

Sensemaking and emotion in organizations

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Abstract

Emotion is a critical but relatively unexplored dimension of sensemaking in organizations. Existing models of sensemaking tend to ignore the role of emotion or portray it as an impediment. To address this problem, we explore the role that felt emotion plays in three stages of individual sensemaking in organizations. First, we examine emotion's role in mediating the relationship between unexpected events and the onset of sensemaking processes. We argue that emotion signals the need for and provides the energy that fuels sensemaking, and that different kinds of emotions are more and less likely to play these roles. Second, we explore the role of emotion in shaping sensemaking processes, focusing on how emotions make sensemaking a more solitary or more interpersonal process, and a more generative or more integrative process. Third, we argue that sensemakers' felt emotion plays an important role in concluding sensemaking, particularly through its effect on the plausibility of sensemaking accounts.

Keywords

sensemaking, emotion, meaning, accounts

Sensemaking—the process through which individuals and groups attempt to explain novel, unexpected, or confusing events—has become a critically important topic in the study of organizations (Weick, Sutcliffe, & Obstfeld, 2005). The ability of organizational actors to

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make sense of such events or issues has been linked to strategic change and decision making (Gioia & Thomas, 1996; Mantere, Schildt, & Sillince, 2012; Rerup & Feldman, 2011), organizational safety and reliability (Blatt, Christianson, Sutcliffe, & Rosenthal, 2006; Gephart, 1993; Weick, 1988, 1990, 1993), innovation and creativity (Drazin, Glynn, & Kazanjian, 1999; Hill & Levenhagen, 1995), and newcomer socialization and identification (Ashforth & Saks, 1996; Pratt, 2000; Sluss, Ployhart, Cobb, & Ashforth, 2012). These studies have demonstrated that by reducing equivocality, sensemaking enables organizational actors to effect change, make decisions, and create novel solutions to organizational problems.

An important but underexamined facet of sensemaking is the role of emotion (Gioia & Mehra, 1996; Magala, 1997). There are several reasons why emotion, which we define as a transient feeling state with an identified cause or target that can be expressed verbally or non-verbally (Grandey, 2008; Russell & Barrett, 1999), may be an important element in sensemaking processes. First, emotion plays a crucial role in detecting and attending to anomalies (Adler & Obstfeld, 2007; Frijda, 1986). Emotion has been shown to direct attention towards certain cues (Öhman, Flykt, & Esteves, 2001), and alert individuals to unexpected and possibly dangerous events (Scherer, 1984; Weick, 1990; Zajonc, 1980). This suggests emotion may help us understand why certain events trigger sensemaking. Second, emotion has increasingly been acknowledged as important in explaining variation in key cognitive and social processes, influencing how events are interpreted (Schwarz & Clore, 2007), beliefs revised (Hodgkinson & Healey, 2011; Lieberman, 2000), decisions made (Forgas, 1995), and strategy implemented (Huy, 2011). Emotion thus appears to be an important factor in shaping the kind of sensemaking process that occurs following a triggering event. Finally, prior research in the therapeutic (Greenberg & Pascual-Leone, 2001) and meaning making (Park, 2010) literatures has demonstrated the

important role played by emotion in achieving cognitive closure following personal crises. This literature points to the potential importance of emotion in concluding sensemaking.

Several works in the empirical sensemaking literature imply the importance of emotion, while neither focusing explicitly on it nor systematically theorizing its contribution to sensemaking processes. Emotion has, for example, been shown to be a critically important element in the socialization of organizational newcomers as they experience new, unfamiliar practices (Louis, 1980; Pratt, 2000). The emotionality of issues also played a significant role in shaping leaders and stakeholders' individual sensemaking in Maitlis' studies of orchestras (Maitlis, 2005; Maitlis & Lawrence, 2007). A small but growing body of work has focused explicitly on the connection between emotion and sensemaking. Rafaeli and Vilnai-Yavetz (2004), for example, show that sensemaking in reaction to a change in an important organizational artifact—the color of a public transportation company's fleet of buses—can elicit a variety of emotions, including positive ones such as joy and calmness, and negative ones, such as disgust and shame. Bartunek, Rousseau, Rudolph, and DePalma (2006) examined the intersection of emotion and sensemaking in the context of planned change, showing that individual employees' felt emotions have a significant effect on whether and how they engage in sensemaking. And, in a recent study of organizational foundings, Walsh and Bartunek (2011) showed how members' emotions both emerge out of and fuel sensemaking following the demise of an organization. Despite the widespread evidence that emotion is an integral part of sensemaking, however, relatively little theory has been developed that explicitly identifies the roles that emotion plays in sensemaking and its impacts on sensemaking processes.

To advance scholarly understanding of emotion in sensemaking, we develop a process model of the role of emotion in three phases of individual-level sensemaking in organizations. We do so by building on and integrating sen-

semaking research on emotion-related processes in organizations (Bartunek, Balogun, & Do, 2011; Elfenbein, 2007; George & Jones, 2001; Huy, 2002, 2005). We develop a process model rather than focusing on specific characteristics of sensemaking, such as Weick's (1995) seven features properties, because a process model allows us to more easily identify the different roles that emotion plays in sensemaking and more clearly reflects the mechanisms through which emotion affects sensemaking. We focus on sensemaking by individuals in organizations, rather than groups or organizations, to provide a theoretical foundation for understanding the role of emotion in sensemaking more firmly rooted in existing research.

We define sensemaking as beginning when an event causes a previously coherent representation to break down such that new cues cannot be integrated into it (Maguire, Maguire, & Keane, 2011). Thus, we view sensemaking as necessitating the construction of a new account (Antaki, 1994)—a “situation that is comprehended explicitly in words and serves as a springboard to action” (Taylor & van Every, 2000, as cited in Cornelissen & Clarke, 2010). This definition is important because it serves to bound our analysis. Consistent with Weick's (1995, p. 86) description of sensemaking as involving “sustained attention” and initiating “novel action” (Schroeder et al., 1989, as cited in Weick, 1995, p. 84), we do not examine instances when individuals quickly normalize new cues, assimilating novel events into existing representations (Ashforth & Kreiner, 2002; Vaughan, 1996).

A process model of emotion in sensemaking

Sensemaking begins when individuals or groups confront events (Weick, 1993), issues (Dutton & Dukerich, 1991), or actions (Gioia & Thomas, 1996; Weick, 1990) that are surprising, confusing, or otherwise at variance with the “normal” situation (Weick et al., 2005). The process of sensemaking is thus concerned with

the retrospective development of plausible accounts that rationalize what has occurred and bring order to disorder (Weick et al., 2005). The traditional conception of emotion in sensemaking, that is reflected in much of the empirical sensemaking research (Gephart, 1993; Weick, 1990, 1993), highlights the arousal of the autonomic nervous system, triggered by an unexpected interruption in an ongoing flow of activity (Weick, 1995). An interruption provides a warning that there is a stimulus to which attention must be paid and that one's well-being may be at stake.

This, we believe, represents an unnecessarily restricted understanding of emotion in sensemaking, one that belies lived experience in organizations, where emotion and sensemaking are often intimately and intricately connected. In recent years, empirical work on sensemaking in organizations has highlighted the potential importance of emotion to sensemaking dynamics (Bartunek et al., 2006; Dougherty & Drumheller, 2006; George & Jones, 2001; Rafaeli & Vilnai-Yavetz, 2004; Sims, 2005; Sonenshein, 2007; Walsh & Bartunek, 2011), but not led to a systematic integration of emotion into the theoretical foundations of sensemaking. To address this issue, we explore the roles that emotion might play in sensemaking based on a three-phase model of sensemaking processes. First, we explore how the felt emotions of individuals who encounter novel or unexpected events might affect whether those individuals engage in sensemaking in response to such events. Second, we examine how the felt emotions of sensemakers might shape their sensemaking processes. Third, we explore the role of emotion in concluding sensemaking processes.

