Handbook of Research on Leadership and Creativity

Edited by

Michael D. Mumford

Professor, University of Oklahoma, USA

Sven Hemlin

Professor Emeritus, University of Gothenburg, Sweden

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7. Leadership's role in creative climate creation

Scott G. Isaksen

Given the pressures relating to change, complexity, and competition, many organizational leaders proclaim the importance of innovation. However, organizational innovation requires the management of creativity (Isaksen & Tidd, 2006). Creativity is the making and communicating of meaningful new connections and ideas. Innovation is the application and implementation of these insights. In order to meet the innovation challenge, leaders must be able to manage for both creativity and innovation. A challenge is that only 13 percent of the global workforce is actually engaged (O'Boyle & Harter, 2013). Engagement of employees is key to eliciting the discretionary effort, energy, and hard work required for organizational creativity and innovation.

There is general agreement that work environment, and climate for creativity in particular, contributes to organizational performance (Harter, Schmidt, & Hayes, 2002; Kotter & Heskett, 1992; Kuenzi & Schminke, 2009). Leaders play a crucial role in creating the work environment that either facilitates or inhibits creativity and innovation – critical factors for organizational performance and growth. In fact, some research has indicated that the most important thing leaders can do is create the context for creativity and innovation to flourish (Denti & Hemlin, 2012; Eisenbeiss, Van Knippenberg, & Boerner, 2008; Ekvall & Ryhammer, 1998; Isaksen & Akkermans, 2011). It is time to get serious about this responsibility.

The purpose of this chapter is to make some important conceptual distinctions and present a framework that includes critical dimensions of the creative climate and elements of the work environment that leaders can consider in meeting this responsibility. Once the distinctions are made, each dimension and element of the model will be defined, selected empirical literature will be provided to support its consideration, and preliminary illustrative recommendations for leaders will be identified to put into practice.

CLARIFYING THE CONSTRUCTS

Before turning our attention to how leaders affect the climate, we need to make a few important distinctions. Much of the literature uses the terms organizational milieu, work context or environment, organizational culture and organizational climate interchangeably. Organizational context and work environment are the most inclusive constructs as they refer to the broader setting, situation, or the total surroundings of the organization (Meusburger, 2009). Organizational culture and climate are generally conceived as being a part of the context or work environment, and there is now support for making clear distinctions between them (Cooper, Cartwright & Earley, 2001; Ostroff, Kinicki, & Tamkins, 2003; Peterson & Fischer, 2004), and appreciating how their literatures might be integrated (Denison, 1996; Ehrhart, Schneider, & Macey, 2014).

For the purposes of this chapter, climate is defined as recurring and observable patterns

of behavior that characterize life within the organization or team – it's what people experience. Culture is defined as values, beliefs, and traditions, reflecting the deeper foundations of the organizations – it's what the organization values. In this way, culture is treated as an antecedent to climate (Ehrhart et al., 2014).

Since climate is more directly observable, and is based on patterns of behavior, it is more amenable to deliberate change efforts. Thus, this chapter will focus on how leaders can impact their work climate, rather than changing their culture.

Rather than approaching an all-inclusive or molar conception of work environment, many climate researchers have focused on specific aspects and strategic outcomes of organizations (i.e., climates for safety, justice, service, etc.). Schneider (1975) and Schneider and Reichers (1983) have argued that since there are many different types of climates, it was more productive to take a facet-specific or referent approach – answering the "Climate for what?" question. The focus of this chapter is on the strategic facet of climate for creativity and innovation.

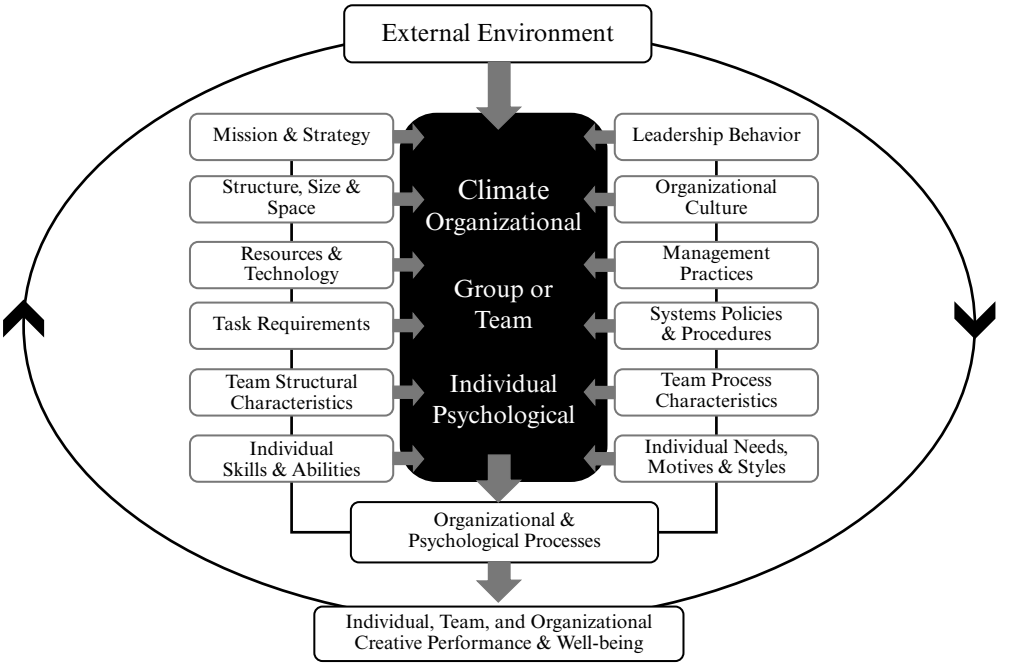
Taking this facet-specific approach has promoted a great deal of progress, but so many diverse aspects and findings have made synthetic integration difficult (Kuenzi & Schminke, 2009). Even when the focus is on a particular facet, the confusion surrounding the terms work environment, climate, and culture makes it difficult to synthesize and integrate findings.

To make matters even more complex, the climate for creativity is a multi-level construct. It can be examined and assessed at the individual psychological level (James et al., 2007), the group or team level of analysis (Anderson & West, 1998), and at an organizational level (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Leaders can exert an influence at each of these levels.

