Emotions in sensemaking: a change management perspective

Norbert Steigenberger
Seminar for Business Administration, Corporate Development and Organization, University of Cologne, Cologne, Germany

Abstract

Purpose – Following various calls for research, the purpose of this paper is to adopt theories of emotion and action to understand the affective dimension of sensemaking processes in organizational change endeavors.

Design/methodology/approach – This paper is conceptual in nature, introducing theories from psychology, in particular dual processing theory and the somatic marker hypothesis, to the field of intra- and inter-personal sensemaking in change processes.

Findings – The author discusses how emotions shape sensemaking and thus the perception of change events and how four discrete emotions (anger, fear, anxiety, hope) shape content and motivational strength of sensemaking accounts, influence the likelihood that a person will engage in sensegiving activities and will be willing to accept inter-personal sensemaking outcomes. The author proposes that emotions are an input to as well as an outcome of sensemaking processes.

Research limitations/implications – Although this research builds on a strong empirical basis, is conceptual in nature. Future research might test the relationships suggested in this paper empirically.

Practical implications – The findings suggest that the management of affective reactions of people subjected to change processes might be a field currently not sufficiently accounted for in change management. Active emotion management might be a way to steer change processes in a positive way for all the stakeholders involved.

Originality/value – The conceptualization presented here contributes to the often requested development of a conceptual model integrating emotions into the sensemaking perspective. The introduction of distinct emotions and the grounding in multi-disciplinary theory as well as the strong implications for change management theory and practice make this contribution valuable.

Keywords Sensemaking, Emotion, Change, Sensegiving, Affect

Paper type Conceptual paper

Change is an integral part of everyday life. Change creates disturbances and forces people to re-think their current and future situation. To preserve the ability to act in confusing situations, people develop a subjectively plausible story of what meaning, cause and consequence a certain development has and what an appropriate course of action would be. This process of interpreting inputs is widely known as sensemaking (Maitlis, 2005; Weick *et al.*, 2005). In the context of organizational change, sensemaking outcomes lead to positive or negative stances toward a change proposal, and, subsequently, openness or resistance to change (Bartunek *et al.*, 2011). The literature on organizational change is ripe with examples of how people individually and as groups interpreted a change proposal in a certain and often unintended way, causing it to fail or succeed (e.g. Balogun and Johnson, 2005; Conroy and O'Leary-Kelly, 2013; Ren and Guo, 2011; Shin *et al.*, 2012).

Sensemaking has been defined as "a process, prompted by violated expectations, that involves attending to and bracketing cues in the environment, creating intersubjective meaning through cycles of interpretation and action, and thereby enacting a more ordered

Journal of Organizational Change Management
Vol. 28 No. 3, 2015
pp. 432-451

0953-4814
DOI 10.1108/JOCM-05-2014-0095

environment from which further cues can be drawn" (Maitlis and Christianson, 2014, p. 67). The images of reality on which people build their evaluations are subjective and, in the case of inter-personal sensemaking, socially constructed (Cornelissen, 2012), i.e. they evolve from dialogue and story-building.

Over the last two decades, a strong theoretical basis for understanding this cognitive process has been developed (e.g. Hernes and Maitlis, 2010; Sonenshein and Dholakia, 2012; Weick *et al.*, 2005). But people are not purely and not even primarily cognitive beings and organizational change is laden with affective experiences like fear, anger or hope (Callan, 1993; Carr, 2001; Conroy and O'Leary-Kelly, 2013; Liu and Perrewe, 2005). Affective reactions, emotions in particular, influence how we experience a situation and how we interpret information (Lerner and Keltner, 2000). Emotions provide powerful stimuli for action, stimuli that are often much more influential than those obtained by cognitive thought (Haidt, 2001). Emotions impact decision making, information processing and risk perception (e.g. Bodenhausen *et al.*, 1994; Haidt, 2001; Lerner and Keltner, 2000; Slovic and Peters, 2006). The last decades saw a surging interest in the concept of emotion, both within and beyond the field of management research, and the importance of emotions for human decision making and action is widely accepted (Ashkanasy, 2003; Izard, 2010). Sensemaking research acknowledges the importance of emotions (e.g. Liu and Perrewe, 2005; Vuori and Virtaharju, 2012; Weick *et al.*, 2005), but it is only just beginning to integrate the concept into its conceptual framework (Maitlis *et al.*, 2013), although there is no shortage of calls to do just that (Carr, 2001; Klarner *et al.*, 2011; Maitlis and Christianson, 2014; Maitlis and Sonenshein, 2010; Rafferty *et al.*, 2012). Without emotions, an important predictor of human decision making and action is absent, leading to an at least incomplete understanding of sensemaking processes.

As sensemaking and emotions are both critical concepts for change management, it is not surprising that empirical studies start to explore the link between emotions and sensemaking from a change perspective. Shin *et al.* (2012) showed that positive emotions lead to a more positive evaluation of a change proposal, Sonenshein and Dholakia (2012) discussed the role of meaning making for affective commitment to change and Vuori and Virtaharju (2012) showed that emotional arousal affects how sensemaking accounts are rooted in individuals. Maitlis *et al.* (2013) presented a first conceptual article on the role of emotions in sensemaking processes, discussing in particular the effects of positive vs negative affect.

My paper builds on and contributes to this line of thinking, offering three conceptual extensions to the current understanding. Firstly, I argue that the role of emotions in sensemaking is twofold: emotions impact the sensemaking process (emotions-as-input) and sensemaking influences emotional states people develop toward an issue (emotions-as-outcome). Second, I introduce discrete emotions into the sensemaking model. Emotions have clearly distinguishable effects, thus the extension from a broad (positive/negative) to a fine-grained (anger, hope, fear) understanding of emotions is an important next step for the conceptualization of the effect of emotions on sensemaking in the change field, in particular regarding the development of applicable management recommendations (Lazarus, 2006). Third, I discuss the link between emotions and sensegiving, i.e. the propensity of people to influence the sensemaking of others, both from a sense-giver as well as from a sense-taker perspective. I elaborate on the implications of four distinct emotions and derive propositions, which are suited to guide research on this topic. These elaborations and the proposed model depict a conceptual relationship grounded in the psychology literature on emotions as well as the organizational change literature, and should also be a useful tool to teach

sensemaking and emotions in the classroom. I also derive management suggestions for the management of emotions in change processes. The management of emotions is a way to implement and manage change in a positive way. Thus, my paper adds to and expands the literature on positive management of change (e.g. Avey *et al.*, 2008; Klarner *et al.*, 2011; Wanberg and Banas, 2000).

Change management, sensemaking and emotions

Change as an organizational process

Change is an everyday phenomenon in organizations, as organizations adopt to changing institutional demands and stakeholder pressure (Greenwood and Hinings, 1996; Jarzabkowski *et al.*, 2013; Julian and Ofori-Dankwa, 2008). Changes disrupt existent patterns of behavior while new orientation schemes evolve and develop into new routines (Jarzabkowski *et al.*, 2012). Thus, changes often trigger resistive actions from change stakeholders (Battilana and Casciaro, 2012), as those stakeholders face the need to change routines (Becker *et al.*, 2005), experience identity-disrupting events (Conroy and O'Leary-Kelly, 2013) or fear loss of status, power or resources (Kellogg, 2012; Kiefer, 2005; Shin *et al.*, 2012).

Rafferty *et al.* (2012) argued that an individual's evaluation of a change proposal and thus his or her propensity to support or resist a change proposal builds on the believe that the change is needed, that the capacity to successfully conduct the change is available, as well as that the overall effect of the change will be positive. Attributes of individuals, such as openness to change or mental resilience to this equation (Wanberg and Banas, 2000), also affect the propensity to oppose or support change. Resistance or support has a cognitive as well as an emotional dimension, triggering cognitive evaluations of a change proposal as well as affective responses, such as anger, fear or hope (Piderit, 2000; Vince and Broussine, 1996). Many studies showed that the willingness of employees to support a change process or at least to abstain from active resistance predicts change outcomes (e.g. Cunningham *et al.*, 2002; Herscovitch and Meyer, 2002). To what degree a person or a group will resist or support a change proposal depends thus on the person's perception and interpretation of this proposal. This interpretation is the result of a cognitive and affective meaning-making process and is, partially, socially constructed, i.e. it is an outcome of individual and group-level sensemaking (Balogun and Johnson, 2005; Bovey and Hede, 2001; Canato *et al.*, 2013; Huy, 1999).

