The role of emotional climates of joy and fear in team creativity and innovation

Veronique Tran

This paper examines the role of an emotional climate of joy and of an emotional climate of fear on team creativity and innovation. First, a definition of emotional climate is proposed. Second, a model is proposed combining emotional climate and Farr, Sin, and Tesluk’s (2003) model of team creativity and innovation. Emotional climates of joy and fear are emergent states that will operate both as an input in interaction with non affective inputs, and as an outcome interacting with task-related outcomes, influencing transition, action, and interpersonal processes in a creativity and innovation context. Third, the role of the intensity of emotions composing the emotional climate is addressed. Implications for research and practice are discussed.

Keywords: Emotional climate, creativity, innovation, teams
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ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

Abstract

This paper examines the role of an emotional climate of joy and of an emotional climate of fear on team creativity and innovation. First, a definition of emotional climate is proposed. Second, a model is proposed combining emotional climate and Farr, Sin, and Tesluk’s (2003) model of team creativity and innovation. Emotional climates of joy and fear are emergent states that will operate both as an input in interaction with non affective inputs, and as an outcome interacting with task-related outcomes, influencing transition, action, and interpersonal processes in a creativity and innovation context. Third, the role of the intensity of emotions composing the emotional climate is addressed. Implications for research and practice are discussed.

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ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

The Role of Emotional Climates of Joy and Fear on Team Creativity and Innovation

The study of affect, which includes moods and emotions, has witnessed important developments to the point where it has been called a “revolution” or alternatively a paradigm shift (Barsade, Weiss, & Spataro, 2003). In parallel, creativity and innovation are important topics for organizational research and in practice (Baer & Frese, 2003), and research in this domain has continued to advance over the past decade (Anderson, De Dreu, & Nijstad, 2004). Amabile, Barsade, Mueller, & Staw (2005) have found a robust linear relationship between affect and creativity in organizations. However, studies linking a form of collective affect to creative or innovative processes in teams are scarce. Collective affect has been identified with different concepts such as affective tone (George, 1990), mood convergence (Bartel & Saavedra, 2000), emotional contagion (Hatfield, Cacioppo, & Rapson, 1994; Barsade, 2002), mood linkage (Totterdell, Kellett, Teuchmann, and Briner, 1998; Totterdell, 2000) but to date, studies considering emotional climates based on discrete emotions have rarely been investigated, whether in organizational settings in general or in the context of team innovation in particular.

This paper examines the influence of emotional climate in the context of a dynamic model of creativity and innovation for work groups formulated by Farr, Sin, and Tesluk (2003). First, a definition of emotional climate is proposed, based on appraisal theories of emotions, social and organizational psychology. Two emotional climates based on discrete emotions are presented: an emotional climate of joy, and an emotional climate of fear. Second, a model is proposed that depicts respectively an emotional climate of joy and an emotional climate of fear as emergent states that will operate both as an input in interaction with non affective inputs, and as an outcome interacting with task-related outcomes.

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1 “A “work group” is a social entity embedded in one or more larger social systems (e.g. community, organization), made of interdependent individuals who perform a task as members of a group, task that can affect others (such as customers or coworkers); “team” has largely replace “group” in the argot of organizational psychology” (Guzzo & Dickson, 1996, p. 309).
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

influencing transition, action, and interpersonal processes in a creativity and innovation context. Third, the role of the intensity of emotions composing the emotional climate is addressed. If intensity of emotion is low, an emotional climate of joy or of fear may mostly enhance the innovation process. If intensity of emotion is high, an emotional climate of joy or of fear may mostly inhibit the innovation process. Implications for research and practice are discussed.

**Emotional Climate**

Recently, the notion of collective emotion has regained popularity among researchers who have investigated the extent to which individual affects, moods, or emotions are shared among members of a group (see Kelly & Barsade, 2001 for a review). Emotional climate has been initially studied at a more macro-level. De Rivera (1992) developed the concept of emotional climate that arises in a nation and defined it as emotional relationships between members of a society. De Rivera suggested two types of emotional climates: (1) emotional climates labeled with names of emotions such as joy or fear; and (2) emotional climates that reflected the relationships between members of a nation such as solidarity or hostility.