Climate has also been treated in many different ways within the literature. It has been treated as an independent (Carr, Schmidt, Ford, & DeShon, 2003; Turnipseed, 1994), intervening (Carmeli, Sheaffer, Binyamin, Reiter-Palmon, & Shimoni, 2013), and dependent variable (Hsu & Fan, 2010). For the purposes of this chapter, we will treat the climate for creativity, at all its levels, as an intervening construct.

FACTORS INFLUENCING CLIMATE: A MODEL OF ORGANIZATIONAL CREATIVITY

Many factors influence the climate for creativity. Many different models of the work environment have been proposed in the literature including a diversity of factors (Amabile, 1988; Ford, 1996; Woodman, Sawyer, & Griffin, 1993, among others). The model presented below has its origins in the work of Göran Ekvall, a Swedish industrial psychologist. The model he initially proposed (Ekvall, 1983, 1996) considered the climate for creativity as an intervening variable affected by numerous antecedent factors. Climate has direct effects on numerous organizational and psychological processes such as problem solving and decision making (Ford & Gioia, 2000; Qualls & Puto, 1989), learning and information sharing (Hammami, Amara, & Landry, 2013; Samad, 2010; Sundgren, Dimenas, Gustafsson, & Selart, 2005), communication (González-Romá & Hernández, 2014; Muchinsky, 1977) and managing projects (Hannevik, Lone, Bjørklund, Bjørkli, & Hoff, 2014). These organizational and psychological processes ultimately affect individual



Source: Isaksen, Lauer, Ekvall, & Britz (2001). Based on the work of Ekvall (1996).

Figure 7.1 A climate-centric model for organizational creativity

(Rasulzada & Dackert, 2009), team (Somech & Drach-Zahavy, 2013), organizational creative performance (Dul & Ceylan, 2014), and well-being on a global level (Übius, Alas, & Elenurm, 2013). Ekvall placed the climate within the broader context of the workplace for creativity.

We (Isaksen, Lauer, Ekvall, & Britz, 2001) collaborated with Ekvall to update his original conceptual model to include additional antecedent factors. Based on numerous multi-method studies and reviews of literature, we continued to strengthen the comprehensiveness of the model (Isaksen, 2013) aimed at coherent complexity. These efforts were in response to Amabile's (1988) call for models to include all aspects of organizations that affect creativity and innovation and West's (2002) call to attend to characteristics of groups and teams. The model above (Figure 7.1) reflects the most current version, and will be used in this chapter to illustrate how leaders can engage in climate creation.

The model for organizational creativity outlines numerous antecedents that have an effect on individual psychological, team, and organizational climate. These variables can be considered leadership levers that can be considered as venues for climate creation. The elements of the model closer to the external environment can be seen as more transformational. We will turn first to leadership behavior, as this is the main focus of the chapter.

LEADERSHIP BEHAVIOR

Leadership behavior, in the context of creativity and innovation, includes any actions initiated by leaders aimed at the transformative aspects of the organization. Acts of leadership occur whenever strategic problems are solved, decisions are made, or information exchanges result in actions. Leadership behavior has high visibility to individuals in the organization and impacts the climate especially during times of change. Leadership occurs at varying levels and in varying roles. Leaders may be senior managers, supervisors, and others who hold formal positions of influence or those who demonstrate an informal influence on others. For the purposes of this chapter, leadership is considered more as a relationship – behavioral interaction – particularly when creativity is required. Further, leadership behavior is dynamic and the focus may shift for different phases of the creative process.

Leadership behavior has a major influence on the perceptions people have about the climate through their direct decision-making and how their behavior is perceived and observed by others. Leaders can directly or indirectly affect the climate for creativity. Leadership behavior can directly influence the dimensions of a climate for creativity. Leaders can also indirectly influence climate by focusing on the other elements of the work environment.

Leadership – Direct Influences

Leaders have a direct influence on the climate for creativity (Amabile, Schatzel, Moneta, & Kramer, 2004), as well as organizational outcomes related to creativity and innovation (Dul & Ceylan, 2014; Ekvall & Ryhammer, 1999; Elenkov & Manev, 2005).

Given the increased interest in creativity in the workplace, we have seen numerous comprehensive reviews (Montag, Maertz, & Baer, 2012; Zhou and Hoever, 2014; Zhou & Shalley, 2003), as well as reviews outlining the work environment factors encouraging or inhibiting creativity (Hunter & Cushenbery, 2011; Mumford, 2000; Mumford, Scott, Gaddis, & Strange, 2002; Shalley & Gilson, 2004; Shalley, Zhou, & Oldham, 2004; Waples & Friedrich, 2011). It is outside the scope of this chapter to provide a detailed review of the reviews. Instead, we will focus on how the leader exerts influence on the dimensions of the creative climate, integrating many of the findings from the reviews.

There is little agreement on the nature and number of dimensions comprising a climate for creativity (Koys and DeCotiis, 1991). For example, Hunter, Bedell, and Mumford (2005) found more than 40 different conceptualizations of a climate for creativity. Based on their review of the literature, they developed a taxonomy including 14 climate dimensions. Further, if we apply the definition of climate provided above, many of the dimensions should be considered antecedents to climate – and not climate itself. For example, Hunter et al. (2005) identified the availability of resources to facilitate, encourage, and implement creative ideas as a dimension of climate. We agree that availability of resources would influence climate, but we would consider it an antecedent rather than a dimension of climate itself.

Based on Ekvall's foundational work to identify climate dimensions able to discriminate between innovative and stagnated organizations (Ekvall, 1983, 1996), we have identified nine dimensions of climate that have been applied at the individual psychological

(Isaksen & Lauer, 2001), team (Isaksen & Lauer, 2002), and organizational (Isaksen, 2007) levels of analysis. These dimensions have been able to distinguish: levels of leadership support for innovation (Isaksen & Akkermans, 2011); between best- and worst-case work environments (Isaksen et al., 2001); and to predict higher perceived levels of support for organizational creativity and innovation (Rasulzada & Dackert, 2009). The dimensions correlate significantly, and in expected directions, with the Survey of Creative and Innovative Performance (Puccio, Treffinger, & Talbot, 1995), and an earlier version of KEYS – the Work Environment Inventory (Ryhammer, 1996). The dimensions have also been shown to discriminate climates that are more stress free and have higher levels of job satisfaction (Ślusarczyk, 2005; Talbot, Cooper & Barrow, 1992; Turnipseed, 1994). Each of the dimensions will be defined below, along with a highlighted summary of selected research supporting that dimension followed by a few practical suggestions for leaders.