Our discussion of emotion draws significantly on the circumplex model, which maps emotions onto two core dimensions of hedonic valence (how positive/pleasant or negative/unpleasant the emotion is) and activation (how intense the emotion is; Barrett & Russell, 1999; Russell, 1980), and the PANAS (Watson, Clark, & Tellegen, 1988), which organizes emotions

into two independent dimensions of valence (positive affect [PA] and negative affect [NA]). Consistent with recent work showing the importance of the circumplex model's two core dimensions of emotion for sensemaking (Bartunek et al., 2006; Walsh & Bartunek, 2011), we focus on the impact of an emotion's valence and level of activation, or intensity, on sensemaking. To add nuance to our theorizing, however, we also build on recent research in psychology and organizational behavior that has examined specific discrete emotions from the circumplex model, such as anger and sadness (Gooty, Gavin, & Ashkanasy, 2009; Grandey, Rafaeli, Ravid, Wirtz, & Steiner, 2010; Roseman, Wiest, & Swartz, 1994; Wang, Northcraft, & van Kleef, 2012), and explore their role in shaping sensemaking. This allows us to examine the different roles played by emotions that are co-located on the circumplex model, for example, two moderately intense positive emotions or two moderately intense negative emotions, in the sensemaking process.

The role of emotion in triggering sensemaking

Sensemaking is generally understood as triggered by events or situations for which the meaning is unclear or contrary to expectation, such that a previously coherent representation breaks down or new cues cannot be integrated into an existing representation (Maguire et al., 2011). This can occur across a range of situations including ones of relative novelty, as experienced by newcomers to organizations (Ashforth & Kreiner, 2002; Ashforth & Saks, 1996; Pratt, 2000), discrepancies between expectations and reality (Dutton & Dukerich, 1991), "cosmology episodes" which occur "when people suddenly and deeply feel that the universe is no longer a rational, orderly system" (Weick, 1993, p. 633), or deliberate initiatives that increase levels of conscious attention (Brown, 2000; Gioia & Chittipeddi, 1991; Louis & Sutton, 1991; Rerup, 2009).

Although a wide range of events and situations have been shown to trigger sensemaking, it is also the case that novel or unexpected events often do not lead to sensemaking processes. This is an important issue for sensemaking research because failing to engage in sensemaking has been associated with costly, sometimes tragic, consequences (Gephart, 1993; Shrivastava, 1992; Weick, 1990, 1993). Several studies have found that discrepant events failed to trigger sensemaking because they were quickly normalized, rationalized, and interpreted in a way that was consistent with an existing account of the world (Ashforth & Kreiner, 2002; Watzlawick, 1976). In an analysis of the Columbia shuttle disaster, for example, Dunbar and Garud (2009) describe how individuals at NASA reacted to a large piece of foam striking the leading edge of the shuttle's wing: at each point in the organizational hierarchy, the incident was quickly categorized as routine instead of triggering efforts to make sense of the unexpected event's causes and potential consequences. In the earlier Challenger disaster, Vaughan (1996) identified a similar process—normalization of deviance—whereby a history of deviations consistently led individuals to redefine extraordinary situations as ordinary. In contrast, other studies have shown how an event or issue can become a powerful sensemaking trigger, mobilizing action and engendering change (Bartunek, 1984; Dutton & Dukerich, 1991; Nigam & Ocasio, 2010). Christianson, Farkas, Sutcliffe, and Weick (2009), for example, describe how a natural disaster that destroyed the Baltimore and Ohio Railroad Museum led to sensemaking by the organization's leader about the organization's identity and its future that resulted in significant organizational change. Rerup (2009) describes a process through which a near disaster at Novo Nordisk triggered extensive sensemaking by executives that resulted in the Novo Way of Management as a tool for attending to and making sense of anomalies.

There are, of course, a range of factors that could be examined to understand why some novel events trigger sensemaking while others

do not, but we propose that emotion may play a critical and relatively underexplored role in this process. Although sensemaking is often described as a natural response to encountering the novel, unexpected, or ambiguous (Roberson & Stevens, 2006; Weick, 1995), we argue that sensemaking is an effortful, sometimes difficult, and potentially unpleasant process, and so individuals must be energized to engage in it. This view is supported by research highlighting the costs to individuals of developing new accounts. First, sensemaking is cognitively demanding. We seek coherence in our experience of the world and acknowledging the existence of inconsistencies forces us to relinquish our working assumptions and seek out new explanations—a distracting and cognitively consuming task (Fiske & Taylor, 2007; George & Jones, 2001; Schwenk, 1984; Weick, 1990). A second deterrent to sensemaking is the cost it potentially incurs for a person's identity. When new, discrepant data is potentially threatening, people will often address it by normalizing these data to fit their existing story and self-conception (Kreiner, Hollensbe, & Sheep, 2006). Third, sensemaking has social costs because it may require public admission of confusion, uncertainty, or previous errors, any of which might raise questions of competence (Blatt et al., 2006; Edmondson, 1996; Lee, 1997). This is especially true for those in leadership or expert positions, as has been illustrated in studies of experienced airline pilots, army officers, and fire commanders (Snook, 2000; Weick, 1990; Weick & Sutcliffe, 2007). Together, the cognitive, identity, and social costs of sensemaking mean that people must be energized to engage in sensemaking activities.

Research suggests that emotion may play a critical role in whether an individual engages in sensemaking (Schmidt & Weiner, 1988; Weiner, 1980), both by signaling the need for sensemaking (Frijda, 1994) and by energizing the sensemaking process. As noted earlier, Weick (1995) argues that unexpected or confusing events generate arousal in the autonomic nervous system which fuels the sensemaking

process by putting an individual in a state of preparedness to address a discrepancy (George & Jones, 2001). Arousal in the autonomic nervous system is not the same as the experience of emotion, but research consistently links the two, with significant evidence that different patterns of autonomic arousal connect to different kinds of emotional experience (Levenson, 1992). We argue that the triggering process and the role of emotion in it are more nuanced than has previously been theorized and propose that some emotional reactions to a potential sensemaking trigger are more likely to signal the need for sensemaking and energize the process than are others (Frijda, 1986; Scherer, 1984).

At least two aspects of the emotional reaction that follows a potential triggering event are likely to affect whether sensemaking ensues. First, an emotion's valence significantly affects the degree to which emotion signals a need for sensemaking. Research has demonstrated that individuals generally pay more attention to negative than positive events, as evidenced in streams of work identifying patterns of "bad is stronger than good" (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Labianca & Brass, 2006), negativity bias (Rozin & Royzman, 2001) and loss aversion (Tversky & Kahneman, 1992). Research has also shown that individuals interpret their own negative feelings as a sign of problems in the environment which require systematic processing of information, and their positive feelings as an indication that the situation is safe and therefore not in need of intensive sensemaking (Casciaro, Carley, & Krackhardt, 1999; Frijda, 1986; Schwarz & Clore, 1983, 2007; Staw, Sutton, & Pelled, 1994). Triggering events that produce negative emotions like anxiety and sadness are therefore more likely to energize our search for meaning (Stein, 2004), while feeling joy or delight will suggest that no such effort is required. This leads to our first proposition.

Proposition 1a: Individuals are more likely to perceive a need for sensemaking when trigger

events lead to emotions that are negatively valenced.

