute to organizational production, whereas "peripheral" functions offer support by maintaining key infrastructure. Commonly viewed as indirect contributors or even adversaries to value, peripheral functions operate from positions of low authority and status, struggling to achieve their mandates and to build relationships that enable them to deliver optimal value to organizations. I argue that the peripheral status of these functions stems from a biased valuation process, in which compliance work, often negatively valued, is highly visible, whereas work inherently valuable to organizational pursuits is less visible. Building on an ethnographic study of peripheral Environmental Health and Safety (EHS) professionals in a university setting, this paper shows how these workers, recognizing that existing narratives undervalued their contributions, enacted their own narratives to address the visibility issues inherent in the valuation process. In doing so, these workers achieved higher status and more functional relationships with core workers. Specifically, EHS professionals first minimized the visibility of disruptions due to compliance, thereby building relationships of client service. Second, EHS professionals made visible inherent connections between their work and core organizational goals, thereby breaking down barriers between peripheral and core work, and building partnerships with core workers.

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A variety of hierarchies exists within organizations. Hierarchy can be useful—as Weber argued, hierarchy operates as a fundamental anchor of bureaucracy (Weber 1978). The rationale underlying a particular hierarchy characterizes its usefulness. For example, a hierarchy of employees stratified by experience, expertise, or skill can establish a functional chain of command. On the other hand, if a hierarchy's underlying rationale is somehow biased, then the resulting hierarchy may do more harm than good.

This paper examines such a hierarchy—namely, the hierarchy of functions that exists in most organizations. This hierarchy labels functions as either "core" or "peripheral." Peripheral functions are those that do not directly contribute to income production, but rather provide support to core functions, commonly by maintaining key infrastructure (Brogan 2003; Filley 1963). Various terminologies in the literature reflect this distinction—core/periphery, front office/back office, and line/staff are among the most common. It is important to distinguish between the hierarchy of functions and the hierarchy of business units, also often described with core/periphery terminology. The hierarchy of business units rests on the organization's strategy, and thus its usefulness depends on the usefulness of the strategy. I argue that the hierarchy of functions is different—that core and periphery distinctions do not reflect a strategic choice or a true difference, but rather a biased valuation process.

This biased valuation process stems from the selective visibility of maintenance work, much of which occurs out of sight from core workers (Graham and Thrift 2007). Rather than a separate category, peripheral work, namely the maintenance of key infrastructure, is inherently part of core work. However, core understandings of such work skew negative, fueling the core-periphery divide. Negative understandings of such work spread because, on the one hand, much of maintenance work occurs in the background, invisible to core workers. Additionally, visibility

spikes with failure, as infrastructure is most visible when it does not work, and with compliance, often seen as disconnected from or a disturbance to core pursuits (Gray and Silbey 2014). This valuation process helps explain the low status and authority of peripheral functions, and thus helps explain why peripheral workers struggle to achieve their mandates, which require the cooperation of core workers (Huising 2015). Beyond this, perceptions of peripheral workers as threats or obstacles lead core workers to limit interactions with peripheral workers, thereby limiting the ability of core workers to add value (Gray and Silbey 2014). The valuation process thus generates an unnecessary distinction and unhelpful friction that undermines collaboration.

Prior research has explored how peripheral functions can improve their standing within organizations, thereby addressing some of the consequences of this valuation process. One line of research focuses on peripheral functions shifting to become more "strategic" (Barney and Wright 1998; Bowen 1996; Cappelli 2015; Heskett et al. 1994; Marshall, Baker, and Finn 1998; Mundy 2012)—a recommendation that proves difficult to follow in practice (Sandholtz, Chung, and Waisberg 2019). Other work shows how peripheral functions can establish authority by building relationships of dependence with core workers (DiBenigno 2020; Daudigeos 2013; Huising 2015; Wright 2009). While this provides an initial step, it does not break down the distinction between core and peripheral work and therefore does not address the root cause limiting peripheral functions' effectiveness. Prior research has not explored methods for directly addressing the valuation process that distinguishes core from peripheral work. In pursuing this direction, this paper investigates how peripheral workers can address holes in the valuation process in order to break down barriers between core and peripheral work, thereby better displaying their value and building highly effective relationships with core workers. The development of such relationships depends on core workers' recognizing the value of peripheral

functions—specifically that their work is part of, rather than somehow peripheral to, core work. While breaking down barriers between core and peripheral work serves to reduce status differences between core and peripheral functions, differences inevitably persist in some form. However, I find that in addressing the process of their valuation, peripheral workers do not seek status equality, but rather recognition as a key part of the process of core work.

THE VALUATION OF PERIPHERAL FUNCTIONS

The terms "core" and "peripheral" imply distance from a central organizational mission. Another way of describing the organizational mission is through the organizational "value proposition." Integrating prior research that touches on organizational value yields a three-part conception of the term. First, organizations must provide something—a service or product (Porter, 1980, 1985). This is the *what* of an organization's value proposition. Second, organizations must provide this service or product more efficiently than the market and competitors, working within the constraints of available resources and human behavior to do so (Barney 1991; Coase 1937; Cyert and March 1964; Penrose 1959; Pfeffer and Salancik 1978; Simon 1955; Wernerfelt 1984; Williamson 1981). This is the *how* of an organization's value proposition. Third, organizations must target a customer base or niche—people to whom the services or products are provided (Hannan and Freeman 1977, 1984; Parasuraman 1997; Porter 1980, 1985; Woodruff 1997). This is the *why* of an organization's value proposition. Without any one of these components, an organization cannot survive.

"Core" implies obvious, direct, unmediated connections between a particular function and the organization's value proposition. Commonly, in line with the term "back office," peripheral functions do not deal directly with the *what* or the *why* aspect of an organization's value proposition. Peripheral functions deal instead with internal matters rather than directly

connecting with the end customer (Brogan 2003; Dalton 1950; Filley 1963). Following this, then, peripheral functions mainly deal with the *how* aspect of organizational value propositions. In focusing on how work gets done, many peripheral functions maintain the infrastructure that serves as the unseen foundation of work (Graham and Thrift 2007). Maintenance is fundamental to the ongoing success of work, as peripheral functions maintain established standards that ensure work occurs in a sustainable, safe, and fair manner (Star 1999). For many such functions, maintaining these standards means enforcing compliance with specific norms, rules, and regulations: information technology functions oversee compliance that maintains information security (Bulgurcu, Cavusoglu, and Benbasat 2010) and technological systems (Ali, Green, and Parent 2009); human resources functions oversee compliance with employee rules and regulations (Bowen 1996); finance and accounting functions oversee compliance with financial regulation and policy (Stewart and Subramaniam 2010); and legal governance, risk management, and compliance functions oversee compliance in a variety of areas, such as corporate law (Bird and Park 2016), risk management (Nocco and Stulz 2006), and safety and environmental sustainability (Gray and Silbey 2014; Huising 2015; Huising and Silbey 2013).

Issues with visibility help to explain why such work is classified as peripheral. As Graham and Thrift write: “the continued, normalized use of infrastructures creates a deep taken-for-grantedness and invisibility” (Graham and Thrift 2007: 8). Maintenance work is inherently a part of core work—without it, core work would not be possible. Because of its relative invisibility, however, this valuable aspect of peripheral work often goes unseen and unappreciated. What is visible, and thus what contributes to existing narratives of peripheral functions, is failure—peripheral work becomes most visible when infrastructure breaks down

and core workers turn to peripheral workers for answers (Star 1999), and compliance, requiring the cooperation of core workers.

