Resilience in Organizations

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INTRODUCTION

The theme of resilience is gaining traction in the fields of management and organization. Hamel and Valikangas (2003, p.52) justified this interest by explaining that “the world is becoming turbulent faster than organizations are becoming resilient”. Hence, understanding and cultivating resilience matters. Resilience is becoming acknowledged as a crucial organizational capability, a critical competence to bounce back after experiencing major surprises, stress or crises. Considering that organizations and their members are confronted at some point of their existence with crisis (Roux-Dufort, 2007), economic stress (Klehe, Van Vianen & Zikic, 2012), and “ugly” surprises (Weick & Sutcliffe, 2001), cultivating resilience should constitute a major preoccupation so that organizations not only survive but emerge stronger after crisis (Mitroff, 2005). In fact, research indicates that resilience-rich agents are more prepared to create sustainable approaches towards their problems and to preserve adaptive capacity (Zolli & Healy, 2012), than resilience-poor units, which may make choices that unintentionally but consistently lead them to collapse (Diamond, 2005).

The importance of resilience is also supported by the perception that organizations do now operate in a risk society (Beck, 1999), facing both man-made disasters such as nuclear power plant accidents or oil spills (Goldberg & Harzog, 1996), and natural disasters such as hurricanes and floods, that put their survival to the test. These causes have led to the growing awareness of the need to incorporate resilience in the organizational studies agenda. We discuss resilience as the result of interaction richness and suggest that resilient individuals, teams, organizations, and communities thrive on the creation of an infrastructure of rich interactions that activates structural elements in

DEFINITIONS AND SCOPE

Vulnerability, the opposite of resilience (Whiteman & Cooper, 2011), results from the fact that actor's sensemaking capacity is exceeded by feedback coming from the environment. When this imbalance occurs, agents feel unable to match the challenges confronting them and may become progressively rigid and unable to express adaptive capability. Vulnerability is a dangerous condition because it progressively decouples an organization from its environment and increasing its rigidity in face of threats. Rigidity may sometimes be positive as a response to crisis but by closing the organization upon its habits and routines, it may lead to less than optimal responses.

Resilience, on the contrary, refers to the maintenance of positive adjustment in a significantly evolving context (Sutcliffe & Vogus, 2003). It has been presented as “a dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti & Becker, 2000). Two forms of understanding resilience have been distinguished. One refers to *reactive resilience*, representing a passive view of resilience, as in Bridges' (1995: 5) definition: “the ability to bend and not to break”. In this case, resilience is a form of absorptive capacity, the capacity to appreciate, transform and utilize knowledge for adaptive purposes (Zahra & George, 2002), eventually changing the organization. Another form, *active resilience*, refers to the cultivated preparedness to cope with surprise in anticipation, and to deal with negative occurrences as sources of organizational growth (Clair & Dufresne, 2007; Hamel & Valikangas, 2003). Here, resilience is an act of anticipation and active waiting (Sull, 2005). In the first case, resilience refers to survival in the face of threat; in the second, it refers to the ability and the availability to grow with challenge, and to transform the organization in response to environmental shifts (Gilbert, Eyring, & Foster, 2012).

To understand the process within or across levels, it is important to consider that “social resilience is about the relationships that help us find resources when we need them” (McGonigal, 2012, p.38). Positive relationships inside the team create opportunities to expand behavioral repertoire and to confront challenges in a mindful way.

Organizationally, resilience has been associated with social capital, relationships that can be activated as resources (Gittell & Douglass, 2012) and that allow the organization as a unit to respond to challenges in a purposeful, and mindful way rather than resorting to rigid, acquired and standard behaviors that non-resilient systems express under threat (Weick, 1993). As we discussed, resilience thrives on relations and positive interactions; it is the presence of these interactions that allows a system to express the capacity to adapt in face of challenges that are unexpected or that transcend the ordinary. The capacity to manage the unexpected in a sure and affirmative way has initially been associated, understandably, with high reliability organizations (Vogus & Sutcliffe, 2012). But recent research is showing that this capacity is relevant for any system, because the unexpected is something to be expected in the life of any organization.

Distinguishing resilience from related constructs

Resilience shares some characteristics but also has differences with related constructs (see table 1). Resilience differs from adaptability. *Adaptability* means the capacity to reestablish a state of fit with a changing environment (Chakravarthy, 1982).

Organizations may regain adaptation without expressing resilience, for example via restructuring. Resilience differs from agility. *Agility* has been conceptualized as the capacity to rapidly express and execute new dynamic moves. Organizations can develop fast strategies (Doz & Kosonen, 2008) without expressing resilience, via time

Most of the above concepts may partly overlap with resilience or be involved in the creation of resilience. However they all differ from resilience in both its active or reactive forms. Resilience involves the capacity to positively adjust a system, to recognize limitations and imperfections, to reconfigure processes and to go beyond established processes in a dynamic expression of organizational adjustment that cannot be fully established in advance.