Paez, Asun, and Gonzalez (1995) extended De Rivera’s work and studied the emotional climate prevailing during the dictatorship of Pinochet in Chile. They defined an emotional climate as a state of collective mood, based on the predominance of certain emotions, of certain social representations or group of beliefs held about the world and about the future of the country shared by a specific subculture, and of certain action tendencies that permeate the network of social interactions. They argued that emotional climates are collective phenomena, representing something more than just the sum of individual emotions. Paez et al. used quantitative and qualitative methods to demonstrate that emotional climates are emergent processes with social functions. They selected four ‘basic’ emotions, fear, anger, sadness, and joy, and selected objective indicators of collective behavior (e.g., number of
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

civilians killed by Army members, and manifestations of collective violence such as riots). They found convergence between expert judgments of emotional climate and collective behavior indexes: sadness and fear were related to repression, whereas anger was related to political violence. They also found that the behaviors related to such a climate continued to be displayed beyond the objective conditions that created it.

In one of the rare studies of emotional climate in organizational settings, Ashkanasy and Nicholson (2003) defined an emotional climate as “the personal displays of emotion”, leading “to a shared perception of emotions among organizational members”, as “communication occurs through social networks and involves sharing of meaning” (p. 24), which is consistent with Paez et al.’s (1995) definition.

Scherer and Tran (2001) proposed a definition of emotional climate in the context of organizational learning, based on a multi-componential definition of emotion that includes cognition, physiological arousal, motor expression, action tendencies and subjective feeling (Lazarus, 1991; Scherer, 2000). Action tendencies are precursors of potential overt behavior. Behaviors can then be seen as consequences of emotion (Scherer, 1996). Cognitive processes are involved in the appraisal of the eliciting events that can be internal, such as thoughts or memories, such as behavior of others or encounter with a novel stimulus. This appraisal intervenes in the elicitation and in the differentiation of emotion. For example, you hear about your colleague’s promotion, depending on the conditions under which she received it, you may feel angry (if you think it is unfair that you didn’t get it), happy (if you think this is a great opportunity for her and she deserves it), or envious (you would like this promotion, so you are not really mad at your colleague but you envy what she possesses and what you are currently deprived of). In line with this appraisal-based definition of emotion, Scherer and Tran proposed that the generating conditions of an organization-specific emotional climate are the shared dispositions of its members to appraise or evaluate events in a similar way.
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

These shared appraisals are rooted in the foundations of an organizational culture, that is, the fact that members of an organization share a common social environment, common experiences, and to some extent develop similar values, goals and needs, beliefs and attitudes (Schein, 1992). The common appraisal dispositions would then tend to produce similar emotions in response to specific events. Parkinson, Fischer, and Manstead (2005) have defined a group emotion in comparable terms. Thus, it is possible to assume that these mechanisms would work within teams, similar to Paez et al.’s assumption that a specific emotional climate is shared by a subculture within a country.

In the present paper, both Paez et al.’s (1995) and Scherer and Tran’s (2001) definition of emotional climate are used and adapted to fit the present concern of creativity and innovation in teams. An emotional climate is based on the predominance of one or several emotions, surrounded by related moods. For example if the emotion is joy, the related moods would be being content, happy, warmhearted, pleased, satisfied (Watson & Tellegen, 1985). Moods provide the affective background behind episodic occurrences of emotions (Davidson, 1994). Contrary to emotions, moods are diffuse affective states, low in intensity, relatively long-lasting, often without any particular object or focus, with even an unknown antecedent source (Forgas, 1991; Frijda, 1994; Izard, 1991; also see Ekman, 1994), and not linked to a particular behavior. The other components of an emotional climate are shared appraisals, shared mental models held by the team about its task (e.g., the innovation project), relationships (between team members and with other constituencies), and environment (e.g., the organization at large); and certain action tendencies and/or behaviors that permeate the network of social interactions. Focus will be placed on an emotional climate of joy and an emotional climate of fear. Table 1 summarizes the definition, appraisal, social implications of joy and fear, as well as the tendencies to act or behaviors these emotions either enhance or inhibit, at the individual and/or the group level.
Emotional Climate of Joy

An emotional climate of joy has joy as a predominant emotion, supported by joy-related moods, such as feeling good, happy, content, pleased (Watson & Tellegen, 1985) or other emotions occurring concomitantly with joy, such as pride or elation (Scherer and Tran, 2001). Joy creates an urge to play, push limits, and be creative (Fredrickson, 2001). This type of emotional climate emerges in good times for the team, for example when the team has formulated a project, submitted successfully to the different layers of their hierarchy, obtained internal funding to develop a new product, and launched the product successfully. Team members are positively reinforced in their appraisals eliciting joy and related emotions, such as elation or satisfaction (Lazarus, 1991). Typical behaviors associated with an emotional climate of joy are collective celebration of successes and achievements (De Rivera, 1992; Scherer & Tran, 2001). Bonds are reinforced due to the properties of joy that leads team members to strive for maintaining good relationships among each other (Frijda, 1986; Kemper, 1991). As argued by Fredrickson (2001) in her broaden-and-build theory, positive emotions may promote resilience while enabling flexible and creative thinking.