Sensemaking – a brief overview

The sensemaking perspective is a process-oriented view on organizing which became popular in the last decades (Maitlis and Christianson, 2014), following the publication of influential case studies which demonstrated that group and organizational behavior develops in dialogue and interaction at least as much as in rational analysis and planning (cf. Langley and Tsoukas, 2010). The best-known examples for those studies are Karl Weick's examination of the Bhopal Disaster (Weick, 1988) and Gioia and Chittipeddi's study of a major change project in an university (Gioia and Chittipeddi, 1991). Sensemaking takes place on an intra-personal as well as on an inter-personal level. Intra-personal sensemaking processes are initially often automated and sub-conscious, explicated only retrospectively (Sonenshein, 2007; Weick *et al.*, 2005)[1]. The interpretations of reality developed in that way provides the grounds for decision making and action (Volkema *et al.*, 1996). Sensemaking

accounts provide directions as well as motivation to act (Zohar and Luria, 2003). Motivation describes how determined a person will engage in an activity prescribed by the sensemaking account and how long he or she will uphold that determination.

Groups that are required to act in a coordinated way also face the challenge of making sense of puzzling information (Gioia and Chittipeddi, 1991; Gioia and Poole, 1984; Weick, 1993). Individuals in a group perceive different parts of the full complexity of an event, dependent on their role in the group (situated attention, cf. Bartunek *et al.*, 2006; Gioia and Thomas, 1996; Ocasio, 1997), and they develop intra-personal accounts contingent on their particular background (experience, personality, etc.). Intra-personal accounts therefore vary considerably within groups. Group accounts emerge based on the sensemaking accounts of individuals forming that group in a dialogic process of social meaning construction (Stigliani and Ravasi, 2012; Taylor and Robichaud, 2004; Weick *et al.*, 2005). In such an inter-personal sensemaking process, group members might or might not reach a unifying (i.e. shared) interpretation of the observed reality. The benefits of unifying group accounts are their potential to direct the efforts of a group into a consistent direction (Maitlis and Lawrence, 2007). Inter-personal sensemaking is a story-building process, in which group members may voice their opinion and may try to influence others in order to anchor their individual point of view in the group account produced. This "process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organization reality" is called sensegiving (Gioia and Chittipeddi, 1991, p. 442). While sensemaking is about structuring one's reality, sensegiving is a process of executing power via negotiation and leadership.

Sensemaking is an ongoing process which happens on a variety of topics at once and continuously (Vaara and Monin, 2010). The decision to invest in a sensegiving attempt or to remain passive is a decision of resource commitment. A person will only be inclined to enter sensegiving activities if he or she feels competent and legitimated to influence opinion building (Maitlis and Lawrence, 2007). As a result, some issues might draw sensegiving activities from many people while other issues may be neglected. In collective sensemaking processes, a group might or might not arrive at a shared interpretation of the triggering event, i.e. a unifying sensemaking account. Such accounts will usually not fully represent the sensemaking account each person has or would have developed in intra-personal sensemaking. In that case, individuals forming that group have to cope with the result (Stensaker and Falkenberg, 2007): A person can accept the outcome and adopt the developed account, he or she can reject it and actively oppose any actions derived thereof, or he or she can try to modify the account by continued sensegiving activities. How effective an account developed in a group is in coordinating the actions of the people it concerns depends on how broadly group members accept it.

Dependent on the breadth of the discussion (how many people entered sensegiving activities) and the breadth of acceptance of the developed account (how many people adopt the developed higher-level account), four types of accounts can appear (Maitlis, 2005). An account might be rich and unifying, i.e. based on the perspectives of a variety of active sense-makers and sense-givers, which came to agree on a particular interpretation of reality. The account might be not rich, but unifying, meaning that it developed from inputs of few sense-givers who convinced most or all stakeholders. The account might be rich but not unifying. Such a sensemaking result occurs if many people actively participated in an inter-personal sensemaking process, but could not develop a broadly accepted representation of reality. The account might be neither

unifying nor rich if few sense-givers appeared which could not bring others to follow their respective interpretations.

The rich and unifying account is preferable from an attention-based view perspective (Ocasio, 1997), as it builds on the perspectives and knowledge of many people in the group or organization, but it might require extensive time and energy to develop. A well-accepted account with limited scope is characteristic for successful top-down change management and might be preferable in the manner of speed and simplicity. Limited acceptance in combination with broad sensegiving activity occurs in situations where people are highly motivated to discuss and develop something but cannot find a common route. In the worst case, a group or organization might thus reach a state of escalating indecision (Denis *et al.*, 2011). The fourth type of outcome, limited sensegiving activity without the development of a common account, is typical for topics that seem irrelevant for most people. Such an account provides neither guidance nor motivation to act.

Emotions as inputs and outcomes of sensemaking processes

Human information processing and decision making consists of two distinct processes, a quick, subconscious one, often called System 1, and a deliberate, conscious and slower one, called System 2 (Epstein, 1994; Evans, 2008; Groves and Thompson, 1970). Humans process information parallel on both levels, both mechanisms are interdependent and the sub-conscious level, which is heavily influenced by affective experiences, is usually faster. Emotions[2] are short-wired in the human brain, i.e. they trigger very quickly (Cacioppo *et al.*, 1999; Izard, 2010; Phelps, 2006). As humans rationalize emotional experiences and actions triggered by emotions on the cognitive level, conscious thought might be a construction based on intuitive and affective information processing, or will, at least, be influenced by emotional experiences (Bargh and Chartrand, 1999; Carr, 2001; Loewenstein *et al.*, 2001). Emotions are triggered by the perception of mental images (Damasio, 2010; Lang and Bradley, 2010). Mental images may relate to present sensory inputs (one hears or sees something), mental constructions of future events (one thinks about something that might happen in the future) or recalls of what happened in the past (Damasio, 2010; Fischer *et al.*, 1990; Izard, 1993; Scherer, 2009; Weiss and Beal, 2006). Emotions provide guidance for action, they act as a somatic marker (Damasio, 2010). Somatic markers provide information on the perception that triggered the emotion, offering a readily accessible, fast option to evaluate how important a particular piece of information is, and in what direction a decision regarding the stimulus should go (Mosier and Fischer, 2010; Schwarz and Clore, 1983).

A person will follow the action tendency of a perceived emotion (fleeing or hiding when facing fear or taking aggressive moves in the face of anger) or he or she will suppress this action tendency. Humans experience fear when threatened with pain (an innate reaction), but the decision when it is appropriate to act on the fear emotion and flee (e.g. when being the victim of aggression) and when the action tendency must be suppressed (e.g. when visiting the dentist) is the result of a coping process related to the particular situation which, in turn, is influenced by social norms, experience, etc. Izard called the outcomes of these usually automated coping processes "emotion schemas" (Izard, 2011). If there is no emotion schema readily available, if the emotion is perceived as puzzling, a sensemaking process is required in order to rationalize the emotion, to develop a plausible story of how and why the emotion has been perceived and what consequences the emotion implies (Volkema *et al.*, 1996; Weick *et al.*, 2005). The resulting sensemaking process attributes the emotion to a certain cause and links it into a subjectively plausible story.

Emotions focus attention, i.e. they prime which type of information a person primarily perceives (Nabi, 2003). Emotions also influence cognitive styles and capacities (Damasio, 2010). Anger and fear, for example, act as blinkers, focussing the mind of a person on the object of the emotion. Anger induces an aggressive, decisive stance toward the object of anger (Fox and Spector, 1999), while fear triggers fleeing reactions (Baumgartner *et al.*, 2008; Lerner and Keltner, 2000). Other emotions create states of openness (anxiety), slow down cognitive thinking (sadness) or lower self-efficacy (anxiety). Thus, emotions influence cognitive sensemaking processes, as, linked to System 1, the emotional evaluations of a situation precedes the cognitive evaluation. If a person begins to think or talk about a puzzling mental image requiring sensemaking, the emotional evaluation is already there.

