

THE ROLE OF AFFECTIVE EXPERIENCE IN WORK MOTIVATION

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Based on psychological and neurobiological theories of core affective experience, we identify a set of direct and indirect paths through which affective feelings at work affect three dimensions of behavioral outcomes: direction, intensity, and persistence. First, affective experience may influence these behavioral outcomes indirectly by affecting goal level and goal commitment, as well as three key judgment components of work motivation: expectancy judgments, utility judgments, and progress judgments. Second, affective experience may also affect these behavioral outcomes directly. We discuss implications of our model.

Until relatively recently, emotion has been a neglected topic in the organizational behavior literature (cf. Muchinsky, 2000). This may be because people tend to view emotion as the antithesis of rationality, thereby acting as a barrier to effective management (cf. Ashforth & Humphrey, 1995; Putnam & Mumby, 1993), or because, more broadly, emotion has been somewhat neglected in many domains of behavioral science.

However, management scholars have begun to direct much more attention to work-related emotion (cf. Ashkanasy, Härtel, & Zerbe, 2000; Fineman, 2000; Fisher & Ashkanasy, 2000). There have been four distinctive streams of research dealing with emotion at work: (1) the expression, exploitation, and management of emotions (e.g., Martin, Knopoff, & Beckman, 1998; Morris & Feldman, 1996; Rafaeli & Sutton, 1990; Schaubroeck & Jones, 2000; Van Maanen & Kunda, 1989); (2) the effects of emotional intelligence on individual and organizational performance (e.g., Goleman, 1995, 1998; Goleman, Boyatzis, & McKee, 2002; Huy, 1999; Weisinger, 1998); (3) the effects of trait affectivity or affective disposition on individual performance (e.g., Cropanzano, James, & Konovsky, 1993; Staw & Barsade 1993; Staw, Bell, & Clausen, 1986); and (4) the antecedents and

consequences of momentary affective experience (moods and emotions) in organizations (e.g., Brockner & Higgins, 2001; Elsbach & Barr, 1999; Fisher, 2000; Forgas & George, 2001; George & Brief, 1996; Isen & Baron, 1991; Raghunathan & Pham, 1999; Staw, Sutton, & Pelled, 1994; Weiss & Cropanzano, 1996; Weiss, Nicholas, & Daus, 1999).

Despite this recent explosion of research, emotion is still largely neglected in existing organizational theories of work motivation that provide microfoundational explanations about why and how people behave in particular ways in their workplaces. Theories of motivation began to be developed as early as the 1930s and 1940s (Kanfer, 1991), focusing on "psychological processes involved with the arousal, direction, intensity, and persistence of voluntary actions that are goal directed" (Mitchell, 1997: 60). Yet emotion has not been the main focus of any mainstream theories of work motivation (cf. Ashforth & Humphrey, 1995; George & Brief, 1996). Rather, motivation theories emphasize factors such as basic human needs—for example, needs theories (Alderfer, 1969; Maslow, 1954; McClelland, 1961); various exogenous stimuli—for example, reinforcement theory (Hamner, 1974; Komaki, Coombs, & Schepman, 1991); and thought processes and components, such as beliefs, perceptions, and goals—for example, expectancy theory, goal-setting theory, and equity theory (Adams, 1963; Locke, Shaw, Saari, &

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Latham, 1981; Vroom, 1964). In general, so called cognitively based motivation theories (i.e., those that discuss "cold" rather than "hot" processes) have been predominant in scholarly understandings of work motivation (cf. Forgas & George, 2001; Staw, 1984).

Recent theoretical and empirical advances in psychology and neurobiology make it evident that understandings of work motivation that fail to consider human emotion are incomplete. In an extensive body of research, scholars attest that human emotion is likely to influence the processes underlying motivation (e.g., Damasio, 1994; Erez & Isen, 2002; Forgas, 1995; Forgas & George, 2001; Isen, 2000), and emotion constitutes an important source of influence on human thought and behavior (e.g., Haidt, 2000; Izard, 1993; Loewenstein, Weber, Hsee, & Welch, 2001; Winkielman, Zajonc, & Schwarz, 1997; Zajonc, 1980). The purpose of this paper is to expand existing understandings of work motivation by discussing how emotional processes influence various aspects of it.