An emotional climate of joy may be pleasant for both the individuals and the organization, but can also lead to negative implications. The literature on positive affect informs us that individuals do not necessarily want this state to end (Isen & Baron, 1991). A similar trend exists for positive emotions such as joy. If the environment does not contain any threats, there may be no reason to challenge the present state of affairs, a mindset that could lead to complacency and stagnation (Scherer and Tran, 2001).

Emotional Climate of Fear

An emotional climate of fear has fear as a predominant emotion, supported by fear-related moods, such as feeling anxious, nervous or jittery. This type of emotional climate

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2 “The broaden-and-build posits that experiences of positive emotions broaden people’s momentary thought-action repertoires, which in turn serves to build the enduring personal resources, ranging from physical and intellectual resources to social and psychological resources.” (Fredrickson, 2001, p. 218)
emerges in difficult times for the team: for example when competition reaches a certain threshold beyond which it becomes a threat to the existence of the team’s business, or when there is an intra-organizational competition to obtain resources to continue an innovation project. Lazarus and Cohen-Charash (2001) describe organizational fear as usually revolving around felt threat and loss of control, especially as a result of one’s own actions: the threat of failure to be promoted, the loss of job, collectively or individually, or fear of judgements. Ashkanasy and Nicholson (2003) define a climate of fear as “a generalized experience of apprehension in the workplace.” (p. 24) Typical behaviors associated with an emotional climate of fear are to keep engaging in new activities (Scherer & Tran, 2001) or carefully considering alternatives and evaluating risks (Izard, 1991). Lerner and Keltner (2000) have demonstrated that individuals feeling fear tend to make pessimistic judgments about future events. Anxious individuals tend to prefer low-risk/low-reward options when personally affected (Raghunathan & Pham, 1999).

An emotional climate of fear may be unpleasant for both the individuals and the organization, but can also lead to positive implications. The risk-averseness characterizing a climate of fear can have positive consequences if it leads to making plans before embarking on challenging ventures, to avoid risky strategies, or to consider potential threats seriously. Another positive implication of a climate of fear is that it serves the purpose of reuniting people, at the group or the organizational level (Paez et al., 1995), thus reinforcing cohesion.

**A Model of Creativity and Innovation**

Farr et al.’s (2003) dynamic model of work group innovation integrates three major research streams: (1) the classic Input-Process-Outcome (IPO) perspective, which has been the dominant one for addressing work groups (McGrath, 1984); (2) the knowledge management literature, and particularly the notions of team mental models (Klimoski & Mohammed, 1994); and (3) West and colleagues’ work, both on group effectiveness (West,
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

Borrill, & Unsworth, 1998) and on innovation (West, 2002). Although there are many other models of creativity and innovation, Farr et al.’s model of work group innovation and creativity represents a contribution in the field at the team level (emphasis added), and portrays sufficient elements to be used as illustrations of the relationship between emotional climate and team innovation.

Farr et al. have drawn from West (2002) the two stages in the innovation process: (1) creativity, which is concerned with problem identification and idea generation; and (2) innovation implementation, which is concerned with idea evaluation and the application of ideas to products, services, and procedures. Borrowing from Marks, Mathieu, and Zaccaro’s (2001) temporal framework of group processes, Farr et al. integrate action phases and transition phases into their model. Marks et al. propose a recurring phase model of team processes, which implies that team performance can be seen as a series of related IPO episodes. Marks et al. contend that teams oscillate between action phases and transition phases: IPO episodes are nested in action and transition phases, so that outputs generated from processes that occur during a transition phase can become inputs for the next action phase. In action phases, teams are engaged in activities directly contributing to their goal accomplishment, whereas in transition phases, teams go through evaluation and/or planning activities that could guide them toward their goal accomplishment. Interpersonal processes, such as conflict management, or motivation and confidence building, occur concomitantly sometimes during action phases, sometimes during transition phases. Farr et al. propose both stages of the innovation process, creativity and innovation implementation, are sub-divided in transition and action phases, each of which contains an IPO sequence (see Figure 1).

