

HOW STREAMS OF COMMUNICATION REPRODUCE AND CHANGE INSTITUTIONAL LOGICS: THE ROLE OF CATEGORIES

WILLIAM OCASIO
Northwestern University

JEFFREY LOEWENSTEIN
University of Illinois at Urbana-Champaign

AMIT NIGAM
City University London

We examine how streams of communication enable the reproduction and change of the underlying principles that constitute institutional logics. While past research has shown that communication provides instantiations of institutional logics, the link between specific instances of communication and the emergence of institutional logics has not been explicitly shown. To remedy this gap, we propose that collections of communicative events distributed throughout organizations and institutional fields can converge on systems of categories so as to yield the meaningful and durable principles that constitute institutional logics. We explore how four analytically distinct communicative functions—coordinating, sensegiving, translating, and theorizing—enable this emergent process of reproduction and change.

During the past quarter of a century, institutional research on organizations has focused increasingly on the role of institutional logics—cultural structures that bring order to domains of practice—in explaining structure and action (Friedland & Alford, 1991; Rao, Monin, & Durand, 2003; Thornton & Ocasio, 1999, 2008). While scholars have invoked communication as central to institutional logics (Green, Babb, & Alpaslan, 2008; Lammers, 2011; Sandhu, 2009) and as providing examples of how logics change (Glynn & Lounsbury, 2005), existing theory does not provide a good understanding of the mechanisms by which communication shapes institutional logics. In particular, the constitutive function of communication in the reproduction and change of institutional logics, as well as how this function relates to cognition, remains underdeveloped.

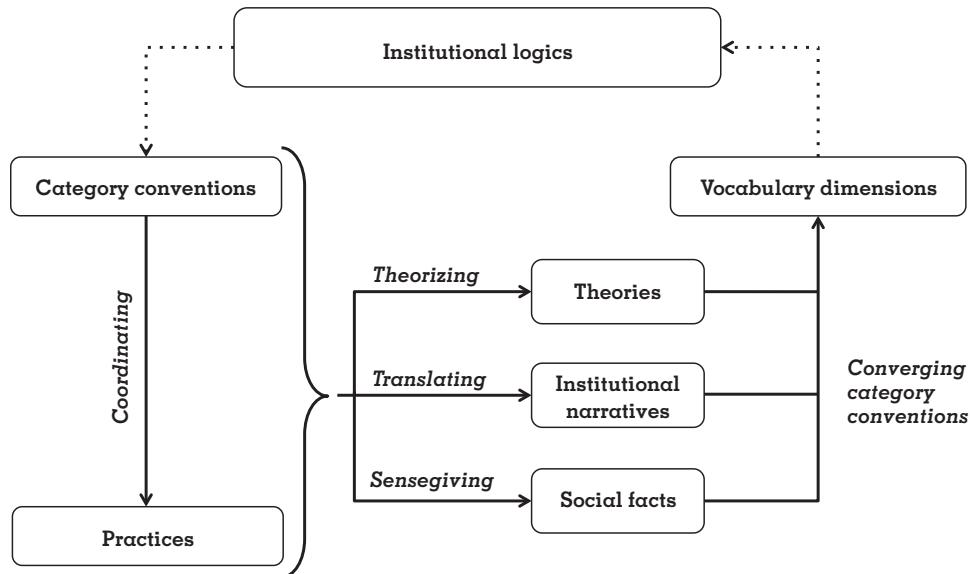
One exception is the work on vocabularies (Jones & Livne-Tarandach, 2008; Loewenstein, Ocasio, & Jones, 2012; Ocasio & Joseph, 2005). But here the focus has been on the communicative

content of vocabularies—through categories and category conventions—and their role in constituting institutional logics (Thornton, Ocasio, & Lounsbury, 2012). Communicative processes, except those involving theorization (Lok, 2010; Rao et al., 2003) and sensegiving (McPherson & Sauder, 2013; Nigam & Ocasio, 2010), have received less theoretical or research attention in research on institutional logics. Specifically, researchers commonly conceptualize institutional logics as higher-order cultural structures that are constituted through communication, but we have limited knowledge of how diverse, local, and ephemeral instances of communication can create or constitute these higher-order cultural structures (cf. Giddens, 1984). And while the communicative constitution of organizations (CCO) perspective (Brummans, Cooren, Robichaud, & Taylor, 2014; Cooren, Kuhn, Cornelissen, & Clark, 2011; McPhee & Zaag, 2000; Taylor & Van Every, 2000), a key focus of communication research, does link communication to organizations, this literature does not explicitly link communication to institutional logics.

To remedy this theoretical gap, we explore how streams of communication shape the constitution of institutional logics. Past research

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Figure 1
Structures and Processes Reproducing and Changing Institutional Logics



has established that communication provides a means for representing institutional logics and their component practices (Durand & Jourdan, 2012; Lok, 2010; Smets, Morris, & Greenwood, 2011) and serves as a vehicle for rhetoric and persuasion (Green et al., 2008; Suddaby & Greenwood, 2005; Vaara & Monin, 2010). But communication is seen more as a facilitator of the diffusion of logics and their political mobilization, as highlighted by social movement researchers (Benford & Snow, 2000; King & Pearce, 2010; McAdam & Scott, 2005), than as an underlying process directly generating or changing logics. We develop an account of how communication distributed throughout organizations and institutional fields reproduces and changes category conventions within vocabularies of practice and, as a result, reproduces and changes institutional logics. In doing so we link communication, cognition, and institutions to account for how diverse, local acts of communication can constitute the higher-order cultural structures of institutional logics.

In the following section we present our theoretical model. We propose four communicative functions—coordinating, sensegiving, translating, and theorizing—that shape the constitution of institutional logics. If the category conventions across the four functions converge, they generate the underlying principles of institu-

tional logics. Finally, we discuss the contributions of our theory, including implications for research.

HOW COMMUNICATION GENERATES CULTURAL STRUCTURES

We propose a recursive model, shown in Figure 1, linking institutional logics with category conventions, practices, and the four communicative functions. In developing our theory, we rely on a defining property of institutional logics: logics are cultural structures that constitute enduring and broadly applicable configurations of governing principles bringing order to particular domains of practice (Thornton & Ocasio, 2008). We propose that institutional logics are built from more basic forms of cultural structures—category conventions and vocabulary dimensions—and that communication is critical to how these cultural structures are generated and connected to each other. Communication, as we explore below, can cause category conventions to converge, generating the underlying vocabulary dimensions that constitute the principles of institutional logics.¹ Institutional logics, in turn,

¹ We take a critical realist approach to the existence of vocabularies, vocabulary dimensions, and institutional logics.

indicate available and accessible vocabularies to think, communicate, and generate practices (Thornton et al., 2012).

We emphasize that communication in organizations and institutional fields is situated in time and space in the context of communicative events. Communicative events are collections of oral and written statements and speech acts (Cooren, 2001; Cooren & Taylor, 1997; Searle, 1969) that cohere to yield a macro speech act (Van Dijk, 1997). For example, a trading transaction coordinating buying and selling, a restaurant review congratulating a new chef, and a speech inviting new lines of action are all communicative events. The question is how communication processes, which are streams of specific local and ephemeral communicative events, can shape institutional logics, which are enduring cultural structures.