Negative perceptions of compliance stem from a variety of sources. As a baseline, compliance effectively limits organizational activities, constraining the bounds of what is acceptable (Edelman 1990; Dobbin et al. 1993). Negative attitudes toward compliance intensify over time due to the normalization of deviance, through which employees become desensitized to unacceptable working conditions and less attuned to the necessity and relevance of compliance (Vaughan 1996). Sometimes, however, compliance earns its negative reputation. Compliance serves as the interactive face—the "frontstage"—of peripheral work, representing the "backstage" work—the ongoing background work of maintaining infrastructure (Goffman 1959; Star and Strauss 1999). Compliance often represents the backstage well; however, as a generalized solution to often idiosyncratic scenarios, it does not always do so (Huising and Silbey 2011). This, in turn, means that peripheral workers occasionally must choose whether to prioritize compliance or that which compliance represents.

High visibility as the "frontstage" of peripheral work makes compliance difficult to deprioritize (Sandholtz, Chung, and Waisberg 2019). In this way, the visibility of compliance generates a positive feedback loop, through which compliance becomes even more visible and negative perceptions of peripheral functions even stronger. The history of peripheral functions helps to explain the enduring visibility of compliance. Peripheral functions have long prioritized compliance as a means of gaining legitimacy and authority (Sutton et al. 1994), as it was due to regulations that many of these functions came about in the first place (Dobbin 2009; Dobbin and Sutton 1998). Since their origin, peripheral functions have been seen first and foremost as compliance functions, with the consequence that the purpose behind such compliance, and thus

the ultimate purpose of peripheral functions, has often been overlooked (Gray and Silbey 2014). Ironically, when peripheral functions, as expected, prioritize that which is most visible—compliance, they materialize the fear that peripheral work is disconnected from core goals, because compliance is not always fully connected to the situation at hand. In this way, a valuation process that sees only compliance leads peripheral workers to continue prioritizing compliance, which in turn furthers negative perceptions of peripheral functions (Sandholtz and Burrows 2016).

This generates two scenarios that fuel negative stories about peripheral functions. On the one hand, peripheral workers may prioritize compliance above and beyond all else, even when the limits imposed by regulations serve little underlying purpose. In this instance, core workers view peripheral workers as threats or obstacles, rather than functions inherently connected to their work (Gray and Silbey 2014). On the other hand, peripheral workers may be coopted by core workers, achieving compliance goals, but in name only (Selznick 1949). This minimizes the negative impact of compliance on core work, but feeds perceptions of peripheral functions as valueless and purely ceremonial (Edelman 1992). Both scenarios contribute to perceptions of peripheral functions as adding net zero or even negative value to organizations.

Negative perceptions of peripheral functions operate as self-fulfilling prophecies, generating conditions that make it difficult for peripheral functions to deliver any value to the organizations in which they operate. These perceptions undergird the low status and lack of authority that characterize many peripheral functions, making it difficult for them to win the cooperation of core workers—often integral to success in their role (Belasco and Alutto 1969; Dalton 1950; Edelman et al. 1991; Huising 2015; Kalev, Dobbin, and Kelly 2006; Litterer 1966; Meyer 1968; Perlow and Kelly 2014; Valentine 2018; Whyte 1961; Heinze and Weber 2015).

Peripheral functions struggle to complete their baseline mandates, much less develop deeper relationships of advisory to core functions (Gray and Silbey 2014). Another factor contributing to suboptimal value is peripheral employees' lower rates of satisfaction and motivation in their work relative to core employees—likely tied to the stigma associated with being peripheral (Koslowsky 1990; Porter 1963; Porter and Lawler 1965). Based on these conditions, organizations rarely capture the full value offered by peripheral functions (Browne and Golembiewski 1974; Golembiewski 1967; McGregor 1960).

Strategies for Increasing the Standing of Peripheral Functions

One line of research acknowledges that the compliance and administrative elements of peripheral functions serve as the foundation of their low valuation (Boudreau and Ramstad 2007; Tichy, Fombrum, and Devanna 1982; Ulrich and Beatty 2001). This literature proposes major jurisdictional shifts aimed at positioning peripheral functions as more strategic (Barney and Wright 1998; Bowen 1996; Cappelli 2015; Heskett et al. 1994; Marshall, Baker, and Finn 1998; Mundy 2012; Schuler and MacMillan 1984). The unyielding nature of these calls to action, and the failures of peripheral functions attempting to heed them (Sandholtz, Chung, and Waisberg 2019), imply problems with this approach. One problem is that such drastic moves may threaten the jurisdictions of core workers, making it difficult to make these moves in the first place (Sandholtz, Chung, and Waisberg 2019). Another problem is that such moves involve hiving off work traditionally considered non-valuable (Abbott 1981, 1988), but that often forms the foundation of any authority peripheral functions have managed to establish (Huising 2015; Sandholtz, Chung, and Waisberg 2019), and that maintains infrastructure vital to ongoing value creation (Barley and Orr 1997; Graham and Thrift 2007; Star 1999). Calls for drastic strategic

repositioning fail to recognize that so-called peripheral functions often already add a great deal of value to organizations based on inherent connections to core work.

A separate line of research has examined how peripheral functions can build authority over core functions in order to achieve mandates despite unfavorable conditions. Peripheral functions can do so by making core workers dependent on them, thereby generating influence (Emerson 1962). These tactics include engaging in scut work as a means of understanding and disciplining core workers (Huising 2015), "rapid relationality" as a means of building relationships of influence before conflict arises (DiBenigno 2020), and networking and balancing organizational and professional identities as means of leveraging existing sources of legitimacy to build authority (Daudigeos 2013; Wright 2009). Additionally, research on low-power workers shows how such workers can, by building skills or knowledge necessary to core work (e.g., Barley 1986; Barley and Bechky 1994; Bechky 2003; Kellogg 2019), establish relationships of dependency with higher power groups in order to gain authority.

Framed as professionals operating within organizations, peripheral employees depend on internal clients to achieve their mandates. Making core workers, or internal clients, dependent on peripheral professionals generates a relationship akin to external professional-client relationships (Huising 2015). Such dependency relationships enable authority with regard to compliance mandates, but stop short of displaying the inherent connections between peripheral and core work. This is because dependency relationships tend to develop around issues that core workers believe to lack value and thus want to hive off (Sandholtz, Chung, and Waisberg 2019). While such relationships do not directly challenge existing distinctions between peripheral and core work, they may provide an initial step toward addressing issues with the valuation process of peripheral functions. By developing around work that core workers believe to lack value,

relationships of dependency may be able to make such work, and thus the negative perceptions surrounding such work, less visible. As part of this study, I investigate how such relationships can serve as the first step in a larger process of building deeper relationships that make visible underlying connections between core and peripheral work and thus address the valuation process directly.

Narrative Action as a Strategy for Addressing the Valuation Process Itself

Addressing the valuation process underlying peripheral functions requires addressing the issues of visibility explored above. Doing so presents a change-seeking challenge resembling a social movement, but within the bounds of an organization. Literature on social movements provides insight into how change-seekers, here peripheral functions, may achieve their goals. Notably, social movement actors have found success employing narratives as a means of mobilizing change (Polletta 1998, 2009). Some key aspects of narratives illuminate their potential effectiveness. A narrative approach to change recognizes that peoples' understandings of reality exist through, and thus can be changed by, stories (Boje 1991). Narratives paint a picture of change leading to a desired end state—in narrative terminology, there is a plot that ends in closure, which necessitates a "moral principle in light of which the sequence of events can be evaluated" (Ewick and Silbey 1995: 201).

