Organization Science

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Abstract

Traditional approaches to organizational change have been dominated by assumptions privileging stability, routine, and order. As a result, organizational change has been reified and treated as exceptional rather than natural. In this paper, we set out to offer an account of organizational change on its own terms—to treat change as the normal condition of organizational life. The central question we address is as follows: What must organization(s) be like if change is constitutive of reality? Wishing to highlight the pervasiveness of change in organizations, we talk about organizational becoming. Change, we argue, is the reweaving of actors' webs of beliefs and habits of action to accommodate new experiences obtained through interactions. Insofar as this is an ongoing process, that is to the extent actors try to make sense of and act coherently in the world, change is inherent in human action, and organizations are sites of continuously evolving human action. In this view, organization is a secondary accomplishment, in a double sense. Firstly, organization is the attempt to order the intrinsic flux of human action, to channel it towards certain ends by generalizing and institutionalizing particular cognitive representations. Secondly, organization is a pattern that is constituted, shaped, and emerging from change. Organization aims at stemming change but, in the process of doing so, it is generated by it. These claims are illustrated by drawing on the work of several organizational ethnographers. The implications of this view for theory and practice are outlined.
(*Continuous Change*; *Routines*; *Process*; *Improvization*; *Reflexivity*; *Emergence*; *Interaction*; *Experience*)

The point is that usually we look at change but we do not see it. We speak of change, but we do not think about it. We say that change exists, that everything changes, that change is the very law of things: Yes, we say it and we repeat it; but those are only words, and we reason and philosophize as though change did not exist. In order to think change and see it, there is a whole veil of prejudices to brush aside, some of them artificial, created by philosophical speculation, the others natural to common sense.
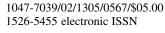
Henri Bergson (1946, p. 131)

What really *exists* is not things made but things in the making. Once made, they are dead, and an infinite number of alternative conceptual decompositions can be used in defining them. But put yourself *in the making* by a stroke of intuitive sympathy with the thing and, the whole range of possible decompositions coming into your possession, you are no longer troubled with the question which of them is the more absolutely true. Reality *falls* in passing into conceptual analysis; it *mounts* in living its own undivided life—it buds and bourgeons, changes, and creates [emphases in the original].

William James (1909/1996, p. 263–264)

The future is not given. Especially in this time of globalization and the network revolution, behavior at the individual level will be the key factor in shaping the evolution of the entire human species. Just as one particle can alter macroscopic organization in nature, so the role of individuals is more important now than ever in society.

Ilya Prigogine (2000, p. 36–37)

Several calls have recently been made to reorient both organization science and management practice to embrace change more openly and consistently (Eccles et al. 1992, Ford and Ford 1995, Orlikowski 1996, Pettigrew 1992, Van de Ven and Poole 1995, Weick 1993 and 1998, Weick and Quinn 1999). This is easier said than done. As Orlikowski (1996) admits, "for decades, questions of transformation remained largely backstage as organizational thinking and practice engaged in a discourse dominated by questions of stability" (p. 63). Similarly, Weick

(1998) has pointed out the difficulties one has in understanding the proper nature of concepts such as "improvisation" and the subtle changes in the texture of organizing, unless one sees change in its own terms, rather than as a special case of "stability" and "routine." "When theorists graft mechanisms for improvisation onto concepts that basically are built to explain order," notes Weick (1998), the result is "a caricature of improvisation that ignores nuances . . ." (p. 551).

What would be the benefits if "organizational change," both as an object of study and as a management preoccupation, were to be approached from the perspective of ongoing change rather than stability? Why would such a reversal of ontological priorities be helpful? It would be helpful for three reasons.

First, it would enable researchers to obtain a more complete understanding of the micro-processes of change at work. In their avowedly macro, neo-institutionalist approach to organizational change, Greenwood and Hinings (1996) have argued that future research ought to address the question of how "precipitating" and "enabling dynamics" interact in response to pressures for change (p. 1044). What makes organizations actually move from and change "archetypes" (templates for organizing)? How are new archetypes uncovered and legitimated? By whom, using what means? To explore such micro-questions is of considerable importance in understanding the dynamics of change and will "permit the careful assessment of non-linear processes" (Greenwood and Hinings 1996, p. 1045). Although Greenwood and Hinings do not expand on those "nonlinear processes," they do imply that to properly understand organizational change one must allow for emergence and surprise, meaning that one must take into account the possibility of organizational change having ramifications and implications beyond those initially imagined or planned.

Second, as well as not knowing a lot about the micro-processes of change, we do not know enough about how change is actually *accomplished*. Even if we can explain, ex post facto, how and why organization *A* moved from archetype *X* to archetype *Y*, or from position *A* to position *B* (which is the hitherto dominant approach—more about this later), our explanation would look like a "post-mortem dissection" (James 1909/1996, p. 262); it would not be fine-grained enough to show how change was actually accomplished on the ground—how plans were translated into action and, by so doing, how they got modified, adapted, and changed. If organizational change is viewed as a *fait accompli,* its dynamic, unfolding, emergent qualities (in short: its potential) are devalued, even lost from view. If change is viewed in juxtaposition to stability, we tend to lose sight of the subtle micro-changes

that sustain and, at the same time, potentially corrode stability. If change is viewed as the exception, the occasional episode in organizational life, we underestimate how pervasive change already is. Feldman (2000), for example, has empirically shown how organizational routines, far from being the repeated stable patterns of behavior that do not change very much from one iteration to another, are actually "emergent accomplishments;" they are "flows of connected ideas, actions, and outcomes" (p. 613) that perpetually interact and change in action. Insofar as routines are *performed* by human agents, they contain the seeds of change. In other words, even the most allegedly stable parts of organizations, such as routines, are potentially unstable—Change is always potentially there if we only care to look for it.

Third, a major cause of dissatisfaction with the traditional approach to change—the approach that gives priority to stability and treats change as an epiphenomenon—is pragmatic: Change programs that are informed by that view often do not produce change (Beer and Nohria 2000, Taylor 1993). Taylor (1993), for example, has described how an office computerization program sponsored by the Canadian government in the 1980s failed to achieve its goals (i.e., to lead to major productivity improvements). The explanation Taylor advances is that the project was motivated by a "particulate vision of reality" (p. 185); namely, by the atomistic ontological assumption that organizations are collections of individual "pieces" (human and nonhuman) rather than situation-specific webs of social relations in which technology enters and modifies and, in turn, is modified. As Taylor (1993) remarks, the approach to change that was taken by the technologists "assumed that information is particulate, that decisions are taken from the top, and that interpersonal dynamics can be safely disregarded. It conceptualized the organization as constructed from the outside, by a managerial corps, much in the way a computer program is written by a computer programmer, rather than an entity that builds itself up from the inside" (p. 241). Interestingly, the one exception in the office automation project was a government agency whose members took the initiative to improvise and adapt the project to their own local context, and made the effort to integrate the technology into their patterns of work (p. 242).

To put it more generally, as ethnographic research has shown, change programs, like organizational routines, need to be *made* to work on any given occasion, they do not work themselves out (Barley 1990, Boden 1994, Orlikowski 1996). Change programs "work" insofar as they are fine-tuned and adjusted by actors in particular contexts—that is, insofar as they are further changed on an ongoing basis (Orlikowski 1996). Unless we have an

image of change as an ongoing process, a stream of interactions, and a flow of situated initiatives, as opposed to a set of episodic events, it will be difficult to overcome the implementation problems of change programs reported in the literature.