To connect situated communicative events with enduring institutional logics, we are inspired by, yet depart from, prior CCO theory (McPhee & Zaugg, 2000; Taylor & Van Every, 2000).

ics (Bhaskar, 1979; Collier, 1994; Leca & Naccache, 2006). These are real cultural structures that emerge from social interactions through communication and cognition but that are not directly observable in any specific interaction or event. These structures or symbolic meaning systems are the product of our culture and cognitive representations, yet they exist in the real world independent of our ability to access them and represent them fully. Practices, symbolic systems, and institutional logics are thereby emergent structures of practitioners' communication and social constructions but, through their emergence, constitute real structures with causal powers to shape social reality (Archer, 1982). This critical realist approach has important implications in our theory.

First, symbolic meaning systems and material practices, while closely interrelated, have independent emergence and existence. Note that this assumption of the theory differs from some discourse analysis approaches and strong social constructivist perspectives that do not distinguish between the generation of symbolic meanings and material practice (cf. Phillips, Lawrence, & Hardy, 2004).

Second, our critical realist approach interprets the constitution of practices as social facts such that practices emerge as real structures with their own causal powers. Unlike a structurationist (Giddens, 1984) or CCO approach, the critical realist ontology assumes that practices, once constituted, have a capacity to be involved in their own self-reproduction and need not be continuously renegotiated and reconstituted.

Third, our critical realist ontology views cultural structures—category conventions, vocabulary dimensions, and institutional logics—as emergent structures, each with their causal powers. Our article emphasizes this emergent process and the partial autonomy of culture and institutions.

A CCO account has not, to our knowledge, been linked to institutional logics, but CCO work helps us understand how communicating in a current situation can yield enduring, higher-order structures (such as organizations) that persist beyond specific situations. Since CCO perspectives are themselves quite varied (Brummans et al., 2014; Putnam & Nicotera, 2008), our theory relies primarily on Taylor and Van Every's (2000) insights on organizations emerging from distributed communication. Our approach is also related to McPhee and Zaugg's (2000), particularly with respect to the four functions of communication, as we explain in the next section. We differ, however, from more recent versions of the Montreal School of CCO, which consider any macrostructure such as organizations and, by extension, institutional logics as existing ontologically in any communicative event (Cooren, 2004; Cooren & Fairhurst, 2008; Cooren et al., 2011). Our perspective relies instead on the assumption that although institutional logics scale up and thereby emerge from situated communicative events distributed throughout organizations and institutional fields, they have an ontological reality distinct from communication, as suggested by a critical realist approach (Leca & Naccache, 2006; Thornton & Ocasio, 2008).

Our reliance on and interpretation of Taylor and Van Every's (2000) account is that when engaged in communicative events, actors are establishing that they are participating in an event and assigning themselves roles and goals within that event. To use very simple examples, a purchasing event involves a buyer and a seller, and a hiring event involves an employer and a candidate. As a result of being engaged in a communicative event, actors develop a mutual understanding of events, role assignments, and goals. These events, roles, and goals build on one another to generate organizations. For example, you could hire me to sell things to others. In this way you and I are together selling to others, and so we have formed a larger social entity composed of you and me. This new social unit can then, recursively, play a role in a still larger event, have goals, and act ("we sold a widget today!"). This account can explain the generation of social structures, up to and including organizations, that are composed of many roles and many events, encompassing action over long spans of time and involving many

people. We extend this account to build our core insight that collections of communicative events can converge to yield the meaningful and durable higher-order cultural structures that constitute institutional logics.

The other line of theorizing we draw on to connect distributed communicative events and enduring institutional logics is that on vocabularies (Mills, 1939, 1940) and vocabularies of practice (Loewenstein et al., 2012; Thornton et al., 2012). Vocabularies of practice are symbolic systems of both words and their meanings that social collectives use to label and categorize practices.² Vocabularies are based on the observable record of word use in communicative events (cf. Williams, 1985). Communicating involves putting words together to form statements about practices, and the ways in which actors put words and practices together yield vocabulary structure (Loewenstein et al., 2012). Conventions about how to use words in communication about practices produce the vocabulary's system of categories. For this reason we refer to them as category conventions.

Communication is not often the focus of research on categories. There are a number of ways to conceptualize categories, such as prototypes or causal models, each emphasizing a distinct set of cognitive and organizational functions (Cornelissen & Durand, 2012; Durand & Paolella, 2013; Gentner & Kurtz, 2005). Yet for our purposes we follow the work on vocabularies to theorize that categories are founded on social conventions about using words while communicating (Loewenstein et al., 2012). There are category conventions about whether practices are acceptable as examples that can be labeled with a given word, such as "Kaiser Permanente" and "Humana," which are examples of the category labeled by the words "managed care provider." There are also category conventions about whether and how words are related to each other, such as "companies are growing,

stagnant, or failing," which links the category "company" to the categories of "growth," "stagnation," and "failure." These two kinds of category conventions—word-example relations to specify what practices categories refer to and word-word relations to specify how categories relate to one another—jointly shape the categories that members of social collectives then learn and use (Loewenstein, 2014).

Category conventions yield systems, not independent lists, of categories. As a result, category conventions can form both small clusters of categories and larger configurations of categories. Small clusters of categories collectively indicate schemas, or mental representations of structured knowledge (Markman, 1999; Van Gorp, 2007). Schemas provide coherence, as long ago identified by Bartlett's (1932) studies of communication, as well as generate toolkits for communication and action (Axelrod, 1973; DiMaggio, 1997; Weber, 2005). Larger configurations of categories can collectively indicate principles—the fundamental tenets that organize schemas and provide governing logics for institutions. We will extend the work on vocabularies in several ways as we develop the links between communication and institutional logics, building on its core insight that collections of category conventions about practices can converge to yield meaningful and durable higher-order principles of institutional logics.

As an example, the institutional logic of shareholder value is grounded in specialized categories. The vocabulary of the shareholder value logic includes such categories as "board independence," "shareholder value maximization," and "financial analysis." These categories refer to and draw meaning from practices of the shareholder value logic, which include specific activities, such as appointing outside (i.e., "independent") directors, to influence financial analysts to raise their assessments of the firm's share price and thereby "maximize shareholder value." Those assessments, in turn, are dissociable from the real performance of the firm (Joseph, Ocasio, & McDonnell, in press; Westphal & Graebner, 2010). Managing the impressions of financial analysts is therefore part of the institutional logic, even though the practice of impression management may not be directly acknowledged or explicitly articulated, either privately or publicly (cf. Jackall, 1988). The principles of institutional logics, as embodied in

² Vocabularies of practice are distinct from other kinds of vocabularies, such as technical vocabularies (i.e., formal lists of technical terms) and controlled vocabularies (i.e., standardized terminology for indexing information). They also differ from Weick's (1995) vocabularies of sensemaking, which are not defined as systems of words but, instead, are discussed as collections of theories, traditions, narratives, premises, norms, beliefs, values, standard operating procedures, and more and are defined by the type of content rather than by communities.

practices, are never fully articulated, in part because of symbolic management (which includes practitioners convincing themselves of the consistency of talk and action) and in part because there is always a tacit dimension (Polanyi, 1967) to practices. Yet, at the same time, the development of practices around financial analysis or board independence would not be feasible absent the distributed communication building up category conventions so as to produce the complex system of social meanings necessary to individuate those practices (Loewenstein, 2014). So institutional logics depend on vocabularies of practice, and vocabularies of practice depend on category conventions being linked to practices through communication to yield systems of meaningful categories.

