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Leading Innovation in a Creative Milieu

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Abstract

This paper explores the interplay between creativity and innovation as well as constructs of leading organizational innovation. In doing so, a variety of metaphors and symbols are used to describe what amounts to variations on a theme of differentiation and integration in an organizational system. The crux of this paper's argument is that leading innovation is fundamentally an integrative task of managing the endogenous tensions and differences of any social system by ensuring a healthy level of dissonance that disrupts routine action that would otherwise constrain creative practices. Traditional management techniques emphasize alignment and standard practices as a means of maintaining organizational equilibrium. Inadvertently, these practices eliminate variation, which is required to produce useful novelty. Purposefully introducing constructive conflict to the workplace by intentionally disrupting routine practices to trigger sensemaking responses can achieve this. An organization's work environment - metaphorically akin to the qualities of a jazz ensemble - can purposefully signal these values of constructive conflict through settings that are intentionally designed to encourage a milieu of diversity characterized by mixed knowledge, skills, and perspectives. Existing organizational research rooted in the Competing Values Framework provides a road map for constructing this creative milieu and leading innovation in contemporary organizations..

Keywords: *creativity, Innovation, workplace, improvisation, sensemaking*

INTRODUCTION

This paper explores the interplay between creativity and innovation as well as constructs of leading organizational innovation. In doing so, a variety of metaphors and symbols are used to describe what amounts to variations on a theme of differentiation and integration in an organizational system. The crux of this paper's argument is that leading innovation is fundamentally an integrative task of managing the endogenous tensions and constructive conflict of viewpoints of any social system by ensuring a healthy level of dissonance that disrupts routine action that would otherwise constrain creative practices. The Competing Values Framework (CVF) is a model that serves as an anchor for understanding these endogenous tensions. Through its practical application, the CVF has been leveraged as a useful tool for diagnosing and managing cultural differences that underlie an organization's approach to innovation.

Dissonance and disruption can be healthy if it is embedded in an environment where people experience meaning in their work and where leaders signal that creative action is an acceptable solution for dealing with the resultant flux. Building the capa-

bilities and competencies for organizational innovation requires the systemization of creative risk-taking in which leaders create an environment in which failure is tolerated to the extent that it provides positive learning experiences that strengthen the organization and make it more resilient. These environments metaphorically resemble the improvised qualities of a jazz ensemble where ambiguity and flux are managed and where diverse viewpoints and talents are coordinated to yield – not only innovative, but – resilient organizations.

Finally, the settings where people work, interact, and share ideas also support creative work and organizational innovation. The CVF is a useful construct for understanding the social architecture of organizations, but the spatial architecture of organizations is another fertile area for understanding how people and ideas intersect in everyday settings. The CVF urges leaders to adopt strategies for encouraging practices that nurture creativity, and many contemporary work environments are increasingly reflecting this shift from rigid bureaucracy to creative adaptability.

CREATIVITY AND INNOVATION

The words *creativity* and *innovation* reflect a relationship between individuals and the collective organizational context. *Creativity* is defined here as an individual expression of novel insight. Amabile, et al. (2005) deconstructed the definition of creativity by building on existing theories offered by Campbell (1960) and Simonton (1999). Amabile et al. argue that novelty is a feature that distinguishes creative work from work that is simply useful or practical. The availability and recombination of knowledge and cognitive inputs provides the individual with the insight to judge the usefulness and novelty of new ideas against existing ones.

Amabile et al. (2005) also provide some guidance on how creativity relates to organizational innovation. Once an individual cognitively judges the novelty of a particular idea and externalizes it, other individuals bear the responsibility for evaluating and either confirming or disconfirming its novelty and usefulness. "Once an idea has been selected by the creator, developed, and communicated, there is often a second selection process by relevant individuals in a social group or intellectual community" (Amabile, et al., 2005, p. 369). Here we argue is where creativity ends and innovation begins. An organization could function as the "social group or intellectual community" described in this definition. The people in an organization who have responsibility of creating value for stakeholders are in a position to judge the novelty and usefulness of the insight of one of its members. Organizational innovation is recognized from individual creativity to the extent that the insight that is produced creates organizational value. In essence, the goals and strategies of an organization provide a template against which an idea's novelty and usefulness can be evaluated.