RESILIENCE: SINGLE LEVEL ANALYSES

As organization theorists have explained, the knowledge residing at one level in an organization does not automatically travel to other levels, above or below. For example, pockets of experts in an organization may be able to see a surprise coming, one that is not perceived or considered relevant by other experts in other parts of the organization. The way these experts interact with other experts will be decisive in terms of the action taken – or not taken. This process has been well explored by organizational researchers in the now classical case of the Challenger launch decision (Vaughan, 1996; Starbuck & Farjoun, 2005). Experts at Thiokol were aware of the risks but were not able to influence the top decision makers at NASA. The same happened at NASA when Rodney Rocha was unable to voice his concerns about operational safety, letting a major problem lead to disaster (Edmondson, 2012, pp.115-116). Research shows that the failure to address problems results from possible causes including: attempts to reduce uncertainty (Tsoukas, 2005) that progressively decouple the organization from the undesired uncertainty creating processes; a focus on efficiency that results in the assumption that improvements of existing processes are enough to adapt the organization rather than the need to change existing processes (Starbuck & Milliken, 1988); protection from the environment as a source of danger, rather than from

Resilience is a core feature of the positive psychological capital construct (Luthans, Youssef, & Avolio, 2007). Resilient people are able “to overcome, steer through, bounce back and reach out to pursue new knowledge and experiences, deeper relationships with others and [find] meaning in life” (Luthans, Youssef, & Avolio, 2007, 123). Research suggests that resilience relates to workplace performance (Caverley, 2005; Coutu, 2002; Luthans et al., 2005; Luthans, Vogelgesang, & Lester, 2006; Waite & Richardson, 2004) as well as to a number of other coping processes, such as employability (Chen & Lim, 2012).

The individual level of analysis is very important because an understanding of what differentiates resilient individuals from other provides a useful starting point for defining resilient at higher levels. Studies on individual resilience have demonstrated that resilience is related to problem-solving capabilities, favorable perceptions, positive reinforcement, and strong faith (Zolli & Healy, 2012). Findings about individual-level resilience demonstrate that resilience is a capability that can be developed deliberately. Therefore, it can be targeted for system’s intervention.

The interaction component. The presence of rich interactions is of growing importance to organizations dependent on their human capital (Gratton & Ghoshal, 2003). In these organizations the importance of interactions increases as the need for detailed job designs decreases. Small task jobs, sometimes called “microwork” (Gino & Staats, 2012) can be transferred to less complex job markets where the people do not have the skills or the expertise to do complex knowledge work. Given the growing focus on change and adaptability, knowledge-based organizations are investing less in

mistakes to individuals (Deming, 1982), and by attenuating the disadvantages of hierarchy in unstable environments (Anderson & Brown, 2010).

The interaction component. Resilient teams are rich in interactions of various sorts. Research shows that they have more and more diversified internal connections, not necessarily mediated by the leader. In other words, members of these teams feel that they have the freedom to connect with one another without the intervention of the leader (Pentland, 2012). This creates richer interactive patterns. In addition, more resilient groups are probably more connected to other teams, inside the organization and out (Ancona, Bresman, & Kaeufer, 2002). These connections allow them to gain more access to resources of various sorts, which in turn increases their potential effectiveness.

Resilience at the organizational level

As an organizational attribute, resilience results from the understanding that organizations have to confront two primary functions to increase their chances of survival. On the one hand, they have to be able to respond to present challenges that confront them and that emerged unexpectedly (Weick & Sutcliffe, 2001). On the other hand, they have to transform themselves to be able to navigate and prepare the organization to fundamental organizational shifts (Garud, Kumaraswamy & Sambamurthy, 2006). Preparing for future jolts without considering present danger is as limited as responding to present threats without trying to anticipate and to endogenize predictable shifts.