COMMUNICATIVE FUNCTIONS THAT CONSTITUTE LOGICS FROM STREAMS OF COMMUNICATIVE EVENTS

Communicative events, such as transactions, speeches, and reviews, vary in their local purposes, but for discussing their role in constituting institutional logics, we develop a typology of four main functions. A typology of the functions of micro speech acts—promises, declarations, orders, and so forth (Searle, 1969)—already exists, but, being concerned with broader communicative events, we emphasize broader kinds of functions. Drawing on prior organizational literature and institutional literature, we identify four functions of communicative events, operating at increasing levels of abstraction: coordinating, sensegiving, translating, and theorizing.

We emphasize these four functions because they bridge the domain of practice and the domain of theory that together constitute the principles underlying institutional logics (Thornton et al., 2012). In doing so we build on past theory on cognition (and, implicitly, communication) and on institutional logics, which emphasize the functions of theorizing and sensegiving. The theorizing function of communication is the most developed in prior work on institutional logics and emphasizes reproduction and change at the institutional field level (Greenwood, Suddaby, & Hinings, 2002; Lok, 2010; Rao et al., 2003). Sensegiving has been emphasized in prior theory and research on institutional logics (Lammers, 2011; Nigam & Ocasio, 2010; Weber & Glynn, 2006). These two communicative func-

tions do not, however, guarantee that institutional logics are linked to practices. Theorizing refers to abstract principles that may or may not be experienced in practice (Nigam & Ocasio, 2010; Thornton et al., 2012). And sensegiving may reflect rhetorical considerations and attempts at political influence, which may be decoupled from the generation of practice (Fiss & Zajac, 2006; Suddaby & Greenwood, 2005).

To remedy this gap, we add two additional communicative functions—coordinating and translating—such that, combined with sensegiving and theorizing, they explicitly link communication about institutions to communication about practices. The four communicative functions do so because they are distributed through organizations and institutional fields. Inspired by CCO approaches, we rely on the coordinating function of communication as key to the constitution of local practices (McPhee & Zaag, 2000; Taylor & Van Every, 2000). The coordinating function of communication is further established in the organizational literature (Bechky, 2003; March & Simon, 1958; Okhuysen & Bechky, 2009) but has not been emphasized in the literature on institutional logics (cf. Thornton et al., 2012). Here we emphasize that coordinating provides a building block of institutional logics, providing opportunities for reproduction and change in the instantiation of logics in local practices.

To bridge between the local level of practice and the level of the overall field, where theorizing takes place, we build on prior research on translating, which allows communication to relate individual practices to other practices in organizations and institutional fields. Translating builds on prior work on how translation of practices within and across societies and institutional fields shapes institutional logics (Djelic & Sahlin-Andersson, 2006; Zilber, 2006). However, this work does not focus on communication or communicative functions. Here we emphasize the role of narratives in translating, which establish linkages across local practices that either reproduce or challenge the established principles of institutional logics.

Our specification of four communicative functions has similarities to McPhee and Zaag's (2000) four flows model of the CCO. McPhee and Zaag's four flows are membership negotiation, reflexive self-structuring, activity coordination, and institutional positioning. The first two are

specific to the constitution of organizations and are less directly relevant to institutional logics. Activity coordination is directly related to the coordinating function we discuss. And while the institutional positioning flow focuses on the relationship between the organization and its environment, it can also be understood as a specific form of sensegiving (cf. Lammers, 2011), which we discuss as well.

Like McPhee and Zaug (2000), who rely on their definition of organizations to identify the four flows, we rely on our definition of institutional logics to identify the four communicative functions. But there are important differences between the two theories. The four flows in McPhee and Zaug's model relate to different and relatively separable components of the definition of organizations. In our case the four functions do not relate to separable components of logics but to how interrelated communicative events lead to the reproduction and change of logics. Our focus is on emergent structures from a critical realist view, whereas McPhee and Zaug (2000) rely instead on structuration theory (Giddens, 1984).

The four functions in our theory span both levels of analysis and degrees of analytical abstraction. They range from the coordination of concrete roles and practices in the context of microlevel social interactions to the theorizing of fundamental concepts at the level of the institutional field. Each of the four functions operates at a relatively distinct level of abstraction, allowing us to theorize distinct propositions for different steps in the process by which local and ephemeral communicative events can constitute more enduring and abstract institutional logics. Although we focus on these four functions of communicative events, we are not claiming the four as an exhaustive list of functions. For example, framing (Benford & Snow, 2000; Cornelissen & Werner, 2014) is another function of communicative events, one that the four functions that are our focus necessarily intersect with. We focus on the four communicative functions of coordinating, sensegiving, translating, and theorizing to specify distinct components and mechanisms in our process model.

In examining the four functions of communicative events, we should note that while all four are analytically distinct, they can be combined in communicative events. For example, a business memo might serve both a coordinating

function (e.g., expressing decisions and plans) and a sensegiving function (e.g., providing justifications). Or some letters to shareholders, such as Warren Buffet's letters for Berkshire Hathaway discussing the determinants of the creation of shareholder value, involve not just sensegiving but also theorizing.

We further indicate that the four communicative functions are linked through streams of communicative events (cf. McPhee & Zaug, 2000). No single communicative event will change an institutional logic (Hoffman & Ocasio, 2001; Lok, 2010; Nigam, 2012; Nigam & Ocasio, 2010). Furthermore, no single communicative function is sufficient to change an institutional logic. Instead, as we will discuss, reproducing and changing institutional logics require streams of communicative events with all four functions.

Coordinating to Link Categories with Practices

The first of these four functions of communicative events is coordinating. As noted earlier, coordinating organizational activities is a key function of communicative events (McPhee & Zaug, 2000; Taylor & Van Every, 2000; see also Okhuysen & Bechky, 2009). Coordinating functions specify how individual and collective actors interact with other actors, and with practices, throughout an organization and institutional field. For example, the communication in a budget meeting provides a coordinating function for organizations, thereby establishing sources of revenue, expected costs, and profit goals. Coordinating involves establishing joint attention and developing shared intentionality (Garrod & Pickering, 2009; Taylor, 2000; Tomasello, Carpenter, Call, Behne, & Mol, 2005), which transform individual acts of attention and intentions into collective ones. Coordinating also indicates roles and relationships that define how actors coorient with one another and with artifacts (Ashcraft, Kuhn, & Cooren, 2009). For example, coordinating a sales transaction involves communication indicating that one actor take the role of a buyer, another actor take the role of a seller, some good or service be provided, and some form of payment be rendered (Gentner, 1975; Taylor, 2000). So communication processes involved in coordinating provide a basis for drawing on category conventions and instantiating them with particular practices.