Challenge/involvement

Challenge and involvement is the degree to which people are involved and engaged in daily operations, long-term goals, and visions. High levels of challenge and involvement means that people are intrinsically motivated, and enthusiastically committed to making contributions to the success of the organization. The climate has a dynamic, electric, and inspiring quality. People find joy and meaningfulness in their work, and therefore, they invest much energy and immerse themselves in their work.

There is ample support for challenge and involvement as a dimension of creative climate (Kark & Carmeli, 2009). For example, Carmeli, Cohen-Meitar, and Elizur (2007) studied the influence of job challenge on employee creativity. They found that the extent to which employees perceived their job as challenging had a significant effect on their creative behavior. Further, they concluded that the degree to which employees perceived themselves belonging to the shared social context (identification) mediated this relationship. Employees who perceived their job as challenging tend to develop strong identification with their organization, which, in turn, translated into creative behavior. Other scholars have found similar results (Cohen-Meitar, Carmeli, & Waldman, 2009; Shalley, Gilson, & Blum, 2009). Mumford, Hunter, Eubanks, Bedell, and Murphy (2007) pointed out the importance of engaging people with intellectually and professionally challenging missions. Additional support comes from studies on flow at work (Fullagar & Kelloway, 2009; Salanova, Bakker, & Llorens, 2006). For example, Nielsen and Cleal (2010) examined the predictors of transient flow states at work characterized by complete immersion and enjoyment of work. They found that employees highly engaged in planning, problem solving and evaluation felt more challenge and involvement at work, as well as a greater sense of well-being.

Leaders can influence challenge and involvement by:

- actively involving others in goal and direction setting instead of developing goals and directions on their own and simply announcing them to others;
- demonstrating interest in developing careers of their people instead of only by focusing on advancing their own career;
- providing praise and recognition for significant achievements and productive performances versus ignoring those who made such contributions.

Freedom

Freedom is the independence in behavior exerted by the people in the organization. In a climate with much freedom, people are given autonomy to define much of their own work and are able to exercise discretion in their day-to-day activities. People take the initiative to acquire and share information, make plans and decisions about their work.

There is substantial literature to support freedom as a dimension of creative climate (Carmeli, Meitar, & Weisberg, 2006; D'Inverno & Luck, 2012). Volmer, Spurk, and Niessen (2012) found that the quality of relationships between employees and their leaders had a positive impact on employees' involvement in creative work, and granting job autonomy augmented this impact. Wang and Cheng (2010) studied the effects of benevolent leadership (a type of leadership prevalent in China) on creativity. They found that the relationship between this type of leadership and creativity was dependent on two moderators: creative role identity and job autonomy. Job autonomy was found to be the stronger moderator of this relationship. Sagiv, Arielli, Goldenberg, and Goldschmidt (2010) found that individual differences in cognitive style had an influence on the apparent contradiction between providing structure and granting freedom. Intuitive individuals were more creative in high freedom conditions and those individuals who prefer structured tasks could be as creative as intuitives if they were able to work in more structured situations – allowing them to search for and follow rules.

Leaders can influence freedom by:

- focusing on what needs to be done and why, but letting employees decide how to get things done instead of telling them how they should do it;
- checking on the status of assigned work at key milestones and offering guidance and assistance to overcome barriers instead of frequently checking the status of work and ensuring constituents are doing things the same way they would do it;
- finding out what interests their employees and allowing them to choose tasks within these areas instead of assigning tasks purely on who can do the best job.

Trust/openness

Trust and openness reflect the emotional safety in relationships. When there is a high level of trust, individuals can be genuinely open and frank with one another. People can count on each other for personal support. People have a sincere respect for one another and can be vulnerable based on positive expectations of others.

Leadership behavior has a direct effect on trust (Lau & Liden, 2008; Vinarski-Peretz & Carmeli, 2011), which in turn, affects creative performance (Barczak, Lassk, & Mulki, 2010; Carmeli & Spreitzer, 2009). Ellonen, Blomqvist, and Puumalainen (2008) examined three dimensions of trust including lateral (peer-to-peer), vertical (leaders), and institutional (organizational). They found that employees who trusted their leaders had higher degrees of behavioral innovativeness. Rodrigues and Veloso (2013) found similar results between higher levels of employee trust in their leaders and greater risk-oriented behavior when generating new ideas. Zhang and Zhou (2014) examined the effects of empowering leadership on creativity. Empowering leadership was defined as leaders expressing confidence in employees' abilities, involving them in decision making, removing barriers, and emphasizing the significance of the work they do. They found that simply increasing

empowering leadership behavior did not increase creativity if employees did not trust their leaders.

Leaders can influence trust and openness by:

- sharing information honestly and frequently, particularly during difficult times instead of sharing it sparingly and with a spin;
- genuinely caring for others and showing they care by respecting the dignity of every person versus only respecting those who can do something for the leader.
- addressing tough issues directly and confronting these issues courageously before they turn into major problems instead of evading them and focusing on distractions.

Idea time

Idea time is the amount of time people can use (and do use) for elaborating new ideas. In the high idea time situation, possibilities exist to discuss and test insights and fresh suggestions that are not planned or included in the task assignment. There are opportunities to take the time to explore and develop new ideas. Flexible timelines permit people to explore new avenues and alternatives.

The majority of research supporting idea time focuses more on the effects of time pressure. Further, the relationship between time pressure and creativity is complex (Hsu & Fan, 2010). As with other kinds of constraints, the effects of time pressure depends on how stress inducing the stressor is (Byron, Khazanchi, & Nazarian, 2010), resulting in constraints that can help or hinder creativity depending on other factors (Roskes, 2015). For example, Amabile, Hadley, and Kramer (2002) found that high time pressure resulted in lower levels of creative thinking, except for when employees were able to focus (immerse themselves in the task) or consider the time pressure as meaningful urgency. Noefer, Stegmaier, Molter, and Sonntag (2009) found a positive correlation between time pressure and idea generation, although positive feedback from leaders moderated this relationship. Baer and Oldham (2006) found that employees exhibited greater levels of creativity when they also experienced intermediate time pressure and received high levels of support from leaders and coworkers.

Leaders can influence idea time by:

- providing more time for tasks that demand non-routine work (but not too much) instead of assigning similar deadlines for routine and non-routine work;
- dedicating specific times for opportunity identification and idea-generation meetings versus asking employees to generate opportunities and ideas in addition to their day jobs;
- joining in when they see employees having a spontaneous conversation about exploring new ideas and telling them the appropriateness of these conversations versus sending verbal and non-verbal messages telling them to "get back to work."