For this paper, *innovation* is defined as an organizational expression of value creation derived from creativity (Cameron, Quinn, DeGraff, and Thakor, 2006). Innovation can manifest and can be expressed in such outputs as a new technology, a product, a process, or some other solution. An innovation can express a new form of value in an incremental way or a in radically different and breakthrough way. The latter might express a greater amount of individual creative (or novel) input than the former. Nevertheless, both outcomes reflect new ways of applying knowledge to create value. Workplace creativity and innovation are the extent to which individual skills, knowledge, and insight are amplified at the organizational level through leadership and coordination. The verb *innovate* reflects an integrative process at an organizational level in which novelty is expressed through the unique combinations of the insights produced from individual creativity (see von Krogh, Ichijo, and Nonaka, 2000; Amabile, et al, 1996; Gardner, 1993; Simonton, 1983).

COMPETING VALUES AND VALUE CREATION

Innovation is an organizational expression of value creation. However organizations and units within them adopt different approaches to pursuing innovation and express value in different ways (Thakor, 2000). More often than not, organizational leaders differ in their approach to leading innovation in that they pursue different strategies for creating value. The *Competing Values Framework* (CVF) (Cameron, Quinn, DeGraff, and Thakor, 2006;

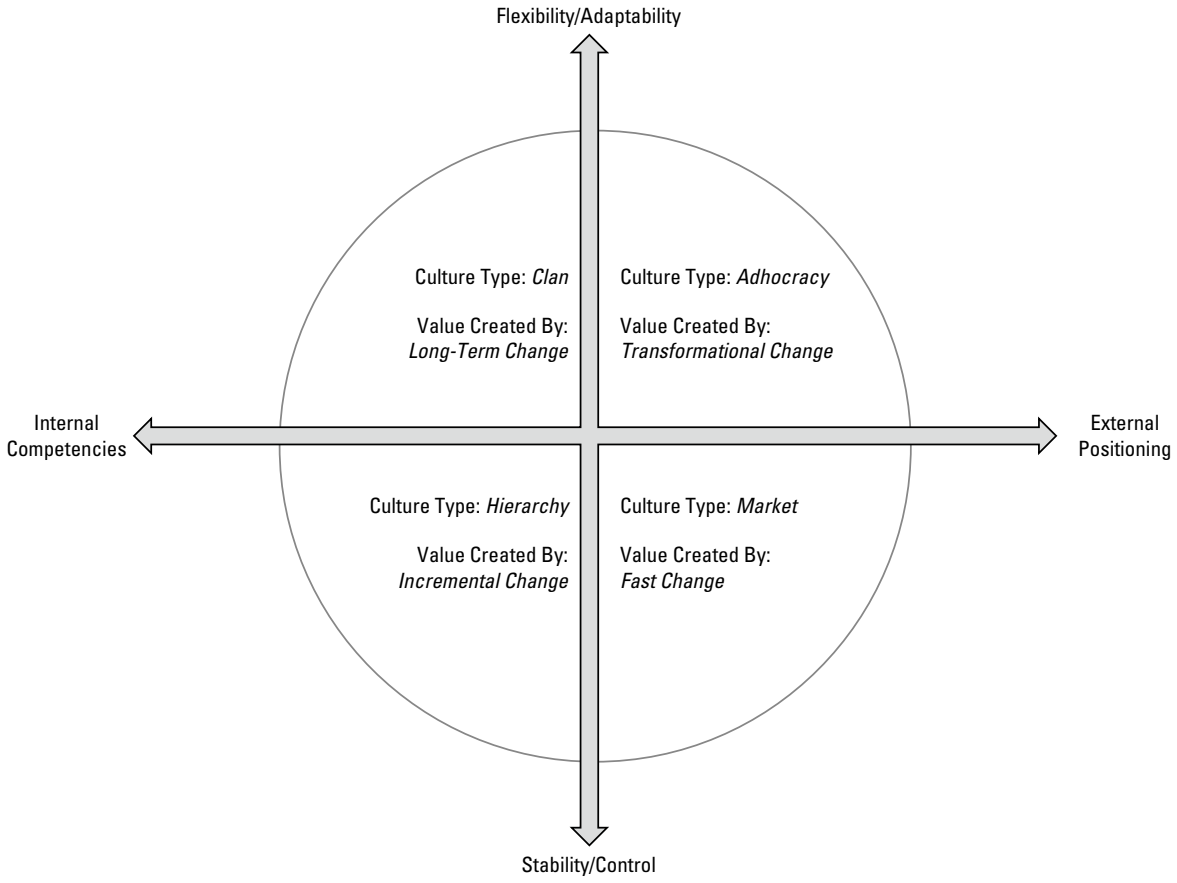

Figure 1: Competing Values Framework

O'Neill and Quinn, 1993; Quinn and Rohrbaugh, 1983) is a construct for describing how innovation differs across organizations based on disparate approaches to and priorities around value creation. These differences are rooted in cultural variation, variation among the skills and competencies of people within an organization, and the variation among routine practices within organizations. The CVF emerged from research on organizational effectiveness that described how leaders differ in their definitions of successful organizational performance (Quinn and Rohrbaugh, 1983). The research found that competing definitions of effectiveness were grounded in tensions around prioritizing short-term versus long-term priorities; as well as tensions around prioritizing internally facing, competency building priorities and externally facing, market positioning priorities.