We have argued that the valence of an emotion signals a need for sensemaking, but whether or not people ultimately engage in sensemaking is also influenced by the presence of certain psychological and social costs. We propose that the critical dimension of emotion that affects whether or not individuals engage in sensemaking despite these costs is its intensity. Sensemaking requires an individual to experience an emotional reaction that can fuel the effort required and overcome the potential psychological and social costs. Thus, it is unlikely that low intensity felt emotions (such as contentment and gloominess) will provide the needed emotional energy to fuel sensemaking (Quinn, 2005). At the same time, extremely intense emotions (such as panic and rage) may forestall sensemaking processes because of their tendency to interrupt thought processes, consume cognitive capacity, and redirect attention away from the triggering event to the emotion itself (Beal, Weiss, Barros, & MacDermid, 2005; Loewenstein & Lerner, 2003; Stein, 2004). Thus, it is moderately intense felt emotions (those that arouse stronger psycho-physiological responses [Cacioppo, Gardner, & Berntson, 1999] but not to the point of impeding thought processes) that will most greatly energize sensemaking. These arguments lead to our next proposition.

Proposition 1b: Individuals are more likely to engage in sensemaking when potential triggers lead to moderately intense emotions that can energize the process.

Understanding which kinds of emotions are more likely to lead to sensemaking allows us to consider the triggers that might lead to such emotions. We examine two factors that affect the emotions likely to follow a potential sensemaking trigger. The first is an individual's evaluation of the trigger itself. Appraisal theory

(Lazarus, 1991; Shweder, 1993; Smith & Ellsworth, 1985) suggests that emotions are not connected to events per se, but rather to evaluations of those events either causally (Lazarus, 1991) or semantically (Shweder, 1993). This research shows that the experience of specific emotions stems from standardized sets of appraisal-emotion links that match appraisals and emotions particularly in terms of their valence and intensity (Lazarus, 1991; Shweder, 1993). Affective events theory (Weiss, Cropanzano, Cummings, & Staw, 1996) extends this line of reasoning by suggesting that the intensity of the emotion generated by a sensemaking trigger will depend on the evaluation of that event in terms of its importance to personal goals. For example, an unexpected, irrevocable loss in relation to an important goal will lead to despair. Bringing together appraisal theory and affective events theory suggests that the valence and intensity of a sensemaker's emotional reaction to a sensemaking trigger will be consistent with her evaluation of that trigger in terms of her goals, such that triggers evaluated to have greater impact (positive or negative) on more important goals will lead to more intense emotional reactions (correspondingly positive or negative).

Building on our first two propositions, we argue that sensemaking is most likely to be triggered when an event is evaluated either as moderately negatively affecting important goals or severely negatively affecting moderately important goals, in either case leading to moderately intense negative emotions such as frustration or sadness. Research on after event reviews (AERs) in the military illustrates the importance of trigger valence and goal relevance. AERs are collective guided investigations of past experience that intend to surface even minor deviations that could endanger the safety of others. They are centered on a critical goal that may be in jeopardy: safely completing a mission. When an AER is "failure-focused" (e.g., on "near misses" that moderately affect an important goal), individual participants are likely to experience moderately intense

negative emotion, which energizes them to generate new hypotheses and make sense of their unexpected failure or significant discrepancy between expectations and reality (Ellis & Davidi, 2005). In contrast, success-focused AERs fail to induce these emotions or energize participants to generate similar levels of sensemaking (Ellis, Mendel, & Nir, 2006). These dynamics are not restricted to the military: hospitals have also begun using the structure and process of AERs to reflect on surgical practice (Vashdi, Bamberger, Erez, & Weiss-Meilik, 2007). In both contexts, an AER process takes place in the aftermath of an event linked to important goals and creates the emotions that can drive a rigorous exploration of failure. More generally, we argue that these dynamics are facilitated by contexts in which individuals are encouraged to surface and consider failures in relation to important goals in a controlled, reflective manner (Schön, 1983). Thus, we propose:

Proposition 2: Individuals are more likely to engage in sensemaking when a potential trigger has a moderately negative impact on important goals, or a significantly negative impact on moderately important goals, thus generating moderately intense, negative emotions.

A second factor that affects the emotions that follow a potential sensemaking trigger is an individual's regulatory focus (Brockner & Higgins, 2001; Higgins, 1997, 1998). Regulatory focus theory suggests that similar events give rise to different emotional reactions, depending on a person's tendency or situation-triggered desire to either approach pleasure (promotion-focus) or avoid pain (prevention-focus). When a person is in a promotion-focused state and attains a positive outcome, she experiences a high intensity, positive emotion, such as delight. When she fails to attain a positive outcome, she experiences a low intensity, negative emotion, such as disappointment. In contrast, when a person is in a prevention-focused state and attains a positive outcome, he experiences a low intensity,

positive emotion, such as contentment, but when he fails to do so, he experiences a high intensity, negative emotion, such as agitation. Thus, from a regulatory focus perspective, the degree to which a sensemaker experiences promotion- or prevention-focused cognitive states at the time of the trigger event will affect the specific emotions generated. So, in the case of a surprising, irrevocable loss, such as being laid off, individuals in a promotion-focused state may experience a sadness that is tinged with dejection (low intensity), whereas individuals in a prevention-focused state might experience despair (high intensity). More generally, a sensemaker in a promotion-focused state will tend to experience more intense emotions for events providing pleasure and less intense emotions for events producing pain. The opposite will be true for a sensemaker in a prevention-focused state. An individual's regulatory focus at the time of a sensemaking trigger will thus significantly affect the emotion that is generated by an unexpected event.

The way in which regulatory focus moderates individuals' reactions to novel or unexpected events makes its impact on the likelihood of sensemaking a complex issue (Cropanzano, Paddock, Rupp, Bagger, & Baldwin, 2008). We have argued that sensemaking is most likely to ensue when individuals experience moderately negative emotional reactions to potential triggers. This means that for a promotion-focused individual to be energized to engage in sensemaking, an event must have a more severely negative impact on more important goals (because a promotion focus diminishes the emotional reaction to negative events). In contrast, for prevention-focused individuals, sensemaking will more likely be associated with less severe impediments to less critical goals. This is because the intense emotional reactions to negative events associated with a prevention-focus may be overwhelming and thus not lead to sensemaking.

Proposition 3: The likelihood that a novel or unexpected event will trigger sensemaking is moderated by an individual's regulatory focus,