From the above it follows that, *prima facie* at least, it will be helpful to move beyond the assumptions of stability that have underlain for so long our understanding of organizational change and attempt to think of the latter on its own terms. While there has been no paucity of explanations as to how assumptions of stability have historically dominated organization science and other fields alike (see Shenhav 1995; Toulmin 1990, Ch.3), it is less clear how a reconceptualization of change might occur. How could change be thought of in its own terms? What might the Heraclitean dictum that "everything changes and nothing abides" mean in the context of organizations?

Weick (1998) has observed that the main barriers to rethinking change are the ontological and epistemological commitments that have underpinned research into the subject. He has not been the first to point in that direction. Nearly 90 years ago, William James expressed his dissatisfaction with "the ruling tradition in philosophy" for its adherence to "the Platonic and Aristotelian belief that fixity is a nobler and worthier thing than change" (1909/1996, p. 237). It is now realized, across scientific fields, that we are lacking the vocabulary to meaningfully talk about change as if change mattered—that is to treat change not as an epiphenomenon, as a mere curiosity or exception, but to acknowledge its centrality in the constitution of socio-economic life (North 1996, Prigogine 1989, Stacey 1996, Sztompka 1993).

Nonetheless, there are already interesting developments in progress, especially in organization science. Dissatisfied with traditional approaches to organizational change, Orlikowski (1996) has conceptualized the latter as ongoing improvisation. Rather than seeing organizational change as orchestrated from the top, Orlikowski (1996) sees it as "grounded in the ongoing practices of organizational actors, and [emerging] out of their (tacit and not so tacit) accommodations to and experiments with the everyday contingencies, breakdowns, exceptions, opportunities, and unintended consequences that they encounter" (p. 65). Similarly, Weick and Quinn (1999) have concluded that a shift in vocabulary from "change" to "changing" will make theorists and practitioners more attentive to the dynamic, change-full character of organizational life (p. 382). In her "performative model of organizational routines," Feldman (2000, p. 611) has described how a routine changes as participants respond to outcomes of previous iterations of a routine. She notes that we get a richer picture of routines when

we do not separate them from the people applying them. So long as human actors *perform* the routines, there is an intrinsic potential for ongoing organizational change. Echoing similar calls by Barley (1986, 1990) and Pentland and Rueter (1994), Feldman (2000) has argued for a focus "on the role of agency in the way structures are transformed and modified through processes of everyday organizational life" (p. 626).

Our purpose in this paper is to build on and extend Orlikowski's, Weick's, and Feldman's intriguing arguments (as well as on those of others who share similar concerns—See Brown and Eisenhardt 1997, Barley 1986 and 1990, Choi 1995, Ford and Ford 1994 and 1995, March 1981, Marshak 1993, Van de Ven and Poole 1995). We start from the assumption that to properly understand *organizational change* (in the sense argued by Orlikowski, Weick, and Feldman) we need to stop giving ontological priority to organization, thereby making change an exceptional effect, produced only under specific circumstances by certain people (change agents). We should rather start from the premise that change is pervasive and indivisible; that, to borrow James's (1909/1996) apt phrase, "the essence of life is its continuously changing character" (p. 253), and *then* see what this premise entails for our understanding of organizations.

Much as we have been inspired by the work of writers such as Orlikowski, Weick, and Feldman, we wish to argue here for an even more radically process-oriented approach to organizational change. These writers have contributed enormously to sensitizing organizational theorists to the significance of seeing change as an ongoing process, but they do not go far enough or, at least, not as far as their own approach would allow them to go.

For example, traces of the traditional way of thinking about change are not absent from Weick's thinking (see Weick and Quinn 1999). Weick and Quinn (1999), for instance, are ambivalent about the ontological status of continuous change: While arguing for an appreciation of continuous change, they also think that the latter ceases to take place in certain types of organizations, such as machine bureaucracies (pp. 370, 377, and 381). Similarly, Orlikowski makes her improvisational model of organizational change conditional on the kind of technology introduced: Groupware technologies allow individuals to adapt and customize them—hence the need for ongoing change—whereas traditional technologies do not (Orlikowski and Hofman 1997, p. 18). As we will show later, and as Trist et al.'s (1963) classic study of work organization in U.K. coal mines has shown, this is not the case. Change is far more pervasive than Orlikowski allows. Moreover, her conception of change as being "situated and endemic to the practice of organizing"

(Orlikowski 1996, p. 91), helpful and refreshing as it undoubtedly is, does not go far enough in theoretically explicating the driving forces of "improvisation." Finally, Feldman (2000) has perceptively argued that the key to understanding change as an ongoing process is to pay attention to the transformational character of ordinary human action, but she has not elaborated on what it is about human action that contributes to such ongoing change, other than pointing to the continuous feedback of outcomes to plans.

In this paper we aim to show that the full implications that follow from Weick's, Feldman's, and Orlikowski's insights (and those of other process-oriented, organizational writers mentioned above) will be drawn out only if their calls for a greater attention to process lead to a consistent reversal of the ontological priority accorded to organization and change. Change must not be thought of as a property of organization. Rather, organization must be understood as an emergent property of change. Change is ontologically prior to organization—it is the condition of possibility for organization. With this ontological reversal in mind, the central question we address in this paper is as follows: *What must organization(s) be like if change is constitutive of reality*? Wishing to highlight the pervasiveness of change in organizations, we talk about *organizational becoming*. Drawing on process-oriented philosophers and ethnomethodologists we argue that change is the reweaving of actors' webs of beliefs and habits of action as a result of new experiences obtained through interactions. Insofar as this is an ongoing process, that is, to the extent actors try to make sense of and act coherently in the world, change is inherent in human action. Organization is an attempt to order the intrinsic flux of human action, to channel it towards certain ends, to give it a particular shape, through generalizing and institutionalizing particular meanings and rules. At the same time, organization is a pattern that is constituted, shaped, *emerging* from change. Viewed this way, organization is a secondary accomplishment, in a double sense: First, it is a socially defined set of rules aiming at stabilizing an ever-mutating reality by making human behavior more predictable. Second, organization is an outcome, a pattern, emerging from the reflective application of the very same rules in local contexts over time. While organization aims at stemming change, it is also the outcome of change. We will illustrate this claim by drawing on relevant parts of the organizational literature.

The paper is organized as follows. First we describe an approach for making sense of change by drawing on, primarily, the writings of Bergson and James. Next we discuss the notion of organizational becoming and explain the sense in which change in organizations is pervasive as well as how organization emerges from change. Finally, we outline the implications of our view of organizational becoming for theory and practice.