Taylor and Van Every (2000) emphasized that the object of communicative events could be another actor or collection of actors and, as a result, communicative events could build up macro social actors such as groups and organizations. We emphasize that the object of communicative events could also be any organizing practice. Just as actors are placing themselves into roles within events and assigning goals by communicating and so mutually generating an account of their activity, so, too, are they placing aspects of practice into roles and assigning them purposes within events (cf. Durand, Rao, & Monin, 2007; Rerup & Feldman, 2011). Speakers generate and coordinate (Grieco & Lilja, 1996) by using words to stand for new practices, as well as to stand for key actors, products, locations, and other components involved in the practice (Clark, 1996). As practices are referenced by words and so participate in category conventions across multiple events, playing multiple roles, those practices are increasingly individuated and perceived as items in themselves, standing apart from the particular events in which they are involved and as instances of categories of practices named by category conventions. Consequently, the communicative function of coordinating is critical for establishing the ostensive property of practices (cf. Feldman & Pentland, 2003), allowing participants to understand that practices have particular properties, are linked with other practices and actors, and are available to be performed in other contexts. In any one communicative event, when discussing an aspect of practice in a specific situation, actors are contributing to producing not just social actors as indicated by the CCO perspective but also to producing practices.

With this discussion of the communicative function of coordinating, category conventions, and practices, we are extending CCO theorizing to practices and linking it to categories and cognition. In the course of communicative events with a coordinating function, actors rely on category conventions to give meaning to and to organize practices. If speakers had to establish words and examples anew in every conversation, little would get done. Relying on existing category conventions and using category conventions in typical ways foster efficient mutual understanding. This becomes particularly apparent in communicative events between members of different communities, when coordinat-

ing is so evidently difficult (Gumperz, 1964; Molinsky, 2013). Actors expect others to follow their community's category conventions (cf. Clark, 1998), even in adversarial interactions (e.g., Grieco & Lilja, 1996).

This reliance on existing category conventions to foster coordinating should foster the entrenchment of the vocabulary and, accordingly, any accompanying institutional logic. Collectively, the stream of communicative events occurring within an institutional field should have a tendency to reproduce the vocabulary's category conventions and incorporate congruent category conventions. Since category conventions call attention to particular practices and shape the meanings of those practices, the reproduction of category conventions should tend to be coupled with the reproduction of practices and the maintenance of practices consistent with the category conventions (Durand et al., 2007; Rao et al., 2003). It can even be a self-perpetuating cycle. For example, economics theories, communicated with particular category conventions, can become self-fulfilling as actors abide by those conventions, reproducing the practices and conditions ascribed by the theories (Ferraro, Pfeffer, & Sutton, 2005). As a result, we propose the following.

Proposition 1: Coordinating through category conventions congruent with prevailing logics generates practices that reinforce existing logics.

Because communicative events are local, and because coordinating adapts to local demands, there is leeway for actors to develop category conventions that contradict existing institutional logics. Presumably, most such local deviations will remain local and have marginal effects on changing practices. However, if streams of communicative events replicate and add to the deviating category conventions, this could lead to broader changes. As categories shift, the interpretations of the practices shift, changing those practices (cf. Kennedy, 2008; Kennedy, Chok, & Liu, 2012; Rosa, Porac, Runser-Spanjol, & Saxon, 1999; Sewell, 1992). New category conventions could, for example, relate two categories. Actors could then engage in practices that presume those categories are linked, reinforcing the category conventions and making them hold more reliably. More generally, the communicative function of coordinating provides opportu-

nities for changing category conventions, from which changes in practices can follow. If those category conventions are not congruent with current institutional logics, practices that then deviate from those logics can develop. As a result, we propose the following.

Corollary 1: Coordinating through category conventions that contradict prevailing logics generates practices that enable changes in logics.

Sensegiving to Establish Category Conventions As Social Facts

In sensegiving, actors communicate their interpretation of events and practices with others, influencing further coordinating (Cornelissen & Clarke, 2010; Gioia & Chittipeddi, 1991; Weick, 1995) and, in general, framing and articulating a particular vision of organizational and institutional reality (Fiss & Zajac, 2006; Lammers, 2011; Weber & Glynn, 2006). We follow prior theory and research in highlighting the importance of communication yielding narratives (Czarnecka, 1997; Hardy & Maguire, 2010; Jameson, 2001; Spee & Jarzabkowski, 2011) as a means for sensegiving (Boje, 1991, 2001; Fiss & Hirsch, 2005; Garud, Dunbar, & Bartel, 2011). Actors draw on available logics and categories to engage in sensegiving,³ providing opportunities to reproduce and transform interpretations of organizing practices through indicating the continuity and the novelty of organizations or practices (Weber & Glynn, 2006). Thus, practice variations generated through coordination can be interpreted as new or as consistent. For example, in their classic study, Kraatz and Zajac (1996) documented the rise of professional departments, such as business and engineering, within U.S. liberal arts colleges, an anomalous practice for the field of higher education. But while there was considerable debate regarding the legitimacy of the new practice, the more consistent

forms of sensegiving categorized them as a legitimate variant of liberal arts schools.

In explaining the communicative function of sensegiving and its influence on practices, we further extend the CCO perspective by highlighting the role of generics. Generics are noun phrases and sentences that indicate what applies normally—"corporations have boards of directors"—rather than what is happening just in a specific instance—"this corporation has a board of directors" (Carlson & Pelletier, 1995). Thus, generics express meanings that apply broadly. Generics capture patterns and regularities (Gelman, 2003). They are derived from projecting regularities from individual instances or identifying regularities across multiple specific instances. As a result of going beyond current particulars, generics necessarily make broad assumptions. Audiences tend to interpret generics as indicating that the categories involved are natural, objectified, and serving as core accounts of category examples (Cimpian, Brandon, & Gelman, 2010). In the example just used, generics indicate that corporations and boards of directors are enduring kinds. The use of generics in communication thus indicates fundamental concerns about beliefs, attitudes, and obligations about the actors and practices under discussion, and whether those actors and practices themselves are provisional or objectified properties of the social world (Berger & Luckmann, 1967). Within a larger narrative for sensegiving, then, generics anchor what is under discussion by indicating the broader, enduring concerns at stake.

When social groups communicate about practices using generic language, they are engaged in a process of typifying those practices (Gelman, 2003). The use of generics in sensegiving leads individuals to form the presumption (Levinson, 2000) that the practices are social facts—explicit, collective agreements on the objectivity of some aspects of social reality (Searle, 1995). Social facts do not require continuous renegotiation to establish their validity, functions, and potentialities. Practices, when established as social facts, become not just specific instances or variations but established patterns of social action and behavior presumed to endure and to be, fundamentally, whatever the category conventions indicate them to be.

For example, the chief executive officer (CEO), as the top executive in corporations, with a re-

³ We draw on sensegiving, rather than sensemaking, because sensemaking is mainly focused on interpreting new kinds of events and situations (Weick, 1995), whereas we are equally concerned with reproducing existing interpretations, and because sensemaking is mainly focused on interpretations among a local group of actors, whereas sensegiving can be concerned with meanings spanning social collectives.

lated set of roles and responsibilities, has been a social fact in the United States since the late twentieth century. Yet the formal title of CEO was predominantly established as a coordinating function in corporations such as General Motors only in the post-World War II period. It was generated to designate either the president of the corporation or the chairman of the board, typically two distinct executive roles, as the top or "chief" executive. Category conventions about the CEO title could then be used in communicative events with a sensegiving function, in the generic form, to talk about the CEO role ("CEOs should . . ."). By the 1980s the CEO became an established social fact, with category conventions used generically to state that corporations had CEOs as the title of their top executives. Accompanying the establishment of the category CEO as a social fact, practices linked with the category can also be discussed using generics, and so extend the perception of naturalness, concreteness, and taken-for-grantedness to practices associated with the category. More generally, we propose the following.