Ongoing research around the CVF and insight from its practical application in a diverse array of global organizations has yielded insight around the importance of leadership in the recognition and management of endogenous tensions (DeGraff and Quinn, 2007; Cameron and Quinn, 2006). By managing these tensions, leaders direct energy away from the unhealthy differences among people and refocus organizational energy on the healthy acceptance of differences among ideas (see Daneels, 2008). A healthy level of intellectual dissonance is a necessary prerequisite for innovation – an argument that will be explored in subsequent sections of this paper.

The CVF has emerged as a model to describe differences in creativity (DeGraff and Lawrence, 2002) and organizational innovation (DeGraff and Quinn, 2007; Cameron, Quinn, DeGraff, and Thakor, 2002). Its contribution builds upon existing creativity research in that it describes the different

ways in which people evaluate the novelty or usefulness of an idea or insight based on criteria established within a community, organization, or other social system (Amabile, et al., 2005). The model then provides a framework for leading innovation in that maps the different ways in which organizations derive and express some new form of value yielded from one's creativity.

The CVF captures two sets of fundamental tensions in organizations and other social systems. The first is the tension between flexibility and adaptability on one end, and stability and control on the other end. The second is the tension between strategic external positioning on one end, and strategic internal competency building on the other end. These tensions result in a four-quadrant framework (Figure 1) differences in organizational culture, practices, and approach to value creation. The framework provides a standard against which ideas and insights are deemed sufficiently creative to align with organizational norms around how value is created and expressed.

The fundamental challenge for organizational leaders is to recognize that there is no single preferred way for value to be created and sustained over time. Therefore, leading innovation is a task that involves ensuring equilibrium around these tensions and cultivating a work environment that navigates the messy constructive conflict of ideas (Danneels, 2008) within the organization. From a practical perspective, the reward for doing so is a creative milieu where people openly explore and share ideas and are open to different ways of judging the value of creative behavior. Leaders who cultivate this milieu are further rewarded with agile organizations that are better positioned to compete in the marketplace and respond to changing external conditions.

METAPHORS FOR LEADING INNOVATION

Leading innovation encompasses processes and practices that create an ecosystem in which creativity is nurtured, innovations are produced, and new forms of value are created. Metaphorically, leading organizational innovation is akin to the improvised qualities that characterize a jazz music performance (Drucker, 1969; Weick 1998; Zack, 2000). Although some elements of jazz improvisation are highly variable and reflective of individual talent, a leader bears the responsibility of ensuring a truly innovative performance by orchestrating successful transitions throughout the overall composition while facilitating a sufficient level of creative permutations and deviations. Weick (1998) applies the jazz improvisation metaphor to organizations. "The jazz musician, who creates form retrospectively, builds something that is recognizable from whatever is at hand, contributes to an emerging structure being built by the group in which he or she is playing, and creates possibilities for the other players" (p. 547). A "mistake" in jazz improvisation paves the way for "saves" just as it does in an organization. A "save" reflects creative action, and it implies that a risk has been taken that may have deviated from norms and expectations (Mainemelis, 2010) and transformed into an opportunity for learning and growth. Jazz is akin to continuous sensemaking where a leader has no time to pause but instead must continuously act in creative ways that reflect ongoing awareness to change (Humphreys, Ucbasaran, and Lockett, 2012; Weick, 2012). Leading innovation in an organizational setting is a negotiation among routine and disruption, divergence and convergence, harmony and dissonance, and reflect a translation of errors into opportunities.

A case in point is creative process known as the "sweatbox" that Walt Disney employed with his animation team at the Walt Disney Studios. Disney reviewed the daily production footage of his feature animated films in the cramp quarters under the stairs in his original Burbank, California studio. Animators critiqued the work of their peers along with Disney who reportedly played them against each other to push artistic and storytelling boundaries. While this approach to innovation produced animosity among the animators particularly toward Disney it also arguably produced some of the finest animated films ever released (Gabler, 2007).

Fischer and Boynton (2005) use a similar musical metaphor – *virtuoso teams* – to describe the process of leading innovation. When leading a group of highly talented and creative individuals (or "virtuosos"), one important strategy for maximizing their collective performance is forcing these individuals into close physical proximity and getting them to jointly confront each other with their

ideas. Instead of isolating individual knowledge and skill, organizations have learned the value of situating people in mixed settings where people and their ideas can flourish. These individuals will differ in what they think is an ideal path to value creation, but leading virtuoso teams involves recognizing when one path to value creation is appropriate at any given point in time and recognizing that these paths are fluid.