Playfulness/humor

Playfulness and humor reflects the spontaneity and ease displayed within the workplace. A relaxed atmosphere where good-natured jokes and frequent laughter occur is indicative of this dimension. People can be seen having fun at work. The atmosphere is seen as easy-going and light-hearted.

The linkages of playfulness and humor with creativity have strong support in the literature (Holmes, 2007; Mainemelis & Ronson, 2006; O'Quin & Derks, 1997; Pryor, Singleton, Taneja, & Humphreys, 2010). There are different styles or types of humor. Romero and Cruthirds (2006) differentiated among affiliative, self-enhancing, aggressive, and self-defeating humor and proposed that self-enhancing and affiliative styles should be more conducive to creativity. Lang and Lee (2010) also provided differing styles of humor and found that liberating humor related positively to creativity while controlling humor produced a negative relationship. They also asserted that leadership plays a key interpretive role for humor, which was supported by an earlier study by Avolio, Howell, and Sosik (1999). Slatten, Svensson, and Sværi (2011) found that empowering leadership and humorous work climate had direct effects on creativity, and ultimately innovative behavior.

Leaders can influence playfulness and humor by:

- demonstrating playfulness and humor by smiling often and engaging in funny storytelling that relaxes employees and encourages informality instead of showing they are overly serious about their work;
- displaying personal and amusing visuals and artifacts in their offices to use as light-hearted conversation pieces and encouraging others to do the same versus focusing on standardizing all office spaces;
- consciously sharing the enjoyment they realize from work and encouraging their colleagues to do the same instead of keeping it undisclosed.

Conflict

Conflict is a negative dimension relating to the presence of personal and emotional tensions in the organization. Groups and single individuals dislike and may even hate each other when the level of conflict is high. The climate can be characterized by "interpersonal warfare." Plots, traps, power, and territory struggles are usual elements in the life of the organization. Personal differences yield gossip, slander, and bullying.

Research illustrates that, depending on its type and level, conflict may have positive or negative effects on creative climate and productivity (Chen, 2006; De Dreu & Nijstad, 2008; Gisbert-López, Verdú-Jover, & Gómez-Gras, 2014). The literature differentiates three types of conflict. Task conflict refers to disagreements or debates focused on work content. Emotional, relationship, or affective conflict is characterized by anger, aggression, frustration or hostility among individuals. Process conflict refers to disagreements over the approach to tasks or methods to be followed. Relationship conflict has been found to have a negative correlation with a climate for creativity (Isaksen & Ekvall, 2010; Mathisen, Einarsen, & Mykletun, 2008). Leaders have a variety of strategies at their disposal to manage the different types of conflict (Schulze, Stade, & Netzel, 2014).

Leaders can influence conflict by:

- setting clear expectations that gossip, slander, backbiting, bullying, and so on, are out of bounds and by modeling this behavior instead of focusing on the delivery of results and ignoring the interpersonal issues;
- focusing on resolving the conflict rather than focusing on the need to be right or "winning" the argument at all costs;

- working to keep people and problems distinct by identifying the source of tension or issue and maintaining a productive and positive personal working relationship instead of labeling those who have intense issues as "difficult."

Idea support

Idea support reflects the way new ideas are treated. In the supportive climate, ideas and suggestions are received in an attentive and professional way by bosses, peers, and subordinates. People listen to each other and encourage initiatives. Possibilities for trying out new ideas are created and the atmosphere is constructive and positive when considering new ideas.

An idea-supportive climate provides clear and positive influence on the front end of innovation (Bertels, Kleinschmidt, & Koen, 2011) and intensifies the relationship between creative self-efficacy and self-perceived creativity (DiLiello, Houghton, & Dawley, 2011). Madjar (2008) found that both emotional and informational support for creativity from internal and external sources had positive effects on employee creativity. Leaders play a highly influential role in the degree to which employees feel that their ideas are supported (Amabile et al., 2004; Kim, Hon, & Lee, 2010; Škerlavaj, Černe, & Dysvik, 2014). Leaders who have and share appropriate levels of knowledge and expertise are perceived as more credible in providing idea support (Hemlin & Olsson, 2011), as well as developmental evaluation of new ideas (Mumford, Medeiros, & Partlow, 2012). Champions also provide idea support by participating in idea generation, promotion, and building support from other organizational units (Howell & Boies, 2004).

Leaders can influence idea support by:

- generously listening to people when they offer new ideas and suggestions and by reinforcing the belief that ideas are the lifeblood of any organization versus putting people off when they offer new ideas and suggestions and treating this activity as a distraction from getting "real work" done;
- encouraging networking with others inside and outside the organization, which may help employees flesh out new ideas instead of treating every idea as though it was highly proprietary and discouraging people from building ideas with others;
- installing a deliberate process for idea management and harvesting new ideas instead of believing there is no need for formal or structured systems for managing idea generation and selection.

Debate

Debate is the occurrence of encounters and disagreements between viewpoints, ideas, and differing experiences and knowledge. In the debating organization many voices are heard and people are keen on putting forward their ideas for consideration and review. People can often be seen discussing opposing opinions, sharing a diversity of perspectives and engaging in productive arguments.

Debate, as defined above, is closely related to the literature on task and/or process conflict (Janssen & Giebels, 2013), cognitive confrontation (Badke-Schaub, Goldschmidt, & Meijer, 2010), and the management of cognitive diversity (Shin & Zhao, 2007). There is some evidence for a curvilinear relationship between task or cognitive conflict and team creativity and innovation and that this relationship is moderated by collaborative

problem solving (De Drue, 2006). Nijstad, Berger-Selman, and De Dreu (2014) examined the relationships among CEOs' transformational leadership, minority dissent and type of innovation. They found that transformational leaders created a safe team climate and this moderated the relationship between minority dissent and radical innovation. Consistent with other studies, Farh, Lee, and Farh (2010) found that task conflict had a curvilinear relationship with creativity, and that this link was moderated by the phase of the project. For early project phases, the curvilinear effect was strongest. Task conflict was unrelated to team creativity in later phases of the project life cycle.