Proposition 2: The greater the reproduction of existing generics, the more the categories and practices are taken to be social facts and the greater the reproduction of practices that embody institutional logics.

Social facts are not fully constraining. They also exhibit variability: exactly how and to what extent CEOs are or should be accountable to the board of directors varies across firms and situational contexts, and while CEO replacement is a possibility and an empirical regularity under poor financial performance, it is not a necessity. As institutional logics change, new practices and social facts emerge, and the experience of practices as social facts changes.

For an example of changing social facts, the practice of stock buybacks was experienced as a different social fact under different institutional logics (Zajac & Westphal, 2004). From the perspective of communicative functions, under a market logic the sensegiving of stock buybacks indicated that it increased the value of the firm, and this led to coordinating price increases. For an example of new practices becoming social facts, nouvelle cuisine established new practices, such as "service à la japonaise," and "cuisine du marché," that came to be experienced

not as idiosyncratic practice variations but as social facts (cf. Rao et al., 2003). The development of new social facts or changes in social facts as contributors to institutional logics will depend on changes in the generics that are used in communicative events to characterize practices.

Corollary 2: The greater the use of generics that contradict existing institutional logics for sensegiving about practices, the greater the potential for change to institutional logics.

In this discussion we have emphasized how sensegiving uses generics in the local, bottom-up establishment of social facts for sensegiving about specific instances. Once established, generics can be used to reinforce and build on social facts. This is because generics enable communication about meanings that go beyond particular instances and immediate practice. The two further communicative functions that we discuss next, translating and theorizing, make use of generics for these reasons. Translating uses generics to connect instances, and theorizing uses generics to communicate at a meta level, beyond instances. For this reason, as we will return to later, generics are important for combining the effects of the communicative functions.

Translating Category Conventions into Institutional Narratives

Translating involves applying practices and narratives in new contexts and, in the process, reshaping the understandings that are transmitted (Zilber, 2006). The communicative function of translating allows for local variations in both practices and narratives (Czarniawska & Joerges, 1996), as well as elements of continuity in practices and narratives across contexts in the form of institutional narratives—narratives that transcend a specific situation and become applied more broadly across an organizational field. Theory and research on translation in the institutional logics perspective have focused on translating across countries, institutional fields, or from societal to local contexts (Djelic & Sahlin-Andersson, 2006; Zilber, 2006). Our application of translating is broader, including translating across contexts both within organizations and within institutional fields. For example, the

characteristics of modern architecture were translated across practices (e.g., the use of steel and concrete as building materials) and their corresponding narratives (e.g., the association of steel and concrete with a narrative of modernity and technological progress), highlighting both similarities and differences across buildings (Jones, Maoret, Massa, & Svejenova, 2012).

The communicative function of translating is particularly critical for vocabularies that span institutional fields. Translating narratives across contexts to yield institutional narratives is important for the generation of field-level logics, because if the narratives were bound to particular practices in particular organizations, the conventions about categories inherent in the narratives would have limited impact on vocabularies of practice at the level of the institutional field. Translating narratives across contexts enables the categories within the narrative to apply to new examples and allows narratives to act as analogies to (e.g., Spellman & Holyoak, 1992) and sources for blending with (Cornelissen, 2005) current practices. These translations may start out with tentative expressions marked as possibilities, but they then become conventional and discussed using generics. Translating narratives allows narratives' uses of categories and conventions to become widespread and widely applicable within a vocabulary.

By making category conventions widely known and applicable, translating gives structure to vocabularies. That structure provides accounts of the typical foci of category research, such as category boundaries and membership typicality. Items that are, by convention, more frequently given the category label, and so more frequently discussed as examples of the category, are likely to be perceived as more central or typical members of the category (i.e., frequency of instantiation; Barsalou, 1985). Items that are denied the category label, and so discussed as not being examples of the category, are likely to be perceived as not being members of the category. Categories embedded in commonly translated narratives can have meanings shaped by conventionally acknowledged causal relations, resulting in categories defined by causal models (Ahn, 1998; Murphy & Medin, 1985; Rehder, 2003). Conventionally using generics for a word indicates that the word is an enduring category defined by an underlying essence

(Gelman, Ware, & Kleinberg, 2010). So category conventions indicate how a category has been used in streams of communicative events, which then shape how individuals understand the category (Markman & Ross, 2003). Category conventions provide a means for building a vocabulary's systems of categories, and structures arising from streams of communicative events can provide the cognitive and normative foundations for category meanings, shaping further communication. Therefore, we propose the following.

Proposition 3: The greater the translation of existing narratives across contexts, the greater the reproduction of existing institutional logics.

This discussion of category conventions arising from streams of communicative events and giving structure to categories within vocabularies implies that translating narratives is a key step. But it is not just narratives that are consistent with existing logics that can be translated. Narratives that account for surprising new events and practices (Cornelissen, 2012) are particularly likely to be remembered and shared (Heath, Bell, & Sternberg, 2001; Loewenstein, Raghunathan, & Heath, 2011). These narratives become part of what members of the social collective come to know (cf. Norenzayan, Atran, Faulkner, & Schaller, 2006). Narratives that have been translated across contexts increase the likelihood that new social conventions will become adopted. For example, the narrative around the Clinton health care reform effort, translated into narratives about related private sector practices, led to changing category conventions around managed care and contributed to changes in prevailing institutional logics (Nigam & Ocasio, 2010). Thus, narratives are more than just discussions of particular practices. They can be proposals for a small collection of category conventions to be added to the vocabulary.

In contrast to prior discussions of narratives in organization theory, we focus on narratives as having the capacity to adapt and spread, through translation, a growing collection of interrelated categories. This is because forming and translating narratives involve generating, selecting, modifying, and applying categories. Multiple narratives, even competing narratives, can draw on some of the same words and exam-

ples, and so can collectively reinforce existing or establish new category conventions implicit in institutional logics. Accordingly, translating is instrumental in building up meanings with broad scope, which is key not only to reproducing institutional logics but also for allowing changes to institutional logics. As new narratives translate across contexts, potential changes to institutional logics emerge. Consequently, we offer the following.

Corollary 3: The greater the translation of new narratives across contexts that contradict existing narratives, the greater the potential for changes in institutional logics.

Theorizing Abstract Category Conventions

Strang and Meyer defined theorizing as "the self-conscious development and specification of abstract categories and the formulation of patterned relationships such as chains of cause and effect" (1993: 492). We emphasize that theorizing occurs in communicative events. Theorizing is done not only by scientists, intellectuals, policy analysts, and professionals with a specific theoretical intent (Strang & Meyer, 1993) but also by practitioners, activists, and the media, reflexively generalizing beyond individual instances. We also note that theorizing differs from sensegiving in its emphasis on the abstract and the general, going beyond not just the situation at hand but also any particular situation. Theorizing may stem from and can certainly relate to current practices, as in the restaurant reviews of French cuisine (Rao et al., 2003). But theorizing is also focused on indicating general, abstract aspects of categories (e.g., the freshness or seasonality of ingredients) that go well beyond any specific situation.