Similarly, Leonard and Sensiper (1998) use the term *creative abrasion* to define this phenomenon in which a "cacophony of perspectives" yields innovative outcomes and new forms of value in organizational settings. While creative abrasion is a necessary step for ensuring that new ideas continuously emerge, coordination and sorting are necessary for turning ideas into value. Ogle (2007) argues that creativity and innovation are really a function of assimilation. "Creative leaps are fundamentally a navigation problem (don't waste time inventing it – it's out there somewhere; *just find it and integrate it*) (p. 239, author's italics). In this fluid and networked setting, trust emerges as a key organizing principle that smooths the abrasiveness that occurs when individuals with little awareness of each other's viewpoints collide (McEvily, Perrone, and Zaheer, 2003). An individual with boundary spanning knowledge may broker a key relationship between parties where a creative spark might not otherwise ignite out of fear of unfamiliarity or distrust.

Danneels (2008) separates personal conflict from idea conflict and argues that the presence of the latter is organizationally desirable. He defines *constructive conflict* as the "vigorous debate of ideas, beliefs, and assumptions by organization members" (p. 523) and frames the meaning of this construct around ideas rather than people. That is, constructive conflict is about the exchange of divergent ideas where people welcome healthy debate without succumbing to personal attacks or otherwise *dysfunctional conflict*. The author's empirical study of U.S. manufacturing argues that constructive conflict is positively associated with marketing and R&D competence in exploring new avenues for business growth.

The mixing of knowledge and perspectives is fundamentally important for driving the innovation process because it also forces a continuous renegotiation of the social structures and inter-personal patterns of interaction that are necessary for sustaining innovation. New ideas emerge when people creatively apply their knowledge and skills in unfamiliar settings rather than in settings characterized by redundant social relationships where assumptions are less likely to be challenged (Sewell, 1992).

CULTURE AND AGILITY

Leading innovation necessitates building a sufficient level of healthy creative tension into an organizational social system and increasing its agility through accommodating reactions to change and enabling it to enacting of new opportunities. Agile organizations reflect fluid rather than fixed priorities. The natural rhythm of projects and shifting targets characterize agile organizing principles (see Bauer, 2007). A mix of fluid organizational knowledge and responsiveness to situational complexities is characteristic of organizational ambidexterity (O'Reilly and Tushman, 2011; Nonaka and von Krogh, 2009; Gibson and Birkinshaw, 2004). Ambidexterity and agility can position and organization as more situationally innovative and responsive to market vicissitudes and broader challenges that would otherwise hinder performance and affect survivability.

Agile organizations are resilient and embrace creative means for dealing with equivocality. Creative tensions increase the equivocality of situations and, consequently, trigger different sensemaking patterns, force people to readjust their goals, and compel people to modify and re-enact possible new creative courses of action (Ford, 1996; Weick, 1995). An organization that creates opportunities for people to continuously re-enact creative new courses of action toughens its social system and makes it more resilient to equivocality, flux, disruptions, and the natural rhythms of exogenous change. While ongoing equivocality and change can stress people in a social system, leaders who manage the endogenous tensions *within* an organization will enable it to better adapt to the world around it.

Culture is an important variable for discerning organizations based on the extent to which they express shared learnings and common assumptions around how to leverage knowledge-driven differ-

ences as well as how to integrate knowledge (Schein, 1992). Consequently, cultural differences among organizations reflect different approaches to leading innovation

Continued research around the Competing Values Framework and its application in organizations has further argued that these fundamental tensions manifest at different levels of organizational social systems. Just as tensions manifest at the organizational level around meta level goals and strategies, they also manifest at the team or project level as tensions in the nature of work practices. They also manifest at the individual level as tensions among individual goals, values, and competencies. In essence, research from the CVF perspective argues that alignment among tensions present in organizational, team, and individual level goals and practices should be managed. However managing tensions should not be confused by the elimination of them. Shedding people or eliminating projects that misalign with an organization's short-term goals can detrimentally compromise the potential for long-term innovation and growth. Organizations whose structures, norms, and routines rigidly converge without allowing for requisite variety or sufficient variation to accommodate for contextual or environmental variation or disruptions risk having overly redundant knowledge, insufficient knowledge, or limited resiliency that enable agile adaptation to change (Vogus and Welbourne, 2003; Dougherty, 2001; McEvily and Zaheer, 1999; Mintzberg, 1989; Weick, 1979; Lawrence and Lorsch, 1967).