Enacting change toward a desired end state requires shifting opposing understandings. Successful change narratives recognize the power of opposing understandings and engage with them accordingly. As Tilly (1993, 1995) and Steinberg (1998) argue, the status quo constrains the discourse of those seeking change. Work on issue-selling (e.g., Ashford et al. 1998; Dutton et al. 2001; Howard-Grenville 2007) and upward influence (e.g., Mowday, Steers, and Porter 1979; Schilit and Locke 1982) in organizations provides similar insight—that change seekers must

carefully engage with the keepers of the status quo. Successful narratives, then, engage strategically with existing, dominant narratives, partially reinforcing these narratives, but also targeting areas for change. This balance plays out in the interaction between individual and collective narratives—collective narratives solidify over time, but individuals can slowly chip away at this buildup through enacting their own narratives. As Ewick and Silbey write, “at the same time that particular and personal narratives partake of and reproduce collective narratives, they also provide openings for creativity and invention in reshaping the social world” (Ewick and Silbey 1995: 222).

Ambiguity within collective narratives helps to spark this individual action. First, ambiguity encourages narrative sensemaking, inspiring participation in the materialization of meaning through discourse, and the realization of such meaning through action (Weick 1995; Weick, Sutcliffe, and Obstfeld 2005). It points the way to areas ripe for change (Polletta 1998, 2009). Ambiguity sparks action because it “necessitates our interpretive participation, requires that we struggle to fill the gaps and resolve the ambiguities” (Polletta 1998: 141). In this way, ambiguity acts as compass and motivator of action to spark change.

In this paper, I draw on an ethnographic study of Environmental, Health, and Safety (EHS) professionals in a university setting. These professionals, rather than inciting change by telling narratives, used narratives as blueprints for action. In other words, they engaged in action to bring to life narratives that reflected their understanding of their own value. This narrative action manifested a reality that called into question opposing narratives of value, thus engendering change in those narratives. Engaging in narrative action, EHS employees acknowledged opposing narratives, aiming to address the main points underlying the low valuation of their work. Specifically, EHS workers recognized the problems with focusing on

compliance and the benefits of focusing instead on safety—that which compliance seeks to achieve in this setting, and that which is more inherently linked to core work. Their narrative action, in turn, sought to reverse the visibility of these two aspects of their work, making compliance less visible and safety more visible. Such narrative action signaled the recognition by EHS workers that, while compliance may historically have been the most visible representation of their work, it did not have to be this way, and that, in fact, making connections to safety more visible yielded greater benefits. In this way, EHS workers, and peripheral workers more generally, can capitalize on their historical position as "handlers" of compliance (Dobbin 2009; Dobbin and Sutton 1998; Sandholtz, Chung, and Waisberg 2019; Sutton, Dobbin, Meyer, and Scott 1994), while also avoiding falling into the trap of becoming "compliance police" (Sandholtz and Burrows 2016), by instead prioritizing that which compliance represents.

METHODS

Research Setting and Background

The setting for this project was an environmental health and safety (EHS) office at Eastern University (a pseudonym), a large research university in the eastern United States. Like similar offices in hospitals, manufacturing plants, and technology firms, this office oversees safety and regulatory compliance, in this case specifically in hundreds of research laboratories across the university's campus.

Core actors at the university were those involved directly in research and teaching—the two main goals of the university. Specifically, these were the faculty [often called principal investigators (PIs) in science and engineering laboratories], the graduate students, the research assistants, and the laboratory managers who engaged directly in the *what* and *why* aspects of the

value proposition—namely the production of research and/or the provision of education to students. It was a reality at this university, as at many major research universities, that these individuals often viewed research as their main focus (Gomez-Mejia and Balkin 1992). To simplify terminology, I refer to these core actors as researchers.

Each department at the university interacted with a team of six EHS professionals—five subject matter experts, known as EHS officers, and one generalist, known as an EHS coordinator. EHS officers operated as subject matter experts in one of five areas: biological safety, radiation safety, industrial hygiene, environmental management, and general safety. Each EHS officer sat on teams for multiple departments and often served as the lead contact for one or two of these departments. Officers operated out of the central EHS office, located on the edge of campus.

The second category of EHS professional was the EHS coordinator. Each department within the university had a dedicated EHS coordinator, who was a departmental employee responsible for overseeing safety and compliance within all laboratories in the department. Unlike EHS officers, EHS coordinators were generalists. They operated out of offices located within their particular department. Some EHS coordinators served two departments, but most served one. Some EHS coordinators in smaller departments were part time. This paper focuses on the full-time coordinators. Coordinators worked together with their EHS officer team of five subject matter experts.

Visible and Invisible Work

The work of EHS professionals encompassed two often, but not always, overlapping areas: regulatory compliance and safety. Regulatory compliance represented concerns about safety and

environmental protection. In other words, these regulations, enforced by external agencies such as the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA), exist because scientific work done in laboratories is often dangerous, potentially harmful to the scientists conducting the work and the surrounding environment as well. Understanding the importance of EHS work requires only looking at the incidents that have occurred in research laboratories. These range from very minor (e.g. a prick on a researcher's thumb due to an errant recapping of a needle) to catastrophic (e.g. death or serious injury—there have been no deaths or major injuries at Eastern University, but there have been several notable cases in recent years at other research universities—see Huising and Silbey 2013 for a review of these cases).

In order to be effective, safety must be a constant priority, ongoing throughout the research process. Regulations help to bring labs up to standard, but occur only at certain times and with only general applicability to any given situation. It was these regulatory interactions, however, that were most visible to researchers. EHS officers oversaw legally mandated training and research registrations—arduous, in-depth processes that documented every aspect of research occurring in laboratories. EHS coordinators oversaw bi-annual inspections, during which they checked labs for compliance with a suite of existing regulations. Both groups responded to accidents that occurred in lab spaces.

Less visible was the continuous background work focused on ensuring safety—this work came through only partially in regulatory interactions. This background work included engaging in service teams meant to facilitate safe practices in labs—service teams focused on developing strategic programs for tackling issues such as safe laboratory design, emergency response, and sustainability. These service teams focused on improving practices in nearly every area of lab

safety. They even focused on how to improve, and thus make the most of, visible regulatory interactions—namely training and inspections. In addition, background work meant collaborating with the facilities department to conduct ongoing maintenance of laboratory spaces and equipment central to the practice of safe research—equipment such as biosafety cabinets, fume hoods, autoclaves, hot plates, and vents. Background work also meant spending time learning about the research of the laboratories—reading through research registrations, researching safety information online, taking courses to gain further knowledge about safe research practices, and spending time walking the through the labs picking up first-hand knowledge about the research and working habits of each lab. In other words, the work of EHS professionals at Eastern touched upon much more than just compliance. It is important to note that EHS officers and coordinators engaged in different types of background work. EHS officers, subject-matter experts who were more physically separated from lab spaces, tended to focus more on program development, whereas EHS coordinators, located much closer to labs, tended to spend more time on background work that required being in lab spaces.

Ethnographic Data Collection

Data for this project consists of observations and interviews with EHS officers, coordinators, and researchers. I spent one or two days per week observing EHS professionals over the course of twelve months, for a total of 47 different days, with most days lasting between two and four hours on site. On these days, I observed EHS professionals complete paperwork and background research on their computers, conduct inspections with researchers, visit laboratories to respond to questions and problems, and attend a variety of meetings. I also completed several online trainings and attended numerous in-person training sessions, including an extensive training for new laboratory EHS representatives. Through these observations, I became familiar with the

day-to-day work of EHS officers and coordinators, both by watching them work and by talking with them about their work. Throughout each day of observation, I wrote detailed notes, typing up these notes at the end of the day. In addition to these observation days, I conducted 52 semi-structured, audiotaped interviews with EHS officers (n=17), coordinators (n=12), and researchers, including Principal Investigators (n=9), graduate students (n=6), and lab managers/research assistants (n=8). These interviews provided a more structured forum for conversation to supplement the numerous informal conversations that took place on observation days. In addition, through these interviews, I was able to speak to a wider range of individuals as the research focus developed.