The interaction component. Interaction is critical to sustain organizational resilience. Garud et al.'s (2006) study of the transformation of Infosys illustrates the importance of interactions for the cultivation of resilience at the level of organizations. These authors highlight the importance of clear goals, namely a purpose that orients organizational action. Second, in this firm, fundamental change was represented internally as “an opportunity to transform the company” (p.279). Third, Infosys emphasized decentralized decision making and a culture of “learnability”. Critical for “learnability” to occur is an “asking culture” and the nurturance of an interactive infrastructure, distilled in rules such as the one that establishes that “if you can help someone, you should” (p.280), the notion that employees should stay “in touch”, and the importance of the creation of “binding aspects” (p.280), in whose absence learnability would be just an empty word. The whole process is fueled by the habit of inquiring (e.g., asking “why” or “why not” within “framing experiments”)

Holographic effects

As noted by Lengnick-Hall, Beck, and Lengnick-Hall (2011: 247), “resilient organizations are not managed hierarchically. Instead, they rely on self-organization, dispersed influence, individual and group accountability, and similar factors that create a ‘holographic’ structure (Morgan, 1997), where each part is a fractional replica of the whole organization”. Sutcliffe and Vogus (2001, p.101) considered the existence of parallel resilience processes across levels. According to a holographic hypothesis, some common elements can be found at multiple levels. Our literature review allows the extraction of the following assumptions. First, resilience starts with external challenging conditions – real (in the case of reactive resilience) or potential (in the case of active

connections between successive levels (see Figure 2). Before that we note that higher level capabilities are not only additive composites of capabilities expressed at some lower level. Micro-actions matter to define the emergence of system behaviors but interaction effects are equally important (Morgeson & Hofman, 1999).

Figure 2 about here

Active resilience

Active resilience refers to the cultivated preparedness to cope with significant adversity. In our model, active resilience is: (1) induced by the organization itself and in this sense a relatively enduring organizational attribute; (2) cultivated from the top down as a cultural trait; (3) a process that articulates lower levels with higher levels: individuals with groups, and groups with organizations. Active resilience is less an exercise in hierarchy than a culture of proactivity supported by culture and management. This macro approach materializes in a culture of positive interaction and is supported by leaders: “leaders use supporting to show positive regard, build cooperative relationships, and help people cope with stressful situations” (Yukl, 2012, p. 71). Without supporting leadership practices, cultural messages will not translate into action and not lead to resilience.

Individual to group: Positive interactions

Individuals may activate resilience possibilities by creating and sustaining positive relationships as a normal and recurrent pattern of action. As Losada and Heaphy (2004: 761) pointed out, “relationships and the quality of connections (Dutton & Heaphy, 2003) affect organizational processes”. These authors suggested that good interactions

Group to organization: Organizational learning

Teams can be used to cultivate organizational resilience as the preferential locus for organizational learning (Edmondson, 2012). Because teams embedded in the hierarchy frequently operate within the constraints established by the current rules, in some cases organizations develop teams with the mission of countering inertial pressures and existing assumptions to facilitate learning and preparedness for change.

The literature offers several examples of these types of groups operating at the boundaries of the existing organization, with the aim of reimagining some organization processes in preparation to external shocks. Informal project teams coordinated with the formal structure, may be used to go beyond the status quo and help the organization in thinking about the future, increasing preparedness and flexing change processes (Kotter, 2012). Groups have also been designed to explore the organization's periphery, the space outside organizational attention where threats and opportunities silently incubate, without capturing the organization's attention (Day & Schoemaker, 2004; Cunha & Chia, 2007). Their role is to alert the organization to possibilities yet to be explored and to impede the organization from trapping itself into exploitative dynamics (March, 1991) that will render the organization progressively simpler (Miller, 1993) in an increasingly complex and turbulent organizational environment (D'Aveni, 1995). As suggested by previous work by Weick and Sutcliffe (2001), groups may also increase resilience by tracking small failures, creating situational awareness and a developed sensitivity to operations. Organizations can thus become more proficient in anticipating and tackling surprises by shifting decision to groups closer to the problem rather than by recurring to the hierarchy to do so.

to unexpected changes. It synthesizes planning and execution in a way that increases resilience via a bias for action. By creating structures and cultures supportive of improvisation (Eisenhardt, Furr & Bingham, 2010; Barrett, 2012), organizations develop the capacity of responding to threats with flexibility, instead of relying on standard procedures. From this we derive another proposition:

Proposition 3: Improvisation by groups will facilitate resilience by equipping teams inside the organization with the skill of responding to unexpected changes without the benefit of planning – instead of inducing them to wait from instructions from the hierarchy.

Group to individual: Psychological safety

Resilience is supported by the relationships that help people activate the resources they need when they are necessary. It is favored by interactions that strengthen social relationships helping to cope with stressful circumstances (Lyubomirsky, Sheldon & Schkade, 2005). Studies on social resilience have highlighted the effects of processes such as gratitude (Grant & Gino, 2010), human touch (Fuller et al., 2011), helping (Schein, 2009), and expressing tolerance to failure (Edmondson, 2012), and developing habits of positive connecting with others (Losada & Heaphy, 2004). All these elements may be fundamental to the creation of psychological safety. This is a group process that, while preserving individual accountability, presents the team as a social net against adversity and reaction failure. Resilience is favored by psychological safety, “individuals’ perceptions regarding the consequences of interpersonal risks in their work environment” (Edmondson, 2012, p. 146), because individuals feel that the team is a safe place to face risks. Because resilience, as the process of facing adversity, is

analyzed them as cross-level processes. In some cases, organizations are able to transfer resilience skills from one level to the next, increasing the resilience of the system as a whole; in other cases, inter-level barriers prevent the organization from responding to dramatic changes. When it happens, the resilience of some parts of the organization may not spill over to other parts. When it happens, the resilience at some levels is not matched by equivalent levels of resilience at other levels of the system.