Change processes have the potential to threaten the material wellbeing and status of people or provide chances for development, new challenges or material benefits (Avey *et al.*, 2008; Corley and Gioia, 2004; Kiefer, 2005). Thus, they are strong triggers for emotions like fear, anger, anxiety or hope (Antonacopoulou and Gabriel, 2001; Bartunek *et al.*, 2006; Huy, 1999; Saunders *et al.*, 2009; Vaara, 2000). Reactions based on fear and anger are considered to hamper change in organizations (Huy, 1999). Hope has been found to be the reason for positive or negative outcomes in complex situations (Christianson *et al.*, 2009; Weick, 2010). An emotion needs not necessarily be linked to a particular information or cue to impact sensemaking processes related to this information or cue (Gino *et al.*, 2012; Weiss and Beal, 2006). If someone experiences an emotion, he or she is often unable to differentiate between pre-existing (incidental) emotions and emotions caused by an event he or she currently experiences or thinks about (directed emotion) and tend to falsely attribute emotions to events or situations which are currently consciously perceived (attribution bias; Bodenhausen *et al.*, 1994; Schwarz, 2001). People also tend to overrate the importance of the event they currently think about (focalism, Wilson and Gilbert, 2005). For example, if a person feels angry while making sense of puzzling information, he or she will refer more to stereotypes when interpreting this information, irrespective of if the cause of anger is the issue the sensemaking process is about or not (Lerner and Tiedens, 2006). This implies that a sense-maker needs not attribute his or her emotions "correctly" (from the viewpoint of a hypothetical neutral omniscient observer). In the sensemaking process, he or she will simply create a plausible story on the relationship between his or her emotions and the world he or she perceives.

As sensemaking accounts are relatively persistent mental constructs which remain in place as long as no information or cue appears that questions the account (Weick *et al.*, 2005) the sensemaking account as such will act as an emotion trigger (Damasio, 2010). A sensemaking account triggers every time an information or cue is perceived as being sufficiently similar to the perception that triggered the sensemaking process in the first place. This means that if an emotional response to a stimulus is prescribed in the sensemaking account, the emotion triggers any time the account triggers, as long as the informational input is sufficiently similar. If a person, for example, developed a sensemaking account that prescribes anger to a certain type of organizational change proposal, he or she will not consciously re-evaluate this emotional response to further change proposals, which he or she perceives to be similar.

A model of sensemaking and emotions

Following this discussion, it is possible to present a model of how emotions and sensemaking interrelate. I do so in two steps. Figure 1 depicts a baseline model of sensemaking on the intra- and inter-personal level. Figure 2 introduces emotions to the model.

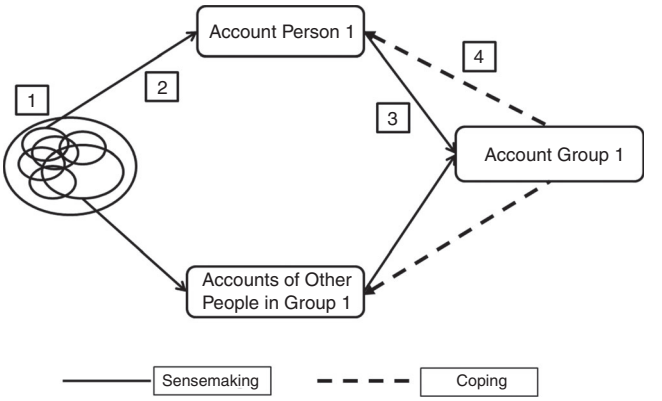

Figure 1.
Baseline model

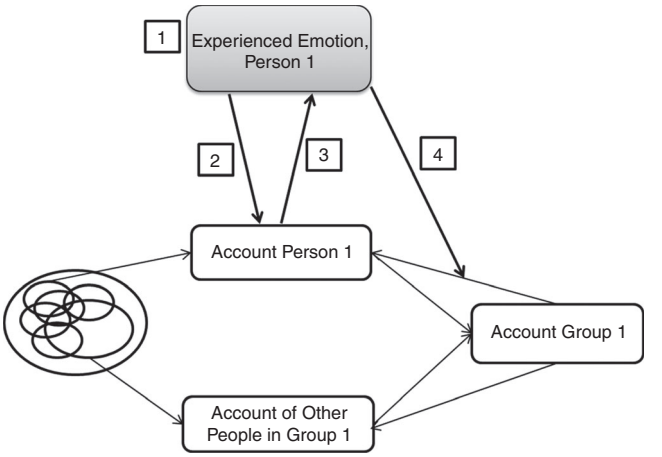

Figure 2.
Sensemaking
and emotion

Collective sensemaking develops in four distinct steps: a person perceives puzzling information for which no previously developed sensemaking account exists. People will perceive only a part of the full complexity of the event the information relates to, as their attention is bound by his role within the group or organization (Ocasio, 1997). An individual's perception of the event is represented by the smaller circles; the larger circle symbolizes the complex event. the persons initiates a sensemaking process, interpreting the puzzling information. The outcome of the sensemaking process depends on the personality of the sense-maker, his or her previous experience, his or her role etc. The sensemaking account produced prescribes direction and motivation to act. The group of which the individual is a member of tries to make sense of the puzzling information, if this information is perceived to be of importance (i.e. if the information triggered sensemaking activities) by a sufficient number of group members (cf. Maitlis and Lawrence, 2007). The group enters a collective sensemaking process in which group members might or might not engage in sensegiving activities. Collective sensemaking processes develop in dialogue and discourse. Sensegiving is the conscious and effortful attempt to influence the sensemaking of others. After an account on the group level has been developed, the group members have to cope with it,

thereby updating their individual-level accounts. Dependent on the outcome of this process, the group might or might not develop a shared group account. If the group fails to develop a shared account but sense-givers still try to influence the sensemaking process, steps 3 and 4 are being repeated, until either the situation changes such that no sensemaking on that particular topic is necessary anymore (because, e.g. the topic disappears or is replaced by more prevalent issues), the sense-makers agree on a shared account or sense-givers give up on influencing the sensemaking process.

As a next step, I include emotions into this model (greyed box and thick arrows in Figure 2).

A person enters a sensemaking process experiencing a particular emotion, which might be incidental (i.e. unrelated to the sensemaking object) or directed, (i.e. in relationship with the sensemaking object). The individual-level sensemaking process will be influenced by the experienced emotion. The emotion will also influence the motivational strength of the accounts (emotions-as-input). The person makes sense of the information and of his or her emotions, possibly linking the emotion to the sensemaking object. The sensemaking account produced in that way provides guidance with which emotion to react to the information perceived (emotions-as-outcome). The group will then enter a collective sensemaking process, producing a sensemaking account that might or might not be rich and/or unifying. The likelihood that a group member will accept that higher-level group account depends on his or her emotional state.

Discrete emotions, sensemaking, sensegiving and sensetaking

Discrete emotions in sensemaking processes

Emotions are "organized, meaningful, generally adaptive action systems" (Fischer *et al.*, 1990, p. 84), they influence human behavior in predictable ways (Haidt, 2001) and psychologist long discussed that emotions differ regarding antecedents, effects and mediators (Lazarus, 2006). Emotions have clearly distinguishable effects on human action and perception (Baumgartner *et al.*, 2008). Based on the model presented above, it is possible to propose the effects of specific emotions. Research on emotions in organizational change identified in particular three negative emotions, anxiety (Bartunek *et al.*, 2011; Wanberg and Banas, 2000), fear (Baumgartner *et al.*, 2008) and anger (Bartunek *et al.*, 2011; Conroy and O'Leary-Kelly, 2013), as important for change processes. Hope, as a positive emotion, is an important predictor of the willingness to engage in a positive way in organizational change processes, however (Avey *et al.*, 2008; Huy, 1999).