Understanding Change

As several reviews of the literature on organizational change have shown (Porras and Silvers 1991, Weick and Quinn 1999, Van de Ven and Poole 1995), the bulk of research has been oriented towards providing *synoptic* accounts of organizational change. Synoptic accounts view change as an accomplished event whose key features and variations, and causal antecedents and consequences, need to be explored and described. Such knowledge is generated by approaching "change" from the outside and, typically, it takes the form of a stage model in which the entity that undergoes change is shown to have distinct *states* at different points in time. Synoptic accounts have been useful insofar as they have provided us with snapshots of key dimensions of organizations at different points in time, along with explanations for the trajectories organizations followed (Miller 1982, Greenwood and Hinings 1996, Tushman and Romanelli 1985, Donaldson 1999). That knowledge, however indispensable that it is, has certain limitations: Given its synoptic nature, it does not do justice to the open-ended micro-processes that underlay the trajectories described; it does not quite capture the distinguishing features of change—its fluidity, pervasiveness, open-endedness, and indivisibility.

Why is this? Why cannot stage models of change, such as Lewin's (1951) classic "unfreezing-moving-refreezing" model, incorporate the distinguishing features of change? To begin to address this question we must appreciate that change has been a time-old philosophical puzzle. Zeno's famous paradox illustrates the source of this puzzle (see James 1909/1996, pp. 228–232; Sainsbury 1988, Ch.1). The fast runner Achilles can never overtake the slow moving tortoise; for by the time Achilles reaches the tortoise's starting point, the tortoise has already moved ahead of that starting point, and by the time Achilles reaches the tortoise's new position, the tortoise will have moved on, and so on *ad infinitum*. Zeno's paradox is created by the assumption that space and time are infinitely divisible. According to James (1909/1996), the cause for the assumption that space and time are infinitely divisible is our "intellectualist" impulse: Our readiness to transform the perceptual order (what our senses can apprehend) into a conceptual order (making sense of our experience through concepts) (pp. 216–219). The trouble with concepts, James (1909/1996) remarks, is that they are discontinuous and fixed, and, as such, unable to capture the continuously mutating character of life. The only way to make concepts coincide

with life is to arbitrarily suppose "positions of arrest therein" (James 1909, 1996; p. 253). Thus, on intellectuallist premises, we try to understand change by transforming it into a succession of positions. This tendency is best illustrated in the case of motion.

Motion is normally defined as "the occupancy of serially successive points of space at serially successive instants of time" (James 1909/1996, p. 234). Notice how such a definition fails to capture what is distinctive of motion—*getting* from A to B. Oddly, on this definition, motion is made up of immobilities: An object occupies this position now, that position later, and so on indefinitely (Bergson 1946, p. 145). It could be argued that the more "positions" we identify in an object's movement, the better we describe its motion. But no matter how many such positions are created to represent the trajectory of an object, the fact remains that they contain no element of movement (James 1909/1996, p. 234). As James aptly remarks, "the stages into which you analyze a change are *states*; the change itself goes on between them. It lies along their intervals, inhabits what your definition fails to gather up, and thus eludes conceptual explanation altogether" (p. 236).

The critique of the intellectualist approach to change by "process philosophers" (Rescher 1996), such as James and Bergson, helps us see the difficulties we face when we try to understand change by breaking it down to stages: By doing so, change is reduced to a series of static positions—its distinguishing features are lost from view. Change per se remains elusive and unaccounted—strangely, it is whatever goes on *between* the positions representing change (James 1909/1996, p. 236). Notice the paradox: A conceptual framework for making sense of change (namely, the stage model of change) cannot deal with change per se, except by conceiving of it as a series of immobilities; it makes sense of change by denying change!

If an intellectualist understanding of change leads to paradoxes and, ultimately, denies the very nature of change, what is the alternative? How can change be made sense of in a way that will acknowledge its distinguishing features? Bergson's (1946) advice is useful at this point: Dive back into the flux itself, he says; turn your face toward sensation; bring yourself in touch with reality through *intuition*; get to know it from *within* or, to use Wittgenstein's (1958) famous aphorism, "don't think, but look" (para. 66). Only a direct perception of reality will enable one to get a glimpse of its most salient characteristics—its constantly changing texture, its indivisible continuity, the conflux of the same with the different over time.

How does one get to know the continuously shifting flux of reality from within? For Bergson and James this is achieved when we experience reality directly, or when we sympathetically divine someone else's inner life. Only by placing ourselves at the center of an unfolding phenomenon can we hope to know it from within. Take the example of the character Tom Sawyer, whose adventures are the subject of Mark Twain's eponymous novel. Mark Twain vividly paints Tom's personality in different circumstances, ranging from the funny to the horrifying, and we get to know him and life in the American South quite well. However, this would still be knowledge from the outside. We would get knowledge from the inside through intuitively sympathizing with Tom Sawyer, that is, if we were to draw on our experiences and identify with the character himself. Then we would experience a feeling that we truly know the character, in all his complexity, in the same way that we know a city through walking on its streets rather than via photographs of it (Bergson 1946, p. 160; James 1909/1996, pp. 262–263). To change metaphor, knowing from within is like mindfully listening to a melody: When we do so, we have a perception of movement, of flow, of indivisible continuity (Bergson 1946, p. 145).

Intuition, knowledge from within, and direct acquaintance make up Bergson's and James's method for apprehending the flux of reality. Perceiving for them is more important than conceiving. The former is more likely than the latter to be attentive to qualitative differences, to appreciate particular experiences, and to acknowledge the ever-mutating character of life, where partial decay and partial growth, continuity and difference all coexist. But how does perception do this?

Whereas concepts help us name and bulk experience and, thus, obliterate differences (James 1909/1996, pp. 217, 250–260; Wittgenstein 1967, para. 568), in perception we are responsive to *difference*, to change (Bateson 1979, p. 102). I can feel the bump in the road because of the difference between the level of the road and the level of the top of the bump. I can see that morale in the department has dropped because of the difference between how people feel now and the time when the department was full of life. The undifferentiated is imperceptible.

According to Bateson (1979), our sensory system is activated by difference. The more sensitive one is to differences, ever more subtle, the more perceptive one will be. Artists do this all the time. A good painter, notes Bergson (1946), brings to our attention something we had seen but not noticed (pp. 135–136). Art (and, incidentally, philosophy for Bergson and James) extends our faculty of perceiving by focusing our attention on hitherto unnoticed aspects of our lives. But how does art achieve this? Interestingly, it achieves it by taking a distance from

reality. Our attachment to everyday reality, that is our concern with living and acting, necessarily narrows our vision; it obliges us to "look straight ahead in the direction we have to go" (Bergson 1946, p. 137), at the expense of peripheral vision. This happens because, in action, we are less interested in the things themselves than in the use we can make of them. We normally look at the categories things belong to, rather than things per se. Artists, however, do exactly the opposite. By detaching their faculty of perceiving from their faculty of acting, "when they look at a thing, they see it for itself, and not for themselves . . . . It is because the artist is less intent on utilizing his perception that he perceives a greater number of things" (Bergson 1946, p. 138). The general point here is that we obtain a much more direct vision of reality, and thus begin to really appreciate its dynamic complexity, by occasionally turning our attention away from practical matters towards reflection.

Perception, however, has its limits. There are differences so small we cannot detect; or we may have become accustomed to the new state of affairs before our senses could tell us that it is new. As Bateson (1979) notes, "there is necessarily a threshold of gradient below which gradient cannot be perceived" (p. 105). Moreover, what we directly experience or concretely engage with is very limited in duration. The weather is changing from hour to hour and from day to day, but is it changing from year to year? How many of us have detected the decrease of birds in our gardens? We know how downsizing in the 1980s affected our company, but do we know how the entire American corporate landscape changed in the same period? Our perceptual knowledge is ill suited to answer such questions—We need conceptual knowledge instead. Bergson and James were well aware of this. "If what we care most about," observes James (1909/1996), "be the synoptic treatment of phenomena, the vision of the far and the gathering of the scattered alike, we must follow the conceptual method" (p. 251). Direct knowledge (intuition) and conceptual knowledge are complementary of each other. One provides what the other cannot.