Based on previous research, Farr et al. (2003) proposed a number of inputs, processes, and outcomes relevant to creativity and innovation in teams. They selected the following inputs: (1) individual variables, such as expertise, personality traits (openness to experience,
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

agreeableness), and goal orientation; (2) group variables such as leader behavior, diversity of personality, of knowledge and skills, of demographic characteristics, and networks; (3) task characteristics such as autonomy, completeness and significance; and (4) external demands such as competition, uncertainty, time constraints, threats, and situational goal orientation. As far as processes are concerned, they proposed: (1) transition processes such as mission analysis, goal specification, and strategy formulation and planning; (2) action processes such as monitoring progress toward goals, systems monitoring, team monitoring, and coordination activities; and (3) interpersonal processes such as conflict management, affect management and motivation and confidence building. There are four possible outcomes: problem identification is the specific outcome of the creativity’s stage’s transition phase, idea generation the outcome of the creativity’s action phase, idea evaluation the outcome of the innovation implementation stage’s transition phase, application of ideas the outcome of the innovation implementation stage’s action phase. Furthermore, if the logic of Marks et al.’s IPO model is continued, problem identification becomes input to the idea generation phase, the idea generation phase becomes input to the idea generation phase, and finally the idea evaluation phase becomes input to the implementation phase (see Figure 1). The feedback loop depicted in Figure 1 indicates that the process can start over if the innovation process is not satisfactory. Table 2 includes all the inputs, processes, outcomes, and emergent states portrayed in Farr et al. (2003), out of which selected variables will be examined in conjunction with emotional climates of joy and fear.

Emotional Climates and Creativity and Innovation in Teams

Marks et al. (2001) distinguish emergent states from team processes, and define them as “constructs that characterize properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes.” (p. 357) Emergent states describe cognitive, motivation, and affective states of teams, a notion that is congruent with
Kozlowski and Klein’s (2000) definition of emergence, phenomenon that “originates in the cognition, affect, behaviors, or other characteristics of individuals, ..., amplified by their interactions, and manifests as a higher-level, collective phenomenon” (p. 55). Both perspectives describe team mental models, cohesion, or group affect as emergent. Specifically, Farr et al. portrayed psychological safety, group efficacy, shared mental models, group cohesion, and group affect as emergent states, and considered them as group outcomes. According to these definitions, emotional climate can be described as an emergent state.

Marks et al. (2001) argued that team emergent states serve as an influence on team processes. Consistently with the IPO sequence described above, “Emergent states can be considered as both inputs to the teams’ current phase of the innovative process and as proximal outcomes that then become inputs for the next innovative phase.” (Farr et al., 2003, p. 580).

Likewise, Kelly and Barsade (2001) have proposed a model that suggests group affect can also be described with an IPO framework. According to this model, inputs are composed of the team members’ individual affective components (dispositions, moods, emotions), which they bring into the group interaction. Through a variety of processes, such as affective influence (influencing other team members’ emotional experience), emotional contagion or behavioral entrainment, the affective inputs are shared with the other team members. Outputs are composed of shared affect (mood or emotion).

Thus, I propose the following model. At the onset of the first meeting of a newly formed team, members will bring their own dispositional affect, moods, or emotions, as well as other individual characteristics, such as personality, knowledge and skills. According to appraisal theory of emotion, emotions are triggered by an event, internal or external, or by an interaction with one or several persons. The emotions brought by each team member to the team meeting were triggered by events or interactions independent of the team. As soon as team members start interacting, they have a probability to experience emotions generated by
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

their own interactions or by events directly concerning the team, and given the fact that team members have just begun to work together, it can be assumed that shared appraisals are not yet occurring, thus, the affective composition of the team might be diverse. As team members continue to interact with each other, they are engaging in a team process. During this team process, emotions begin to be shared, explicitly (someone verbally sharing the type of emotion felt) or implicitly (via non verbal behaviors for example). The team reaches two types of outcomes: a task-outcome and a team outcome (Farr et al., 2003). The team outcome is for example an emotional climate or any other emergent state described earlier: group cohesion, shared mental models, etc. These nascent emotional climate and shared mental models interact with the task outcome and become inputs to the next phase. The next phase can either mean the next phase of the innovation process, or can be the next the team meets. The team experiences a second iteration of affect/mood/emotions interacting with their individual characteristics, which in turn shapes the elaboration of the process, which leads to a task certain outcome and to a variety of emergent states. The process is iterative and non-linear, even though depicted as linear. Figure 2 represents a generic simplified picture of this model for one of the IPO sequence described by Farr et al. (2003), with the inputs, processes, and outcomes shown vertically in Table 1. A double arrow is drawn between inputs x emotional climate due to a probable reciprocal relationship between an emergent state and a process (Mathieu, Gilson, & Rudy, 2006). Figure 3 outlines the predictions I propose regarding the interaction between an emotional climate of joy and an IPO sequence, and with differentiated predictions for low intensity joy or high intensity joy. Figure 4 outlines the predictions regarding the interaction between an emotional climate of fear and an IPO sequence, with differentiated predictions for low intensity fear or high intensity fear.