Although emotions are inherently intra-personal (Lazarus, 2006), there is empirical evidence that groups tend to develop a shared affective stance (Smith and Crandell, 1984) and that emotions often spill over from a person experiencing a particular emotion to other members of his or her group through observation and sub-conscious information processing (Barsade, 2002). This process of "emotional contagion" creates a tendency for groups to adopt a shared or at least dominant affective state (Bartel and Saavedra, 2000). As sensemaking and sensegiving are processes of social construction, the theory of emotional contagion suggest that not only individual emotions should play a role for sensemaking and sensegiving, but also that a (potential) group emotion might affect sensemaking and sensegiving processes in organizational change. Emotions affect the sensemaking account a person or group experiencing the emotions will tend to develop, the strength of motivation of the developed sensemaking account, the likelihood that a person or group will engage in sensegiving activities and the openness of a person to adopt a higher-level sensemaking account.

Anger. Anger leads to aggression and risk taking behavior (Eisenberg, 2000). Anger is usually directed toward an object (Dunn and Schweitzer, 2005; Smith and Ellsworth, 1985). Angry people rely on stereotyping and quick and heuristic decision making (Bodenhausen *et al.*, 1994; Lerner and Tiedens, 2006). Anger causes optimistic predictions about future events, as anger is usually accompanied by a feeling that it is in one's abilities to change a situation (Lerner and Keltner, 2000; Smith and Ellsworth, 1985). Angry people tend to judge others more harshly (Nabi, 2003) and tend to assign blame more easily (Eisenberg, 2000). Thus:

P1a. An angry person or group will develop sensemaking accounts prescribing more decisive and aggressive actions, compared to an emotionally neutral person or group, everything else held equal.

P1b. An angry person or group will develop sensemaking accounts that impose stronger motivation to act, compared to an emotionally neutral person or group, everything else held equal.

Fear. The reaction triggered by fear is a tendency to flee or hide, to avoid the feared object or state (Baumgartner *et al.*, 2008; Maitlis and Ozcelik, 2004). Fear is associated with a feeling of loss of control (Smith and Ellsworth, 1985) and people experiencing fear try to avoid or reduce risk and uncertainty (Gino *et al.*, 2012; Lerner and Keltner, 2000). Fear creates a powerful attention bias toward the feared object or state and an impetus for immediate action, obliterating the ability to focus on anything beside the feared object or state, if the fear emotion is strong enough (Lazarus, 1993; Nabi, 2003):

P2a. A person or group experiencing fear will develop sensemaking accounts focussing more on avoidance behavior and uncertainty reduction, compared to an emotionally neutral person or group.

P2b. A person or group experiencing fear will develop sensemaking accounts that impose stronger motivation to act, compared to an emotionally neutral person or group.

Anxiety. Anxiety is also a loss-of-control emotion (Smith and Ellsworth, 1985), triggering risk aversion and uncertainty (Brooks and Schweitzer, 2011; Gino *et al.*, 2012; Lerner and Keltner, 2000). Anxiety is a state of openness, in which a person or group looks for advice and guidance. Anxious people experience a loss of self-confidence and self-efficacy and often feel helpless (Gino *et al.*, 2012):

P3a. A person or group experiencing anxiety will develop sensemaking accounts focussing more on avoidance behavior and uncertainty reduction, compared to an emotionally neutral person or group.

P3b. A person or group experiencing anxiety will develop sensemaking accounts that impose weaker motivation to act, compared to an emotionally neutral person or group.

Hope. Hope is an emotion characterized by a feeling of pleasure at the prospect of a desirable future event or state (Baumgartner *et al.*, 2008; Curry *et al.*, 1997). Hope implies search behavior, hopeful people look for paths leading to the desired future state (Cavanaugh *et al.*, 2011). Hope thus motivates action, accompanied by the feeling that the desired future state is actually reachable (Curry *et al.*, 1997) and that one has an impact on if the positive future state will come about. Hope is, however, a relatively

weak trigger for action, compared to emotions such as anger or fear (Smith and Ellsworth, 1985), as long as the future state the hope emotion refers to is characterized by uncertainty (Roseman, 2013), which is typically the case in organizational change projects (e.g. Shin *et al.*, 2012). Once the state is clear, motivation to act increases (Roseman, 2013):

P4a. A person or group experiencing hope will develop sensemaking accounts that induce decisive actions, focussed on the state the hope emotion refers to, compared to an emotionally neutral person or group.

P4b. A person or group experiencing hope will develop sensemaking accounts that provide less motivation to act, compared to an emotionally neutral person or group, if the future state the hope emotion refers to is uncertain. If the focal state becomes clear, the motivation to act will be stronger, compared to an emotionally neutral person or group.

Discrete emotions in inter-personal sensemaking processes

Some emotions, like anger, are activating and accompanied by feelings of control, while others, like anxiety, tend to induce a more passive stance. These action tendencies influence the likelihood that a person will engage in sensegiving activities and the likelihood that the person will adopt a higher-level sensemaking account. The intention to invest in sensegiving activities is influenced by three subjective evaluations a person makes regarding a particular situation (Maitlis and Lawrence, 2007; Zohar and Luria, 2003): Is the situation important enough to justify the sensegiving effort? Do I have a chance to influence the sensemaking of others? May I legitimately influence others in this matter? The more positive a person evaluates each of these three questions, the higher the probability that this person will engage in sensegiving activities regarding a particular topic. Emotions influence the perception of the first two of these three dimensions. Strong perceived emotions signal importance of a topic, irrespective of the type of emotion felt (Schwarz and Clore, 1983). Emotions that trigger a feeling of control increase the evaluation of the chance for success in the sensegiving process, emotions implying a loss of control signal the opposite. Perceived legitimacy is, in the concept of Maitlis and Lawrence (2007), derived from role and structure and thus not contingent upon emotional states. Regarding sense-taking behavior, the willingness to accept a sensemaking account developed in an inter-personal sensemaking process, also critically depends on the emotional state, in particular the openness or closedness associated with experiencing a particular emotion.

Anger is an outward-oriented emotion (Smith and Ellsworth, 1985) which causes an action tendency to aggressively engage the object of anger. Angry people feel in control (Smith *et al.*, 1993). Anger is directed toward a particular object (e.g. a person), and in dealing with that object angry people tend to avoid compromise and, in general, cooperation (Allred *et al.*, 1997). Angry persons tend to distrust others (Dunn and Schweitzer, 2005):

P5a. A person or group experiencing anger will be more likely to engage in sensegiving activities, compared to an emotionally neutral person or group.

P5b. A person or group experiencing anger will be less open to sensegiving activities of others, compared to an emotionally neutral person or group.

Fear creates an attention bias, fearful people try to avoid the feared object (Smith and Ellsworth, 1985). This implies that sensemaking issues regarding the feared object

are of highest importance, other issues lose importance. A person fearing job loss after hearing from an intended organizational change plan will eagerly engage in sensegiving activities on that matter, a person fearing a forthcoming heart surgery will not engage in sensegiving activities as his or her attention is focussed on the object of fear. As fearful people are focussed toward the feared object, fearful people tend to be unapproachable (Lerner and Keltner, 2000):

P6a. A person or group experiencing fear will be more likely to engage in sensegiving activities, if the sensemaking object is also the object of the fear emotion. If the sensemaking object is not the object of the fear emotion, a person or group experiencing fear will be less inclined to engage in sensegiving activities, compared to an emotionally neutral person or group.

P6b. A person or group experiencing fear will be less open to sensegiving activities of others, compared to an emotionally neutral person or group.