Looked at synoptically, reality appears more stable than it actually is, something already noted by Weick and Quinn (1999) and Feldman (2000). We say the acrobat on the high wire maintains her stability. However, she does so by continuously correcting her imbalances (Bateson 1979). From this, a more general principle may be inferred: "When we use *stability* in talking about living things or self-corrective circuits, we should *follow the example of the entities about which we are talking*" (p. 65; emphasis in the original). What does this mean in practice? It means that statements about stability and change

should be labelled by reference to some descriptive proposition, so that the logical type to which "what changes" and "what stays stable" belong, should be clear (Keeney 1983, 29–31; Roach and Bednar 1997; Watzlawick et al. 1974).

For example, at a certain level of analysis (or logical type)—that of the body—the statement "the acrobat maintains her balance" is true, as is also true the statement "the acrobat constantly adjusts her posture," but at another level of analysis—that of the *parts* of the body. The apparent stability of the acrobat does not preclude change; on the contrary it presupposes it. Similarly, in the case of organizational routines, at a certain level of analysis—that of the routine itself—a synoptic account highlights the routine's self-contained, thing-like, and stable character. However, at another level of analysis—that of individual action and interaction through which routines are implemented—a process-oriented, or "performative," (Feldman 2000, p. 622) account, which takes human agency seriously, would show that routines are situated "ongoing accomplishments" (p. 613) and, as such, they keep changing, depending on the dynamic between ideals, action, and outcomes.

From the above it follows that both "synoptic" and "performative" accounts of organizational change are necessary—They serve different needs. Synoptic accounts enable us to attain, in James's (1909/1996) memorable phrase, "vision of the far and the scattered alike" (p. 251), and make us notice patterns at different points in time that normally escape our perceptions (Boulding 1987); performative accounts, on the other hand, through their focus on situated human agency unfolding in time, offer us insights into the actual emergence and accomplishment of change—They are accounts of change *par excellence*. Given that (as mentioned at the beginning of this section) the relevant literature has been dominated by synoptic accounts, it is important that sophisticated performative accounts of change redress the balance. This is especially so because performative accounts are more directly connected to practitioners' lived experiences and actions. Indeed, the "change" that is synoptically explained ex post facto is *experienced* by practitioners as an unfolding process, a flow of possibilities, and a conjunction of events and open-ended interactions occurring in time. If we are to understand how change is actually *accomplished* (Eccles et al. 1992), change must be approached from within—not as an "abstract concept," (James 1909/1996, p. 235) but as a performance enacted in time. In the following section we will put forward a performative model of organizational change.

Organizational Becoming

One of Weick's (1979) landmark contributions to organization science has been his shift in attention from organizations to organizing, and the conception of the latter as a set of processes for reducing equivocality amongst actors. In Weick's view, organizing consists of *reducing differences* among actors; it is the process of generating *recurring* behaviors through institutionalized cognitive representations. For an activity to be said to be organized, it implies that *types* of behavior in *types* of situations are systematically connected to *types* of actors (Berger and Luckmann 1966, p. 72; Tsoukas 1998). An organized activity provides actors with a given set of cognitive categories and a typology of actions (Weick 1979).

Thus, organizing implies generalizing; it is the process of subsuming particulars under generic categories. However, although the generic categories and the purposes for which they may be used are, at any moment, given to organizational members, they are nonetheless socially defined. Moreover, those categories are subject to potential change: The stability of their meanings is precariously maintained. The organization is both a given structure (i.e., a set of established generic cognitive categories) *and* an emerging pattern (i.e., the constant adaptation of those categories to local circumstances). Institutionalized cognitive categories are drawn upon by individuals-in-action but, in the process, established generalizations may be supplemented, eroded, modified or, at any rate, interpreted in oftentimes unpredictable ways.

Why does this happen? Because although an organization fixes the definition of its representations (generic cognitive categories) for certain purposes, it does not have total definitional control over them (Lee 1984, p. 302). The semantics of knowledge representation in an organization are intrinsically unstable. To put it differently, for organizational action to be possible—that is, for recurrent behaviours to take place in accordance with established purposes—closure of meaning must be effected (Beer 1981, p. 58): Cognitive categories must be stable enough to be consistently and effectively deployed. However, such closure, while it certainly occurs, is potentially temporary. This is so for two reasons.

First, definitional control is compromised because of organizational interactions with the outside world. For example, Orr's ethnographic study (1996) of photocopy repair technicians has shown the amount of improvisation involved in their work, which stems from the open-endedness of the social contexts within which photocopiers break down (for similar findings see also Brown and Duguid 1991, Orr 1990, Vickers 1983, Orlikowski 1996). The repair manuals issued to technicians typically contain definitions of what a broken machine is and how it may

be repaired. Such definitions, however, though undoubtedly helpful, are of limited use: Machines break down in particular contexts, and as a result of the particular uses they are put to. The possible contexts, and the kinds of machine use, are potentially so diverse that they cannot be fully anticipated (Tsoukas 1996). Having to interact with the outside world, a technician is forced to adapt his/her knowledge to local contexts—to undertake situated action that compels him/her to partially revise his/her plans and the rules he/she is working with. To put it more generally, the carrying out of an organizational activity simultaneously involves the existence of certain generic rules containing a canonical image of the activity to be carried out (i.e., "If *X* happens, do *Y*, in circumstances *Z*.") *and* the noncanonical, particularistic practices of the actors involved in it, which are consequences of the inherent open-endedness of the context within which organizational action takes place.

Interaction with the outside world is conducive to altering established organizational meanings because of the "prototype" (or "radial") structure of categories organizational members work with (Lakoff 1987, Johnson 1993, Lakoff and Johnson 1999). The classical theory of category structure postulates that categories (or concepts) are exhaustively defined by a list of features, which all members of a category must possess. According to this view, categories have no internal structure: "Since every member must possess all of the features on the list that define the category, there is nothing in the structure of the category that could differentiate one member from another. They are all equally in the category" (Johnson 1993, p. 78). However, as Rosch's pioneering research has shown, there is a great deal of structure to a category (Rosch and Lloyd 1978). Some members are more centrally placed in—are more representative of—a category than others. For example, robins are more central to our understanding of the category "bird," than ostriches are. A woman who gave birth to a child, nurtured him, supplied half the genes to him, is married to the child's father, and is a generation older than the child is more representative of the category "mother" than a stepmother or a surrogate mother (Lakoff 1987, p. 83). Categories, in other words, are radially structured: There is a stable core in a category, consisting of prototypical members, which accounts for the stability with which the category is often applied. However, there is also an unstable part, consisting of nonprototypical members, which accounts for the potential change in a category, which its situated application may bring about (more about this later).