As mentioned earlier, intensity of emotion is a determining factor: the relationships between the resulting behaviors of an emotional climate may be curvilinear. James,
Brodersen, and Eisenberg (2004) have hypothesized that: (1) very high or very low intensity leads to levels of arousal that tend to inhibit creativity, regardless of whether the emotion is positive or negative; and (2) intensity of emotion should interact with emotion type to influence creative outcomes. This second hypothesis suggests that assuming the curvilinearity hypothesis holds, the point at which increasing intensity first enhances and then inhibits creativity will differ across emotions. Furthermore, there is by definition, an ideal point on the curve at which the emotional climate is neither too mild nor too strong, and where the processes described here unfold almost ideally. If the intensity were to be too low, there would probably not be enough energy deployed, and effects of the emotional climate would be hardly detectable. Thus, in my model, I will consider low intensity to be closer to the inflection point.

Examples will now be provided to illustrate how this model unfolds.

**Creativity, innovation, and emotional climate of joy**

During the transition phase of the creativity stage, relevant issues have to be interpreted by team members and the problem faced either by the team or the organization needs to be identified. Farr et al. (2003) selected the following inputs: (1) intrinsic motivation (Amabile, 1983), goal orientation and expertise at the individual level; (2) diversity of knowledge and skills and demographic diversity at the group level; and (3) competition and uncertainty (West, 2002) as external demands. An emotional climate of joy should put individuals in good disposition towards making a contribution to the team, put team members in a positive mindset towards diversity, whether demographic diversity or diversity of knowledge and skills, and encourage team members to overcome external challenges (see Figure 3).

According to Farr et al. (2003), mission analysis is the most relevant transition process during the transition phase of the creativity stage. Marks et al. (2001) indicate that team
members need to thoroughly discuss what is available to them to accomplish their goal, such as their own abilities, the resources, and the time constraints. Consequently, discussions need to take place during which team members ensure they have the same interpretation of the issue and of the problem at hand. These activities require communication and discussion among team members towards what Mohammed and Ringseis (2001) describe as a cognitive consensus, defined as the similarity among group members regarding how key issues are defined and conceptualized. Team members converge towards the same vision of the problem.

Farr et al. (2003) propose that intrinsic motivation emerges when team members are provided with the autonomy to carry their task and to be responsible for its completion. Intrinsic motivation is a fundamental basis for creativity and innovation (Amabile, 1996). Under these circumstances, team members may experience joy-related emotions, and interact with optimism, confidence, energy, and a relative open mind. As team members will engage in the process of mission analysis, shared mental models required to reach an agreement regarding the nature of the problem at hand will be infused with these joy-related behaviors: team members will engage in their task, contribute actively, feel competent and comfortable, and supported by the other team members (see Table 1). Intrinsic motivation accompanied by the emotion of interest should be multiplied and reinforced by an emotional climate of joy.

Interest is the emotion triggered when one feels engagement, fascination, and curiosity (Izard, 1991), it is typically associated with creative activities, the development of skills and intelligence, the acquisition of new competencies, and persistence in effort (Fredrickson, 2001; Izard, 1991).

I suggest that if the predominant emotion in the team is low intensity joy, a mild emotional climate of joy will develop, and all subsequent cognitive or behavioral activities will be moderate: moderate optimism, moderate confidence, and moderate celebrations of
successes. The team should be able to maintain focused on the task at hand, and exert thorough analysis, even though this aspect is considered to be mitigated by joy or related moods (Schwarz & Bless, 1991). There should be a positive influence on the two other types of processes, namely action processes (e.g., team coordination), and interpersonal processes (e.g., conflict management) given that a joy-related climate encourages team members to strive for maintaining good relationships among each other.

If joy is felt intensely, the emotional climate will translate in more intense terms: we may face more complacency, overconfidence, low efforts to explore new alternatives (Scherer and Tran, 2001), decreased productive thinking (Izard, 1991), risky behaviors, and excessive celebrations to the point where focus on the task gets out of sight. During transition processes, mental models can still be shared but team members run the risk of getting dispersed. Interest being linked to joy (see Fredrickson, 2001), an excess of interest (as an emotion) can lead to a lack of focus (Scherer and Tran, 2001). A similar trend will hold for team monitoring and coordination (action processes). Good conflict management may not be sustained over time, as dispersed objectives on the part of team members may lead to tensions.