Data Analysis

In analyzing the data, I took an inductive approach (Emerson 1995; Strauss and Corbin 1998). Data analysis occurred in three stages. In the first stage, I open-coded my data to identify emergent themes. While doing this, I read relevant literature and wrote open-ended memos to begin to develop theory. Through this process, what emerged as the most interesting observation was the discrepancy between the value created by these EHS professionals and their low status and authority within the university overall. I saw countless instances of EHS professionals adding value to research, facilitating compliance and making laboratories safer and more efficient places. However, attitudes toward EHS in the university overall did not acknowledge this value. Researchers often viewed EHS and their mandates as existing in an almost entirely separate world.

In the second stage, I began to think critically about how researchers' opinions of EHS formed. This led to a focus on examining what interactions between EHS professionals and researchers looked like. I realized that most interactions focused on regulatory compliance,

making this the most visible representation of EHS work. Much of the work done by EHS professionals existed in the background, unseen to researchers. Literature on infrastructure and maintenance confirmed this to be a general problem with this type of work. This pointed to the issues of visibility as key to the low valuation of these EHS professionals.

In the third stage, through further coding and analysis of the data, the research question emerged—how do EHS professionals address this seemingly biased valuation process. The data showed that EHS professionals recognized how they were perceived by researchers. Contrasting these perceptions, EHS professionals told stories about how they wanted to be perceived. More than this, however, they actually shaped their work and interactions with researchers in order to bring these perceptions to life. Turning to the literatures on organizational change and social movements, I realized that the approach of EHS professionals mirrored the narrative approaches taken by many change-seekers in other settings. I realized that EHS professionals and researchers were each telling very different narratives of the situation. In turn, EHS professionals were using their own narratives as blueprints for action. I mapped out the tactics used by EHS professionals to identify a model of narrative action that addressed the visibility issues inherent in the valuation process of EHS professionals.

NARRATIVES OF VALUE

Core Narratives of EHS Value

Core workers evaluated EHS workers by judging their ability to contribute to core pursuits at the university, namely research and education. Through this process, core workers' narratives of EHS value split into two components: a disdain for compliance and a respect for the importance of safety. Disdain for compliance stemmed from a variety of sources. First, many viewed

compliance as disruptive, a tendency that increased with the normalization of deviance over time. Core workers mentioned the tendency to "become jaded"—to "lose respect" for or "stop appreciating" the danger of certain materials, which had lost their "mystique." One graduate student expressed the consequences of such tendencies: "Obviously there are some EHS regulations that some people find are not really relevant or pertinent to safety. I mean, I think there's a reason and purpose for all of them, but some of them I guess seem a little bit less necessary, so people will kind of disrespect those a little bit."

Sometimes EHS professionals appeared to prioritize compliance above all else, which went astray when compliance did not meet the needs of the lab. One lab manager provided an example of this, telling a story regarding the management of waste produced during research. She said:

> So what we were told to do was to just have a container and label it. Don't use the word 'waste,' because then it has to be in a secondary container. If you just put 'Qiagen buffers,' the person that's there knows what it is, and then pour[s] it into the main waste container that gets sent out. And then all of a sudden, [EHS said] 'Oh, you can't do that.' When things change like that, it doesn't always filter down. And I said, 'Well, what am I supposed to do then?' [and they said] 'Oh, you need a satellite accumulation area.' I said, 'No. I can't set up 25 satellite accumulation areas on everybody's lab bench. They don't have the space.'…And it's just not a practical solution…So some of those issues are a little frustrating when it doesn't really address the practical end within the lab itself.

In this way, regulations, rigid and general, often served as a poor representative of the overall work done by EHS employees. Researchers recognized this—as one PI expressed, safety in

laboratories required “understand[ing] human behavior” which was not “something you could put in sort of a regulation or a policy or something like that.”

As seen in this example, core workers’ disdain for compliance contrasted with their respect for safety—in fact, core workers’ saw safety as part of their work. One lab manager articulated this idea: “as the lab manager, the most important thing to me is the safety of the people in the lab. Everything else is after that.” As another said “I manage the lab but definitely lab safety is the most important thing.” One PI mentioned that their department leadership made “it very clear that you only have one life. Any experiment isn’t that important.” When researchers expressed positive impressions of EHS, these impressions stemmed from EHS’ connection to safety. As another PI expressed, describing his relationship with EHS: “It’s very supportive. I'm very comfortable with them. I don’t feel any antagonism either way, that we’re out to maintain safety. Safety is incredibly important. And more than one person needs to be thinking about it. And people need to talk to each other. And we do that. And I think it really does work well.”

Researchers did not always have insight into EHS work outside of compliance. Many researchers expressed, in particular, that they did not interact much at all with EHS officers outside of regulatory interactions. As one said: “I guess I don’t interact enough with the central office to really have a description. Almost everything that we do is with the [coordinator].” This reflected the propensity of the coordinator to have deeper relationships with researchers, as they were physically located much closer to labs. Because compliance served as such a visible front for many interactions with EHS professionals, researchers expressed ambiguity regarding how exactly to think of EHS overall. As one lab manager expressed: “EHS could be construed more as something like an HR where it’s like, are you here for me, here for the university, here for

whatever?" Adding to this ambiguity, many core workers at the university had experienced working with EHS professionals in other organizations—at other universities or in industry—and often expressed an adversarial perception of EHS professionals originating from these experiences. For many core workers, their introduction to EHS work had occurred through a lens of fear and disruption, with compliance as the most visible mascot. But the respect for safety and EHS' potential role in this matter provided a roadmap for how EHS professionals could better display their value.

EHS Narratives of EHS Value

EHS professionals' own narratives of their value acknowledged the tendency for core narratives to paint a neutral or even negative portrait of EHS work. In turn, EHS professionals' told stories that sought to refute such perceptions and build up a more positive image. EHS narratives of value traced the development of their relationships with core workers, with narrative closure representing the achievement of an ideal relationship form. They maintained ambiguity in exactly how to bring these narratives to life, inviting individual action. EHS officers and EHS coordinators told different narratives of value that reflected the differing nature of their positions and relational aspirations. These different narratives did not map perfectly on to these two different roles, but many workers in each role aligned in this way.

EHS officers' narratives showed great influence from EHS Office policy. Official EHS office policy emphasized the importance of "service" and "support" and refuted characterizations of the staff and their work as "EHS police." This idea of service was deeply engrained in EHS narratives of value. I attended a meeting at the EHS office focused on rewriting the mission, vision, and values statements for the office. In desigining the mission statement, the first words that people agreed upon were "exceptional service." At another meeting brainstorming the

organization's values, one group argued for the sentiment of "customer service rather than the EHS police—get things done without being a thorn in peoples' sides." EHS officers constantly spoke of wanting to avoid being perceived as "safety cops," "safety police," "obstacles," or "regulators." As one EHS officer said, "not many people get into this to be a regulator—they get into it for safety or environmental reasons." At all-staff meetings, the EHS director continually emphasized the need to create metrics and collect data that quantified the "customer service" done by the organization. EHS officers embodied these ideas. They talked about "trying to increase that level of service" as the next phase of EHS, described themselves as a "service group," and referenced interactions with researchers as "customer service interactions."

A client service orientation provided a clear answer to the question of whether EHS was an adversarial or supportive entity. A client service relationship highlighted core work as a priority, and positioned EHS in support of this work. Overall, EHS officers recognized the stigma surrounding compliance, and so their own narratives of value painted them as providing the service of facilitating compliance and thus facilitating, rather than hindering, research.