Implications for future research

The construct of resilience is still a recent entry into the organizational vocabulary. Research is therefore necessary to better define its meaning in organizations, including the trait vs dynamic process (Luthar et al., 2000) and the testing of the holographic hypothesis advanced by authors such as Lengnick-Hall et al. (2011). In addition, our model captures four cross-level forms of interaction that may help to explain resilience in organizations. But many other interactions may be considered that are not in the model. Of these we highlight four.

Individual to individual. This type of interaction is central to the processes of personal development at work, including coaching and mentoring relations. In these processes, the fact that one feels supported increase capacity to act. Coaches energize relationships and counter feelings of isolation and loneliness: this is critical at several levels of analysis including newcomers but also experienced leaders such as CEOs. This possibility has been explored by authors such as Masten (2001) and Hallowell (1999), who indicated that positive, constructive relationships equip individuals under strain with the psychological resources that increase their resilience.

participation on a certain domain may be related to the accomplishment of role-related expectations leading to higher satisfaction across the work and family domains (Grzywacz & Carlson, 2007). To that aim, Lengnick-Hall et al.'s (2011) work on organizational resilience may be applied it to other systems: families and communities. Accordingly, a system's capacity for developing resilience is dependent on a blend of a system level cognitive, behavioral and contextual capabilities and routines. Cognitive elements include a sense of purpose, core values, genuine vision, and a deliberate use of language. These elements help building constructive sensemaking. Behavioral elements include learned resourcefulness, counterintuitive agility, useful habits, and behavioral preparedness. Contextual elements refer to psychological safety, deep social capital, diffuse power and accountability, broad resource networks.

Implications for practice

We explored the process of resilience in organizational contexts. The analysis offers a number of practical possibilities for general managers and for human resource managers (HRM), in particular, in a knowledge economy that raises a number of new HRM challenges (Lengnick-Hall & Lengnick-Hall, 2003), including the construction of responsiveness (Colbert & Kurucz, 2011). In fact, creating resilience may be a central preoccupation for creating high-performance work systems in rapidly changing environments. Some dimensions of high-performance work systems are clearly aligned with the development of resilience namely team-based management, decentralization and empowerment, and flexible HRM practices (Boxall & Macky, 2009). A deliberate and explicit focus on resilience opens a number of significant HRM opportunities. Here we explore possibilities revealed by positive interactions, organizational learning, improvisation, and psychological safety.

explanatory possibility for this type of advantage consists in the added resilience that empowered teams bring to organizations when used to explore new possibilities.

Empowerment offers a sense of control that stimulates the desire for learning and problem-solving (Spreitzer & Porath, 2012).

Improvisation. Improvisation has been presented as a “core skill” for the resilient organization (Coutu, 2002, p. 55). To facilitate improvisation organizations may cultivate cultures that express appreciation for improvised action (Barrett, 2012).

Improvisation is often perceived as dangerous and risky, which means that honing and developing this skill is a precondition for teams to act impromptu in face of challenges.

Second, they will have to empower teams to make decisions on behalf of the organization. Improvisation does not occur spontaneously in traditional hierarchies.

Hierarchies have many advantages but also significant limitations (Anderson & Brown, 2010), including slowness in responding to change. Another facilitator of improvisation is the diffusion of strategy throughout the organization so that people can strategize while improvising. This goes against the traditional strategy/execution gap, but to thrive in turbulent environments organizations will possibly need to decentralize strategy and to empower employees as “strategizers” in addressing emergent problems in real time.

Psychological safety. Finally organizations should cultivate psychological safety.

Without psychological safety, people may not contribute to identify and expose problems: “psychological safety is critical for diagnosis (...) Without it, people may not be speaking up about the problems and errors they know exist” (Edmondson, 2012, p.244). They can do so by nurturing the idea that errors are sources of learning (MacPhail & Edmondson, 2012) and by creating caring cultures (Spreitzer & Porath,

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		robust organizational architecture (Miller, 1993). They may be hard to bend but, submitted to the required amounts of pressure, they may break rather than express resilience.	
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Figure 2. Cross-level interactions

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