What explains the stable core that exists in most categories, and what do we do with the nonprototypical cases that are not part of the stable core? According to Lakoff

(1987) and Johnson (1993), categories cannot be understood in themselves—They have no essence. Rather, they derive their meaning from the broader web of background assumptions, experiences, and understandings shared in a culture. As Johnson (1993) remarks, "the fact that there is a core to [a] concept is not typically a result of properties alleged to be inherent in the concept, but, instead, it is a result of continuity within the social background of a culture's shared experience by virtue of which the concept can mean what it does" (p. 96). In other words, concept stability is conditional on the stability of the cognitive models shared within a culture. We agree, for example, on what constitutes "lying" insofar as we share the same background understandings and are thus able to easily and noncontroversially recognize "lies." Alongside such prototypical cases, however, there are nonprototypical ones (e.g., white lies, social lies, official lies, oversimplifications, jokes, mistakes) that we are not sure, in varying degrees, are "lies" and how we should assess them (Johnson 1993, p. 91–98).

Nonprototypical members of a category are variants of the stable core; they are "imaginative extensions" (Johnson 1993, p. 100) that are not generated from the stable core by general rules, but instead are generated "by convention and must be learned one by one" (Lakoff 1987, p. 91). The indeterminacy of extension does not indicate arbitrariness. We are still able to make intelligent judgements about problematic cases because we can understand in what ways they diverge from the conditions of prototypicality. Making such judgements involves an imaginative projection of a category beyond prototypical cases to marginal ones. Indeed, applications of a particular concept in nonprototypical cases have the potential of extending the radius of application of the concept, thus transforming it. Take, for example, the case of a statute banning the use of wheeled vehicles in parks. While we all certainly know the cases in which this statute noncontroversially applies to (i.e., prototypical cases), there is "a penumbra of debatable cases in which words are neither obviously applicable nor obviously ruled out" (Hart 1958, p. 593). For instance, would roller skates be included in the ban? What about toy cars? In applying the statute in such nonprototypical cases, a judge is not simply unpacking the category of "wheeled vehicles," sorting out cases to fixed categories, rather he/she is partially determining the law by putting forward an evaluation (Hart 1958, Johnson 1993).

More generally, the application of a concept is always a *normative* act insofar as it presupposes background knowledge, which is inherently value-laden (Taylor 1985). For example, in the case of the ban of wheeled

vehicles in the park, there is a host of background assumptions concerning the purposes parks serve for us, what are the standards of proper behavior in parks, etc. Similarly, as Tsoukas and Vladimirou (2001) found in their case study of call center operators working in the customer services department of a mobile telecommunications company, in deciding the length to which operators should go to answer customers' inquiries was not a matter of mere "application" of given company rules and guidelines, but of active determination of those rules *in practice*—an imaginative extension of company rules in marginal cases. Additional acts of "normation or evaluation" (Hare, cited in Johnson 1993, p. 89) are required to decide what counts as "good customer service" on certain occasions. Such acts further transform the existing company rules and guidelines.

To summarize, most categories (or concepts) are *radially* structured. They have a stable part made up of prototypical (central) members and an unstable part made up of nonprototypical (peripheral, marginal) members radiating out at various conceptual distances from the central members. Conceptual stability comes from the prototype structure of categories *and* the stability of the background assumptions and understandings that define a communal practice. All this makes it possible for us to talk about clear and unproblematic cases in which we know what to do. Patterns of action stemming from acting on central cases tend to be stable. But the stability of action is precarious. The world also throws at us peripheral cases in which we are, in varying degrees, puzzled as to what to do and how to respond. Organizational ethnographers have shown that such cases are far from rare—in fact, even routine actions are quite likely to have an element of indeterminacy, hence they are susceptible to change (Feldman 2000, Orr 1996). As a result of the radial (or prototype) structure of categories, there is an intrinsic indeterminacy when organizational members interact with the world—hence the potential for change. Responding to nonprototypical (peripheral) cases requires the imaginative extension beyond central cases to peripheral ones (Lakoff 1987, Johnson 1993).

However, there is a second reason why definitional control of organizational representations is limited. As well as interacting with the outside world, humans have the intrinsic ability to interact with their own thoughts and, therefore, to draw new distinctions, imagine new things, and employ metaphor, metonymy, and mental imagery (Lakoff 1987; Rorty 1989, 1991). Maturana (1980) and von Foerster (1984) have argued that the new comes about as a result of a process of recursive application of descriptions. In Maturana's (1980) and von Foerster's (1984) view, we humans operate in the cognitive domain,

namely a domain within which we interact with our own descriptions (e.g., thoughts) as if they were independent entities (see also Popper 1986 for a similar argument). Such interactions give rise to further descriptions with which we subsequently interact in an endlessly recursive manner. (For Maturana and von Foerster this is possible because of the nature of the human nervous system, but this need not concern us here). New descriptions (i.e., new understandings) are the result of the intrinsically human ability to be reflexive—to reflect on one's behavior as an observer.

Of course, both at the individual and collective levels of analysis, whether such ability will be exercised is a contingent matter. For example, for some social theorists, what differentiates modernity from previous epochs is its pervasive reflexivity—"the susceptibility of most respects of social activity, and material relations with nature, to chronic revision in the light of new information or knowledge" (Giddens 1991, p. 20; see also Beck et al. 1994). In other words, in modern societies it is more likely than in other kinds of societies for people to exercise their inherent capacity for reflexive thinking and, thus, to change their behaviors. Likewise, in some organizations, reflexivity is more encouraged and, therefore, more likely to be encountered than in others (Argyris 1992). In other words, reflexivity requires certain conditions to flourish, although detailing those conditions would be beyond the scope of this paper.

From the preceding analysis it follows that organizational closure is only temporarily established because of the inevitability of *human interactions*—interactions with oneself and interactions with others (both individuals and objects). Although treated here as analytically distinct, in real life both kinds of interactions tend to be interwoven. Individuals often interact with others and with themselves at the same time: They undertake action while being mindful of earlier patterns of actions. In this view, actors are conceived as webs of beliefs and habits of action that keep reweaving (and thus altering) as they try to coherently accommodate new experiences, which come from new interactions over time (Rorty 1991, pp. 93–110). The human ability of reflexivity and reinterpretation and the radial structure of categories render an actor's web of beliefs continually reconfigurable. Even if, *in extremis*, new experiences are not obtained, actors can always reflect on their old stock of experiences and rearrange them, thus generating new patterns of meaning. As Berger (1963) noted, "memory itself is a reiterated act of interpretation. As we remember the past, we reconstruct it in accordance with our present ideas of what is important and what is not" (p. 70). Actors' reweaving may be minimal such as, for example, in instances of single-loop

learning or Weick's (1998) "embellishments." Alternatively, it may be maximal such as when entirely new ways of doing things emerge through metaphorical redescription (Rorty 1989, pp. 3–22; Lakoff 1987). In either case, the web is reconfigured and change is brought about.

Illustrations

Feldman (2000) provides an illustration of how interactions potentially alter established categories in her study of organizational routines in a student housing department of a large U.S. state university. One of her vignettes is that of the damage assessment routine, itself part of the broader routine of closing the residence halls at the end of the academic year. In carrying out the damage assessment routine, building directors became increasingly uncomfortable because "the routine simply placed them in the role of simply procuring funds and did not allow them to act as educators with respect to this one aspect of the job" (p. 620). Falling short of the building directors' ideals of primarily being educators and secondarily being collectors of repair bills (borne out of frustration with having to interact with students' parents and their parents' secretaries to collect repair bills, thus allowing students to "get off easy" without taking personal responsibility for damages made to their rooms), building directors gradually changed the routine to reflect their new self-understanding. This is clearly a case whereby performing the routine, namely having to interact with others in the context of carrying out the routine, and reflecting on the purpose the routine has been serving generates new experiences that actors need to accommodate, thereby reforming, modifying, and transforming the routine.