I propose that a low intensity joy-based emotional climate will be positively related to both task-related outcomes (i.e., problem identification, idea generation, idea evaluation, and implementation) and group-related outcomes (team cohesion). A high intensity joy-based emotional climate will be negatively related to problem identification, idea generation, and idea evaluation, because of the lack of focus evoked earlier. It may not hinder implementation as much, because whatever it is that team members want to implement, high-intensity joy will give them energy to do it. The relationship with team cohesion is mixed. Team cohesion is the commitment to group members to achieve common objectives, to accomplish a task together, with positive feelings about team members (Evans & Dion, 1991; Turner Pratkanis, Probasco, & Leve, 1992; Wech, Mossholder, Steel, & Bennett, 1998). Given that joy reinforces bonds
between team members, and as long as the intense enthusiasm is inwardly-focused, an intense emotional climate may not be detrimental to team cohesion.

**Creativity, innovation, and emotional climate of fear**

It could be that team members are not provided with the autonomy to carry their task or there are some threats posed to their project or to the organization for which they work (e.g., competition, restructuring, merger or take-over). Under these circumstances, team members may experience fear-related emotions, and interact with pessimism, caution, low energy, and a relative narrow mind. Fear helps individuals to be more perceptive about the environment and the useful signals it provides (Paez et al., 1995), and to be more careful about risks (Izard, 1991). Thus, an emotional climate of fear should put individuals/team members in cautious disposition towards making a contribution to the team, and give them a low-risk approach to issues (see Figure 4).

I suggest that if the predominant emotion in the team is low intensity fear, a mild emotional climate of fear will develop, and all subsequent cognitive or behavioral activities will be moderate: moderate pessimism, moderate caution, and risk-averseness. The team should be able to maintain focus on the task at hand, and exert thorough analysis to avoid risky behaviors and hazardous strategies. As team members will engage in the transition process of mission analysis, shared mental models required to reach an agreement regarding the nature of the problem at hand will be infused with these fear-related behaviors: team members may not engage themselves wholeheartedly in their task, contribute hesitantly, feel relatively insecure, yet supported by the other team members in face of adversity. Fear of being evaluated has been evoked as one of the hindering factors in communicating and sharing ideas, which in turn hinders mission analysis. Intrinsic motivation accompanied by the emotion of interest may could be multiplied and reinforced by an emotional climate of fear, as fear can be a powerful motivator to solve a problem or diminish a threat. Thus, an
emotional climate of fear is not necessarily detrimental to transition processes, there may be more focused attention placed on specific aspects of the problem. Team coordination (action process) and conflict management (interpersonal process) may be positively related to an emotional climate of fear, as it reinforces social cohesion (Paez et al., 1995) among team members.

When the emotional climate of fear in interaction with problem identification (outcome) becomes the input for the next phase of the creativity process (i.e., idea generation), a mild degree of fear may actually be beneficial to the generation of alternatives, as the team has to find new solutions and new ideas to improve their performance. Alternatively, Izard (1991) describes fear as limiting perceptions and thoughts, triggering tunnel vision, which is narrowly and sharply focusing on an object or the situation at the origin of fear, and not considering enough alternatives of action. The intensity of fear is probably why these two alternative explanations are plausible.

If fear is felt intensely, the emotional climate will translate in more intense terms: rumination, being overly cautious, blocking of exploration, inhibition of learning (Scherer and Tran, 2001). High levels of fear increase superficial information processing (Baron, Inman, Kao, & Logan, 1992), and causes freezing (Izard, 1991), which would be detrimental to creativity and to innovation ultimately. Due to risk aversion, team leaders could be prone to an excess of team monitoring (action process).

I propose that a low intensity fear-based emotional climate will be positively related to both task-related outcomes (i.e., problem identification, idea generation, idea evaluation, and implementation) and group-related outcomes (team cohesion). A high intensity fear-based emotional climate will be negatively related to problem identification, idea generation, and implementation, because of the lack of openness or boldness evoked earlier. It may not hinder idea evaluation as much if we rely on Schwarz and Bless’s (1991) model of negative mood
being associated with increased systematic information processing. However, Baron, Inman, Kao, & Logan’s (1992) findings on fear and information processing run counter to this result. They argue that it is due to the fact they induced an intense negative emotion, i.e. fear, as opposed to inducing a milder negative affect. Thus, high-fear participants evaluated a message more on its superficial attributes than on its key arguments, confirming thereby the hypothesis that more intense emotional states increase superficial processing as opposed to careful processing.