Past theory and research have already highlighted the role of theorizing in the emergence and transformation of institutional logics, with implicit, if not explicit, discussions of the role of communication (Haveman & Rao, 1997; Lok, 2010; Nigam & Ocasio, 2010; Rao et al., 2003). Consequently, we do not develop new propositions on how theorizing shapes the generation of and change in institutional logics. It follows from prior work that theorizing congruent with prevailing logics should reinforce those logics, and that theorizing that contradicts prevailing logics

should enable changes in logics. Our theory further implies that theorizing has these effects by influencing the development and use of category conventions about abstract categories. Those abstract category conventions then have the potential to apply to, and hence potentially to structure, many areas of practice. Yet just as coordinating alone, sensegiving alone, and translating alone are insufficient to reproduce or change institutional logics, so, too, is theorizing alone insufficient. Rather, as we discuss next, the four functions combine to influence logics.

Combining Communicative Functions to Yield Vocabulary Dimensions

To examine how the four communicative functions combine to reproduce and change institutional logics, we first discuss vocabulary structure. Vocabulary structure is what mediates between communicative events and institutional logics. We then discuss the role the communicative functions play in shaping vocabulary structure.

Latent in vocabulary structure are principles of institutional logics. In discussing categories we noted that category conventions link categories to one another as part of vocabulary structure. Through category conventions individual categories work together to generate larger meanings. To explain this effect, we first consider smaller systems of categories. Small collections of closely interconnected categories in a vocabulary structure implicitly convey schemas. For example, the system of interconnected categories within vocabularies of corporate governance relating such categories as board, directors, CEO, insiders, outsiders, nominating committee, and election together imply a schema of the board selection process in U.S. corporations. Conventional vocabulary structure allows members of social collectives to learn similar schemas. This facilitates shared understanding of practices, such as the board nominating process, and the ability to communicate and coordinate those practices. Consequently, category conventions and the schemas implicit in those conventions facilitate the communicative constitution of practice, as discussed earlier.

Categories vary in their level of abstraction and interconnectedness with other categories,

and the same holds for systems of categories. To continue the example of schemas, the schemas implicit in a vocabulary structure vary in their level of specificity or abstraction and in the degree to which they are interconnected with or independent from other schemas (Weber, Patel, & Heinze, 2013). For instance, the schema for board selection is more specific and yet interconnected with the more abstract schema and category conventions for board independence. The board independence schema, which contains abstract categories such as independence, monitoring, structure, and shareholder value, is also interconnected in vocabulary structure with other more specific implicit schemas for board accountability, agendas, compensation, CEO evaluation, and voting, each with its own category conventions (Fiss & Zajac, 2004, 2006).

Turning now to our primary focus on the principles of institutional logics, we consider larger systems of interconnected categories. Similar to how schemas are implicit in interconnected systems of categories, the principles of institutional logics are implicit in the higher-order structures within vocabularies—dimensions—that organize those interconnected systems of categories. Specifically, category conventions with high degrees of interconnection with other category conventions, in terms of shared categories and examples, and with varying degrees of specificity and abstraction comprise higher-order dimensions of vocabulary structure (Loewenstein et al., 2012; see also Weber et al., 2013). These higher-order dimensions of vocabulary structure imply a set of interconnected schemas that constitute the organizing principles for institutional logics (Nigam & Ocasio, 2010; Thornton et al., 2012; see also Ruef, 1999).

For example, a board independence dimension, implicit in the contemporary vocabulary of U.S. corporations, is organized around the category conventions of highly abstract categories such as board independence, as well as interconnected conventions around more specific categories such as board accountability, agendas, compensation, CEO evaluation, and voting, as described above. As a second example, vocabularies of modern functionalist architecture (Jones et al., 2012) in the early twentieth century were organized in part around an operational dimension of efficiency. This dimension incorporated category conventions around abstract cat-

egories such as technology, industry, and economics, and category conventions around more concrete categories such as, well, reinforced concrete and steel. In summary, dimensions are higher-order vocabulary structures that organize collections of categories and indicate the underlying concerns of those categories. Implicit in vocabulary dimensions are the principles of institutional logics.

Combining communicative functions generates vocabulary dimensions. While prior theory and research has identified relationships among category conventions, dimensions, and the principles of institutional logics (DiMaggio, 1997; Loewenstein et al., 2012; Thornton et al., 2012), researchers have not fully explored the role of communication in generating category conventions, dimensions, and so principles of institutional logics. In particular, we propose that although researchers have recognized the communicative functions of sensegiving and theorizing in generating principles of institutional logics (Nigam & Ocasio, 2010; Rao et al., 2003), their accounts are incomplete. Institutional logics, while shaped by theorizing, are distinct from theories, since theories may not be applied in practice (Thornton et al., 2012). Sensegiving connects examples of institutional logics to practices (Jones et al., 2012; Nigam & Ocasio, 2010). But sensegiving may diverge from theorizing as well as from practice, since sensegiving is concerned with rhetoric, persuasion, and the legitimization of practice (Erkama & Vaara, 2010; Suddaby & Greenwood, 2005) and may often be decoupled from practice (Fiss & Zajac, 2006; Pfeffer, 1981; Zajac & Westphal, 1995).

We propose that the communicative functions of coordinating and translating, in addition to sensegiving and theorizing, are important for the generation of vocabulary dimensions and so for the principles of institutional logics. Earlier we noted the role of coordinating in shaping practices and grounding talk in practices. For this reason, coordinating plays a key role in integrating material aspects into institutional logics. We also noted earlier the role of translating in distributing categories and enabling them to apply generally. For this reason, translating is critical for categories and dimensions to attain the broad scope needed for institutional logics, rather than the scope being limited to particular contexts or practices.

The most basic reason why all four communicative functions play a role in generating vocabulary dimensions is that all four draw on generics. Generics are crucial because they allow for communication to be about category-level meanings. Generics can be called upon in coordinating, are critical in sensegiving for establishing social facts, as we discussed earlier, and comprise progressively larger proportions of communicative events engaged in translating and theorizing. Generics enable the communicative functions to be removed from particular instances and instead be about broader, enduring concerns.

Not only are all four communicative functions relevant to generating vocabulary dimensions, but they tend to have their greatest influence at different levels of abstraction and so have the potential to build on one another. Coordinating develops and instantiates categories that sensegiving further elaborates upon, integrates with additional categories, and establishes as social facts, yielding a stable basis for schemas and dimensions. Translating expands the scope of these categories and schemas, increasing the contexts in which they apply and their level of abstraction. Theorizing clarifies and extends these efforts, increasing the ordering and dominance of particular emerging dimensions. Thus, the communicative functions indicate a potential process for the elaboration and construction of an institutional logic.

To generate, reproduce, or change an institutional logic, then, we propose that the communicative functions need to converge. For category conventions to converge, communicative events with the different functions need to draw on the same set of category conventions (e.g., board, incentives, shareholders) and dimensions (agency, board independence, corporate governance). The result is that the communicative functions generate congruent category conventions organized in consistent ways around the vocabulary's dimensions.

This convergence on particular category conventions is powerful in shaping vocabulary structure. The bottom-up process, from coordinating up through theorizing, is one of filtering, making particular categories more important, more widely applicable, and more central within vocabulary structure. There is also a top-down process, from theorizing down through coordinating. This top-down process is one of

drawing on chronically accessible categories theorized to be core concerns when engaged in communicative events of translating, sensegiving, and coordinating, and so taking central category conventions and applying them to still more instances and in still more contexts.