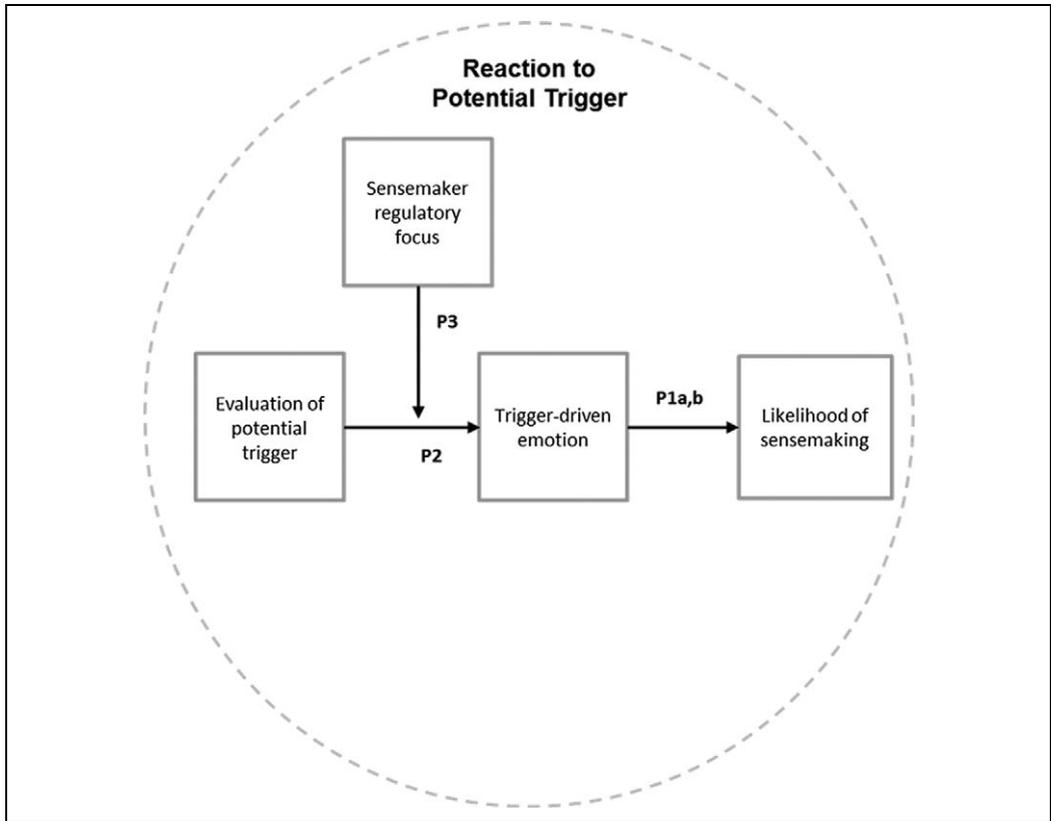


Figure 1. The role of emotion in triggering sensemaking.

such that sensemaking is most likely to occur when prevention-focused (promotion-focused) individuals experience a moderately (severely) negative trigger event, and thus experience a moderately negative emotion.

Our arguments suggest that although individual differences and contextual factors may affect the likelihood of sensemaking following an unexpected event, they may have that effect through their impact on an individual's emotional response. Contextual factors (e.g., the relevance of an event to a sensemaker's goals, or the importance of those goals) and individual differences (e.g., the sensemaker's regulatory focus) affect sensemaking processes through their effect on an individual's emotional reaction

to an unexpected event. The relationships we propose regarding the role of emotion in triggering sensemaking are summarized in Figure 1.

The role of emotion in shaping sensemaking processes

Looking across the sensemaking literature, it is clear that sensemaking processes vary significantly and in a variety of ways (Barton & Sutcliffe, 2009; Drazin et al., 1999; Maitlis, 2005; Rouleau & Balogun, 2011; Rudolph & Reppenning, 2002; Schulman, 1993; Starbuck & Farjoun, 2005; Wright, Manning, Farmer, & Gilbreath, 2000). To explore the role of emotion in shaping this variation, we first outline a

“typical” sensemaking process. A novel or unexpected event leads to an emotional reaction, which signals the need for and energizes the sensemaker (to a greater or lesser degree) to develop an understanding of the situation. Once energized, sensemaking entails connecting “cues” to “frames” (Weick, 1995). Cues act as a point of reference (Smircich & Morgan, 1982) and can include a wide range of elements. Sensemaking research has tended to focus on cues that are physical, such as wind and heat (Gephart, 1993; Vaughan, 1996; Weick, 1993), technical information (e.g., readings from dials and equipment, Weick, 1988), or spoken words, written texts, and actions (Weick, 1993; Weick & Sutcliffe, 2007). As such, cues are “simple, familiar structures from which people [begin to] develop a larger sense of what may be occurring” (Weick, 1995, p. 50). They are thus the concrete foundation of sensemaking—the raw material from which sense is ultimately made. In Weick’s (1993) analysis of sensemaking by firefighters in the Mann Gulch disaster, for example, cues included flames, smoke, and wind. In order for cues to influence sensemaking, they need to somehow be made comprehensible. This is the role of frames, which represent “a generalized point of view that directs interpretations” (Cantril, 1941, p. 20), rendering what would otherwise be meaningless aspects of a scene into something meaningful (Goffman, 1974). Returning to the Mann Gulch disaster, firefighters employed the frame of a “10:00 fire” (a fire that could be under control by 10:00 the next morning) to each make sense of the cues to which they were exposed. In this case cues were interpreted through the existing frame even though it was inaccurate. The outcome of sensemaking is a new account of the world that connects cues and frames in a meaningful and actionable way (Weick et al., 2005).

Although this process describes sensemaking in general, we argue there are two key ways in which sensemaking processes vary, and explore the role of emotion in producing that variation.

The first dimension on which we focus is the degree to which sensemaking processes are “generative” or “integrative.” By generative, we mean sensemaking that involves a process in which relationships among cues and frames are constructed flexibly and creatively to allow the development of novel accounts (Koestler, 1964; Ward, Smith, & Finke, 1999). In contrast, integrative sensemaking processes are characterized by a heightened sensitivity to whether new cues are consistent or inconsistent with the emerging account of a situation, such that accounts are continuously and critically evaluated with respect to their plausibility (Wertheimer, 1945). In simple terms, sensemaking can be understood as being more of a “both/and” process in which cues are combined and connected in ways that enable expansive interpretations that connect only loosely to a prior account, or more of an “either/or” process in which new cues are critically evaluated, weighed up against and replacing one another progressively, as accounts are incrementally revised. A second dimension along which an individual’s sensemaking varies is the degree to which it includes and involves other people. Sometimes a person engages in sensemaking that is relatively social, drawing on and engaging directly with others (Rouleau & Balogun, 2011). At other times, sensemaking processes are relatively solitary—proceeding as solo activities, intentionally or unintentionally distanced from the sensemaker’s social context (Park, 2010).

Generative versus integrative sensemaking processes

Generative processes in individual sensemaking are, we argue, similar to “resourceful” or “horizon-expanding” sensemaking processes in groups (Wright et al., 2000, p. 808). Generative sensemaking processes involve maintaining flexibility to construct a more novel, creative account of an event or issue, whereas integrative sensemaking processes lead to more precise constructions of a situation based on