Feldman's second vignette—the move-in routine—is even more revealing because it shows how interactions within an increasingly wider context may generate non-prototypical cases, which are dealt with by extending the categories applied to prototypical cases. The move-in routine consisted of a set of guidelines to staff and students concerning students' move into the residence halls at the beginning of the academic year. Initially, housing announced the three days of move-in to students, leaving each residence hall to handle the move-in in its own way. However, long queues, traffic jams, and angry students and parents caused housing to change the routine. Now a central administrator would coordinate with the city police department to change traffic flows and a set of rules was announced concerning the logistics of the move-in (e.g., cars were given 30 minutes to unload in front of a residence hall, parking arrangements were made, etc). Once these changes were in place, housing staff turned their attention to further refinements. Vendors selling carpets and other things to students, who traditionally sold

their wares in the lobbies and just outside residence halls, were given a special small area. Furthermore, when, unexpectedly, one year, the athletic department scheduled the first home game on the first day of the move-in, the routine was in trouble. An accommodation had to be reached, and the routine had to change so that from now on it would include coordination with the athletic department.

Notice the pattern. Rather than having the move-in routine algorithmically applied year after year in a stable and unchanging manner, it kept being refined and modified in practice on an ongoing basis to handle new problems, offer better service, and take advantage of new opportunities—in short, to accommodate new experiences. As Feldman (2000) remarks: "Clearly Housing had extended its outreach schema. The first outreach was to the city officials and had resulted in closed streets. [The] new outreach was to the athletic department, and we can assume involved increased communication with the athletic department about such things as football schedules" (p. 618). The move-in routine was initially about students simply moving into their halls of residence within a certain period. That was a prototypical case—clear enough in its application. When problems of traffic jams and long queues cropped up, were they housing's problems too? Should housing try to accommodate the vendors, and when the athletic department made a decision that threatened to subvert the rationale of the move-in process, should housing be concerned about it as well? Notice what we are getting at: Accommodating the vendors, handling traffic jams, and fitting a football game into the move-in process are nonprototypical cases, calling for an imaginative extension of current policies designed to handle the prototypical case of simply letting students into the halls. Confronted with experience, in an open-ended world, the routine gradually changed, extended its reach, and provided opportunities for further changes. With every change the notion of what is possible expanded and new levels of expectations were established (Feldman 2000, p. 621).

The benefit of the preceding analysis is that it enables us to see through the facade of organizational stability to the underlying reality of ongoing change. Organizations are in a state of perpetual becoming because situated action within them is inherently creative (Tenkasi and Boland 1993): Established categories and practices are potentially on the verge of turning into something different for new experiences to be accommodated. For some scholars, such an image of pervasive change is an inherent characteristic of social and economic change at large (North 1996, Sztompka 1993). As economic historian North (1996) remarks: "Economic change is a ubiquitous,

ongoing, incremental process that is a consequence of the choices individual actors and entrepreneurs of organizations make every day" (p. 346). What is interesting to note in North's statement is his view of the very *ordinariness* of economic change. There is no object as such that undergoes change; there are, instead, choices, actions, decisions, and people ordinarily going about their businesses (March 1981). Change is all there is. As Bergson would have put it, the indivisible continuity of change is what constitutes economic reality.

The argument for organizational becoming finds strong support in the recent work of several organizational ethnographers. Orr's insightful study (1996) was mentioned earlier. Orlikowski's studies (1996) are an another excellent case. In her study of the customer support department (CSD) of a software company, Orlikowski has shown how the introduction of an information system for tracking customer calls (the Incident Tracking Support System) provided the stimulus for the emergence of a stream of events and actions, several of which were unanticipated, over time. This happened as specialists and managers attempted to cope with the everyday contingencies, breakdowns, opportunities, and unanticipated outcomes in the use of the ITSS, and improvised techniques and norms for its effective incorporation into their working practices. Orlikowski documents in detail the appropriation of the ITSS by CSD members, as well as the adaptations and adjustments they enacted over time as they tried to incorporate the ITSS into their working practices. Orlikowski shows organizational change to be "an ongoing improvisation enacted by organizational actors trying to make sense of and act coherently in the world" (Orlikowski 1996, p. 65).

Finally, it is worth noting that the view of change suggested here helps us to better understand the process of jazz improvisation discussed by Barrett (1998), Hatch (1999), and Weick (1998), without, at the same time, reifying it. In the case of jazz, improvisation is the process of a jazz musician adjusting his/her music in response to his/her own earlier music and/or to the music played by others. It is the effort to accommodate new experiences, which is the key to improvisation, rather than the conscious effort to be creative. In that sense, improvisation (hence, change) is just as much of an inherent feature of the activity of a photocopy repair technician (Orr 1996), or a ship navigator (Hutchins 1993), as it is of a jazz musician (Barrett 1998, Hatch 1999, Weick 1998). The degree to which improvisation is empirically manifested is a function of the degree to which organizational members are involved in *interactions*—interactions with themselves and with others (individuals and objects).

Conclusions and Implications

As should be clear by now, the argument advanced in this paper owes a lot to the insights of process philosophers and ethnomethodologists. The latter in particular have long emphasized the local (or situated) character of human agency and the importance of social interaction as a primary locus of social order (Boden 1994, pp. 35 and 36; Wenger 1998). As Boden (1994) remarks, "organizations are taken to be locally organized and interactionally achieved contexts of decision making and of enduring institutional momentum" (p. 1). Human agency, that is, the actions and inactions of social actors, is "*always* and at *every moment* confronted with specific conditions and choices" (p. 13; emphasis in the original). Those conditions are not just given, but are locally made relevant (or irrelevant) by actors. Organizational categories and rules are constantly adjusted, modified, or even ignored in the carrying out of actual organizational tasks. What is so distinctive about the ethnomethodological approach to organizations, which makes it particularly well suited to the argument advanced in this paper, is its insistence on capturing the dynamism and ever-mutating character of organizational life. Organizational phenomena are not treated as entities, as accomplished events, but as enactments—unfolding processes involving actors making choices interactively, in inescapably local conditions, by drawing on broader rules and resources. In Boden's words: (1994) "What looks—from outside—like behavior controlled by rules and norms is actually a delicate and dynamic series of interactionally located adjustments to a continual unfolding and working out of 'just what' is going on and being made to go on, which is to say, the organizing of action" (p. 42). To put it briefly, organizations do not simply work; they are *made* to work.