The convergence of the four communicative functions on category conventions is always only partial. Coordinating and sensegiving exhibit greater variability in category conventions than translating and theorizing. Also, internal contradictions are never absent (cf. Seo & Creed, 2002). So there are always some category conventions that rely on different categories and dimensions and, as a result, are not closely connected in vocabulary structure. For example, in the institutional logic of patrimonial bureaucracy (Jackall, 1988), the dimensions around compensation include abstract categories, such as incentives, that differ from the abstract categories, such as loyalty, that are included in the dimension around personal relationships.

Converging category conventions across communicative functions is critical to the generation of vocabulary dimensions and so to the principles of institutional logics. If the category conventions in coordinating practices do not converge with those of sensegiving, the schemas for coordinating and sensegiving will be decoupled from each other. Rhetoric will be decoupled from practice (cf. Zajac & Westphal, 1995), and no general organizing principles will be apparent. Similarly, category conventions generated through coordinating must converge with those of theorizing, or practices will become decoupled from theoretical principles and no clear theoretical principles will be associated with those practices (Kellogg, 2011). If category conventions used for coordinating do not converge with those for translating, large variations of local practices will result, with no coherence in practices or in the underlying schemas that help generate practices, with again no clear organizing principles implicit in the vocabulary structure (cf., Lounsbury, 2001, 2007).

The various communicative functions may develop independently of each other and be generated through distinct communicative events, which are separated in time and place and involve different members of social collectives. Consequently, a lack of convergence across communicative functions may be commonplace, resulting in cultural fragmentation (Martin,

1992). A lack of convergence will result in a proliferation of category conventions and schemas with relatively limited dimensions (Stark, 1996). While some degree of higher-order vocabulary structure and cultural order is necessary to generate common understandings through communication and generate practices, the structure may result from societal conventions not firmly connected to institutions or to vocabulary dimensions generated within organizations or institutional fields (cf. Boltanski & Thévenot, 2006).

Given the large potential for decoupling, converging category conventions across communicative functions is a complex achievement. If and when dimensions emerge and become stable over time, the structure of category conventions becomes self-reinforcing and dimensions are more readily reproduced. The cognitive reinforcement of category conventions and dimensions emerges as category conventions become more widely and broadly used across contexts and situations, more readily learned, and more highly accessible in memory (e.g., Adelman & Brown, 2008). An increase in the use of generics indicates the hold of the category conventions as social facts that can be relied upon broadly. While individual agency and departures from category conventions are always possible, their social acceptance becomes less likely as category conventions become taken-for-granted social facts (Zucker, 1977). Consequently, we propose the following.

Proposition 4: The more that communicative functions converge on consistent category conventions, the greater the reproduction of vocabulary dimensions and the principles of an institutional logic.

For example, board independence is sustained by theorizing around abstract agency theory principles (Fama & Jensen, 1983; Hermann & Weisbach, 1998), translating across industries and board selection practices, sensegiving by analysts evaluating corporate governance practices, and coordinating by CEOs and board members committed to the principles of board independence. While contradictions do exist, as is well documented by management scholars, the principle of board independence is widely reproduced at least in the structures of corporate governance practices, if not always in interactions between corporate boards and CEOs.

A direct implication of the proposition is that changes in the implicit principles of an institutional logic must be manifested throughout all communicative functions. If changes occur in only a subset of the functions, the vocabulary dimensions will become less structured and the principles less clear, more readily challenged, and less easily reproduced. Alternative category conventions that depart from the dimensions of existing logics may generate frames for mobilization and collective action (cf. Misangyi, Weaver, & Elms, 2008). But absent their convergence across functions at different levels of abstraction—from coordinating to theorizing—no coherent organizing principles will emerge. Consequently, we propose the following.

Corollary 4a: The more that changes to category conventions diverge across communicative functions, the greater the fragmentation in the underlying dimensions and principles of an institutional logic.

As stated above, it is a complex achievement that communicative functions converge on a consistent set of category conventions, and when dimensions are generated, the principles those dimensions convey implicitly become resistant to contestation and challenge. Institutional logics provide readily available and accessible vocabulary conventions that shape communicative functions facilitating the self-reproduction of logics (cf. Lammers, 2011; Thornton et al., 2012). But contestation and challenge are possible, of course, as past research on changes in logics has demonstrated (Jones et al., 2012; Purdy & Gray, 2009; Rao et al., 2003). Given the centrality of vocabulary dimensions to the generation of new institutional logics, for the potential for change in logics to be realized, changes in category conventions must be observed across the four communicative functions. For example, in the Rao et al. (2003) study of nouvelle cuisine, our theory implies that it was necessary not only for new category conventions to emerge in theorizing, the focus of their original research, but also for the same category conventions to be used in coordinating the production of dishes and restaurant practices, sensegiving about those practices, and translating narratives across organizational practices. Consequently, we propose the following.

Corollary 4b: The more that changes to category conventions converge across communicative functions, the greater the emergence of new vocabulary dimensions and new underlying principles of changing institutional logics.

DISCUSSION AND CONCLUSIONS

In this article we developed an integrated model of how streams of communication shape institutional logics. The challenge was to link local, situated, communicative events with the higher-order cultural structures of institutional logics. To generate an account of this process, some intervening building blocks are necessary that can apply to current activity and also persist beyond that moment. We drew on category conventions and vocabulary dimensions as the key intervening building blocks. Actors apply them to give meaning to current practices, and they are durable portions of cultural structure out of which institutional logics are composed. We then examined how four kinds of communicative functions—coordinating, sensegiving, translating, and theorizing—can generate and interweave those building blocks to reproduce and change institutional logics.

Our integrated model contributes to theory linking communication to institutional logics in four distinct yet interrelated ways. First, we explain the process by which institutional logics—relatively stable cultural structures in organizations and institutional fields—emerge from streams of diverse communicative events. We propose that the four communicative functions combine to constitute the practices that embody institutional logics as social facts. Here we build on early work in the CCO perspective (McPhee & Zaag, 2000; Taylor & Van Every, 2000). We extend and modify these researchers' insights in several ways. While their focus on coordinating is primarily on the constitution of organizations, we extend it to account for the constitution of practices more generally. We also highlight how sensegiving and theorizing help constitute the pattern of interrelationships between distinct practices and how translating and theorizing help constitute practices and their interconnections across distinct organizations in institutional fields. Hence, we extend accounts of the con-

stitution of organizations to the communicative constitution of institutional logics (cf. Lammers, 2011).

Streams of diverse communication are central to the account (cf. McPhee & Zaag, 2000). While any single communicative event may contribute to reproducing and changing institutional logics, no single communicative event is sufficient. Communicating through theorizing and sensegiving, either together or separately, is not sufficient for generating logics (cf. Nigam & Ocasio, 2010; Rao et al., 2003). The communicative function of coordinating is also necessary for the constitution of the concrete practices that embody institutional logics (cf. Friedland & Alford, 1991; Thornton et al., 2012). And translating provides a mechanism for communicating commonalities across concrete practices, while at the same time allowing for differences (cf. Sahlin & Wedlin, 2008). All four communicative functions play a role and need to converge to reproduce and change institutional logics.