Because of their direct membership in and proximity to the EHS office, EHS officers were much closer to this service mindset than EHS coordinators operating within academic departments. Some coordinators still engaged with this concept of EHS value, but not as directly or as frequently. A majority of coordinators, instead, saw their value as being "partners" to research, rather than in "service" of it. Many felt that a service orientation only fortified unnecessary distinctions between EHS and research. Whereas client service meant working *for* researchers, partnership meant working *with* researchers. EHS coordinators did not hope for, or think it possible to achieve, equal status to researchers. Rather, they merely sought respect as an integral part of the research process. As one coordinator explained:

> I don't really view it that way [client service]. Maybe the EHS office [does] more so. I have never heard a coordinator refer to it like that. And I think part of it is that EHS is a separate office. Coordinators are generally part of the administration of their department… Like, I'm definitely here providing a service to them, but I think it's much more of a relationship to make everything function well, you know?…it seems like we're all in it together because if the labs don't do well, [then] they're not safe, people are going to get hurt, [and] we're going to have regulatory issues. If I'm not doing my job, same thing happens…I think it's kind of symbiotic.

Most EHS coordinators acknowledged that there were "customer service aspects of the job," such as timeliness, professionalism, and provision of resources, but viewed the relationship as more of a partnership overall. While client service was useful in establishing and maintaining relationships, expanding these relationships required deeper collaboration. Many EHS officers alluded to this conceptualization, saying that they sought to "collaborate" with researchers. However, as discussed above, the client service mentality was much more prevalent among most EHS officers.

NARRATIVE ACTION

Both core and EHS workers' narratives of EHS' value incorporated ambiguity, sparking action among EHS professionals to fill in the gaps and influence core narratives by bringing their own narratives to life through action (Polletta 1998, 2009). EHS officers, seeking to establish relationships of service and counteract negative perceptions of EHS, focused on taking care of their clients' needs around compliance. In line with a common pattern in change narratives, they sought to "unfreeze" existing perceptions before changing them (Sonenshein 2010). They did

this by minimizing disruptions to core work caused by compliance. Minimizing disruptions provided a means for EHS workers to shift the valuation process by making *less visible* compliance processes often at the root of their devaluation.

For some EHS workers, mainly EHS officers, narrative aspirations ended here. For others, most commonly EHS coordinators, narrative closure required not only counteracting negative perceptions of EHS work, but also challenging distinctions between the core and the periphery. These workers acknowledged the importance of minimizing disruptions in order to provide client service, but ultimately sought to achieve relationships of partnership—as "allies," "resources," or "partners" to researchers (Gray and Silbey, 2014). In order to establish such relationships, they focused on emphasizing safety above and beyond compliance. Moving beyond compliance in this way provided a means for EHS workers to shift the valuation process by making *more visible* the work underlying compliance and inherently connected to core pursuits—safety in this instance.

Building Client Service Relationships by Minimizing Disruptions

Minimizing disruptions meant making compliance less visible. Specifically, this meant minimizing the time and stress associated with compliance processes and also instances of noncompliance. Doing so established client service relationships, in which EHS professionals took care of the work that researchers often could not, and did not want to, do themselves.

Facilitating compliance processes. The main tactic for minimizing disruptions was facilitating compliance processes. This meant helping researchers meet compliance standards in order to avoid fines or other penalties that would take time away from research, and doing so in the most efficient way possible. This tactic aligned with Suchman's (1995: 58) argument that,

"In the case of many forms of service work, we recognize that the better the work is done, the less visible it is to those who benefit from it." In this way, EHS professionals established themselves as client servants working to make compliance processes fade into the background.

A common example of minimizing disruptions in this way involved training. Many researchers viewed training as unhelpful and time-consuming, and so EHS professionals worked to make training more convenient. EHS officers often set up time to go meet PIs in their office to train them one-on-one. As one officer said, "Certain PIs find it onerous to come here [EHS office], and I wouldn't expect a PI to come here or to go online and do the web course…so we'll go do a tailored 20 minute 'this is what you need to know about this'…It sets up a great rapport with the PI." A PI highlighted the service aspect of this as well: "it's hard to get me to do it [training] on time. Just because my calendar is just like shot…[the coordinator] makes an appointment with me and she sits where you are and we do it verbally." This reduced the amount of time that PIs needed to expend on training.

While most training had traditionally occurred in-person, during laboratory group meetings or scheduled sessions at the central EHS office, more recently the EHS office had pushed for online trainings as a means of facilitating training compliance and respecting researchers' time. Many EHS professionals lamented that online trainings meant the loss of an opportunity to interact with researchers. As one officer expressed: "Our main staple trainings are going online. Well, we miss the opportunity to meet them [researchers]. I think that's the main loss, that human interaction, right? We miss them. We become this invisible hand." Despite these drawbacks, many EHS professionals recognized the benefits of becoming an "invisible hand." By reducing the time and energy necessary to complete training, online training enabled compliance to occur more efficiently and at more convenient times, thus reducing negative

perceptions of training, and by association, the EHS professionals leading such training. EHS professionals noted that online training "frees up their [researchers'] time and capacity," "it's easy for someone to take it whenever they want," and "it makes it less time consuming." Researchers appreciated this move to online trainings, citing the convenience as key. Online trainings showed EHS to be willing to serve the needs of their research clients.

EHS professionals often minimized disruptions by doing the "legwork" to facilitate complex regulatory processes encountered in the course of research. Many EHS officers guided researchers through research registration processes, requiring numerous forms and back and forth communication. EHS officers took steps to make this process easier. As one officer said: "we kind of spoon-feed them in certain things because we want to make it efficient and we want to help them with that, because we know what our committee's looking for." Helping researchers in this way made complex compliance procedures less of a visible source of stress, thereby enacting client service relationships. Researchers recognized this as well—as one PI said of his thought process when faced with registrations: "To me, I just thought this needs to be approved and we need to follow the rules. So we have to contact the right people. I do think the client [service] thing is the most realistic way to think about it [relationship with EHS]."

Sometimes EHS professionals completely assumed responsibility for compliance processes. Over the past decade, Eastern had often switched preferred vendors and policies for lab coats, generating confusion and stress. Some EHS professionals took matters into their own hands. I sat several times with one coordinator in a small room located in her department's building, where, every few weeks, lab members would bring in the coats from their labs. The coordinator would check the lab coats in, provide them to the cleaner, and then organize them for pickup. This coordinator completely took over this process by centralizing the procurement and

maintenance of lab coats for her department. This type of work—handling highly regulated resources and materials—made less visible compliance procedures which could otherwise halt the flow of research. As evident in a story told by a lab manager, regarding a hazardous chemical which the lab no longer needed, such work further helped solidify the client service aspect of EHS: "So I reached out to [our coordinator]…And she got back to me right away, she reached out to see if anybody else in the building needed it...she also told me exactly how to store it so that in the future we would know how."

Avoiding the blame game. Minimizing disruptions often meant avoiding playing the blame game or pointing fingers when noncompliance or incidents occurred. Overall, avoiding the blame game helped to reduce the visibility of aspects of compliance commonly associated with punishment, fear, and stress. In this way, avoiding the blame game counteracted narratives of EHS workers as "safety police" or "overseers," instead positioning them as client servants willing to help in the case that something goes wrong.