A case in point is the hybrid electric vehicle. During the 1960's and 1970's divisions of General Motors developed the essential components of the hybrid electric vehicle such as the hybrid drivetrain, electric motor and regenerative braking system (Rajashekara, 1994). In 1990 GM created a prototype electric vehicle that went into limited production by the middle of the decade as the EV1 electric car. The vehicle project suffered from quality, pricing and marketing challenges typically associated with the launch of a disruptive technology. GM discontinued the EV1 series in the late 1990's, approximately at the same time Toyota introduced its own hybrid electric vehicle, the Prius (Anderson and Anderson, 2010). GM's abandonment of the EV1 project reflected the challenges of a complex organization in coordinating its competing values (Deeter and Paine, 2006). The same organization that possesses the competency and culture to create a radical innovation may lack the ability to move it through its complex bureaucracy or systematically sustain it over time. The opportunities that are gained from the first mover advantage of disruptive innovators are lost to fast followers.

CREATIVE DEFAMILIARIZATION AND ROUTINIZING MINDFULNESS

Another facet of leading organizational innovation is the recognition of the ways in which actions shape and are shaped by routines. The presence of intellectual differences, divergent perspectives, and disruptions to routines shapes a creative atmosphere through the defamiliarizing qualities of experiences that arouse peoples' minds to explore new possibilities and ideas. Weick, Sutcliffe, and Obstfeld (2005) cogently argue that "much of organizational life is routine and made up of situations that do not demand our full attention" (p. 415). In other words, we often live our lives among series of routines, which are guided by the latency of our tacit knowledge (Nonaka and von Krogh, 2009; Nelson and Winter, 1982). On the one hand, routines can express sophisticated knowledge and intelligent routines (imagine the knowledge embedded in a complex surgical procedure). On the other hand, routines can trap us and express stagnant and misguided ideas (imagine Wall Street firms circa 2008). Routines are familiar and express knowledge at-hand. A break from routine disrupts familiarity and represents knowledge that is not yet learned or defined. We can perfect that which is familiar, but the unfamiliar is messy, imperfect, and arouses or minds to make sense of the new. *Mindfulness*, as a conscious willingness to avoid simplified assumptions about the world, and it is a means for disrupting routines and causing defamiliarity (Weick and Sutcliffe, 2006).

Disrupting routines is a strategy that organizational leaders can take to ensure a healthy level of constructive conflict, which can expose people to new ideas, trigger new insights and ideas that a more diverse mix of people will favourably judge, and ultimately impact the creation of new forms of

value. While some organizations may exhibit a great deal of creative behavior as reflected in the actions of their individuals, the cultural norms and values of organizations may limit risk taking and creative behavior to the boundaries of what is deemed acceptable within that cultural framework. Shifting from otherwise incremental creative activity to more radical forms of creative activity necessitates a leader's willingness to enable risk taking, discourage non-routine behavior, and provide resources that encourage exploration of new knowledge (see Madjar, Greenberg, and Chen, 2011).

Creativity, in part, relies on constant movement between the familiar and the unfamiliar, and a willingness to routinize defamiliarization. Wagoner (2008) refers to social creativity, which is a way to provoke movement of unfamiliar ideas among people or situations.

> "This situation occurs when (1) something radically new comes into the group from outside, so that we must struggle to find a setting and explanation for this new thing (making the unfamiliar familiar), or (2) we take a thing out of its conventional setting and explanation and represent it in a new incongruity context (making the familiar unfamiliar)" (Wagoner, 2008, p. 469).

Similarly, new knowledge arises when assumptions are confronted by unfamiliar situations or people in unfamiliar settings (Sewell, 1992). One strategy for reacting to this unfamiliarity is to resort our knowledge and seek novel explanations or ask new questions that trigger creative action. The design firm IDEO has a rule that a team member can't be assigned to a new project that is similar to one they've worked on during the previous year (Kelley and Littman, 2001). In this way, IDEO has routinized defamiliarization to encourage creative approaches to the design of new products.

In another example, Brooklyn-based start-up Loosecubes connects individual freelance and entrepreneurial workers with spaces at organizations that host such individuals in their workplaces. Loosecubes was founded on a mission of connecting people and changing the way that people work by making the experience of work more flexible, collaborative, and community-oriented. Defamiliarizaion is a virtue in the Loosecubes model. Individual workers who "loosecube" at a host organization workplace are limited to do so three days per month at any one place. This rule exists in order to connect more people to one another by avoiding any one host workplace from becoming too embedded in an individual's routine. Thus, the Loosecubes model builds community by disrupting routines and encouraging the building of more social and professional ties among greater numbers of individual workers and host organizations.