Second, we contribute specific mechanisms that link local, situated acts of communication with enduring cultural structures. Coordinating fosters joint attention to practices understood with respect to category conventions. This links current activity to existing systems of meaning. Sensegiving, through the use of generics, enables communication about categories generally and allows actors to apply those general meanings to current activity. Translating fosters the development of common narratives across diverse contexts. This links collections of interrelated categories—schemas and vocabulary dimensions—to a broad swath of current activity. Theorizing generates abstract understandings of the motivation for and operations of system-level practices. This provides foundations and organization for current activity across the social system. The process of generating logics' enduring cultural structure requires bringing together diverse streams of communication with different functions and levels of abstraction. We propose the convergence of category conventions across the four communicative functions as the mechanism by which streams of communicative events about current activity can generate enduring cultural structure.

Third, we link communication to institutional logics in a way that integrates cognition. Discussions of communication can be so focused on aspects of social process that they take for

granted that words have meanings and that this necessitates a concurrent cognitive process. An account of communication has to include how those communicative events come to be meaningful to actors in a social collective. For rhetorical acts to influence, for acts of framing to shape someone's views, the communication has to somehow link to cognition such that some meaning is formed by speakers and understood by listeners. So we provide accounts about coordinating, category conventions, and the constitution of practices, as well as accounts about sensegiving, translating, and the generation and distribution of meaningful categories as social facts. As a result, we provide accounts of the generation of systems of cognitive categories to form meaningful communicative events about practices.

Likewise, discussions of cognition are often dissociated from discussions of communication. This work typically deemphasizes communication, seeing it as unimportant. Actors somehow generate meaningful knowledge structures—categories, frames, repertoires, logics, theories, schemas, and so forth—and only use words to communicate those preexisting meanings (cf. Hannan, Polos, & Carroll, 2007; March & Simon, 1958). For example, Walsh's (1995) influential piece on schemas, categories, and other cognitive knowledge structures specifies no role for words or communication. These separations and erasures (Gal & Irvine, 1995) are limiting. There is no workable account of how collectively understood meanings can stand apart from language or some other semiotic system, so we offer theory for how communication plays a constitutive role in the generation of systems of cognitive categories and how they come to guide practice.

Fourth, we extend work on vocabularies and its links to communication. Prior work has emphasized the importance of category conventions, as we do here (Loewenstein et al., 2012), but has not explained the communicative functions by which actors reproduce category conventions. Here we contribute by explaining how narratives have the capacity to adapt and spread, through translating functions, a growing collection of interrelated categories. Unlike past work on translation that emphasizes variations in communication and practices (Sahlin & Wedlin, 2008), we highlight how translating also results in spreading consistencies in cate-

gory-to-example and category-to-category relationships. Translating adapts collections of category conventions to a broader array of contexts, instances, and practices. The result is collections of categories that can be applied widely, become widely known, and so organize a greater array of practice.

Likewise, past work on vocabularies has argued for the importance of vocabulary dimensions, particularly for institutional logics (Loewenstein et al., 2012; Nigam & Ocasio, 2010; Ruef, 1999), without discussing the process by which actors generate vocabulary dimensions. We contribute by proposing that convergence across all four communicative functions is necessary for the generation of dimensions. Their convergence serves to integrate categories across various levels of concreteness and abstraction. Coordinating and sensegiving are necessary for the instantiation of dimensions in local examples of practices. Translating and theorizing are necessary for linking examples of practices across contexts and for abstracting categories that underlie dimensions. Together, the four communicative functions can generate vocabulary dimensions that collectively provide the principles of institutional logics.

It follows from our discussion that research on institutional logics can gain considerably from more detailed examination of communication. In discussing different communicative functions, we provide empirical guidance for considering a range of communicative events. A central focus for research would be assessing whether acts of coordinating, sensegiving, translating, and theorizing converge on a consistent system of category conventions. This provides the means for documenting that, for example, the products of theorizing are (or are not) guiding practice, or that practices are (or are not) understood according to a consistent system of dimensions. This, in turn, fosters research on when contexts are likely to produce, perhaps in a bottom-up fashion, systems of practices that become interdependent but not yet aligned with interdependent dimensions in a vocabulary, and that ultimately result or not in the reproduction and change of institutional logics.

For example, Hallett (2010) examined what happened in an elementary school when theorizing about accountability converged with coordinating about teaching practices. The result

was changes to practices, including shifts in monitoring teachers and grading student work, as well as changes from sensemaking about "standardizing" teaching materials, grading "consistency," and managing "difficult" students. Our theory suggests that this research could be extended by analyzing the use of generic language in acts of sensegiving to establish new practices as social facts, tracing the acts of translating to adapt the changed systems of categories across contexts and practices, and examining the theorizing linking principles of accountability with other principles in the larger logic, such as those around student achievement. It also follows from our discussion that tracing the use of the generic modality can be instructive. For example, studying a change in an institutional logic could be advanced by following shifts from possibility to necessity to generic descriptions over time and across actors. For example, if the *Financial Times* uses generics for describing the shareholder value maximization role of CEOs and boards (Lok, 2010), is this before or after its generic use by CEOs, labor representatives, or others? As a further example, conflicting logics could be observed through the challenge to statements in generic modality, over and above tracing different collections of categories that are deemed relevant to the discussion.

Overall, our theory posits that institutional logics are a complex achievement, generated through communicative functions. Institutional logics, once generated, are available and accessible and are instantiated recursively through communication, practices, and vocabularies, or subject to potential change. Our work builds and yet departs from approaches to communication in organization theory in our emphasis on categories and category conventions as key mediators between communicative functions and organizing practices and institutions. We concur with communication theory and discourse analysis that texts (e.g., documents, narratives, and theories) are critical to the production and reproduction of organizational and institutional life (e.g., Phillips et al., 2004; Phillips & Oswick, 2012; Putnam & Cooren, 2004; Vaara, Tienari, & Laurila, 2006). However, we also posit that both the generation and interpretation of texts are mediated through category conventions, conventions that are themselves collectively generated through the production and reproduction of oral

conversations and written texts. Category conventions are instantiated through texts (cf. Taylor & Van Every, 2000). Texts do not, however, speak for themselves; texts speak, both directly and indirectly, through category conventions, and category conventions are grounded in both examples of practices and the coordinating, sensegiving, translating, and theorizing around practices that embody institutional logics.

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William Ocasio (wocasio@kellogg.northwestern.edu) is the John L. and Helen Kellogg Professor of Management and Organizations at the Kellogg School of Management, Northwestern University. He received his Ph.D. from Stanford University. His current research interests include institutional logics, managerial and organizational attention, power in organizations, and the role of vocabularies in organizations and institutions.

Jeffrey Loewenstein (jloew@illinois.edu) is an associate professor of business administration at the University of Illinois at Urbana-Champaign. He received his Ph.D. from Northwestern University. His current research examines how people generate, learn, change, and apply knowledge, primarily through studying analogy, categories, and vocabularies.

Amit Nigam (Amit.Nigam.1@city.ac.uk) is a senior lecturer at the Cass Business School, City University London. He received his Ph.D. from Northwestern University. His current research examines processes of institutional and organizational change, with a particular focus on the role of professions and occupations in change processes.