EHS workers softened responses to noncompliance by framing messages positively and avoiding pointing fingers. Rather than outright cooptation, this often entailed strategic relational work. Speaking about inspection results, one coordinator expressed that "Even if it's been a bad inspection, I need to write it up in a way that doesn't burn my bridges with [researchers], and doesn't piss off their PI. Because then they'll never work with me on anything." When incidents occurred, EHS professionals assumed a "no blame" approach in order to combat a culture of fear around EHS. Core workers recognized this. One research associate, speaking about inspection results, said: "it's not super stressful. They're [EHS] always very nice. They just want to work with you to make your lab safer—[that's the] type of vibe that you get from them." Similarly, at

trainings and presentations, EHS officers constantly emphasized that they were not there to get anyone in trouble, and that people should come to them with any questions or concerns.

This helped to combat negative, fear-based perceptions of EHS. As one graduate student expressed, “what I appreciate is that [EHS is] effective in maintaining safety, but they're also kind. I think it’s a role where, for a lot of people in a lot of industries, those people get put in kind of the evil person setting, and nobody likes them. But that hasn’t been my experience here. They're strict, and there's rules, and we need to follow them, but they’re also very friendly and nice about it, which I appreciate.” This perception impacted researchers’ willingness to reach out to EHS, and thus the types of relationships that ultimately developed. As one graduate student said, speaking about the common situation where a spill in the lab occurs: “I wouldn’t be scared to reach out and say, ‘Hey, I had this problem. How can I fix it?’ as opposed to trying to sketchily clean it up and not do the right thing with it if I was scared of getting in trouble.” In this way, researchers came to view EHS as client servants. As one graduate student said “yeah, I think that [the idea of EHS as client servants] jibes with what I was saying about them being there for support or as a resource, not as a boss or something like that.” In this way, EHS workers’ tactic of avoiding the blame game helped to minimize the oppressive presence of compliance, thereby establishing an atmosphere of helpfulness and shifting core narratives to consider EHS as a service to be called on without fear.

Limitations of minimizing disruptions. Most researchers acknowledged aspects of client service in their relationship with EHS professionals. One PI, for example, expressed that EHS professionals conducted client service “in the sense that they've got to be up to date on regulations and they've got to have proper training for any undertaking in light of regulations and safe practices.” Overall, however, a minority of researchers, across graduate students, lab

managers, and PIs, viewed EHS professionals purely in a client service manner. When they did so, it was often with regard to EHS officers, not coordinators. Such perceptions represented a failure in moving EHS work out of the periphery. This was because client service meant that EHS worked *for* researchers, not *with* them. As one graduate student who viewed EHS officers primarily as client servants noted:

> I feel like they're very peripheral to what we do…if we need them, we'll reach out…And in terms of peripheral, I just mean like we go there for trainings. But I don't think about central EHS every day. I think about what we should do for safety every day, but I don't think I should contact central EHS at all, if ever. Obviously we rely on them for like our online trainings, we rely on them to like organize or take care of waste pickup, I guess, things like that.

Building Partnerships by Moving Beyond Compliance

Moving EHS work out of the periphery required more than just minimizing disruptions due to compliance. While most researchers viewed compliance as a burden, they recognized the importance of safety. Moving beyond compliance, then, meant that EHS professionals shifted their priority and focus from compliance to safety, the subject matter valued in researchers' own narratives. EHS workers moved beyond compliance in two ways. First, they transformed regulatory interactions into safety interactions, and second, they generated new interactions around safety to better reflect background work done to maintain safety. EHS professionals who moved beyond compliance made visible the elements of their work integrally linked to, and thus part of, the research process. This reflected the idea that compliance, while often the most convenient expression of EHS work, does not always represent this work in the most complete way.

Both transforming regulatory interactions into safety interactions and generating new interactions around safety required a deep understanding of the work done in laboratories. If prioritizing compliance, peripheral employees could theoretically get away with doing little work in the backstage, as compliance masks backstage work through a generalized frontstage. Prioritizing safety, on the other hand, required presenting a flexible frontstage able to cater to the situation at hand. Such a frontstage required intensive backstage work. In this way, moving beyond compliance actually required as a prerequisite that EHS professionals put in the work necessary to learn about the laboratories in which they worked—thereby addressing any concerns that EHS operated as a ceremonial function.

Given the expectation of more frequently being present in the labs, coordinators often had a more direct route to learn about labs and generate more visible interactions around safety. This was partially due to the setup of the system itself, in which it was the coordinator's role to be in the labs more often (Huising 2014, 2015). This did not, however, preclude EHS officers from developing deep understanding of labs and moving beyond compliance. It was just often more difficult for them to find ways of naturally translating their understanding into visible interactions around safety, given their physical distance from the labs. It is important to note that while many central EHS officers did not have as much in-person interaction with the labs, the radiation protection group was an exception to this (Huising 2015). As one radiation officer said: "Part of our biggest success is the amount of time we spend out in the field talking to people. Everybody knows sort of who we are." Researchers expressed similar sentiments about this group.

Transforming regulatory interactions into safety interactions. Researchers transformed regulatory interactions into safety interactions by prioritizing and

emphasizing safety above and beyond regulatory compliance. In practice, this meant flexibly applying compliance standards, reflecting an understanding that it was the safety achieved by compliance, not compliance itself, that was truly important (Heimer and Gazley 2012; Huising and Silbey 2011). One coordinator expressed this sentiment:

> I'd rather people think in a way—like, know how to evaluate risks and hazards, and make changes…and have their behavior be from that point of view, rather than just be like, "Oh, I have to do this to be compliant." Because if they just think that way, then they don't even truly understand the reasoning behind it, you know?...It just doesn't become incorporated as part of their value.

In applying this tactic, if a rule or regulation did not make sense for a given lab, then EHS professionals relaxed compliance requirements. One coordinator expressed support for this approach by lamenting the compliance-focused approach of an EHS officer:

> I was on an inspection once one time [with] someone from the EHS office…And we were [in a] machine shop, and there was a ginormous mill. And this person goes, "There's bolt holes in that. It's supposed to be bolted to the floor." Dude, if it got hit by a truck, the truck would lose, okay?…See, when you do stuff like that, people think you're just only there to look at regulatory foolishness…It does not add any value to that machine shop's life to go find the right size stupid-ass bolts and drill them into the concrete floor…it's very time consuming and stupid.

In line with this, researchers spoke highly of instances where EHS professionals expressed regulatory flexibility. In describing this flexibility, a research assistant said: "If there's a reason that you're doing [research] a certain way experimentally, then they don't want to

damage the integrity of your experiment. So they're normally pretty good about working with you on that type of thing where they're here to work with you and not just talk at you, type of thing." A PI said that "they'll let you know, 'this must happen, this should happen, and here's an idea of how you can increase the probability of lowering safety hazards in general.' So they'll have the required and the suggested, and you can tell the difference …there's an overall view that this is sort of active problem-solving." Such examples of prioritization reveal how EHS professionals made safety visible above and beyond compliance.

EHS professionals transformed many formal regulatory interactions, such as inspections and trainings, into interactions around safety. One example of this occurred while I was shadowing a coordinator on an inspection. We entered a laboratory where graduate students were building a robot exoskeleton for assisting in carrying heavy loads. The robot consisted of numerous gears and chains, all together assuming the shape of a "backpack with legs." Rather than lecturing the student on regulatory issues with the robot, the coordinator first inquired about the purpose of the project, talking for an extended period with the researchers about the potential users and marketability of such a robot. In the context of this discussion, the coordinator asked how the emergency stop worked and questioned the implications for the usability of the robot. The coordinator's approach framed safety as part of and specific to this research project—integral to how the robot would ultimately be marketed and used.

Similarly, EHS professionals worked to transform trainings, traditionally dry regulatory lectures, into more interactive, learning experiences. A group of EHS professionals collaborated to make trainings better. They developed interactive online trainings that offered a more engaging, effective online learning experience and worked to create blended learning trainings, which transitioned regulatory aspects of training online while keeping more hands-on training in

person. This helped to make training more of an engaging and safety-oriented experience overall, rather than just a regulatory box to check.