Leaders can influence debate by:

- managing the tension during interaction so that the focus is on the exploration of ideas and different points of view rather than on interpersonal conflict;
- encouraging generous listening during debates and allowing people to share their full thinking before allowing others to join in versus letting people who have strong points of view regarding specific ideas dominate the debate;
- using trained process facilitators who can provide tools and methods to encourage productive debate (they can maintain neutrality over the content) versus letting debates take their own course and allowing constituents to sling personal attacks, as well as criticism of ideas.

Risk-taking

Risk-taking is the tolerance of uncertainty and ambiguity exposed in the workplace. In the high risk-taking case, bold new initiatives can be taken even when the outcomes are unknown. People feel as though they can "take a gamble" on some of their ideas. People will often "go out on a limb" and be first to put an idea forward.

The link between risk-taking and creativity is well established in the creativity literature (Shin & Eom, 2014; Simmons & Ren, 2009; Tajeddini, 2014). For example, Dewett (2007) found that the effects of intrinsic motivation on creativity were transmitted through an increased willingness to take risks. Wang, Zhang, and Martocchio (2011) reported that those who tolerate ambiguity exhibit higher creativity when facing uncertain situations. Cabrales, Medina, Lavado, and Cabrera (2008) found that encouragement to take risks within teams was associated with radical innovation. Lee and Sukoco (2011) found that risk-taking had a moderating effect on the relationship between team reflexivity and product innovation. García-Granero, Llopis, Fernández-Mesa, and Alegre (2015) identified a risk-taking climate as a mediator between leader risk-taking and innovation performance.

Leaders can influence risk-taking by:

- deliberately selecting topics and areas for which some experimentation is required versus avoiding experimentation and focusing exclusively on topics that are certain;
- recognizing and rewarding people that take initiative in the face of ambiguity instead of setting people up for ridicule and embarrassment when they take initiative that does not work out;
- setting aside a dedicated amount of resources for experimentation and risk versus budgeting and assigning 100 percent of their resources for things that have certain outcomes and return on investment.

Leadership – Indirect Influences

Based on their meta-analytic review of the literature, Rosing, Frese, and Bausch (2011) concluded that transformational leadership was positively related to innovation. But, given the variation of the results, it was important to go beyond solely examining the direct effect of this relationship – and include consideration of a variety of moderating factors. Leaders impact the climate for creativity by exerting influence on other factors within the work environment in addition to their direct impact on the climate dimensions. This section of the chapter provides a definition of each of the antecedent elements within the model, an overview of some of the research that supports the element, and a few practical leadership behaviors.

External environment

Organizations exist in a broader context and are affected by and interact with their external environment. Including the external environment within the model reinforces the notion that organizations are open systems (Daft & Weick, 1984). Organizations affect their environments by producing both individual and organizational output, products, or performance. The external environment is any condition or situation that is outside the boundary of the organization (e.g., the market, industry, global financial conditions, government, the larger political and social system, technological and scientific developments, physical geography and regional location), but can exert an influence on the other elements of the model, the climate, as well as the organization's creative performance.

The external environment has been identified as a key source for stimulating organizational innovation (Chua, Roth, & Lemoine, 2014; Damanpour & Schneider, 2006). Empirical research supports the influence of the external environment on the creative climate and innovative outcomes of organizations. For example, Van der Vegt, Van de Vliert, and Huang (2005) found that demographic diversity within a geographic region influenced the degree to which organizational members generated ideas, challenged traditional ways of doing things, and learned from others within and from other companies. This demographic diversity, moderated by national culture, had a significant influence on the innovative climate within organizations. Ibrahim, Fallah, and Reilly (2006) found that organizations located within regions with a high concentration of interrelated firms (clusters) had a direct effect on the creativity of inventors within those organizations. Therrien (2005) found that the size of the city within which organizations exist influences the quality of the innovative outcomes – particularly products that were new to the world. Montero (2002) found that the structure of the market, specifically policies and regulations relating to research and development, affected the quality of new products within the environmental industry. Another way the external environment can influence organizational creativity is the degree of industry convergence. Bröring and Leker (2007) found that the blurring of boundaries within industries (both market and technological convergence) influenced decision-making within the front end of innovation.

Leaders interact with and influence the external environment for creativity by:

- being the face of the organization to external constituencies and stakeholders;
- representing the organization within their industry;

- encouraging employees to be actively involved in conferences, networks, and outside activities.

Organizational culture

Organizational culture includes the values, beliefs, history, and traditions that reflect the deeper foundations of organizations. Over time, organizations develop a culture based on deeply entrenched norms and assumptions. These imbedded principles, values, and ethics influence patterns of interaction, as well as choices and decisions people make. The culture determines the worldview or mindset for those who belong. It influences the way people behave, particularly how they respond to surprise, ambiguity, creativity, and change.

Extensive empirical research has been done on organizational culture and its effect on creativity and innovation (Westwood & Low, 2003). Sarros, Cooper, and Santora (2008) examined the relationships among transformational leadership, organizational culture, and a climate for innovation. They found that culture and climate were strongly related and that culture mediated the relationship between transformational leadership and a climate for innovation. Based on their review of literature, Martins and Terblanche (2003) concluded that values, norms, and beliefs play a supportive or inhibitive role for creativity and innovation depending on how they influence the behavior of individuals and groups. Tellis, Prabhu, and Chandy (2009) investigated the drivers of radical innovation across 17 nations. They examined numerous factors including access to financial capital, labor, government policies, and national culture, and found that organizational culture was the key determinant to level of innovation and organizational financial performance.

Leaders influence the organizational culture by:

- engaging in storytelling about the founder(s), which reinforces creativity and innovation;
- reshaping and communicating values that support creativity and innovation;
- establishing and communicating a vision that sets high expectations and links to the organization's history and traditions.

Management practices

Management practices refer to the behaviors managers use to run the day-to-day business in contrast to leader behavior that is more transformational. Management practices are aimed at maintaining the stability and order of the organization by coordinating, communicating, controlling and planning the use of human, financial, and material resources. Typical management practices include conducting performance and business reviews, encouraging and monitoring individual and team goal setting, operational planning of projects, budgeting, and others. Many management practices are designed to help organizations with issues of efficiency and effectiveness, but some of these practices – sometimes referred to as dynamic capabilities – are more suitable for addressing areas that are more ambiguous. These include: supporting cross-functional teamwork, setting clear innovation objectives, identifying resources to support change and innovation, providing access and management of information resources, and a kind of monitoring that manages the balance between the need for autonomy and providing directional advice and input.