Anxiety also triggers avoidance behavior (Kugler *et al.*, 2012). Anxious people avoid risk and decision making in general. Anxiety implies a strong reduction of self-efficacy and self-confidence (Gino *et al.*, 2012), i.e. a loss of perceived power and probability of success. Anxiety is a state of uncertainty and openness, in which a person or group looks for advice and guidance. Anxiety usually leads to a loss of reasoning powers, diminishing the ability to distinguish between good and bad advice as well as the ability to recognize conflicting interests (Gino *et al.*, 2012). Anxious people are generally open to suggestions of any kind:

P7a. A person or group experiencing anxiety will be less likely to engage in sensegiving activities, compared to an emotionally neutral person or group.

P7b. A person or group experiencing anxiety will be more open to sensegiving activities of others, compared to an emotionally neutral person or group.

Hope. Hope focusses the mind on a desirable future event or state, contains a strong problem-focus and is often accompanied by a feeling that it is in one's own power to achieve this desired state (Curry *et al.*, 1997; Roseman, 2013; Smith *et al.*, 1993). Hopeful people are both more open and more inclined to socialize with others than emotionally neutral persons, they tend to be more energetic, generous and optimistic (Fischer *et al.*, 1990; Roseman, 2013; Smith and Ellsworth, 1985):

P8a. A person or group experiencing hope will be more likely to engage in sensegiving activities, compared to an emotionally neutral person or group.

P8b. A person or group experiencing hope will be more open to sensegiving activities of others, compared to an emotionally neutral person or group.

Discussion

This paper presents a conceptualization of how emotions interact with intra- and inter-individual sensemaking and the propensity to engage in sensegiving activities, both in the form of a generalized model and as specific predictions of human behavior for four discrete emotions. In doing so, I provide a framework necessary to understand the role of discrete emotions in change management processes. The following table summarizes the propositions. The effects of the distinct emotions are quite different as are the implications to be derived thereof. The question for sensemaking research

is therefore not how emotions influence sensemaking outcomes but how specific emotions do so (Table I).

Emotions are inputs to as well as outcomes of sensemaking processes and, as emotions prime perception and thinking, there is a self-enhancing effect at work: If a person experiences a particular emotion before and in a sensemaking process, he or she will focus on those aspects of the sensemaking object that got primed by the emotion (Shin *et al.*, 2012). The outcome will therefore often reflect the emotional priming.

Emotions are not mutually exclusive, they can co-exist together (Klarner *et al.*, 2011; Liu and Perrewe, 2005; Scherer, 2009). If a person or group experiences more than one emotion when engaging in a sensemaking process, the strongest emotion should influence most strongly. It is also possible that cognitive and emotional evaluations of an issue will diverge. Psychologists found that in such cases the emotional appraisal guides action more than the cognitive one (Loewenstein *et al.*, 2001), depending on the strength of the emotional experience.

For the implementation of change projects, sensegiving is a stakeholder-oriented alternative to change implementation by formal power, one that could, in the best case, ensure the support of change stakeholders and enrich the change proposal by insights from those close to a problem (Sonenshein and Dholakia, 2012). There are two favorable outcomes of inter-personal sensemaking attempts in organizational change processes: One that unifies heterogeneous perspectives into a common interpretation of reality and one in which sense-makers quickly follow the sensegiving attempts of one sense-giver, i.e. firm management or other change agents. Active management of employees' emotions might be a way to achieve one of these two favorable outcomes. If the inclusion of many perspectives is the goal of a change endeavor, management should avoid causing any emotions that discourage people from taking an active role in a discourse process, in particular fear and anxiety, and foster emotions that induce people to cooperate and engage, in particular hope (Shin *et al.*, 2012). Anger might be a helpful emotion, if sense-givers are able to direct the focus of the anger to an outward source (i.e. competition, regulation, etc.), but might also backfire if the anger emotion links to the change proposal. Active expectation management (Hubbard and Purcell, 2001; Monin *et al.*, 2013), transformational leadership (Hoffman *et al.*, 2011) and meaning making (Sonenshein and Dholakia, 2012) are some ways to achieve that.

If the management strives for swift change implementation without much discussion, decisive and committed sensegiving is of crucial importance. In such cases, the management would want to discourage sensegiving activities of others

	Anger	Fear	Anxiety	Hope
Type of sensemaking account to be developed	Decisive	Avoiding	Avoiding	Decisive
Motivation derived from the sensemaking account	Strong	Strong	Weak	Weak/strong (dependent on the uncertainty of the focal state)
Propensity to engage in sensegiving	High	High/low (dependent on object of fear)	Low	High
Openness to sensegiving of others	Not open	Not open	Open	Open

Table I.
Discrete emotions, sensemaking and sensegiving

and should therefore aim to avoid triggering emotions that bring people to invest in sensegiving. The emotion to avoid most in such a sensegiving strategy is anger, as it causes people to actively engage in sensegiving activities and induces a state of closedness, which makes the adoption of the sensemaking account the sense-giver strives for unlikely. A helpful emotion is anxiety, as this emotion leaves people generally more willing to adopt sensemaking accounts suggested to them. Fear might be helpful if the sensemaking account can be developed such that the object of fear is outside of the sensemaking account, e.g. in prescribing a common enemy or unpleasant future state that has to be avoided (e.g. bankruptcy), or via tangible evidence for a dire state of affairs (e.g. layoffs, troubling financial statements). Employing the fear strategy is risky, as it requires a clear cognitive and conceptual separation between means and ends. The fear must be projected toward a feared end and means must be presented to avoid this end. Playing the anxiety strategy has also its downsides, as anxiety does usually not lead to decisive action. In order to get people to actively act on a suggested sensemaking account, one would have to eliminate the anxiety emotion toward the end of the sensegiving/sensetaking process, e.g. by suggesting again a hopeful future state for which it is worth working for or via tangible means (e.g. via an employment guarantee etc.). The active management of employees' emotions might be a fruitful way to implement change, a topic that scholars begin to explore (Monin *et al.*, 2013; Sonenshein and Dholakia, 2012; Vuori and Virtaharju, 2012). The process of emotional contagion does also imply that active emotion management might benefit from an emotion-sensitive leadership style (e.g. "emotional attending", cf. Reus, 2012), in order to quickly recognize dysfunctional emotions individuals might carry into groups. Active management of group memberships might thus be a complementary approach to planned emotion management in organizational change processes.

The theory presented here is a first step for developing a clearer understanding of the role emotions play in organizational change processes and sensemaking processes in general, opening a line of research on the effects of various discrete emotions on sensemaking, sensegiving and sensetaking in and beyond the field of organizational change. It also provides a sound basis to teach the role emotions have for change processes in a classroom. As the model builds on empirical knowledge, it could also serve also as a map of the previous literature on the topic, although my paper does in no way claim to be an exhaustive literature review.

This study has some limitations. The model developed here is purely conceptual and based on the currently available pool of knowledge, thus it might need a revision after new empirical evidence testing the proposed relationships has been brought forward. For reasons of scope and clarity, I restricted my analysis to what Izard called first-order emotions (Izard, 2011) which represent of course only a part of the range of emotions that might come up before, in and after sensemaking and sensegiving processes. I excluded those emotions Damasio (2010) termed "social": shame, guilt, compassion, envy, etc. Social emotions trigger in interactions and might therefore be of importance for sensemaking and sensegiving in groups and organizations, and might show complex relationships to and with inter-personal sensegiving processes. Then I did not consider the impact of other forms of affect, in particular mood. It is also important to note that emotions might have other consequences for change processes as well, as sensemaking is clearly not the only arena in the organizational change field where emotions play a role. Future research might extend our understanding of emotions in organizational change along these lines.

Conclusion

Emotions are inputs as well as outcomes of sensemaking processes. As inputs, emotions influence what type of sensemaking account a person or group is likely to develop in a given situation and how strong the motivation to act based on this account will be. As an outcome sensemaking accounts norm the affective response to a particular stimulus. Discrete emotions have predictable effects on the sensemaking process as well as the likelihood that an individual will engage in sensegiving activities and be inclined to accept inter-personal sensemaking accounts. Anger and hope, for example, lead to sensemaking accounts suggesting decisive action, but while anger, due to being an emotion with a strong impetus for action, causes sense-makers to become engaged and motivated, hope, as a relatively low-effort emotion, does not foster such a motivations to act. Regarding sensegiving activity, emotions impact self-efficacy and perceived relevance of a stimulus. Anxiety, for example, triggers avoidance reactions and a state of openness. Anxious individuals will therefore be less likely to engage in sensegiving activities and more likely to accept sensegiving attempts of others, compared to emotionally neutral individuals. Change management and strategy implementation might benefit from active emotion management, although this strategy has the potential to backfire, if not executed carefully. Emotions are important contingencies for implementing a change effort in an organization.