Transforming interactions in this way made visible the connections between EHS work and safe, effective research, profoundly impacting the type of relationships that developed between core workers and EHS professionals. Illustrating this, one PI told stories of his relationships with two EHS coordinators—one who prioritized regulations and another who prioritized a flexible, safety-first approach. Regarding the first, the PI said that the coordinator "put on these requirements for any student or anybody taking a class, they have to do training that has nothing to do with the lab." This PI further expressed: "I think you need…to get this person on board to be like a partner, as opposed to an adversary. It's killing them over there. Or, let me put it this way, it's definitely creating a culture of, they're going to try to avoid [the coordinator]. Bad news" When asked why they would avoid the coordinator, he said fear of "more red tape."

On the other hand, this PI spoke highly of another coordinator who took the time to understand the lab and approached interactions with a flexible, safety-first mindset rather than pushing regulatory compliance. The PI expressed that this approach helped to develop the relationship into one of partnership: "I would call it, without a doubt…it's a partnership. It starts by [the coordinator] understanding, asking the question, 'What are you trying to achieve?' And it's never 'thou shalt not do.' It's usually 'what do you think about doing the following instead of that?' It's completely different." The drastically different relationships that developed showed the power of making the connections between EHS work and research visible by prioritizing a flexible, safety-first approach that took into consideration the specific needs of the laboratory, rather than a blanket approach focused on achieving compliance.

Generating new interactions around safety. In addition to transforming existing interactions to be more flexible and safety-focused, EHS professionals also generated new interactions that operated as additional opportunities to make visible existing background connections between EHS work and core work, expanding conceptions of the role that EHS played in research. This helped contribute to narratives that EHS work was an ongoing part of research. One coordinator expressed the purpose behind this approach:

> Research is continuous. Nothing really ever stops, it just evolves. I think if you can prove that safety is ongoing, and if you can prove that safety is a part of the whole pattern, I know that the students look at safety different. They don't look at safety as a roadblock. They look at safety as, "Oh, I should be thinking about this along the whole thing, and it's actually kind of fun."

One way that EHS professionals emphasized the ongoing nature of safety and its relevance to research was by just being more regularly present in the labs—more physically visible. Coordinators often found ways to get into the labs on a regular basis, beyond scheduled interactions. One, for example, would go on "rounds" every day, during which he strolled through labs, "shoot[ing] the shit" with researchers and answering any questions they may have. In addition to providing more opportunities to engage with researchers around safety, this brought "the human element" to the work, laying a foundation for deeper relationships and collaboration. This coordinator prided himself on knowing the names of all EHS lab representatives in his department, and frequently attended non-safety related meetings, which he said "shows that I'm engaged and interested."

EHS professionals also created additional formal routes for interaction. Many found ways to channel their expertise into new collaborative programs involving both EHS and core worker input. One PI provided an example:

> So he [coordinator] basically runs programs within the department that actually engage the PIs and their students in designing or working new ideas around safety…we have a glove recycling program, and we have a green labs program. He instituted that. And getting students talking and stirred up about all those things, he's increased the likelihood that they will and do come to him when they think something weird is happening in lab…it made a significant difference in our safety level.

As seen in this example, engaging core workers in programs like this made visible the connections between EHS work and core work. This helped to establish relationships in which core workers were much more likely to view EHS professionals as partners whom they could reach out to not just for regulatory questions, but for questions around their research. When researchers viewed EHS professionals in this way, they consulted them on how to achieve safe and effective research designs. One EHS coordinator described the importance of such work:

> My role isn't to come in and say to the researchers "do this, do that, don't do this, don't do that." Or, "Oh, here, let me bring you some guidance documents, and there's a webpage for that." My goal is to go like I did yesterday for an hour-and-a-half with these people who are using metal powders and stand with the visiting student and the grad student, and read through the SDS (Safety Data Sheet) on the student's phone and say, "Hmm, that's interesting, they're saying you need non-sparking gloves. What does that even mean? What the hell are non-sparking

> gloves? Are neoprene or nitrile gloves non-sparking?...What ventilation do you need for this? What particle size is it? Well, why do you care about particle size? Well, because smaller particle sizes are worse from an inhalation and explosion perspective"—you know…it's a collaboration and discussion where I'm trying to learn from them what the hell their research actually is, and therefore what the hazards of their research are. And then they're trying to learn from me what the potential exposures could be, and how to mitigate those exposures, right?

By showing the willingness to problem solve and go into the weeds on a research project, EHS professionals were able to make visible the inherent connections between their work and research, showing that safety is an integral aspect of good research design. As EHS professionals repeatedly proved their worth through such interactions, core narratives of their value shifted. One graduate student, speaking about his relationship with his department's EHS coordinator, said the coordinator "basically makes everything that we do possible from a safety standpoint. So, any questions that we have, if somebody's starting an experiment and they're not sure how it's going to go, they can direct questions to me, and I can direct them to him. And he really will help us sit down and figure things out so we can make sure that things are going smoothly."

I observed this type of interaction on several occasions. Once, several researchers called a coordinator in to observe a lab room with a large, rectangular table in the center. On top of the table sat a transparent plastic shell enclosing tubes, circuits, and a machine with protruding pumps. A vent pump at the top of the box provided airflow to the space. A researcher was concerned that the vent may not be working properly, and had consulted a coordinator to examine it. The coordinator, working together with the researcher, decided to wrap a collar around the vent, to seal in the air escaping due to the vent not being flush with the top of the

plastic box. A different vent, coiled and trapped between the plastic box and the ceiling, needed to be replaced because of its unnatural angle. The coordinator proposed another type of vent, a direct shot vent, as an easy fix. Through this interaction, the coordinator enabled the research to occur safely and in a cost and time effective manner by constructing a simple, practical solution.

In this way, EHS professionals made visible the deep connections between their work and the goals of researchers. Not only were they able to facilitate safe research, but they were able to do so in a cost and time efficient manner. One coordinator provided another example of this: "some people order way too much chemistry [chemicals]. Or they order chemistry that's really hard to dispose of. So it's cheap when you purchase it, but when you run your experiment, you have very expensive hazardous waste to get rid of. So if we can help them on the frontend on that, then they'll be in better shape on the backend." This type of work helped to solidify the idea that EHS work was really part of, rather than somehow separate from, core work.

Failure modes. Sometimes EHS professionals failed to move beyond compliance. One common reason for this was a lack of understanding of the lab situation. One graduate student told a story of an issue with a smell related to a pump in a lab, noting how an EHS coordinator failed to understand the situation:

> It was just sort of like he didn't really understand why we had this pump to begin with. He was like, "Well, why don't you just use this pump instead?" And they serve two very different purposes, so that was one problem. And also the solution that he offered had really nothing to do with the potential smell that the other lab smelled because…the instrument wasn't even in use at the time [of the smell].

Researchers also lamented when EHS professionals failed to allow flexibility around compliance or failed to explain the necessity of following a particular regulation more closely. Such failures led to researchers viewing regulations as not “practical” or “reasonable,” and contributed to a view of EHS as adversarial to laboratory goals. These failures stunted relationship development, preventing EHS professionals from reaching the level of partner in research. For example, when asked whether he viewed EHS professionals at Eastern as colleagues, one PI expressed:

> No, not so much. I don't think—because you only go to them when you need them. Usually a colleague is to me a person [who is] more interactive and pretty much more involved. Is more present… With EHS, it's already like, “no, we do it this way.” So that you have to do it that way. To me, that's more like you're telling me what to do as opposed to engaging in a useful, more dynamic discussion.