In summary, a low intensity joy-based emotional climate would tend to enhance creative and innovation processes, in the sense that it provides team members with the necessary positive energy to share, overcome, analyze and manage team members relations, whereas high intensity joy-based emotional climate would rather inhibit them, because of a lack of focus or dispersed energy. A low-intensity fear-based emotional climate also would tend to enhance creative and innovation processes, but for different reasons: it provides team members with the necessary amount of risk aversion and cautiousness to build shared mental models and team cohesion as well as analyze goals and missions. Conversely, a high intensity fear-based emotional climate would tend to inhibit creative and innovation processes as innovation may not occur at all if team members are too risk averse, and there might be an excess of monitoring of all activities. Thus, the influence of an emotional climate based on intense emotions appears to be detrimental to innovation processes.

**IMPLICATIONS FOR RESEARCH AND PRACTICE**

**Implications for research**

In this paper, I defined emotional climate as the predominance of one or several emotions, surrounded by related moods, emerging from shared appraisals (themselves rooted into the organizational culture the team operates in), shared mental models held by the team about its task (e.g., the innovation project), relationships (between team members and with
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

other constituencies), and environment (e.g., the organization at large); and certain action
tendencies and/or behaviors that permeate the network of social interactions. The emotional
climate is embedded in the overall organizational culture and interacts with the organizational
culture. Researchers studying emotion as a collective phenomenon or occurring in a
collective setting such as an organization concur that group emotion can be either grounded in
bottom up processes, emerging from individual level factors, or in top-down processes,
emerging from group or context-level factors, such as the influence of leaders, organizational
culture and climate (see Barsade & Gibson, 1998; Kelly & Barsade, 2001).

The social role of emotion has to be understood in the light of ongoing interchanges
between the individual and others and the mutual influence that each party’s attitudes or
actions may have on the other (Frijda & Mesquita, 1994). Thus, emotions will be felt in a
team working on a project, and in turn emotions together with accompanying moods will craft
future appraisals of events, and future relationships. A number of studies have been conducted
on the influence of climate on innovation (e.g. Anderson & West, 1998; Baer & Frese, 2003),
and on affect and mood’s influence on creativity but there is still room for research
integrating the collective manifestation of emotion together with other aspects of team or
organizational climate in relationship to the innovation process. Future research, both
theoretical and empirical, needs to further investigate this matter.

Two single-emotion climates were presented in this paper. One could argue that the
extent to which this scenario is realistic or not remains to be examined. Alternative scenarios
are available. First, an emotional climate of joy may not mean that team members feel only
joy-related emotions. The dominant emotions and moods are joy-related, yet members of
group should be able to have episodes of different types of emotions including negative ones,
under the umbrella of joy-related emotions, which could be considered as the “base line.”
Behaviors linked with joy become part of the norms and the culture of teams. The same
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

reasoning could be held for climate of fear. Second, one could hypothesize that an emotional climate is composed of a blend of emotions. Scherer and Tran (2001) have proposed five different “blends” or classes of emotions which could form an emotional climate: achievement emotions (e.g., pride, elation, joy, satisfaction), approach emotions (e.g., interest, hope), withdrawal emotions (e.g., sadness, shame, guilt), deterrence emotions (e.g., anxiety, fear), and antagonistic emotions (e.g., anger, irritation). Third, George and King (2004) were investigating group affective tone in relationship to creativity: affective divergence may be more beneficial than affective convergence in a team that needs to be creative. The co-occurrence of positive affect and negative affect may enable the group to benefit from the positive contributions of both types of affect: positive affect reinforces the good feeling of being a group; negative affect motives group members to make the necessary effort to strive for ideas that are truly creative and not just acceptable. Besides the fact that there are some differences between positive affect and joy or between negative affect and fear (specificity of the appraisals and consequent behaviors), this scenario offers a different reading on the blends, i.e. not a blend of similar emotions but a blend between different types of affect. Future research needs to tease out which one of these two alternatives is closer to reality.

Researchers agree that collective emotion takes a life on its own and survives beyond the moment people felt the emotion (Paez et al., 1995). When developing measures of emotional climate, one has to be able to make a distinction between the immediate behavior caused by immediate emotions and the behaviors that are a carrying over effect of an emotional climate. Thus, future research should preferably envisage longitudinal studies.