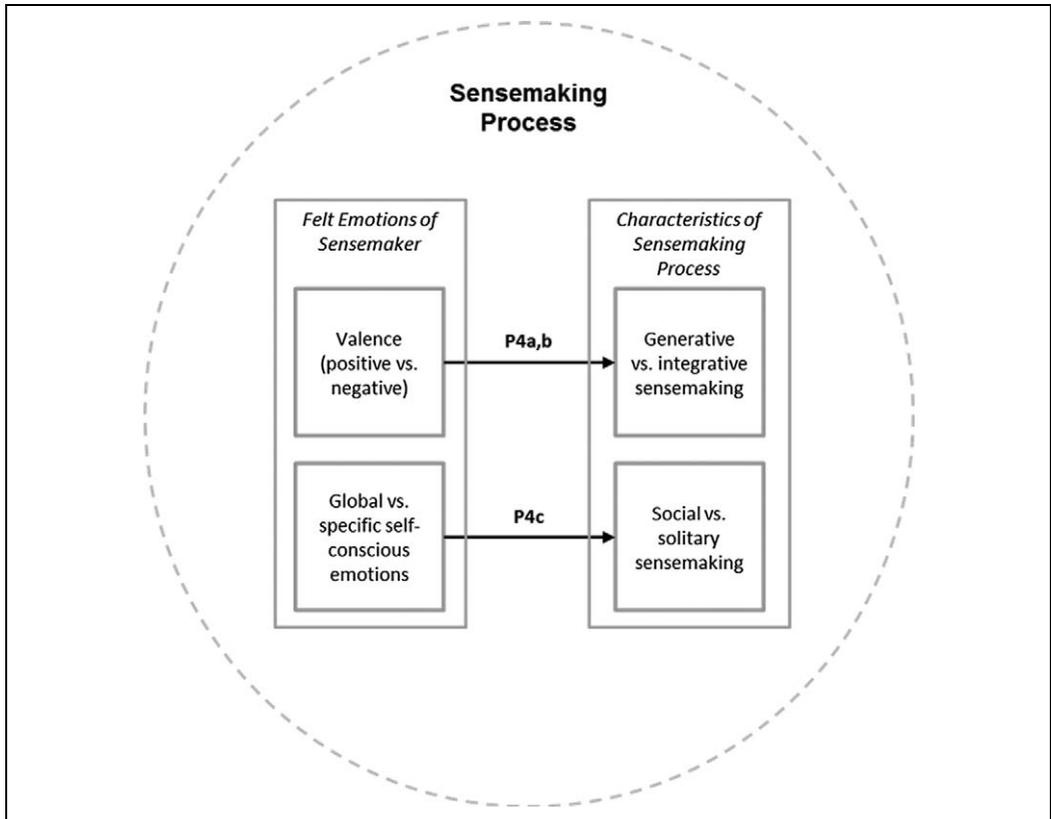


Figure 2. The role of emotion in shaping sensemaking processes.

more critical analyses of new information (Schulman, 1993). One form of sensemaking is not necessarily “better” than the other. Generative sensemaking processes might be especially appropriate in contexts in which creativity, improvisational action, and bricolage (i.e., novel recombination of existing routines) are required (Baker & Nelson, 2005; Drazin et al., 1999; Weick, 1998). Other organizational contexts may favor simpler, more precise interpretations and more cautious action (Levinthal & Rerup, 2006; Turner & Rindova, 2012). For instance, frequently updating and deepening one’s evolving understanding of a situation to incorporate weak signals of emerging threats is a hallmark of individual sensemaking within high reliability organizations

(e.g., nuclear power plants) that face extremely trying environments where error must be avoided (Rerup, 2009; Schulman, 1993; Weick & Sutcliffe, 2007).

Evidence from a number of research areas suggests that a sensemaker’s felt emotion may play a key role in fostering generative or integrative sensemaking processes. (See Figure 2 for a summary of the relationships we propose in this section). Research on individual decision making shows that felt emotion can be valuable for deeper processing of novel situations (Forgas, 1995; Forgas & George, 2001; Ketelaar & Clore, 1997). More specifically, positive felt emotion has been found to encourage creative cognition by expanding or combining existing cognitive frameworks, suggesting new ideas

not previously available (Estrada, Isen, & Young, 1997; Fredrickson, 2001; Ward, 2004). People experiencing positive emotion tend to categorize cues in a broader, more inclusive and more flexible way (Isen, 2008; Lyubomirsky, King, & Diener, 2005; Murray, Sujan, Hirt, & Sujan, 1990). Thus, we argue that the experience of positive felt emotion is likely to lead to more generative sensemaking processes, in which emergent cues are integrated in a flexible manner. This dynamic is illustrated by Quinn and Worline's (2008) analysis of the terrorist hijacking of Flight 93 when individuals who connected with their families experienced positive emotions such as calmness and love, which instilled them with courage that enabled them to think creatively and subvert the terrorists' plans.

Equally compelling evidence suggests that negative emotion may foster integrative sensemaking. Negative emotion leads to a "bottom-up style" of information processing that is "evidence-driven," and thus "associated with more extensive information processing and greater openness and attention to new information" (Kooij-de Bode, van Knippenberg, & van Ginkel, 2010, p. 377). Whereas positive emotion is likely to engender "more creative and flexible" information processing, negative emotion is associated with more systematic attention to stimulus information (Forgas, 1998, p. 319). For example, aviators experience "leemers" or "the feeling that something is not quite right, but you can't put your finger on it" (Weick & Sutcliffe, 2007, p. 31), which lead to a more systematic processing of cues in the environment. Similarly, experienced nurses often have an intuitive feeling of "concern" in response to unexpected changes in a patient (e.g., differences in how a baby looks) that results in the systematic development and testing of hypotheses (e.g., through blood tests, urine output, etc.) that can explain the discrepancy (Klein, 2003; Weick et al., 2005).

These arguments lead to our next propositions.

Proposition 4a: Sensemaking processes will tend to be more generative to the degree that

a sensemaker experiences positive emotions as he or she engages in sensemaking.

Proposition 4b: Sensemaking processes will tend to be more integrative to the degree that a sensemaker experiences negative emotions as he or she engages in sensemaking.

Our arguments regarding the valence of felt emotion and the extent to which sensemaking is generative or integrative raises an interesting paradox. We argued that sensemaking is more likely to be triggered by negative emotions, but now also suggest that, once triggered, sensemaking will tend to be more generative to the extent that the sensemaker experiences positive emotion. These ideas are consistent with a "dual tuning" perspective on mood (George, 2011; George & Zhou, 2007) which suggests that key cognitive processes such as creativity may be optimized under conditions of sequential negative and positive (or positive and negative) moods. These authors argue that while negative emotions promote problem identification (an important step in the creative process), a subsequent positive mood is more likely to generate divergent ways of addressing the problem. Different affective states may thus each play a unique role in a variety of cognitive processes, including sensemaking.

This paradox also points to the potential importance of shifts in felt emotion as sensemaking occurs, driven at least in part by the sensemaking processes themselves. If sensemaking is most readily triggered by events that induce moderately negative emotional reactions (in turn fuelling an integrative sensemaking process), but if these are then replaced by positive emotions as the sensemaker starts to gain a sense of clarity and control (Larson, 1989), then sensemaking may become more generative in form. This is consistent with Baumeister, Vohs, DeWall, and Zhang's (2007) proposed dual process approach to emotion that suggests emotions may arise rapidly from trigger events but also be shaped in slower, more reflexive cycles of cognition. Such shifts would

help explain how generative sensemaking might occur even when initially triggered by a negative event.

Social versus solitary sensemaking processes

A second important way in which sensemaking processes differ is in the degree to which they involve others. Although Weick and colleagues have argued that sensemaking is inherently social (Weick, 1995; Weick et al., 2005), we believe this argument underplays the important ways in which sensemaking processes vary in this regard. We agree that sensemaking always occurs in a social context, affected by the rules and resources that define that context. We also believe, however, that sensemaking sometimes happens as a relatively social process in which individuals try to negotiate a shared sense of a trigger through talk and text, and at other times proceeds in a relatively solitary fashion with an individual working to interpret and react to a sensemaking trigger largely by herself or with an imagined other (Weick, 1979). These differences are important because they can fundamentally shape the outcomes of sensemaking processes—the accounts produced and actions taken (Maitlis, 2005).

Although environmental conditions may affect the degree to which sensemaking is relatively social or solitary (Cannon & Edmondson, 2001; Maitlis, 2005), we propose that the emotions sparked by the sensemaking trigger as well as other felt emotions experienced during sensemaking play an important, but overlooked, part in shaping the form of sensemaking processes. A category of emotions that may play a particularly important role in making a sensemaking process more or less social are those that connect closely to a sensemaker's sense of self, or "self-conscious" emotions (Tracy, Robins, & Tangney, 2007). Weick (1995) has pointed to the importance of identity, which we argue may have a significant effect on sensemaking processes through the

emotions to which it is most closely connected. Self-conscious emotions are those which possess "as a central feature, some form of self-reflection and self-evaluation" (Tangney, 1999, p. 541), and have been shown to have significant impacts on individuals' social behavior (Lewis, 2000; Michie, 2009; Tangney, 1999; Tracy & Robins, 2007a). Shame, guilt, and pride are the most commonly identified and studied self-conscious emotions (Lewis, 2000; Michie, 2009; Sheikh & Janoff-Bulman, 2010; Tracy & Robins, 2007a, 2007b).