Notes

1. There is some debate in the sensemaking literature on how cognitively demanding sensemaking is and if people can decide to not engage in sensemaking activities, based on the observation that people often fail to respond to a cue that should have triggered sensemaking activities (Gephart *et al.*, 2010; Maitlis and Christianson, 2014; Maitlis *et al.*, 2013). In this paper I follow the notion of Gephart and colleagues who state that sensemaking is an ongoing process that might be but is not necessarily cognitively demanding.
2. Over the decades, a plethora of definitions has been brought forward. In this paper, I follow Izard: "Emotion consists of neural circuits (that are at least partially dedicated), response systems, and a feeling state/process that motivates and organizes cognition and action. Emotion also provides information to the person experiencing it, and may include antecedent cognitive appraisals and ongoing cognition including an interpretation of its feeling state, expressions or social-communicative signals, and may motivate approach or avoidant behavior, exercise control/regulation of responses, and be social or relational in nature" (Izard, 2010, p. 367).

References

Allred, K.G., Mallozzi, J.S., Matsui, F. and Raia, C.P. (1997), "The influence of anger and compassion on negotiation performance", *Organizational Behavior and Human Decision Processes*, Vol. 70 No. 3, pp. 175-187.

Antonacopoulou, E.P. and Gabriel, Y. (2001), "Emotion, learning and organizational change", *Journal of Organizational Change Management*, Vol. 14 No. 5, pp. 435-451.

Ashkanasy, N.M. (2003), "Emotions in organizations: a multi-level perspective", *Research in Multi-Level Issues*, Vol. 2, pp. 9-54.

Avey, J.B., Wernsing, T.S. and Luthans, F. (2008), "Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. the journal of applied", *Behavioral Science*, Vol. 44 No. 1, pp. 48-70.

Balogun, J. and Johnson, G. (2005), "From intended strategies to unintended outcomes: the impact of change recipient sensemaking", *Organization Studies*, Vol. 26 No. 11, pp. 1573-1601.

Bargh, J.A. and Chartrand, T.L. (1999), "The unbearable automaticity of being", *American Psychologist*, Vol. 54 No. 7, pp. 462-479.

Barsade, S.G. (2002), "The ripple effect: emotional contagion and its influence on group behavior", *Administrative Science Quarterly*, Vol. 47 No. 4, pp. 644-675.

Bartel, C.A. and Saavedra, R. (2000), "The collective construction of work group moods", *Administrative Science Quarterly*, Vol. 45 No. 2, pp. 197-231.

Bartunek, J.M., Balogun, J. and Do, B. (2011), "Considering planned change anew: stretching large group interventions strategically, emotionally, and meaningfully", *The Academy of Management Annals*, Vol. 5 No. 1, pp. 1-52.

Bartunek, J.M., Rousseau, D.M., Rudolph, J.W. and DePalma, J.A. (2006), "On the receiving end: sensemaking, emotion, and assessments of an organizational change initiated by others. the journal of applied", *Behavioral Science*, Vol. 42 No. 2, pp. 182-206.

Battilana, J. and Casciaro, T. (2012), "Change agents, networks, and institutions: a contingency theory of organizational change", *The Academy of Management Journal*, Vol. 55 No. 2, pp. 381-398.

Baumgartner, H., Pieters, R. and Bagozzi, R.P. (2008), "Future-oriented emotions: conceptualization and behavioral effects", *European Journal of Social Psychology*, Vol. 38 No. 4, pp. 685-696.

Becker, M.C., Lazaric, N., Nelson, R.R. and Winter, S.G. (2005), "Applying organizational routines in understanding organizational change", *Industrial and Corporate Change*, Vol. 14 No. 5, pp. 775-791.

Bodenhausen, G.V., Sheppard, L.A. and Kramer, G.P. (1994), "Negative affect and social judgment: the differential impact of anger and sadness", *European Journal of Social Psychology*, Vol. 24 No. 1, pp. 45-62.

Bovey, W.H. and Hede, A. (2001), "Resistence to organizational change: the role of cognitive and affective processes", *Leadership & Organization Development Journal*, Vol. 22 No. 8, pp. 372-382.

Brooks, A.W. and Schweitzer, M.E. (2011), "Can nervous nelly negotiate? how anxiety causes negotiators to make low first offers, exit early, and earn less profit", *Organizational Behavior and Human Decision Processes*, Vol. 115 No. 1, pp. 43-54.

Cacioppo, J.T., Gardner, W.L. and Berntson, G.G. (1999), "The affect system has parallel and integrative processing components: form follows function", *Journal of Personality and Social Psychology*, Vol. 76 No. 5, pp. 839-855.

Callan, V.J. (1993), "Individual and organizational strategies for coping with organizational change", *Work & Stress*, Vol. 7 No. 1, pp. 63-75.

Canato, A., Ravasi, D. and Phillips, N. (2013), "Coerced practice implementation in cases of low cultural fit: cultural change and practice adaptation during the implementation of six sigma at 3M", *Academy of Management Journal*, Vol. 56 No. 6, pp. 1724-1753.

Carr, A. (2001), "Understanding emotion and emotionality in a process of change", *Journal of Organizational Change Management*, Vol. 14 No. 5, pp. 421-434.

Cavanaugh, L.A., Cutright, K.M., Luce, M.F. and Bettman, J.R. (2011), "Hope, pride, and processing during optimal and nonoptimal times of day", *Emotion*, Vol. 11 No. 1, pp. 38-46.

Christianson, M.K., Farkas, M.T., Sutcliffe, K.M. and Weick, K.E. (2009), "Learning through rare events: significant interruptions at the Baltimore & Ohio railroad museum", *Organization Science*, Vol. 20 No. 5, pp. 846-860.

Conroy, S.A. and O'Leary-Kelly, A.M. (2013), "Letting go and moving on: work-related identity loss and recovery", *Academy of Management Review*, Vol. 39 No. 1, pp. 67-87.

Corley, K.G. and Gioia, D.A. (2004), "Identity ambiguity and change in the wake of a corporate spin-off", *Administrative Science Quarterly*, Vol. 49 No. 2, pp. 173-208.

Cornelissen, J.P. (2012), "Sensemaking under pressure: the influence of professional roles and social accountability on the creation of sense", *Organization Science*, Vol. 23 No. 1, pp. 118-137.

Cunningham, C.E., Woodward, C.A., Shannon, H.S., MacIntosh, J., Lendrum, B., Rosenbloom, D. and Brown, J. (2002), "Readiness for organziational change: a longitudinal study of workplace, psychological and behavioural correlates", *Journal of Occupational and Organizational Psychology*, Vol. 75 No. 4, pp. 377-392.

Curry, L.A., Snyder, C., Cook, D.L., Ruby, B.C. and Rehm, M. (1997), "Role of hope in academic and sport achievements", *Journal of Personality and Social Psychology*, Vol. 73 No. 6, pp. 1257-1267.

Damasio, A.R. (2010), *Self Comes To Mind: Constructing The Conscious Brain*, 1st ed., Pantheon Books, New York, NY.

Denis, J.-L., Dompierre, G., Langley, A. and Rouleau, L. (2011), "Escalating indecision: between reification and strategic ambiguity", *Organization Science*, Vol. 22 No. 1, pp. 225-244.

Dunn, J.R. and Schweitzer, M.E. (2005), "Feeling and believing: the influence of emotion on trust", *Journal of Personality and Social Psychology*, Vol. 88 No. 5, pp. 736-748.