Implications for practice

Farr et al. (2003) propose that affect management is one of the key interpersonal processes in teams. As it was outlined in this paper, a low intensity emotional climate has a higher probability to influence creativity and innovation positively, where as a high-intensity
based emotional climate has a higher probability to influence creative and innovation negatively. This issue of affect management pertains not only to the type of affect (mood or emotion) experienced but also to the intensity of the emotion. This issue could be linked to the concept of emotional intelligence. Emotional intelligence represents a growing field of research. It is only logical that this concept is further investigated in the area of organizational behavior in order to find out what the implications of emotional intelligence could be on work processes and outcomes, whether at the individual level or at the group level (Kelly & Barsade, 2001). For example, Huy (1999) proposes to consider both levels in a theoretical model where emotional intelligence at the individual level should facilitate adaptation and change; and at the organizational level where what he termed emotional capability should be helpful to realize radical change. One of the first theoretical papers on group emotion intelligence (Wolff & Druskat, 1999) defines it as “the ability of a group to generate a shared set of norms that shape how members interpret and respond to their own emotions and to the ones exhibited by other members and individuals outside of the group.” (p. 3) In a second paper designed for a more practical-oriented managerial audience they suggested to create a structure that let the group express its emotions and all group members should be able to share perspectives before making decisions. Research has demonstrated that even though teamwork is key to organizational success (Marks et al., 2001), it also brings numerous challenges and frustrations. Managing team members’ affect (including emotions and moods) is one of them.

CONCLUSION

Even though significant advances have been made theoretically and empirically regarding the phenomenon of collective affect, the concept of emotional climate is still a relative uncharted territory, specifically its influence on team processes and team performance such as creativity and innovation. This paper has attempted to provide a framework for
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

shedding some light on this matter. Affect is a key component of groups’ life (Kelly & Barsade, 2001), and innovation in modern organizations cannot be achieved and implemented by isolated individuals (Kanter, 1988).
ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

References


ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION


ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION


ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION


ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION


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ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION


ROLE OF EMOTIONAL CLIMATES ON TEAM INNOVATION

Table 1

Characteristics Components of Joy and Fear

<table>
<thead>
<tr>
<th>Emotions</th>
<th>Appraisal and definition</th>
<th>Behaviors</th>
<th>Enhances*</th>
<th>Inhibits*</th>
<th>Social implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joy</td>
<td>• Positive, high control • Sense of accomplishment • Enjoyment of positive experiences with loved ones or friends • Being open and receptive • Feeling strong</td>
<td>• Excitement • Free activation, creativity • Wanting to be with others</td>
<td>• Being generous, patient, tolerant, supporting (I/G) • Creativity (I/G) • Confidence and self-esteem • Wanting to celebrate with others (G) • Sense of achievement after e.g. new task, intellectual challenge</td>
<td>• Productive thinking (I) • Analysis (I/G) • Concentration (I) • Effortful activities (I/G)</td>
<td>• Correlation with love and care, with solidarity • Mutual trust • Maintenance of relationships with others • Being tolerant and patient • Socially attractive emotion (happy people attract other people)</td>
</tr>
<tr>
<td>Fear</td>
<td>• Negative, low control • Threat, uncertainty, ambiguity • Demands enormous amounts of efforts • Associated with unexpected events that appear uncontrollable (e.g., losing self-esteem or job) • Avoidance, escape • Protect oneself by for example rehearsing before an exam or making plans before venturing • Focusing on the object at the origin of fear</td>
<td>• Thinking carefully about risks (I/G) • Getting relevant information from the environment (I) • Energy to adapt oneself to the situation (adaptability) (IG)</td>
<td></td>
<td>• Broader vision (I/G) conversely triggers tunnel vision • Moving away (I/G) conversely causes freezing • Considering enough alternatives</td>
<td>• Restrains aggressive behavior that could be a threat to internal cohesion • Reunification of group or country to face common danger for example • Helps the communication to restore relationships</td>
</tr>
</tbody>
</table>


* I indicates the implications for the individual; G indicates the implications for a group.
<table>
<thead>
<tr>
<th></th>
<th>Creativity Stage</th>
<th>Innovation/implementation stage</th>
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<td>Transition phase</td>
<td>Action phase</td>
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<td></td>
<td>Transition phase</td>
<td>Action phase</td>
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<td>Inputs</td>
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<td>Task characteristics</td>
<td>Autonomy</td>
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<td>Completeness</td>
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<td>Significance (Intrinsic motivation)</td>
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<td>Individual</td>
<td>Expertise</td>
<td>Goal orientation</td>
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<td>Openness to experience</td>
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<td>Agreeableness</td>
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<td>Group</td>
<td>Leader behavior (psychological safety)</td>
<td>Requisite diversity in knowledge and skills Demographic diversity</td>
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<td>Diversity in personality and attitudes</td>
<td>Social networks</td>
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<td>External demands</td>
<td>Competition</td>
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<td>Uncertainty</td>
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<td>Goal orientation (Group efficacy)</td>
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<td>Threats</td>
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<td>Group outcomes: Emergent states</td>
<td>Psychological safety, Group efficacy, Shared mental models, Group cohesion, Group affect</td>
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Table 2: Inputs, Processes, Task-related outcomes, and Emergent States in Work Group Innovation (Farr, Sin, & Tesluk, 2003)