The way managers perform their supervisory and transactional role of controlling and

directing the work of others has an effect on the climate for creativity (Lee & Kelley, 2008; Odoardi, Montani, Boudrias, & Battistelli, 2015). Management practices such as budgeting, prioritizing workflow, and decision-making about how much risk to integrate into new product development activities have an impact on the kind of innovation produced by the organization (O'Connor, Ravichandran, & Robeson, 2008; Oke, 2007). The way managers maximize the efficiency and effectiveness of the available resources within the organization has a clear impact on the value of creative efforts (Holcomb, Holmes, & Connelly, 2009). This points to a rather nuanced approach to how managers balance the need for control and direction with flexibility and experimentation (Leybourne & Sadler-Smith, 2006; Maier & Branzei, 2014). For example, Bowers and Khorakian (2014) examined the extent to which explicit risk management could be integrated into innovation project management. They found that excessive risk management applied in early stages of innovation projects can stifle creativity, and more stringent application of risk management may be more helpful in later stages of new product development. The main implication from their study is that managers must customize and make choices about when and how to apply various management practices.

Leaders influence management practices by:

- modeling supervision that allows for some degree of freedom and initiative taking;
- balancing the emphasis on day-to-day tactical requirements with longer-term priorities;
- allocating and protecting resources for emerging opportunities and longer-term initiatives.

Systems, policies, and procedures

Systems, policies, and procedures are the mechanisms that facilitate work and provide process structure for the organization. Systems are codified methods such as information, IT, or finance and reporting systems, and knowledge or idea management systems. Policies are explicit rules and guidelines for behavior such as hiring, performance management, reward and recognition, and providing access to information. Procedures are the actual processes and other methods deployed within the organization such as how payments are made, explicit processes for new product and service development, change management and strategic planning processes. Systems, policies, and procedures provide the checks and balances that keep things on track and prevent costly errors. They help establish repeatable processes, create stability, and prevent anarchy. How they are implemented and what people think about them has an influence on the climate as they prescribe certain kinds of behavior.

Organizations that take a deliberate approach to their systems, policies, and procedures have stronger innovative performance (Davis, 2000; Tang, Pee, & Iijima, 2013). Even when the systems may appear to be contradictory, such as those focused on efficiency versus those focused on flexibility, deliberate efforts to integrate them can provide complementary effects on both efficiency and innovation (Newell, Huang, Galliers, & Pan, 2003). There is ample support in the literature for the generally positive relationships between idea, innovation, and knowledge management systems and innovative performance of organizations, with climate identified as a moderator (Brem & Voigt, 2007; Chen-Jen, Huang, & Hsiao, 2010; Damanpour & Aravind, 2011). The same is true for human

resource management systems, policies, and procedures (Collins & Smith, 2006; Jiang, Wang, & Zhao, 2012; Searle & Ball, 2003). There is also support for effective systems, policies, and procedures providing more time and attention for truly creative work (Damanpour, 1991).

Leaders influence systems, policies, and procedures by:

- investing in systems that support creative collaboration;
- providing a variety of recognition and rewards for creative accomplishments;
- encouraging the learning and use of creative problem-solving methods.

Team process characteristics

Team process characteristics relate to the softer, qualitative nature of group dynamics and features. The degree to which members of a team share and demonstrate synergy around a common purpose, believe in the value of the team, their openness and willingness to share and exchange information, the team spirit or mood, as well as the degree of motivation to collaborate are examples of team process characteristics. Although they are relatively subjective and hard to assess directly, they have a meaningful impact on team climate and creative productivity.

Numerous scholars have provided support for the importance of these factors on a climate for creativity and ultimately on creative performance (Grawitch, Munz, Elliott, & Mathis, 2003; Im, Montoya, & Workman, 2012; Joo, Song, Lim, & Yoon, 2012). Baer, Oldham, Jacobsohn, and Hollingshead (2008) found that shared understanding and confidence that the team was collectively more effective and creative than each member individually had a positive effect of creative idea generation. Lin and Liu (2012) found that work group support (the extent to which team members communicate well, challenge each other's work, and feel committed to the work they are doing) was positively related to perceived level of innovation. Chen, Farh, Campbell-Bush, Wu, and Wu (2013) examined the motivational states of R&D teams and found that a supportive climate at the team level moderated the effects of transformational leadership on team innovative performance. They concluded: "Evidence suggests team innovation is dually impacted by team processes and aggregated performance of individual members" (p. 1025). Gong, Kim, Lee, and Zhu (2013) examined the effects of learning goal orientation of teams (learning behavior of teams, ongoing reflection and action, experimenting) on creativity. They found that team learning goal orientation had direct relationships with team information exchange and team creativity, and that trust in the team leader moderated the relationship between goal orientation and information exchange.

Leaders can influence team process characteristics by:

- encouraging team cohesion and motivating both individuals and teams;
- providing tasks that call upon cross-functional teamwork;
- selecting transformational leaders for teams.

Individual needs, motives, and styles

Individual needs, motives, and styles provide the basic drive and source of energy for the organization. They are psychological factors that provide a sense of worth or desire for people's actions and thoughts. Needs for affection, belonging, and recognition influence

what a person does. Their motives determine the kinds of tasks for which they have energy and commitment. Their preferred styles dictate the way they might like to work, think, solve problems, and manage change. Needs, motives, and styles tell us how much energy people have for various kinds of work and will impact their behaviors, attitudes, and feelings.

Needs, motives, and styles have been shown to have an effect on creative climate and productivity (Egan, 2005b; Ford, 1996; Hammond, Neff, Farr, Schwall, & Zhao, 2011; Shalley et al., 2004). The desire to grow and develop on the job relates positively to self-reported creative performance, and interacts with a supportive work context (Sacchetti & Tortia, 2013; Shalley et al., 2009). Individual belief in one's creative capability (creative self-efficacy) influences the propensity to be creative at work (Ahlin, Drnovsek, & Hisrich, 2014; Tierney & Farmer, 2002). The amount and kind of motivation also has an influence on creative behavior and climate (Amabile, 1985; Cerne, Nerstad, Dysvik, & Skerlavaj, 2014; De Jesus, Rus, Lens, & Imaginário, 2013; Gerhart & Fang, 2015). The effects of motivation and needs may not be the same for all individuals as cognitive style may moderate these relationships (Baer, Oldham, & Cummings, 2003; Basadur, 2004; Isaksen & Aerts, 2011; Miller, 2007).