Defamiliarization from what one knows is not the same as disregarding what one knows. Intelligent defamiliarization requires an incorporation of existing knowledge around unfamiliar concepts and ideas. This triggers our inherent sensemaking abilities and allows us to creatively construct new knowledge. Similarly, Ogle (2007) refers to this as *analogical reasoning*. "This typically involves not analysis, but rather the imaginative and insightful transfer of whole patterns of knowledge from a familiar domain to one whose structure and character are less well defined, for the sake of making sense and thus creating a new understanding" (p. 3). Wagoner (2008) offers some insight into the psychological mechanisms that enable our minds to do this.

> "To be known, a thing has to be situated within the field of representations. Society provides us with conventional linkages between representations and things, which are triggered instantaneously and proceed rapidly along a set pathway when experiencing. With the creative use of discourse we can, however, create novel linkages between things and representations, in order to generate new perspectives and meanings on that thing and elaborate the representation. Novel combinations of things and representations disable automatic pathways in experiencing, forcing us to additional meditational work in order to schematize the two together" (Wagoner, 2008, p. 472).

Defamiliarizing experiences embody certain sublime qualities that arouse the mind and trigger a

variety of somatic and cognitive responses, which enable us to confront the experience and arrive at some form of new meaning (Shusterman, 2005). The sublime disrupts routines and can trigger mood-altering experiences that arouse the body and mind to construct new meanings about the world. It catalyzes the imagination. Moderate levels of physiological arousal enable us to integrate new sources of information and consider alternative conclusions to situations (De Breu, Baas, and Nustad, 2008). Thus, the sublime defamiliarizes us and ignites creative responses that trigger the imagination.

LESSENING BUREAUCRATIC GRIP AND REDISCOVERING THE MEANING OF WORK

People who derive meaning from their work will naturally and more easily invest effort in it (Gardner, Csikszentmihaly, and Damon, 2001). When people ascribe meaning to their work, work becomes an extension of the self. Meaningful work gives people a reason to take creative risks. Therefore, nurturing meaningful work is a mechanism through which leading innovation happens. As organizations shift from bureaucratic and tightly coupled forms to flexible and loosely coupled forms, leaders will witness a greater level of self-authorizing behavior that affords individuals more meaning and control over their work and heightens their creative output. Self-authorizing behavior reflects higher degrees of an organization's trust in peoples' abilities to effectively do their work. Contemporary work environments reflect these new flexible organizational forms where people are engaging in more meaningful work. For example, search engine giant Google asks employees to spend 20% of their time and resources on projects that are of personal interest to encourage them to integrate their individual passions and make their creative work more meaningful (Elgin, 2005).

Hierarchies and networks reflect two different forms of organization that are regulated, respectively, by authority and trust. Adler (2001) argues that hierarchical forms of organization are characterized by division of labor and task specialization, which are regulated by authority that stems from the leveraging of scarce knowledge and decision-making control (see also Taylor, 1911; Durkheim, 1893 [1997]). In contrast, contemporary organizations are characterized by specialized knowledge that flows through loosely coupled individuals linked through networks that are mediated by trust. Trust is an important organizing principle for contemporary knowledge organizations where innovation stems from activities that occur among brokered relationships within looser networks of highly skilled and creative individuals (McEvily, Perrone, and Zaheer, 2003). As organizations are increasingly less defined by where people work and more by what they do, the interests they express, and the projects in which they are involved, the presence of trust is an important precondition for innovation in that it frees people to work how and when it is most productive for them to do so – inspiring creative behavior when people are prone to pursue it and when it is most individually meaningful (Amabile, et al, 1996; Amabile and Gitomer, 1984).

CREATIVE WORK SETTINGS

The most explicit manifestation of leading innovation according to the constructs explored so far – creative tensions; agility; defamiliarization; mindfulness; flexibility; and meaningful work – are the practices of many contemporary organizations and the spatial environments where creative work happens. As organizational leaders are increasingly compelled to "lead innovation" and "drive growth," there is a growing awareness in the design of work environments that encourage creative behavior and provide leaders with the appropriate settings for pursuing value-producing innovation.

Contemporary practice around creativity and innovation in the workplace reflects progressive thought around the nature of work and the ways in which work has been organized and structured – socially and spatially – over time (Chan, Beckman, and Lawrence, 2007). The history of the office workplace reflects the shift from tight organizational coupling of people, activities, and space to loose coupling. This shift from tight to loose coupling also reflects a broader evolution of industrial organization. Duffy (2008) argues that the shifting design of workplaces throughout the twentieth century and into the twenty-first century reflects the loosening of bureaucratic control in organizational systems. Consequently, these changes reflect

changing perspectives around the necessary preconditions for innovative performance. Duffy's account of the trajectory of workplace design demonstrates how office layouts have evolved from cellular spaces that reinforce division of labour and rigid hierarchies (Taylor, 1911; Durkheim, 1893 [1997]) to flexible networked spaces that serve integrated groups of people across disciplines and functions and that accommodate a rich variety of work patterns and creative behaviours.