Different self-conscious emotions can be distinguished on the basis of their association with a positive or negative evaluation and a specific or global attribution (Lewis, 2000). Pride and hubris represent emotions associated with a positive evaluation, and attributions that are, respectively, specific (i.e., the triggering event is attributed to a particular action, rather than a stable trait) and global (i.e., the triggering event is attributed to a trait of the self). Guilt and shame respectively represent the specific and global attributions with a negative evaluation. Research on these different self-conscious emotions suggests that when individuals experience one of them, either by virtue of the trigger or their unfolding interpretations and sense of a situation, it will affect whether sensemaking occurs as a more social or solitary activity.

Studies of shame and hubris (the global self-conscious emotions) show they may be associated with greater isolation, and consequently more solitary sensemaking processes. The experience of shame is allied with wanting to "hide, disappear or die" (Lewis, 2000, p. 629), with relatively self-oriented responses to distress and a lack of empathy (Tangney, 1999). Shame, therefore, is likely to lead to more solitary sensemaking processes. The traditional professional culture of medicine, for example, emphasizes individual autonomy and accountability, resulting in "blaming and shaming" individuals for errors or poor performance (Bosk, 2003; Carroll & Quijada, 2004). Consequently, in the event of an error or unexpected

negative event, individual clinicians are more likely to experience shame and engage in relatively solitary sensemaking (Blatt et al., 2006; Sutcliffe, Lewton, & Rosenthal, 2004). Unlike shame, feelings of hubris are tied to a desire for public recognition and social dominance (Carver, Sinclair, & Johnson, 2010). The impact of hubris on sensemaking, however, is similar to that of shame. We argue that hubris is likely to make sensemaking processes more solitary, not because of the withdrawal and avoidance associated with shame, but because a need for social dominance will mean that individuals feeling hubris will be committed to enacting their own interpretation of a situation, and so, less likely to draw on the knowledge or insights of others as they engage in sensemaking (Hayward & Hambrick, 1997; Malmendier & Tate, 2005). The reluctance to engage in social sensemaking processes is a key reason that managers of the Diablo Canyon nuclear reactor explicitly attempt to curtail hubris in employees through norms and selection practices (Schulman, 1993).

In contrast, research on guilt and pride (self-conscious emotions that signify specific attributions) suggests they lead to more affiliative behavior and thus are likely to engender relatively social sensemaking processes. Guilt has been shown to be associated with empathy (Tangney, 1999), and a desire to repair relationships and correct whatever harm has been done (Baumeister, Stillwell, & Heatherton, 1994). AERs offer an example of sensemaking in which guilt (involving a specific attribution) rather than shame (involving a global attribution) is engendered. With the aim of learning from past mistakes, individuals take responsibility for specific errors they have made (Ron, Lipshitz, & Popper, 2006). Thus AERs are designed to elicit regret and guilt about specific mistakes rather than shame about one's general competence, inducing participants to enlist others to help them make sense of what happened and derive performance-enhancing lessons from these mistakes (Ellis et al., 2006;

Popper & Lipshitz, 1998). Research on AERs is consistent with research on psychological safety in groups (Edmondson, 1999). From our perspective, social settings in which members experience psychological safety, with their focus on learning, may be more likely to engender self-conscious emotions with specific, rather than general, attributions and thus result in more social sensemaking processes.

Recent research on pride suggests it may have similar effects on sensemaking processes. Pride has been shown to be associated with achievement, confidence, and self-worth (Carver et al., 2010; Tracy & Robins, 2004, 2007a). We argue these experiences will lead people to want to share their thoughts and feelings and thus engage in sensemaking in a more social, cooperative manner (Fredrickson, Tugade, Waugh, & Larkin, 2003; Lyubomirsky et al., 2005). For example, when employees experience pride (e.g., through participating in a change process) they are more likely to engage in sensemaking that connects them to others (Bartunek et al., 2006).

As we previously argued for emotions in general, self-conscious emotions may stem from a range of sources including the sensemaking trigger or a sensemaker's unfolding interpretations and sense of the situation. These arguments lead to our next proposition.

Proposition 4c: Sensemaking processes will tend to be more social (solitary) when a sensemaker experiences specific self-conscious emotions, such as guilt or pride (global self-conscious emotions, such as shame or hubris).

The role of emotion in concluding sensemaking

The final issue we explore is the role of emotion in concluding sensemaking. Although when and why sensemaking concludes may seem a straightforward issue—sensemaking concludes when sensemakers produce a satisfying account

of the situation—we argue it is neither straight-forward nor theoretically or empirically resolved. Sensemaking is an iterative process in which accounts are “tried on” by sensemakers until they provide a workable way forward (Weick, 1993, 1995). Although sensemaking may never completely end, it does “reach temporary resting points” (Sonenshein, 2007, p. 1029). Weick (1995) argues that the key characteristic of accounts that underpin such resting points is plausibility. The notion of plausibility, however, remains poorly understood and its meaning usually taken for granted. To the extent plausibility has been described, it is usually in general terms, for example, that plausible stories are those that “tap into an ongoing sense of current climate, are consistent with other data, facilitate ongoing projects, reduce equivocality, provide an aura of accuracy” (Mills, 2003, as cited in Weick et al., 2005, p. 415). Weick (1995) suggests a plausible account resolves equivocality within a sensemaking process by providing an answer that explains and personally resonates. Such a description suggests that emotion plays a key role in determining when an account is plausible (i.e., explains and resonates), and thus leads to the conclusion of a sensemaking process.

Prior theorizing argues that the emotion associated with a triggering event may dissipate through the sensemaking process, and even that sensemaking results in outcomes that are relatively free of emotional residue (Weick, 1995; Weick et al., 2005). We propose, however, that emotion is a critical factor that contributes directly to the plausibility of a sensemaking account. Weick (1995, p. 69) suggests that a plausible account is one which “captures both feeling and thought,” and is therefore both reasonable and memorable. McAdams (2001) argues that accounts are simultaneously cognitive, discursive, and emotional phenomena. More specifically, we propose that the plausibility of an account is tied to the relationship between the interpretation it contains and the felt emotion of the sensemaker (Brown &

Humphreys, 2003; Orlikowski & Yates, 1994). This argument is consistent with emotional coherence theory (Thagard, 2000), which suggests that individuals make sense of events based on the interaction of their emotional reactions and an explanatory account—the integration of “hot and cold cognition” (Thagard, 2003, p. 362). In Thagard’s (2003) analysis of why the jury did not convict O. J. Simpson, for example, he shows that the resolution of juror sensemaking in favor of an innocent verdict depended on the coherence between jurors’ emotions and their assessment of competing explanations, rather than only their emotions or their assessments of the evidence. Thus, we argue that only when the felt emotions of a sensemaker and his account are consistent with one another will he stop constructing an account of the situation.

To explain when and why sensemaking concludes, we also need to understand the relationship between a sensemaker’s felt emotion and the action facilitated by the account he or she develops. A key feature of a plausible account is that it allows one to carry on (Goffman, 1974; Weick, 1995). As Weick et al. (2005, p. 415) argue, “if plausible stories keep things moving, they are salutary.” Thus, accounts achieve plausibility in part by facilitating practical action that moves things forward (Sonenshein, 2007).