To accomplish this purpose, we must define what we mean by the term *emotion*. This is easier said than done. Despite increased empirical attention to emotion in psychology, neurobiology, and organizational behavior, much disagreement remains on precisely how emotion should be defined (cf. Ashkanasy et al., 2000; Ekman & Davidson, 1994; Russell & Feldman Barrett, 1999). For example, some refer to emotions as reflex-like expressions of inherited action programs modified by conditioned responses, whereas others define emotions by the presence of certain appraisals, judgments, or facial expressions. More important, in some theoretical approaches, researchers more or less implicitly treat emotion as one coherent causal entity that produces systematic and coherent changes in feelings, behaviors, and physiological activation. Yet in decades of empirical studies of emotion, scholars have failed to find any evidence for such coherence (e.g., Cacioppo, Berntson, Larsen, Poehlmann, & Ito, 2000; Russell, Bachorowski, & Fernandez-Dols, 2003).

In fact, no one element of emotional response can do justice to the heterogeneous class of events that people refer to with the term *emotion*. It would be incorrect to assume that any given emotion is a monolithic entity with necessary and sufficient parts such that it represents a unitary faculty of the mind or body. Rather,

emotions such as fear, anger, and so forth are better thought of as folk concepts deeply rooted in our common sense or intuition—not necessarily based on scientific evidence (Russell, 2003). Instead, a more precise concept is needed for a scientific treatment of emotion. Russell and Feldman Barrett (1999; Russell, 2003) have recently offered the concept of "core affect" as a useful unit of analysis of the broad emotion-related phenomena.

These authors define core affect as momentary, elementary feelings of pleasure or displeasure and of activation or deactivation. Core affective feelings are primitive, universal, and irreducible on the mental plane. They are based on a constant stream of transient, patterned alterations in ongoing neurophysiological states and autonomic activity. Core affect can exist without being labeled or interpreted, although it can be represented in awareness. Core affective feelings need not be linked with any object (i.e., no object is necessarily seen as causal by the person experiencing the feeling).

Core affect is part of all emotion-related concepts; it describes what researchers mean when they refer to feelings (Morris, 1989), activation (Thayer, 1989), affect (Watson & Tellegen, 1985), or mood (Morris, 1989). For example, mood can be thought of as a prolonged hedonic tone and a subjective sense of activation without an object (Russell & Feldman Barrett, 1999). When people attribute their core affect to an object, they experience it as "having an emotion" such as "anger," "sadness," or "fear." Such emotional episodes are short-lived responses that are about something (we become angry *with* someone, afraid of something, greedy *for* something). The concept of core affect is the appropriate place to start thinking scientifically about emotion-related phenomena, because it is the "core" of all emotion-laden events. It is what makes an event "hot" or "emotional" (Russell, 2003).

In this article we incorporate core affect as the central construct affecting both the processes and outcomes of work motivation. We address how core affective feelings of pleasure/displeasure and activation/deactivation affect work motivation in two ways. Indirectly, core affective feelings influence work motivation via their influence on judgment components (expectancy judgments, utility judgments, and progress judgments) involved in conscious behavioral choices, such as goal setting. Core affective

feelings also influence work motivation in organizations directly, in ways that are not mediated by such discrete choice processes involving beliefs or judgments (cf. Kanfer, 1991).

We hypothesize that these direct and indirect paths are likely to affect three major behavioral outcomes in work motivation (cf. Kanfer, 1991; Locke & Latham, 1990): (1) *direction* (what a person does/behavioral choice), (2) *intensity* (how hard a person works/amount of effort), and (3) *persistence* (whether a person changes or maintains the initially chosen behavior/duration of action). Intensity, often measured as task effort or task performance, has been the most frequently explored outcome of motivation (cf. Staw, 1984), but the other two outcome measures—direction and persistence—are also important.