Work settings impact the ways in which people interact and communicate, and the design of the spatial environment can influence certain types of communication that nurture creative behavior. Allen and Henn (2007) identify three types of workplace communication and the different purposes they serve. *Communication for information* ensures that people are kept abreast of rapidly changing technical insights. *Communication for coordination* ensures alignment among organizational units. *Communication for inspiration* ensures that people have access to non-routine information that enables them to explore ideas and create new knowledge. The authors emphasize the latter form of communication and its importance for nurturing creativity. While traditional work settings with assigned seats that are arranged by department or function reinforce bureaucratic structures and ensure information to maximize coordination, contemporary work settings with few or no assigned seats and open plan designs ensure maximum inspiration and access to divergent knowledge.

Contemporary organizations increasingly recognize that a work environment can shape creative behavior that leads to continuous innovation and value creation. Organizations are recognizing the importance of integrating divergent knowledge and stimulating creative tensions in environments that force people from the comforts of their routines and into experiences that arouse new insights and stimulate creative behavior. Changes that support a more jazz-like social milieu are increasingly reflected in the design of organizational workplaces. Feldman and Pentland (2003) note that organizational routines are characterized by ostensive aspects (rules, procedures, and artifacts that symbolize routines) and performative aspects (actions, improvisations, and self-reflections). Workplaces reflect both the ostensive and performative aspects of organizational routines and invite interplay between them. The range of flexibility within spatial layouts can reinforce or undermine routinized activities. The spatial layouts of workplaces reflect codified routines (i.e. formal meeting rooms), and they can function as artifacts of routines. Likewise, spatial layouts that are sufficiently flexible (i.e. unassigned workstations, social hubs, and other "buzz zones") can nurture performative aspects of routines by providing people with the agency to enact a variety of fluid activity patterns.

Although *buzz* is a colloquial term often used to describe creatively stimulating environments, others have deconstructed its meaning. In their research on geographic clusters of innovation and economic activity, Bathelt, Malmberg, and Maskell (2004) define it as, "the information and communication ecology created by face-to-face contact, co-presence, and co-location of people and firms within the same industry and place or region" (p. 38). The other qualities of buzz they describe include, "specific information and continuous updates of this information, intended and unanticipated learning processes in organized and accidental meetings" (p. 38). The milieu of an environment characterized by buzz further supports creative activity in that it can provide people with immediate feedback on their ideas. Immediate feedback lessens the anxiety over trying something new, which can further stimulate creative risk taking and exploration of new ideas (Mainemelis, 2001).

Leaders bear the responsibility for creating an atmosphere where risk taking, feedback, and learning are tolerated and encouraged. Risk taking, tolerance for mistakes, and learning are important parts of the innovation process (Edmondson, 2008; Kanter, 2006). Consequently, people need permission to fail and room to learn from failures. People require *a safe space* where they can take creative risks without the fear of retaliation or punishment. A safe space can be a literal physical place where people go to improvise, brainstorm, scrum, or retreat in order to escape routines and be inspired. More importantly, social components underlie an effective safe space – for example, a community or cohort of innovators who mutually reinforce members' participation in legitimate practices around

the exploration of new knowledge and ideas (Crossan and Sorrenti, 1997; Lave and Wenger, 1991).

Workplace design also matters because it is a tangible manifestation of organizational culture and values. Facets of organizational culture – as represented through the Competing Values Framework (Cameron, Quinn, DeGraff, and Thakor, 2006) – have even gone as far as influencing the design of workplaces where creativity is practiced and innovation is pursued (Weinstein, 2010). As organizations increasingly loosen their legacy bureaucratic structures in favor of more loosely coupled and networked forms of interaction and knowledge flow, new workplaces are reflecting shifting attitudes around the relationship between flexible work practices and innovation.

> "To innovate means to break away from established patterns. Thus the innovative organization cannot rely on any form of standardization for coordination. In other words, it must avoid all the trappings of bureaucratic structure, notably sharp divisions of labor, extensive unit differentiation, highly formalized behaviors, and an emphasis on planning and control systems. Above all, it must remain flexible" (Mintzberg, 1989, p. 199).