Two sets of ideas provide insight into the relationship between felt emotion and action. First, appraisal theory suggests that felt emotions generate visible “adaptive behaviors” (Frijda, 1987; Roseman et al., 1994). Frijda (1987), for example, found several consistent relationships between discrete emotions and forms of action readiness, including fear–avoidance, anger–antagonism, sadness–apathy, and happiness–“being-with.” Roseman et al. (1994) extended this line of work by connecting emotions to both action tendencies and actual actions carried out while those emotions were experienced (e.g., the link between feelings of anger and protesting the cause of that anger).

These linkages are also consistent with Weiner's (1980) attribution–affect–action model, which suggests that attributions (i.e., interpretations) guide our feelings, while emotional reactions provide the “motor and direction” for behavior. Second, work on cultural scripts (Averill, 1982; Gergen, 2009), emotion scripts, and emotion knowledge structures (Fehr & Baldwin, 1996; Fitness, 2000) points to the existence of socially constructed connections between forms of action and the felt experience of specific emotions. From these perspectives, people acquire, from an early age, socially shared, culturally specific knowledge of how to think about, talk about, and experience emotions. Thus, in order for the actions engendered by accounts to conclude sensemaking, they must feel as though they are connected in a culturally legitimate way to the sensemaker's felt emotions.

In summary, the process through which a plausible account is constructed involves individuals working alone or drawing on the accounts of others to make sense of something, producing provisional accounts with internal inconsistencies such that they fail to “hang together,” until a plausible account is produced. Felt emotion is important to this process. An interpretation may be constructed (through talk or rumination) that is inconsistent with the sensemaker's emotions and thus discarded; or emotions may fuel the construction of an interpretation that cannot be linked to a feasible or desirable action. Such “intermediate” accounts may exist solely in an individual's mind, as she puzzles through an issue, or as texts and utterances drawn on in the service of sensemaking (Garud, Dunbar, & Bartel, 2011). These cycles of sensemaking conclude when there is coherence between the interpretation contained in the account, and the sensemaker's felt emotion and action orientation. These arguments lead to our final set of propositions, illustrated in Figure 3.

Proposition 5a: The plausibility of a sensemaking account and consequently the likelihood

that it will conclude a sensemaking process will increase to the extent that the account's interpretation of the sensemaking trigger is consistent with the sensemaker's felt emotion about the trigger (which may have shifted from the initial emotional reaction).

Proposition 5b: The plausibility of a sensemaking account and consequently the likelihood that it will conclude a sensemaking process will increase to the extent that the account's action orientation is consistent with the sensemaker's felt emotion about the trigger (which may have shifted from the initial emotional reaction).

Proposition 5c: The plausibility of a sensemaking account and consequently the likelihood that it will conclude a sensemaking process will increase to the extent that the account's action orientation is consistent with the interpretation of the trigger contained in the account.

Figure 4 provides a simplified process model based on the relationships we have proposed regarding the role that emotion plays in triggering, shaping, and concluding sensemaking processes, including a feedback loop capturing how felt emotions may shift as sensemaking occurs.

Conclusion

In this paper, we have explored the role of emotion in individual sensemaking in organizations, concentrating on three issues: the role of emotion in triggering, shaping, and concluding sensemaking. We have focused on the individual level of analysis, but have attended to the role of organizational context and the conditions under which sensemaking may be more social. We have also used examples that illustrate both how organizational contexts affect individual sensemaking, and the impacts of individual sensemaking on organizations. We have not, however, attempted to address the dynamics of collective sensemaking—sensemaking *by* groups or organizations. Our paper

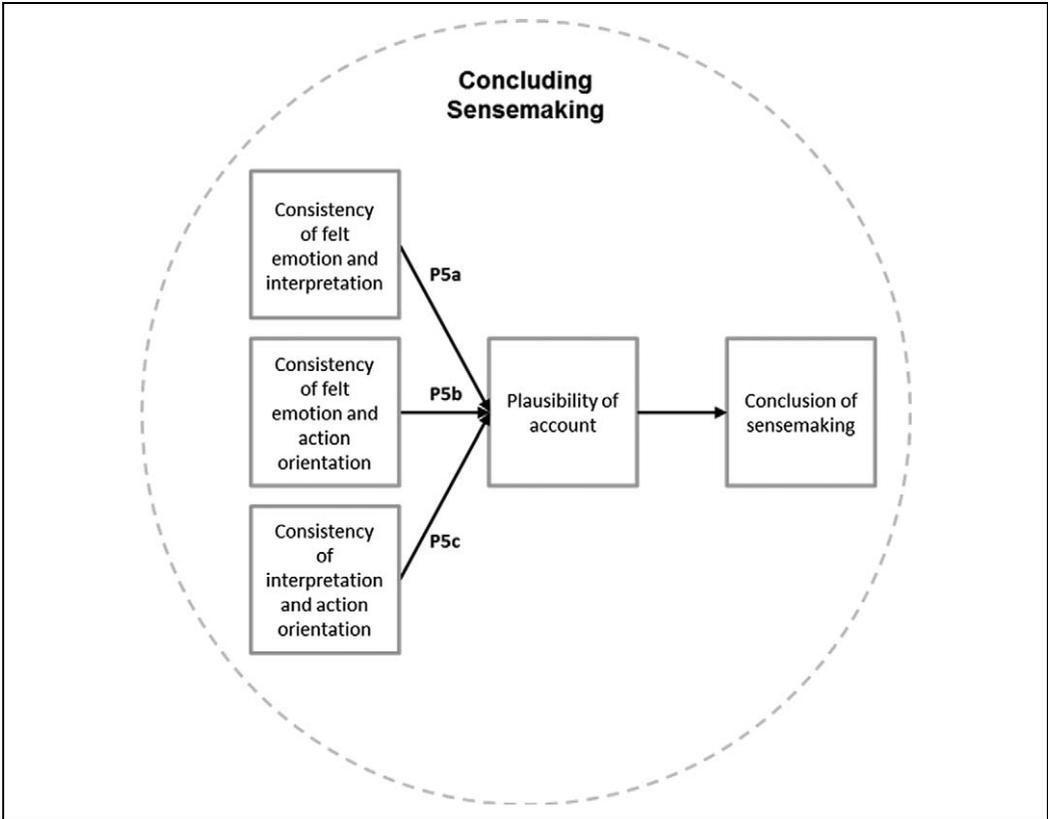


Figure 3. The role of emotion in concluding sensemaking.

was motivated by a recognition that the relatively undeveloped status of emotion in sense-making theory was inconsistent with recent research that has pointed to its importance and with lived experience that shows the deeply interconnected nature of sensemaking and emotion. The framework we have developed and arguments made extend current research and writing that has shown the deep integration of emotion into a wide range of information processing activities by individuals (Forgas & George, 2001; Frijda, 1987; Lieberman, 2000).