Direction indicates behavioral choices, often measured as choice decisions between mutually exclusive courses of action (Kanfer, 1991). It is an essential behavioral outcome without which intensity makes no sense. In this paper we focus on the generative-defensive orientation in behavioral choices. We define generativeness as a behavioral orientation toward exploring and achieving anticipated positive outcomes, by taking risks and being willing to incur loss in the process. We define defensiveness as a behavioral orientation aimed at avoiding potential negative outcomes, in spite of possible opportunities to achieve better outcomes.

Our conceptualization of the generative-defensive orientation in behavioral choice is rooted in considerable research in which scholars have found two biologically based motivational systems of approach and avoidance (e.g., Cacioppo, Gardner, & Berntson, 1999; Watson, Wiese, Vaidya, & Tellegen, 1999), as well as two distinctive self-regulation mechanisms of promotion-focus and prevention-focus (e.g., Brockner & Higgins, 2001; Higgins, 1997). These two action orientations and their relationship to human emotions are well explained by Fredrickson (2001) in her recent development of the broaden-and-build theory of positive emotions, in which she argues that experiences of positive feelings broaden people's momentary thought-action repertoires (e.g., approaching, exploring, learning, creating, and playing), whereas negative feelings narrow them by urging people to act in defensive ways (e.g., escape, attack, or expel). We can see generative-

defensive actions often in our daily lives and organizations. For example, people sometimes approach certain tasks generatively, focusing on personal learning, seeking tasks' intrinsic values, exploring new ways to perform the tasks, or pursuing a bonus or promotion. At other times they approach the same tasks defensively, focusing on saving face, meeting deadlines, or avoiding punishment (e.g., losing jobs).

Persistence refers to a behavioral pattern of maintaining the initially chosen course of action over time. This construct has not received very much attention in work motivation theories (e.g., Kanfer, 1991). However, it captures the longitudinal aspect of behavioral outcomes that emerge over time and, thus, is a critical determinant of long-term work productivity.

MOTIVATION, SELF-REGULATION, AND CORE AFFECT

We take as a starting point the idea that human motivation is goal directed and occurs within the context of self-regulation (cf. Bandura, 1991; Carver & Scheier, 1998; Kanfer & Ackerman, 1989; Klein, 1989). From a self-regulation perspective, people cope with their complex and unpredictable environments by developing and managing a set of hierarchically organized (from central and abstract to peripheral and concrete) goals (cf. Bandura, 1991; Carver & Scheier, 1998; Cropanzano, James, & Citera, 1993). Individuals anticipate desired future states/outcomes, commonly called "goals," develop strategies and plans that allow them to reach their goals, and mobilize and monitor their behaviors in such a way to attain their goals. A number of motivation scholars have adopted self-regulation as an overarching framework (e.g., George & Brief, 1996; Kanfer, 1991; Klein, 1989) that incorporates several major theories of work motivation, including needs theory (e.g., Maslow, 1964), goal-setting theory (Locke & Latham, 1990), expectancy theory (Vroom, 1964), and control theory (Carver & Scheier, 1998).

A self-regulation perspective assumes that motivational processes are both dynamic and cyclical, consisting of two distinctive, interrelated subprocesses (cf. Bandura, 1991; Kanfer & Ackerman, 1989). One is a *distal* motivational process that includes components and processes affecting goal choice. This is a discrepancy production (feed-forward) process, because

formulating or accepting a goal creates a state of motivational disequilibrium that stimulates and directs human effort to reduce the discrepancy. The other subprocess—*proximal* motivation—refers to the components and mechanisms involved in a discrepancy reduction (feedback) process that controls the initiation and execution of actions for the purpose of attaining goals. Distal and proximal motivational processes have been referred to in many ways, including goal setting and goal striving (Lewin, Dembo, Festinger, & Sears, 1944), choice motivation and control motivation (Kuhl, 1984), and goal selection and goal implementation (Lord & Levy, 1994).

Self-regulation provides an important conceptual linkage through which motivation and emotion can be integrated theoretically. Emotional phenomena represent central mechanisms of self-regulation that help both human beings and animals deal effectively with their environments (cf. Aspinwall, 1998; Damasio, 1994, 1999; Lazarus, 1991). Thus, many scholars argue that the involvement of human emotion in self-regulation is both necessary and extensive (cf. Cacioppo et al., 1999; Damasio, 1994; Izard, 1993). Here we briefly delineate the underlying structure of core affect and the role that it plays in self-regulation.