With these ethnomethodological insights in mind, we have argued here that organizations are sites within which human action takes place. Drawing on institutionalized categories, which (as discussed earlier) are radially structured, organizational members make their behaviors more predictable. However, insofar as organizational members try to reflectively adapt those radially structured categories to local conditions, they cannot help but modify them, minimally or maximally. Minimal modification occurs when action involves dealing with more-or-less prototypical cases, whereas maximal modification occurs when action involves dealing with nonprototypical ones. When actors respond to nonprototypical cases (as, for example, Feldman's housing staff did) that are encountered in an open-ended world, they imaginatively extend the radius of application of an organizational category, thus changing it. In that sense, change is immanent *in* organizations: In carrying out their tasks, actors are compelled to interact

with the outside world and, thus, to accommodate new experiences, and actors, having the inherent ability to be reflexive, are prone to drawing new distinctions and making fresh metaphorical connections. Action in an open-ended world is potentially creative, insofar as individuals need to improvise (i.e., to reweave their webs of beliefs and their habits of action) to act coherently.

From a practical point of view, however, as James (1909/1996) acknowledged, "sensible reality is too concrete to be entirely manageable" (p. 247); we need to abstract it, to harness its fluidity and concreteness in our conceptual systems to act systematically on it. It is not, therefore, only the case of change being immanent in organizations but, also, the case of change being channelled, guided, led—in short, of being *organizational* change. Notice the double meaning of "organization(s)" here: *Organizations* are sites of continuously changing human action, and *organization* is the making of form, the patterned unfolding of human action. Organization in the form of institutionalized categories is an input into human action, while in the form of emerging pattern it is an outcome of it; organization aims at stemming change but in the process of doing so it is generated by it.

Orr's (1996), Orlikowski's (1996), and Weick's (1998) work enables us to empirically appreciate both the ongoing character of *change in organizations* and the emergence of *organization*. Orr's repair technicians improvise as they go about doing their work. Orlikowski's specialists enact ongoing situated accommodations, adaptations, and alterations in response to previous variations, while anticipating future ones. Jazz musicians constantly improvise as they listen to themselves and to each other. Change, in other words, is not an exceptional or special activity individuals undertake, as one might be tempted to think from the perspective of stability. On the contrary, as March (1981) has so aptly remarked, "change takes place because most of the time most people in an organization do about what they are supposed to do; that is they are intelligently attentive to their environments and jobs" (p. 564). At the same time, all this flow of tinkering, experimenting, and adapting is not incoherent. On the contrary, it is patterned as a result of individuals closely *interrelating* their actions with those of others (Weick and Roberts 1993). The organization (i.e., a pattern) emerges as situated accommodations become heedfully interrelated in time.

The above does not at all imply that all organizational change is endogenously generated. To be precise, if the main thrust of our argument is accepted, the very distinction between endogenously vs. exogenously generated change collapses (cf. Barrett et al. 1995, p. 367). Of

course organizations routinely respond to external influences (hence they have to change), be they competitive pressures, takeovers and mergers, government regulations, technological changes, personnel turnover, or members' personal trajectories. However, *how* organizations respond is endogenously conditioned, and it cannot be fully anticipated. There is a world out there that causes the organization to respond, but the pattern of response depends on an organization's self-understanding—the historically created assumptions and interpretations of itself and its environment (Barrett et al. 1995; Morgan 1997, pp. 253–261; Granovetter 1992, pp. 49–50; Tsoukas and Papoulias 1996, pp. 857). Moreover, an organization's response to an exogenously generated pressure over time is complex, multilayered, and evolving, rather than simple, fixed, and episodic. What our approach highlights is the ethnomethodological insight that "social order is organized *from within*" (Boden 1994, p. 46; emphasis in the original) and that what is interesting to explore is what, how, where, with whom, and why particular aspects of an organization's self-understanding are *made relevant* in concrete situations over time.

For example, to return to an illustration discussed earlier, Orlikowski and Hofman (1997) have described the case of the customer service department (CSD) at Zeta, one of the top 50 software companies in the world, that introduced a new Incident Tracking Support System (ITSS) based on the Lotus Notes groupware technology to help it improve the way it tracked and generally handled customers' problems. Such a technological change was deemed necessary because of the antiquated nature of the current tracking system, advances in groupware technology, and management's desire to offer better customer service. Notice how change here is both exogenously *and* endogenously generated. Changes in the environment put pressure on management to improve the customer service, but it was also management's receptivity to, and appreciation of, those changes that ultimately determined the precise organizational response. As Orlikowski and Hofman (1997, p. 19) perceptively point out, this cannot always be assumed. Management may rationalize problems, defer decisions, or simply pay lip service to change (Argyris 1990, 1992; Johnson and Scholes 1997, pp. 75–76).

However this is not the end of the story. After the groupware technology was introduced and people begun to *experience* it, they also started appreciating its capabilities and imagining new possibilities for it. What from the outside could be seen as a mere episode of technical change, whereby one tracking system replaces another, became, from the perspective of ongoing change, an increasing momentum, a flow of opportunity-driven choices, and unanticipated changes. For example, to leverage the ITSS's

capabilities, managers introduced a change in the structure of the department; now having a much better idea of how CSD specialists went about their work, managers expanded the evaluation criteria to include work-in-progress documentation; further changes were introduced in the CSD when specialists begun to realize that they could use the information generated by ITSS to train newcomers (Orlikowski and Hofman 1997).

However, this series of ongoing changes, several of which were emergent and opportunity-based as the system was put into action, does not occur only when "the technology being implemented is new, [. . .] open-ended and customizable" as Orlikowski and Hofman (1997, p. 18) argue, although clearly such technologies invite further modifications, customization, and local adaptation. Ongoing change and improvisation is a fundamental feature of all change programs. Barrett et al. (1995), for example, described the introduction of Total Quality (TQ) in the computer and telecommunication command of the U.S. Navy in the early 1990s. Their analysis shows how even in a machine bureaucracy such as the Navy, a change program acquires its own momentum and is continually modified and adapted by those involved in it. Rather than a change program, such as the introduction of TQ, changing something specific in an anticipated way, it actually opens up possibilities for ongoing changes, some anticipated and some not. Notice how Barrett et al. (1995) describe the unfolding of changes made possible by the TQ program: "When an enlisted person at the telecommunications command hears that he or she is encouraged to offer suggestions for process improvements, he or she may interpret this as an opportunity to make suggestions about the work schedule and ask that the organization consider a flex time program. (Or it might trigger nothing at all). As others discuss or ignore the suggestion as useful or irrelevant, members begin to extend various versions of process improvement: Perhaps it is now legitimate to suggest changes in task design without fear of jumping the chain of command" (p. 367).

There is a common thread in both preceding illustrations: Change programs trigger ongoing change; they provide the discursive resources for making certain things possible, although what exactly will happen remains uncertain when a change program is initiated—It must first be experienced before the possibilities it opens up are appreciated and taken up (if they are taken up). Change programs are *made* to work and, insofar as this happens, they are locally adapted, improvised, and elaborated by human agents; institutionalized categories are imaginatively extended when put into action.

If this is accepted what is, then, the meaning of "planned change?" For several theorists focussing on

change at the level of the organization (as opposed to populations of organizations or organizational fields), change has been taken to mean that which occurs as a consequence of deliberate managerial action. In the view put forward here, such a definition is limited (cf. Orlikowski and Hofman 1997). Although managers certainly aim at changing established ways of thinking and acting through implementing particular plans, nonetheless change in organizations occurs without necessarily intentional managerial action as a result of individuals trying to accommodate new experiences and realize new possibilities. On the view suggested here, an excessive preoccupation with planned change risks failing to recognize the *always already*-changing texture of organizations.