Leaders can influence individual needs, motives, and styles by:

- recognizing, nurturing, and synchronizing different styles of creativity – especially those associated with differing stages of the creative process;
- knowing who has high levels of intrinsic motivation for various tasks and providing them opportunities to contribute;
- demonstrating how every individual contributes to the success of the enterprise.

Individual skills and abilities

Individual skills and abilities are the capabilities and knowledge held by people within the organization. The skills and abilities describe the level and kind of competence or expertise available to the organization. They determine how much talent is available within the organization to meet the requirements of the tasks. If a workplace is filled with highly qualified people, with more than sufficient creative talent and skills to contribute to accomplishing the purpose of the organization, the climate will be positively affected.

There is a vast and diverse literature on the nature and nurture of creative abilities (Isaksen, Murdock, Treffinger, & Firestien, 1993a, 1993b; Mumford & Gustafson, 1988; Sawyer, 2012; Ward, Smith, & Vaid, 1997). This literature ranges from focusing on genius and eminence to everyday creativity (Richards, 2007; Runco & Richards, 1997; Simonton, 2014). A number of key issues are still debated, such as the relationship between creative abilities and intelligence (Nusbaum & Silva, 2011), and whether or not creative abilities are domain specific or general (Hong & Milgram, 2010). There is also a substantial amount of evidence that deliberately developing creative thinking and problem-solving skills has positive effects on climate and creativity outcomes (Isaksen, 2015; Puccio, Firestien, Coyle, & Masucci, 2006; Scott, Leritz, & Mumford, 2004).

Leaders can influence individual skills and abilities by:

- investing in the deliberate development and use of creative-thinking skills;
- providing relevant examples of creative abilities being applied within and across domains;

- pointing out diverse areas where creative abilities and creative collaboration can be effectively applied.

Team structural characteristics

Team structural characteristics relate to the harder, more measurable features of group dynamics. Some examples of team structural characteristics include: size of the group, the degree of explicitness surrounding procedures and processes, formal role definitions, aggregate level and kind of knowledge or expertise, cross-functional diversity, frequency of interaction, and the physical location of the team. These characteristics have an influence on team climate and creative productivity.

Structural attributes and characteristics of teams affect creative performance (Bissola, Imperatori, & Colonel, 2013; Paulus & Dzindolet, 2008; West, 2002). Generally, demographic, cognitive, and functional diversity of teams has a positive effect on team and individual creativity (Egan, 2005a; Shin, Kim, Lee, & Bian, 2012; Somech & Drach-Zahavy, 2013; Wang, Rode, Shi, Luo, & Chen, 2013). Van der Vegt and Janssen (2003) found that for heterogeneous teams, task interdependence was strongly and positively related to innovative behavior as long as team members perceived high levels of goal interdependence. As far as team size is concerned, teams should be large enough to allow for specialization, but small enough to avoid overwhelming costs of group coordination (Guimerà, Uzzi, Spiro, & Amaral, 2005). Team size relationships may vary based on the phase of innovation in which the team is working (King, Anderson, & West, 1991). The formalization and adoption of structured process methods, such as knowledge management (Sung & Choi, 2012), systemic design (Leenders, Van Engelen, & Kratzer, 2007), and social interaction networks (Kratzer, Leenders, & Van Engelen, 2010), have a positive impact on team creativity.

Leaders can influence team structural characteristics by:

- understanding and recognizing the value of diverse skills and expertise in teams;
- setting interdependent challenges for teams that require collaboration;
- establishing goals that require transformational leadership of teams.

Task requirements

Task requirements are the demands stemming from the nature of the work needing to be performed. It includes the nature of the work to be performed. The kinds of tasks to be accomplished, and their corresponding demands, influence the selection of who needs to work on what jobs. Certain tasks may require cross-functional teamwork; others may require cooperation across divisions. The demands made by these tasks influence the behaviors required by the organization to accomplish its purpose, and in turn, affects the climate.

The degree to which tasks are novel, complex, and ambiguous affects the way people interact and the level of creativity in outcomes (Oldham & Cummings, 1996; Reiter-Palmon, Illies, Cross, Buboltz, & Nimps, 2009; Ward & Sifonis, 1997). The nature of the task requirements influences the extent to which cross-functional domain expertise and collaboration is needed (Chae, Seo, & Lee, 2015; Love & Roper, 2009; Sethi, Smith, & Park, 2001). Most studies point to positive relationships between task complexity and creativity (Chapman & Hyland, 2004; Curral, Forrester, Dawson, & West, 2001), yet one

study found that, under certain circumstances, routinization had positive effects on creative performance (Ohly, Sonnentag, & Pluntke, 2006). Herrmann and Felfe (2013) found that high task novelty produced higher creativity and that the effect of transformational leadership on creativity was stronger when task novelty was high rather than low.

Leaders can influence task requirements by:

- balancing tasks requiring routine approaches with more complex methods;
- supporting those who face ambiguous tasks, particularly in the early stages of the work;
- providing support for knowledge sharing and insight exchange on complex projects.

Resources and technology

Resources and technology are the basic tools organizations have at their disposal to achieve its purpose. These include the people, capital, machines, equipment, materials, patents and copyrights that the organization has acquired for use in its operations. The quantity and quality of assets available to the organization is also a key resource. Resources and technology can impact the feelings and attitudes of people in the organization by either facilitating or inhibiting appropriate behaviors. A lack of key resources can often frustrate and provide barriers to creative thinking and limit initiative. Having and effectively using resources and technology can be a stimulant for the climate for creativity and change.

The availability of resources and technology has been found to be an important element affecting creativity and innovation (Chen, Shih, & Yeh, 2011; Latham & Braun, 2009; Swanson & Ramiller, 2004). The amount of resources available can function as a stimulator or inhibitor of creativity and innovation (Gutnick, Walter, Nijstad, & De Drue, 2012). Some research points to the requirement of slack resources as a stimulator (Chen et al., 2011; Troilo, De Luca, & Atuahene-Gima 2014), and others point to resource constraints (particularly financial) stimulating creativity (Hoegl, Gibbert, & Mazursky, 2008; Scopelliti, Cillo, Busacca, & Mazursky, 2014; Weiss, Hoegl, & Gibbert, 2011). Sonenshein (2014) advanced the argument that beyond the quantity of resources available, the critical factor is the actions people take in response to perceived resource endowments. Greater endowment of technological resources was associated with higher performance in new product development (Bianchi, Frattini, Lejarraga, & Di Minin, 2014). Similar positive relationships have been found between depth and breadth of knowledge store and creative performance (Kim, Im, & Slater, 2013; Wu & Shanley, 2009).