Eisenberg, N. (2000), "Emotion, regulation, and moral development", *Annual Review of Psychology*, Vol. 51 No. 1, pp. 665-697.

Epstein, S. (1994), "Integration of the cognitive and the psychodynamic unconscious", *American Psychologist*, Vol. 49 No. 8, pp. 709-724.

Evans, J.S.B.T. (2008), "Dual-processing accounts of reasoning, judgment, and social cognition", *Annual Review of Psychology*, Vol. 59 No. 1, pp. 255-278.

Fischer, K.W., Shaver, P.R. and Carnochan, P. (1990), "How emotions develop and how they organise development", *Cognition & Emotion*, Vol. 4 No. 2, pp. 81-127.

Fox, S. and Spector, P.E. (1999), "A model of work frustration-aggression", *Journal of Organizational Behavior*, Vol. 20 No. 6, pp. 915-931.

Gephart, R.P., Topal, C. and Zhang, Z. (2010), "Future-oriented sensemaking: temporalities and institutional legitimation", in Hernes, T. and Maitlis, S. (Eds), *Process, Sensemaking, and Organizing*, Vol. 1, pp. 275-314, Oxford Univ Press, Oxford.

Gino, F., Brooks, A.W. and Schweitzer, M.E. (2012), "Anxiety, advice, and the ability to discern: feeling anxious motivates individuals to seek and use advice", *Journal of Personality and Social Psychology*, Vol. 102 No. 3, pp. 497-512.

Gioia, D.A. and Chittipeddi, K. (1991), "Sensemaking and sensegiving in strategic change initiation", *Strategic Management Journal*, Vol. 12 No. 6, pp. 433-448.

Gioia, D.A. and Poole, P.P. (1984), "Scripts in organizational behavior", *Academy of Management Review*, Vol. 9 No. 3, pp. 449-459.

Gioia, D.A. and Thomas, J.B. (1996), "Identity, image, and issue interpretation: sensemaking during strategic change in academia", *Administrative Science Quarterly*, Vol. 41 No. 3, pp. 370-403.

Greenwood, R. and Hinings, C. (1996), "Understanding radical organizational change: bringing together the old and the new institutionalism", *Academy of Management Review*, Vol. 21 No. 4, pp. 1022-1054.

Groves, P.M. and Thompson, R.F. (1970), "Habituation: a dual-process theory", *Psychological Review*, Vol. 77 No. 5, pp. 419-450.

Haidt, J. (2001), "The emotional dog and its rational tail: a social intuitionist approach to moral judgment", *Psychological Review*, Vol. 108 No. 4, pp. 814-834.

Hernes, T. and Maitlis, S. (Eds) (2010), *Process, Sensemaking, and Organizing*, Oxford Univ Press, Oxford.

Herscovitch, L. and Meyer, J.P. (2002), "Commitment to organizational change: extension of a three-component model", *Journal of Applied Psychology*, Vol. 87 No. 3, pp. 474-487.

Hoffman, B.J., Bynum, B.H., Piccolo, R.F. and Sutton, A.W. (2011), "Person-organization value congruence: how transformational leaders influence work group effectiveness", *Academy of Management Journal*, Vol. 54 No. 4, pp. 779-796.

Hubbard, N. and Purcell, J. (2001), "Managing employee expectations during acquisitions", *Human Resource Management Journal*, Vol. 11 No. 2, pp. 17-33.

Huy, Q.N. (1999), "Emotional capability, emotional intelligence, and radical change", *Academy of Management Review*, Vol. 24 No. 2, pp. 325-345.

Izard, C.E. (1993), "Four systems for emotion activation: cognitive and noncognitive processes", *Psychological Review*, Vol. 100 No. 1, pp. 68-90.

Izard, C.E. (2010), "The many meanings/aspects of emotion: definitions, functions, activation, and regulation", *Emotion Review*, Vol. 2 No. 4, pp. 363-370.

Izard, C.E. (2011), "Forms and functions of emotions: matters of emotion-cognition interactions", *Emotion Review*, Vol. 3 No. 4 pp. 371-378.

Jarzabkowski, P., Le, J.K. and van de Ven, A.H. (2013), "Responding to competing strategic demands: how organizing, belonging, and performing paradoxes coevolve", *Strategic Organization*, Vol. 11 No. 3, pp. 245-280.

Jarzabkowski, P.A., Le, J.K. and Feldman, M.S. (2012), "Toward a theory of coordinating: creating coordinating mechanisms in practice", *Organization Science*, Vol. 23 No. 4, pp. 907-927.

Julian, S.D. and Ofori-Dankwa, J.C. (2008), "Toward an integrative cartography of two strategic issues diagnosis frameworks", *Strategic Management Journal*, Vol. 29 No. 1, pp. 93-114.

Kellogg, K.C. (2012), "Making the cut: using status-based countertactics to block social movement implementation and microinstitutional change in surgery", *Organization Science*, Vol. 23 No. 6, pp. 1546-1570.

Kiefer, T. (2005), "Feeling bad: antecedents and consequences of negative emotions in ongoing change", *Journal of Organizational Behavior*, Vol. 26 No. 8, pp. 875-897.

Klarner, P., By, R.T. and Diefenbach, T. (2011), "Employee emotions during organizational change: towards a new research agenda", *Scandinavian Journal of Management*, Vol. 27 No. 3, pp. 332-340.

Kugler, T., Connolly, T. and Ordóñez, L.D. (2012), "Emotion, decision, and risk: betting on gambles versus betting on people", *Journal of Behavioral Decision Making*, Vol. 25 No. 2, pp. 123-134.

Lang, P.J. and Bradley, M.M. (2010), "Emotion and the motivational brain", *Biological Psychology*, Vol. 84 No. 3, pp. 437-450.

Langley, A. and Tsoukas, H. (2010), "Introducing 'perspectives on process organization studies", in Hernes, T. and Maitlis, S. (Eds), *Process, Sensemaking, and Organizing*, Oxford Univ Press, Oxford.

Lazarus, R. (1993), "From psychological stress to emotions: a history of changing outlooks", *Annual Review of Psychology*, Vol. 44, pp. 1-21.

Lazarus, R.S. (2006), "Emotions and interpersonal relationships: toward a person-centered conceptualization of emotions and coping", *Journal of personality*, Vol. 74 No. 1, pp. 9-46.

Lerner, J.S. and Keltner, D. (2000), "Beyond valence: toward a model of emotion-specific influences on judgement and choice", *Cognition & Emotion*, Vol. 14 No. 4, pp. 473-493.

Lerner, J.S. and Tiedens, L.Z. (2006), "Portrait of the angry decision maker: how appraisal tendencies shape anger's influence on cognition", *Journal of Behavioral Decision Making*, Vol. 19 No. 2, pp. 115-137.

Liu, Y. and Perrewe, P.L. (2005), "Another look at the role of emotion in the organizational change: a process model", *Human Resource Management Review*, Vol. 15 No. 4, pp. 263-280.

Loewenstein, G.F., Weber, E.U., Hsee, C.K. and Welch, N. (2001), "Risk as feelings", *Psychological Bulletin*, Vol. 127 No. 2, pp. 267-286.

Maitlis, S. (2005), "The social process of organizational sensemaking", *Academy of Management Journal*, Vol. 49 No. 1, pp. 21-49.

Maitlis, S. and Christianson, M. (2014), "Sensemaking in organizations: taking stock and moving forward", *The Academy of Management Annals*, Vol. 8 No. 1, pp. 57-125.

Maitlis, S. and Lawrence, T.D. (2007), "Triggers and enablers of sensegiving in organizations", *Academy of Management Journal*, Vol. 50 No. 1, pp. 57-84.

Maitlis, S. and Ozcelik, H. (2004), "Toxic decision processes: a study of emotion and organizational decision making", *Organization Science*, Vol. 15 No. 4, pp. 375-393.

Maitlis, S. and Sonenshein, S. (2010), "Sensemaking in crisis and change: inspirations and insights from weick (1988)", *Journal of Management Studies*, Vol. 47 No. 3, pp. 551-580.