Then, what is, the role of managerial intentionality? To paraphrase Wittgenstein (1958), managers need to clear their vision to *see* what is going on and, at the same time, help fashion a coherent and desirable *pattern* out of what is going on. As Burgelman (1983, 1988), Kanter (1983), and Frohman (1997), among others, have shown, change in organizations often occurs locally when certain individuals reflect on their circumstances and experiences and decide to intervene to change organizational policies and systems. Whether local changes are amplified and become institutionalized depends on the "structural context," created to a large extent, as Burgelman (1983) has convincingly demonstrated, by senior managers. Looking at change from within, managers need to be attentive to the historically shaped interpretive codes (i.e., the discursive template) underlying organizational practices, and how such codes and the associated practices mutate over time as a result of individuals' attempting to cope with new experiences. In short, managers need to refine their sensitivity to be able to *perceive* subtle differences.

From this view, deliberate intervention acquires a new meaning. It is not so much focussing on the realization of a particular change plan as intended, as seeing the change plan as a new discursive template—a set of new interpretive codes—which enables a novel way of talking and acting. A new discursive template such as, for example, the introduction of TQ in the U.S. Navy works *recursively*: It allows some of the *already ongoing changes* to be amplified, thus reinforcing the new set of interpretive codes, which, in turn, are likely to further facilitate novel practices (Barrett et al. 1995, Keeney 1983). Whereas within the old discursive template, junior officers' ideas and suggestions were bureaucratically handled (e.g., they would be channelled in a very time-consuming and frustrating manner through the chain of command), after the launch of the TQ it was discursively possible for junior officers to attach different attributions

to talk about their suggestions (Barrett et al. 1995, p. 363). Whereas before unsolicited suggestions tended to be viewed as nuisance and a bypassing of the chain of command, they now gained legitimacy as a part of "participation" and "continuous improvement"—two key values (interpetive codes) in the new TQ discourse. At the very minimum such practices could not be frowned upon as easily as before.

Moreover, for the first time it became possible for junior officers to discuss the manner in which "upper management looks at ideas" (Barret et al. 1995, p. 363). That was not possible before because "looking at ideas" was not part of the discursive template in the Navy and, therefore, was not thought to be part of upper management's job. Through upholding the values of "empowerment," "participation," and "continuous improvement," the new discursive template of TQ provided certain junior officers with the resources to reinterpret their experiences and furnished a common language to enable individuals to heedfully interrelate their actions. Junior officers in the Navy always put forward suggestions, always adapted orders received to their local circumstances, but it was only after the introduction of TQ and its associated new discourse that such subtle changes were brought into focus, amplified, and earned legitimacy.

According to the approach adopted here, managerial interventions are not external to the organization, but are another locally realized act expressed in language. A manager is as much an agent of change as everybody else is, the only important difference being that a manger is endowed with "declarative powers" (Taylor and Van Every 2000, p. 143). The power to "declare" is to be institutionally empowered to bring about "a change in the world by representing it as having been changed" (Searle 1998, p. 150). In other words, a new state of affairs is created by the successful carrying out of a declarative statement (e.g., "you are fired," "you do this," "we will buy this system," "we will adopt this reward system") (Searle 1995, p. 34). Being endowed with declarative powers, managers are *ex officio* in a privileged position to introduce a new discursive template that will make it possible for organizational members to notice new things, make fresh distinctions, see new connections, and have novel experiences, which they will seek to accommodate by reweaving their webs of beliefs and desires (Morgan 1997, pp. 263–270; Weick and Quinn 1999, p. 380). However, seen from the perspective of ongoing change, the introduction of a new discursive template is only the beginning of the journey of change or, to be more precise, it is a punctuation of the flow of organizational life. As the illustrations of Zeta and the Navy show, managerial intentions are best understood as an author's text, which

is interpreted and further reinterpreted by those it addresses, depending on the interpretive codes and the local circumstances of its addressees.

If the argument advanced in this paper is accepted, namely if change is indeed an ongoing process in organizations, how can it be squared with what is known about organizational inertia and resistance to change? As has been well documented by relevant research, organizational routines, systems, and strategies tend to persist, even when there is strong evidence that they should change (Argyris 1990, 1992; Miller 1982, 1993; Cyert and March 1963; Hannan and Freeman 1984; Levitt and March 1988). Our argument in this paper has been that there are ongoing processes of change *in* organizations. That, however, should not be taken to mean that *organizations* constantly change. The local initiatives, improvisations, and modifications individuals engage in may go unrecognized; opportunities may not be officially taken up, imaginative extensions may not break through existing organizational culture—in short, local adaptations may never become institutionalized (Goodman and Dean 1982). If we focus our attention only on what becomes institutionalized, an approach largely assumed by synoptic accounts of organizational change, we risk missing all the subterranean, microscopic changes that always go on in the bowels of organizations, changes that may never acquire the status of formal organizational systems and routines but are no less important.

As Wittgenstein might have argued, the source of the confusion that "change in organizations" may be taken to necessarily mean "organizational change" is language— The expression "organizational change" is used to refer to both phenomena. Organizations are both sites of continuously changing human action (hence our argument that to the extent that individuals try to accommodate new experiences, change occurs constantly in organizations) *and* sets of institutionalized categories (hence the organizational inertia and resistance to change several researchers have documented). The statement "organizations tend to resist change" is a shorthand expression for saying that change initiatives, either locally or centrally undertaken, remain "improvisations" or plans, without becoming institutionalized. If, however, we were to take an ethnographic look at what is really going on *in* organizations, as Boden (1994), Barley (1986), Feldman (2000), and Orlikowski (1996) did, we would most likely see some sort of Brownian motion taking place, with actors constantly reweaving their webs of beliefs and actions to accommodate new experiences. It is because the human mind is not like a computer that human *experiences* are cognitively significant, and the accommodation of new experiences is a practically important task (Reed

1996, Tenkasi and Boland 1993, Varela et al. 1991). Whether the reweaving of individual webs of beliefs and habits of action leads to microscopic changes becoming *organizational* is a different issue. It may or may not happen, or, to be more precise, the extent to which it happens is an interesting topic for empirical research and further theoretical development.

In the view proposed here, organization scientists need to give theoretical priority to *microscopic* change. As hopefully has been shown in this paper, such change occurs naturally, incrementally, and inexorably through "creep," "slippage," and "drift" as well as natural "spread." It is subtle, agglomerative, often subterranean, heterogeneous, and often surprising. It spreads like a patch of oil. Microscopic change takes place by adaptation, variations, restless expansion, and opportunistic conquests. Microscopic change reflects the actual becoming of things (Chia 1999). Looking at change in organizations from within, that is noticing how organizational members reweave their webs of beliefs and habits of action in response to local circumstances and new experiences and how managers influence and intervene into the stream of organizational actions, is a perspective organizational scientists must take if they are determined to convey a sense of the organizational flow. Needless to say, capturing and making sense of the cognitive, political, and cultural dynamics of such a process of organizational becoming is extremely important (Pettigrew 1992). For this to happen we need to see organizations both as quasi-stable structures (i.e., sets of institutionalized categories) *and* as sites of human action in which, through the ongoing agency of organizational members, organization emerges.

Acknowledgments

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