Workplace designs also reflect deliberate efforts by organizational leaders to signal their desire to capture the entrepreneurial and creative spirit of start-up company culture. One of the findings of applying Competing Values research to organizational evolution (Quinn and Cameron, 1983) is that organizations mature along a similar cultural trajectory in which flexible, fast-moving, and less-disciplined organizational practices eventually yield to more systemized, optimized, and slower-adapting organizational practices. This evolutionary pattern reflects the realities of institutional pressures to which many young organizations eventually conform as they grow and seek legitimacy in the marketplace (Rutherford and Buller, 2007; Zimmerman and Zeitz, 2002; Aldrich and Fiol, 1994; Pfeffer, 1976). Maturing companies adopt norms that are driven by the needs and pressures of their stakeholders – namely venture capitalists, customers, and regulators. These institutional pressures influence (and limit) the actions of organizational participants (Freeman and Engel, 2007; DiMaggio and Powell. 1983; Berger and Luckmann, 1966). Contemporary workplaces reflect the strategies of mature companies to symbolically and organizationally recapture the energy of start-up companies through the incorporation of design features that increase leadership transparency and accessibility; incorporate symbols of work and organizational values; and integrate people with divergent knowledge and roles.

Elements of workplace design can also reflect the meaning people ascribe to their work, which reinforces the value associated with creative risk-taking. The organizational milieu is constructed of a variety of roles, functions, skills, and knowledge that collide in highly agile workplaces. A typical organizational work environment is laden with symbols and artifacts that convey meaning about the nature of work and symbolize organizational practices and purposes. Everyday objects convey knowledge and meaning (Norman, 1988 [2002]; Sudjic, 2009), and many objects found in workplaces represent opportunities for sharing information and insight among groups. *Boundary objects* (Carlile, 2004) such as posters, signs, design prototypes, customer images, workflow diagrams, schematic drawings, and countless other workplace artifacts stimulate idea sharing, questioning, and conversation in the rhythm of organizational discourse within and among groups. They reflect meaningful work to the extent that they symbolize shared goals, achievements, and pride in the output of work. They also stimulate meaningful interaction and collective sensemaking across groups with different roles and responsibilities (Weick, 1995). Through their expression of shared organizational language and symbolism of common goals, boundary objects serve as a means of communicating work across different groups while representing work in ways that are meaningful for others without specialized knowledge to grasp (Kellogg, Orlikowski, and Yates, 2006).

The culture types and different approaches to value creation that are captured in the Competing Values Framework offer managers a template for influencing the design of work settings. While some

work settings can incorporate open floor plans (no offices and few enclosed rooms) and no seat assignments to maximize flexibility and spontaneity, assigned seats and a higher level of enclosed spaces can reinforce certain levels of stability and formality. Likewise, a heavily "branded" setting that incorporates elements of the organization's customers, products, and services as boundary objects throughout the space can signal an organization's strategic external positioning. However, a setting that incorporates aspects of the team culture and spaces for learning and development can signal the organization's inward focus, values, and competencies. Design elements are not necessarily deterministic, and there are multiple ways to incorporate each of them into the design of work setting in order to maximize creativity and innovation. Yet this represents a ripe area for further research, as it is a variable that can be manipulated for the purposes of influencing organizational practices that nurture creativity.

CONCLUSIONS AND IMPLICATIONS

Traditional management techniques emphasize alignment and standard practices as a means of maintaining the organization's equilibrium. Inadvertently, these practices eliminate variation, which is required to produce useful novelty. In order to innovate, the organization must find means and ways to deviate from its standard modalities of management. Purposefully introducing constructive conflict to conventional management practices and by intentionally disrupting routine practices can achieve this. An organization's work environment can purposefully signal these values of constructive conflict through settings that are intentionally designed to encourage a milieu of diversity characterized by mixed knowledge, skills, and perspectives. But more importantly, leading innovation requires giving people permission to explore in the midst of diversity, take creative risks, and learn from failure. In doing so, the social system of the organization – its people – strengthens itself and builds resiliency that seeds the capabilities for long-term innovation.

Personal creativity has become an important cornerstone to organizational innovation. The observable and functional differences between creativity and innovation are becoming increasingly blurred and reflect the gap between normative research descriptions and organizational practices. The accommodation of meaningful work and a workplace that supports both personal and institutional creativity are becoming increasingly common and salient aspects of the contemporary innovation focused organization.

Using the Competing Values Framework, the organization can be seen as having four distinct cultures and commensurate set of competences, each pursuing specific and conflicting value propositions. In the case of organizational innovation, one size seldom fits all. A wide array of creative practices is essential to manage innovation through the various stages of development. Furthermore, disparate types of culture and competencies are required at each of these stages. The positive tension that arises from these differences is essential to drive traditional habit bound practices to better and new ones. How an organization creates will largely determine what it creates.

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