Implications for research

Our arguments regarding each role of emotion in sensemaking have several implications for

research. First, we propose a major shift in thinking about how sensemaking is triggered. Traditionally, sensemaking has been seen as a natural reaction to interruptions and so the surprise was when sensemaking did not occur (Weick, 1995). In contrast, we reframe sensemaking as an effortful and potentially negative experience that individuals may avoid, and thus it is the onset of sensemaking that requires explanation. We argue that the emotional reaction to a triggering event provides individuals with the energy to engage in sensemaking, and that certain emotions are more likely to provide this energy than others. We identify the psychological processes that link a novel or unexpected event and emotions that energize sensemaking, as well as the conditions under

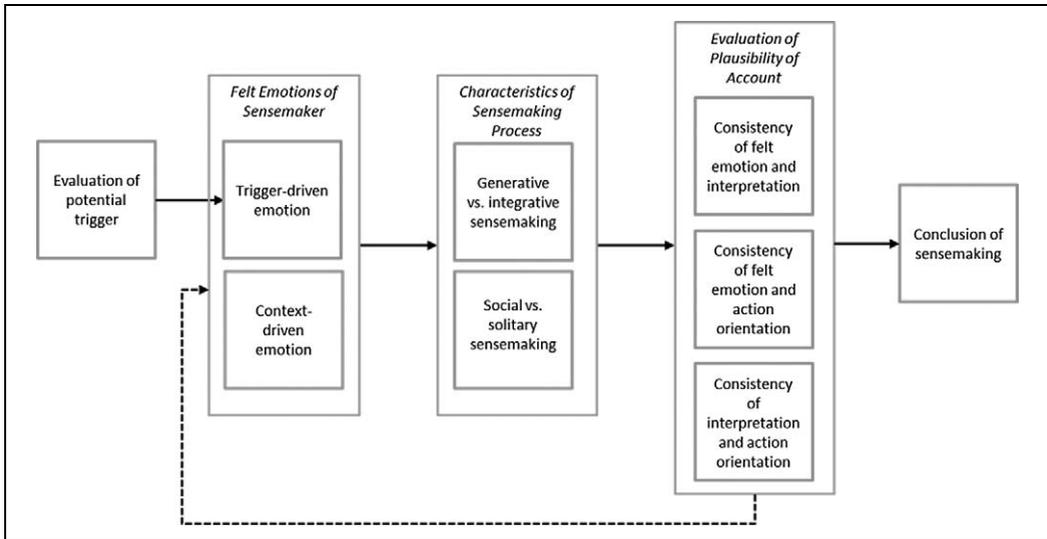


Figure 4. A process model of emotion in sensemaking.

which this is most likely to occur. These arguments significantly extend current conceptions of sensemaking and emotion, which have either theorized emotion as arousal (Weick, 1995), or embraced a more complex understanding of emotion but left unexplored the impacts of emotions differing in valence and intensity (George & Jones, 2001). While our propositions are consistent with research that suggests intense negative emotions may prevent sensemaking (Walsh & Bartunek, 2011; Weick, 1993), we extend these ideas by highlighting the importance of sensemakers' regulatory focus as an important moderator of the emotion–sensemaking relationship.

Second, our arguments regarding the role of emotion in generating variance in sensemaking processes contrast with previous writing that has either emphasized the negative role of emotion in sensemaking (Weick, 1990; Weick et al., 2005) or proposed a general correspondence between sensemakers' affective states and the meanings they produce (e.g., positive emotional states leading to construction of positive meanings [Bartunek et al., 2011; Fredrickson, 2001]). In contrast, we argue that

different emotions will have very different impacts on sensemaking processes: the experience of positive emotions by sensemakers, we propose, is likely to lead to more generative sensemaking and negative emotions to more integrative sensemaking; specific self-conscious emotions such as pride and guilt, we argue, engender more social sensemaking, while global self-conscious emotions such as hubris and shame will be associated with more solitary sensemaking. Such highly differentiated impacts of emotion on sensemaking point to the need for much more sensitive analyses of the role of emotion in understanding how sensemaking processes vary across sensemaker and sensemaking context. These arguments suggest that both individual differences and organizational contexts may play significant roles in affecting how sensemaking processes play out, particularly through their impact on the valence of felt emotions, and the degree to which success and failure are attributed specifically to events or globally to persons.

Third, our exploration of when and why sensemaking processes conclude departs from previous work by broadening our understanding

of what constitutes a plausible account, from the traditional focus on an account's discursive content (Brown, 2004; Maitlis & Lawrence, 2007) to one that makes central the relationships among an account's interpretation, action orientation, and the felt emotions of the sense-maker. We argued that a plausible account is one that achieves coherence in these three facets, and that sensemaking is an iterative process in which individuals construct and try on interim accounts in search of that coherence. These arguments point to an interesting direction for sensemaking research, involving the identification and examination of interim accounts that sensemakers construct throughout the process (Garud et al., 2011). If our arguments are correct, we should be able to find evidence of sensemakers creating accounts, either cognitively or discursively, and accepting or rejecting them based on the degree to which their interpretation, action orientation, and felt emotion cohere.

Implications for practice

Our arguments also have implications for practice. One stems from our propositions regarding how sensemaking is triggered and the role of emotion in that process. We have argued that individual sensemaking is fueled by moderately negative emotions. This stands in contrast to popular calls for "burning platform" speeches to initiate organizational change processes. What our arguments suggest is that the kinds of emotions that induce change processes will have important effects on the nature of that process: descriptions of extreme adversity may indeed motivate people to act, but might also inhibit their ability to interpret the situation. This may be appropriate where organizational leaders want only to spur their members to action, but in complex change situations where multiple perspectives are sought, leaders may need to manage emotions in ways that can enable, rather than inhibit, employee sensemaking. Leaders might do this by shaping

members' interpretations of trigger events through discursive means—affecting the talk and text through which others come to understand the trigger—or through their own emotional expressions, which act as social information and thus shape members' emotional responses (van Kleef, Homan, & Cheshin, 2012). Importantly, leaders need to recognize that different constituents will likely be experiencing different emotions, and tailor their approach accordingly (Huy, 2002).

Second, our arguments regarding the impacts of emotion on sensemaking processes point to the potential for managers and other organizational members to shape how sensemaking occurs in their organizations. The actions of Courtney Wilson of the Baltimore and Ohio Railroad Museum illustrate how managers can incorporate emotion into their attempts to help employees make sense of challenging events (Christianson et al., 2009). After the collapse of the museum's roundhouse and the loss of a large number of irreplaceable artifacts, employees were overwhelmed by grief and worried about losing their jobs. Wilson and other managers helped individuals make sense of the situation in part by providing emotional support which "staff repeatedly identified . . . as key to their ability to respond to the collapse" (Christianson et al., 2009, p. 853). Senior leaders were sensitive to the importance of positive emotions in generating new possibilities for the museum, and so "worked hard not to display negative emotions in public" (Christianson et al., 2009, p. 853). Wilson's and other senior managers' awareness of the importance of emotions in sensemaking helped lead employees in a generative sensemaking process that resulted in the construction of a completely new identity for the museum.

A third implication for managers concerns their ability to help sensemaking processes conclude. Sensemaking in organizations is often characterized by members' confusion or surprise, which creates "sensemaking gaps" that managers attempt to fill in order to reestablish

meaning (Maitlis & Lawrence, 2007). To do this effectively, they must understand what makes an account plausible (Rouleau & Balogun, 2011). Our arguments suggest that managers need to avoid the “rationalist trap” of ignoring the important role of emotion in making accounts plausible, and especially the relationship between an account’s interpretation, action orientation, and a sensemaker’s felt emotion. Managers would also do well to attend to the provisional accounts employees develop of unfolding situations or change initiatives, and to listen carefully to the emotional tone of different members’ accounts. This is critical because different individuals are likely to have different emotional reactions, and change recipient emotions may provide cues about whether a change resonates and is likely to be accepted (Huy, 2002; Sanchez-Burks & Huy, 2009). To be most effective, leaders may need to take a more personalized approach, in the form of individual meetings or one-on-one coaching, than is often found in managing change.

Concluding thoughts

At the core of sensemaking’s scholarly and practical appeal is its ability to capture the lived experience of organizing. While emotion was once overlooked in organization studies, there is now a large and still growing body of literature that acknowledges the important role of emotion in organizational life. The current paper adds to this literature by explaining how emotion is constitutive of sensemaking. Specifically, we have illustrated the complex and multifaceted role of emotion in triggering, shaping, and concluding sensemaking processes.

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