Failed cases such as these highlighted the importance of assuming a flexible and practical approach to working with researchers in order to move beyond client service interactions.

DISCUSSION

Organizations stand to benefit from taking stock of the value of internal functions. The hierarchy of functions, often long-established within organizations, may be overlooking and thereby limiting the potential contribution of valuable assets. This study examines how the hierarchy of functions can be challenged from the bottom up—via narrative action aimed at shifting patterns of visibility in order to uncover hidden value. The study found that narrative action can shift patterns of visibility in two ways—first by minimizing disruptions due to compliance as a means of generating client service relationships; and second, by moving beyond compliance as a means

of making visible underlying connections between peripheral work and core work and thus generating relationships of partnership between EHS workers and researchers. The study's findings make contributions in several areas.

Core and Peripheral Functions

This study contributes to our understanding of core and peripheral functions by exploring the logic behind these divides. Some literature detailing the challenges of peripheral functions has attributed such difficulties to a lack of formal authority (e.g. Dalton 1950). Other literature has attributed these difficulties to a lackluster relational foundation between the peripheral and core workers (e.g., DiBenigno 2018; Huising 2015). These approaches, however, do not examine the reasons for core and periphery distinctions in the first place. I argue that these distinctions are important because they undergird all interactions between core and peripheral functions. By examining the reasons underlying these functional distinctions and showing how peripheral actors enact narratives to combat these distinctions, this study identifies a general solution to the difficulties faced by peripheral functions.

This study shows that distinctions between the core and the periphery often serve to undermine, rather than further, collaboration within organizations. Unhelpful distinctions characterize core and peripheral work as fundamentally different in some way. This study shows that so-called peripheral work is integrally connected to and, in fact, part of core work. Highlighting this fact helps to counteract core workers' tendency to avoid or hive off responsibility for such work, which inherently requires their participation. It is important to note that, while it is possible to break down the barrier separating core and peripheral functions and in doing so reduce the status disparity between the two, status distinctions between these two groups will almost inevitably persist. While breaking down the barrier helps peripheral functions

reach their full potential, status equality is an unlikely, and probably unnecessary, goal. Whether, and how, to further problematize status distinctions between these groups is a question for additional thought.

This study also shows that the nature of the peripheral function matters in determining the effectiveness of tactics for addressing issues of valuation. EHS coordinators, physically closer to labs and part of labs rather than a separate EHS office, aspired for and achieved deeper relationships of partnership compared to EHS officers. Positioning—both physical and within the reporting structures—may matter for how successfully peripheral functions can engage in the tactics identified in this study.

Narratives and Organizational Change

This study also contributes to research on narratives in organizations. Building on the social movements literature, the findings show that narratives can spark change within organizations. Sparking change, as in social movements, requires engaging with existing, core narratives (Ewick and Silbey 1995; Steinberg 1999). Following scholars who have championed narrative and sensemaking approaches to organizational analysis (e.g. Boje 1991, 2001; Czarniawska 1997a, 1997b; Weick 1995; Weick et al. 2005), this study shows how narratives embody the linkages between individuals and organizations, and how individuals in particular functions may engage in narrative action to change these linkages. Organizations consist of many narrative threads running together. By engaging in storytelling of their own, employees can take action to affect broader patterns of meaning within organizations—any changes will in turn reflect back on their lived realities in day-to-day organizational life.

This study expands our understanding of how narratives translate into action. By focusing on narrative action—meaning action taken to manifest a particular narrative—this study frames narratives as a particular understanding of the world that must be enacted in order to take effect. Previous studies on the relationship between narratives and change have examined narratives as motivating participation in change initiatives (Polletta 1998, 2009), mapping the causal chain of events in change processes (Buchanan and Dawson 2007), and even engendering change themselves (Boje 1991; Dailey and Browning 2014). This study shows that sometimes it is the enactment of a narrative, rather than the telling or retelling of a narrative, that engenders change. In other words, narratives can lay out a blueprint of action; action in turn manifests this narrative blueprint, manifesting new narratives that both engage with and push back against existing narratives.

To conduct the ongoing, day-to-day relationship-building necessary to see narratives through to fruition is by no means easy work. The success of narrative action may depend to an extent on an ability to view organizations as "the outcome of human decisions, indecisions, trial and error, and just plain making do" (Silbey, Huising, and Coslovsky 2009: 203). In line with this, narrative action is not a magical cure-all, but a continuous, involved, and methodical effort.

Visibility and Organizational Value

This paper also contributes to our understanding of value within organizations—what it means to add value and how perceptions of value within organizations form and change. Many threads of scholarship have examined organizational value from different angles (e.g. Barney 1991; Coase 1937; Hannan and Freeman 1977, 1984; Parasuraman 1997; Porter 1980, 1985; Wernerfelt 1984; Williamson 1981; Woodruff 1997). These scholars study what organizations must do in order to create and sustain value, in other words, what they must do to survive. This paper shows that

core narratives of value within organizations embody many of these ideas. Because of this, core narratives of value may overlook certain functions whose contributions are not as readily connected to traditional notions of value. Organizations stand to benefit from recognizing the potential of such functions in contributing to *how* value is generated. These functions can take action to change core narratives of value; however, it is also up to organizational leadership and those in core functions to recognize these blind spots.

This study also shows how narratives of value within organizations are intimately tied to patterns of visibility of work. This builds on past research on visibility, which has shown how issues of visibility blur connections between workers and their work (Star and Strauss 1999). As Suchman (1995: 59) argues, "work has a tendency to disappear at a distance, such that the further removed we are from the work of others, the more simplified, often stereotyped, our view of their work becomes." In peripheral work, issues of visibility derive from core workers' distance from and limited interaction with peripheral work, resulting in a simplified view of peripheral work and ambiguity in how exactly peripheral workers fit into narratives of value. This study shows that problems due to visibility require solutions that address visibility. Narrative action enables peripheral workers to shift patterns of visibility in their work. This may be applicable to functions outside of peripheral functions as well. Within any job, there is work that is relatively more visible and work that is relatively less visible. Awareness of these patterns of visibility, and recognition that change is possible, may help other functions to better display their value and thus operate more effectively.

Boundary Conditions and Future Directions

This paper should be considered in light of several boundary conditions. The most significant is the university setting in which the study took place. Universities have particularly clear and

engrained notions of value, and so status distinctions between core and peripheral workers may be more stark here than in other types of organizations. Peripheral workers may face a higher bar in a university setting in terms of displaying value. At the same time, several researchers in this setting expressed the idea that those who would choose to work in a university are those who value research, and so there may actually be more blurring of the lines between core and periphery than in other organizations. Exploring these questions necessitates exploring narratives of value in other settings.

Another boundary condition is the nature of the work considered peripheral. Here, the work surrounded safety and regulations relating to safety. I argue that the approaches taken by these peripheral workers would extend to other types of compliance-heavy work often seen as peripheral, such as HR, legal, risk, and similar compliance departments. I view all of these functions as similar because each of them deals with an aspect of work not often visible, but that is of fundamental importance to *how* work gets done. The ability of peripheral functions to engage in the tactics identified in this study may depend on the particular conditions of work—including importantly their workload and capacity, which may impact their ability to provide more catered solutions rather than relying on generalized regulations. Future work is needed, however, to examine how narratives operate in other types of peripheral functions.

Finally, more work is needed to further expand on the contributions mentioned above. First, how do individuals in peripheral functions develop the skills to enact narratives of value? What roles do their broader functional and professional communities play in influencing these narratives? Additionally, how can organizations encourage core workers to seek out the value of peripheral functions, rather than relying on peripheral functions to display their own value?

Pursuing such questions will help to further our understanding of how narratives of value operate within and beyond the realm of peripheral work.

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