Leaders can influence resources and technology by:

- finding the appropriate balance of resources to be assigned to various tasks – not too much or too little;
- codifying implicit knowledge to build the available knowledge storehouse within their organizations;
- being mindful about investments and exploitations of technological resources.

Structure, size, and space

Structure refers to the way people and functions are arranged or configured. It deals with levels of responsibility, decision-making authority, and formal reporting relationships

with others in the organization. Structures are designed to assure that the mission and strategy of the organization are effectively implemented by guiding behavior and interaction. The structure and the size of the organization, and its working units, influence the use of power in making decisions and the scope of participation. It creates the pathways for the flow of information and guides the assumptions people make regarding relationships and interactions. Space includes the aspects of the physical environment – the amount and kind of working space and how it is configured can and will influence the climate for creativity.

The structure of organizations and its effect on creative climate are well supported in the empirical literature (Holagh, Noubar, & Bahador, 2014; Sosa, Eppinger, & Rowles, 2004; Wan, Ong, & Lee, 2005). For example, Foss, Woll, and Moilanen (2013) studied the effects of organizational structure, work environment, and gender on creativity and the implementation of new ideas. They found that a centralized structure had a negative effect on the implementation of new ideas as centralization limited the employee participation in decision-making. A number of meta-analyses point to a significant and positive relationship between organizational size and innovation (Camisón-Zomoza, Lapiedra-Alcamí, Segarra-Ciprés, & Boronat-Navarro, 2004; Damanpour, 1992). Yet, a study by Gong, Zhou, and Chang (2013) found that firm size negatively moderated the relationship between employee creativity and firm performance. They explained these findings by pointing to the large power distance within Chinese organizations. Finally, physical space plays a role in fostering a work environment for creativity (Kornberger & Clegg, 2004; Lewis & Moultrie, 2005; McCoy, 2005). Dul, Ceylon, and Jaspers (2011) studied the effects of the physical work environment on the creativity of knowledge workers and found that beyond selecting people with a creative personality and establishing a creative work environment, providing a creative physical space enhances knowledge workers' creativity.

Leaders can influence structure, size, and space by:

- optimizing the size of the organization and work units in a way that enhances creativity;
- providing a stimulating physical work environment that supports creative thinking (e.g., personalized offices, open collaborative spaces);
- designing the organizational structure of maximum levels of decentralization.

Mission and strategy

Mission and strategy define what the business is going to do and subsequently how it will achieve its aim. The mission is the basic purpose of the organization, stated explicitly or implicitly. The strategy defines how this purpose will be achieved. The mission and strategy provide insight into the vision for the organization's desired future state, as well as the appropriate business models to be deployed. Mission and strategy also influence the perceptions of those who take initiatives and focus on implementation.

The mission and strategy of an organization impacts the creative climate and innovation outcomes of the organization (De Brentani, Kleinschmidt, & Salomo, 2010; Pearce & Ensley, 2004; Slater, Hult, & Olson, 2010). Burton, Lauridsen, and Obel (2004) found a negative impact on average annual return on assets when there was a misfit between the organization's strategy and its climate. Nybakk and Jenssen (2012) found that innovation

strategy, coupled with a creative climate, enhanced financial performance. Further, the nature of the strategy or mission can make a difference for both climate and performance. In general, a strategy that is broad (allowing a wide-ranging planning horizon and expansive resource allocation) positively affects innovation performance (Henttonen & Ritala, 2013; Klingebiel & Rammer, 2014; Leiponen & Helfat, 2010). Wu and Lin (2011) found that having a strategy for innovation had a positive influence on the quality of innovation and overall innovation performance.

Leaders can influence mission and strategy by:

- creating a specific strategy for creativity and innovation – an innovation charter;
- providing a clear and compelling vision aimed at either radical or incremental innovation;
- linking the initiatives within the innovation portfolio to the overall strategy of the organization.

GENERAL LEADERSHIP BEHAVIORS

Up to now, this chapter has focused on leadership behaviors related to the nine dimensions of creative climate and the 13 elements of the work environment. So, the focus has been on *what* leaders can do to establish the appropriate work environment for creativity and innovation. This closing section will address *how* leaders should deliver these behaviors.

The Situational Outlook Questionnaire (SOQ) is a multi-method assessment that includes three open-ended questions aimed at identifying elements within the work environment that help, hinder, or need actions for improvement. When we apply the SOQ for leadership development, we add a fourth question so that observers can provide their leaders with a lesson they learned that would be helpful to share. As a result of reviewing and analyzing more than 260 of these lessons from a number of leadership programs, we can offer the following top half-dozen suggestions:

- *Learn to listen generously*. This was the largest theme amongst the suggestions and focuses on leaders actively and genuinely attending to what others have to say.
- *Be an effective communicator*. No matter how well leaders communicate, observers remind them to do it better, more clearly, and more often.
- *Be inclusive and empower others*. Leaders can share authority with others by encouraging everyone to take initiative and contribute and holding others accountable.
- *Guide and support teamwork for creative collaboration*. Teams do so much work within organizations, and leaders must know how to engage, inform, and facilitate them well.
- *Build strong authentic relationships with followers*. At the end of the day, leadership is a relationship. Showing interest, building trust, and sharing experiences with constituents are key.
- *Encourage idea support and sharing different perspectives*. Recognizing, appreciating the value, and deliberately enabling the use of diverse styles and expertise take time and energy – yet can improve results.

Leadership behavior is key to engaging and enabling people within organizations, and the way they do this is through climate creation. So, leaders shape the work environment that either facilitates or inhibits creative behavior that, ultimately, results in creative productivity and innovation. We are beginning to better understand *what* leaders need to do, and *how* they should do it, but meeting the innovation challenge requires more deliberate effort in this regard.

Perhaps we should follow the trend within the broad domain of work environment to move from a molar to a facet-specific approach – leadership for creativity and innovation. Having a more bounded leadership context could encourage more focused research and reflective practice. We would benefit from an improved understanding of leader behaviors that help and hinder creative behavior. In order to make further progress in this regard we also need clear and comprehensive frameworks, as well as improved consensus-based distinctions and definitions. The model and distinctions presented in this chapter have been offered as a starting point.

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