Maitlis, S., Vogus, T.J. and Lawrence, T.B. (2013), "Sensemaking and emotion in organizations", *Organizational Psychology Review*, Vol. 3 No. 3, pp. 222-247.

Monin, P., Noorderhaven, N., Vaara, E. and Kroon, D. (2013), "Giving sense to and making sense of justice in post-merger integration", *Academy of Management Journal*, Vol. 56 No. 1, pp. 256-284.

Mosier, K.L. and Fischer, U. (2010), "The role of affect in naturalistic decision making", *Journal of Cognitive Engineering and Decision Making*, Vol. 4 No. 3, pp. 240-255.

Nabi, R.L. (2003), "Exploring the framing effects of emotion: do discrete emotions differentially influence information accessibility, information seeking, and policy preference?", *Communication Research*, Vol. 30 No. 2, pp. 224-247.

Ocasio, W. (1997), "Towards an attention-based view of the firm", *Strategic Management Journal*, Vol. 18 No. 6, pp. 187-206.

Phelps, E.A. (2006), "Emotion and cognition: insights from studies of the human Amygdala", *Annual Review of Psychology*, Vol. 57 No. 1, pp. 27-53.

Piderit, S.K. (2000), "Rethinking resistance and recognizing ambivalence: a multidimensional view of attitudes toward an organizational change", *Academy of Management Review*, Vol. 25 No. 4, pp. 783-794.

Rafferty, A.E., Jimmieson, N.L. and Armenakis, A.A. (2012), "Change readiness: a multilevel review", *Journal of Management*, Vol. 39 No. 1, pp. 110-135.

Ren, C.R. and Guo, C. (2011), "Middle managers' strategic role in the corporate entrepreneurial process: attention-based effects", *Journal of Management*, Vol. 37 No. 6, pp. 1586-1610.

Reus, T.H. (2012), "Culture's consequences for emotional attending during cross-border acquisition implementation", *Journal of World Business*, Vol. 47 No. 3, pp. 342-351.

Roseman, I.J. (2013), "Appraisal in the emotion system: coherence in strategies for coping", *Emotion Review*, Vol. 5 No. 2, pp. 141-149.

Saunders, M.N., Altinay, L. and Riordan, K. (2009), "The management of post-merger cultural integration: implications from the hotel industry", *The Service Industries Journal*, Vol. 29 No. 10, pp. 1359-1375.

Scherer, K.R. (2009), "The dynamic architecture of emotion: evidence for the component process model", *Cognition & Emotion*, Vol. 23 No. 7, pp. 1307-1351.

Schwarz, N. (2001), "Feelings as information: implications for affective influences on information processing", in Martin, L.L. and Clore, G.L. (Eds), *Theories of Mood and Cognition. A Users Handbook*, L. Erlbaum Associates, Mahwah, NJ, pp. 159-176.

Schwarz, N. and Clore, G.L. (1983), "Mood, misattribution, and judgments of well-being: informative and directive functions of affective states", *Journal of Personality and Social Psychology*, Vol. 45 No. 3, pp. 513-523.

Shin, J., Taylor, M.S. and Seo, M.-G. (2012), "Resources for change: the relationships of organizational inducements and psychological resilience to employees' attitudes and behaviors toward organizational change", *Academy of Management Journal*, Vol. 55 No. 3, pp. 727-748.

Slovic, P. and Peters, E. (2006), "Risk perception and affect", *Current Directions in Psychological Science*, Vol. 15 No. 6, pp. 322-325.

Smith, C.A. and Ellsworth, P.C. (1985), "Patterns of cognitive appraisal in emotion", *Journal of Personality and Social Psychology*, Vol. 48 No. 4, pp. 813-838.

Smith, C.A., Haynes, K.N., Lazarus, R.S. and Pope, L.K. (1993), "In search of the 'hot' cognitions: attributions, appraisals, and their relation to emotion", *Journal of Personality and Social Psychology*, Vol. 65 No. 5, pp. 916-929.

Smith, K.K. and Crandell, S.D. (1984), "Exploring collective emotion", *American Behavioral Scientist*, Vol. 27 No. 6, pp. 813-828.

Sonenshein, S. (2007), "The role of construction, intuition, and justification in responding to ethical issues at work: the sensemaking-intuition model", *Academy of Management Review*, Vol. 32 No. 4, pp. 1022-1040.

Sonenshein, S. and Dholakia, U. (2012), "Explaining employee engagement with strategic change implementation: a meaning-making approach", *Organization Science*, Vol. 23 No. 1, pp. 1-23.

Stensaker, I. and Falkenberg, J. (2007), "Making sense of different responses to corporate change", *Human Relations*, Vol. 60 No. 1, pp. 137-177.

Stigliani, I. and Ravasi, D. (2012), "Organizing thoughts and connecting brains: material practices and the transformation from individual to group-level prospective sensemaking", *Academy of Management Journal*, Vol. 55 No. 5, pp. 1232-1259.

Taylor, J.R. and Robichaud, D. (2004), "Finding the organization in the communication: discourse as action and sensemaking", *Organization*, Vol. 11 No. 3, pp. 395-413.

Vaara, E. (2000), "Constructions of cultural differences in post-merger change processes: a sensemaking perspective on finnish-swedish cases", *Management Communication Quarterly*, Vol. 3 No. 3, pp. 81-110.

Vaara, E. and Monin, P. (2010), A recursive perspective on discursive legitimation and organizational action in mergers and acquisitions", *Organization Science*, Vol. 21 No. 1, pp. 3-22.

Vince, R. and Broussine, M. (1996), "Paradox, defense and attachment: accessing and working with emotions and relations underlying organizational change", *Organization Studies*, Vol. 17 No. 1, pp. 1-21.

Volkema, R.J., Farquhar, K. and Bermann, T.J. (1996), "Third-party sensemaking in interpersonal conflicts at work: a theoretical framework", *Human Relations*, Vol. 49 No. 11, pp. 1437-1454.

Vuori, T. and Virtaharju, J. (2012), "On the role of emotional arousal in sensegiving", *Journal of Organizational Change Management*, Vol. 25 No. 1, pp. 48-66.

Wanberg, C.R. and Banas, J.T. (2000), "Predictors and outcomes of openness to changes in a reorganizing workplace", *Journal of Applied Psychology*, Vol. 85 No. 1, pp. 132-142.

Weick, K.E. (1988), "Enacted sensemaking in crisis situations", *Journal of Management Studies*, Vol. 25 No. 4, pp. 305-317.

Weick, K.E. (1993), "The collapse of sensemaking in organizations: the mann gulch disaster", *Administrative Science Quarterly*, Vol. 38 No. 4, pp. 628-652.

Weick, K.E. (2010), "Reflections on enacted sensemaking in the bhopal disaster", *Journal of Management Studies*, Vol. 47 No. 3, pp. 537-550.

Weick, K.E., Sutcliffe, K.M. and Obstfeld, D. (2005), "Organizing and the process of sensemaking", *Organization Science*, Vol. 16 No. 4, pp. 409-421.

Weiss, H.M. and Beal, D.J. (2006), "Reflections on affective events theory", *Research on Emotion in Organizations*, Vol. 1 No. 1, pp. 1-21.

Wilson, T.D. and Gilbert, D.T. (2005), "Affective forecasting. knowing what to want", *Current Directions in Psychological Science*, Vol. 14 No. 3, pp. 131-134.

Zohar, D. and Luria, G. (2003), "Organizational meta-scripts as a source of high reliability: the case of an army armored brigade", *Journal of Organizational Behavior*, Vol. 24 No. 7, p. 8.

About the author

Dr Norbert Steigenberger is a Researcher at the Seminar for Business Administration, Corporate Development and Organization at the University of Cologne. His research interests focus on sensemaking, decision making and coordination in complex task environments, post-merger integration and crowdfunding. He received his PhD from the Technical University Chemnitz (Germany) in 2011. Dr Norbert Steigenberger can be contacted at: steigenberger@wiso.uni-koeln.de