THE STRUCTURE AND ROLE OF CORE AFFECTIVE EXPERIENCE IN SELF-REGULATION

As we suggested when we defined the construct, core affect—core affective feelings and their neurophysiological substrate—includes two independent dimensions: degree of pleasantness and degree of activation. *Pleasantness*, at the level of subjective experience, summarizes how well one is doing in terms of a hedonic valence of pleasant-unpleasant, good-bad, positive-negative, or appetitive-aversive. As illustrated in Figure 1, this pleasant-unpleasant dimension (x or $-x$) depicts affective experience as falling on a scale from very pleasant (positive) to very unpleasant (negative), with many points in between. The pleasant pole of this dimension includes such feeling states as "happy" or "content," while the unpleasant pole includes "sad" or "upset."

Activation refers to a sense of mobilization or energy and summarizes one's physiological

FIGURE 1
Two-Dimensional Structure of Core Affect^a

Activation			
	Tense		Alert
Nervous	y		Excited
Stressed	$-x + y$	$x + y$	Elated
Upset			Happy
Unpleasant	$-x$	x	Pleasant
Sad			Content
Depressed	$-x - y$	$x - y$	Serene
Bored	$-y$		Relaxed
Fatigued			Calm
Deactivation			

^a The letters x and y represent semantic components of core affect: x = pleasantness; y = activation (Feldman Barrett & Russell, 1998).

state in terms of its level of activation or deactivation. Similar terms used to describe it include *arousal*, *energy*, *tension*, or *behavioral readiness*. The activation-deactivation dimension (y or $-y$ in Figure 1) depicts affective feelings as ranging from highly activated (high arousal) to highly deactivated (low arousal). The activation pole of this dimension includes such affective feelings as "elated" or "tense," whereas feeling states such as "calm" or "fatigued" exemplify the deactivation pole.

At any given moment, core affective experience is a single, integral blend of these two dimensions, which we can describe as a single point on the map of Figure 1 (Feldman Barrett & Russell, 1998). For example, feeling "nervous" can be understood as a very negative and highly activated affective state, while feeling "relaxed" can be understood as a positive and deactivated affective state. Also as illustrated in Figure 1, core affect can be neutral (the center point), moderate, or extreme (the periphery). A person is always in some state of core affect, even if neutral, at any given moment (Russell, 2003; Russell & Feldman Barrett, 1999).

In everyday life, core affect is the result of a process reminiscent of Rogers' (1959) organismic

valuing process, according to which humans automatically and continually evaluate their ongoing experiences relative to their goals (Campos, Campos, & Barrett, 1989; Frijda, 1986; Lazarus, 1991; LeDoux, 1989; Ortony, Clore, & Collins, 1988). Recent evidence corroborates the fact that individuals automatically evaluate features of the environment on a continual basis (Bargh, 1990; Bargh, Chaiken, Gendler, & Pratto, 1992; Bargh, Chaiken, Raymond, & Hymes, 1996; Chaiken & Bargh, 1993; Chartrand & Bargh, 1996). In a sense, core affect represents an individual's barometer at any given moment. That is, it constitutes current experience that results from an automatic evaluation of individuals' relationships to their environment. The valence dimension (pleasure/displeasure) of core affective experience is determined by whether individuals' goals are met or blocked. The activation level (activated/deactivated) is associated with whether or not active coping is required.

These automatic evaluations manifested in core affective experience may serve both informational and motivational roles in the self-regulation process. First, core affective experience may provide immediate and global information regarding whether the current situation is safe or problematic (cf. Schwarz, 1990; Schwarz & Clore, 1988), or whether prospects of goal attainment are good or bad (cf. Oatley & Johnson-Laird, 1996). Such information will serve as important reference criteria affecting both the process and outcome of goal formulation and goal pursuit.

Second, core affective experience may also serve a motivational role in self-regulation. For example, scholars from several disciplines suggest that affective reaction is a core driver of conscious attention, which then influences the cognitive processes involved in decision making and goal setting (cf. Damasio, 1994; Kitayama, 1997; Wells & Matthews, 1994). Other scholars argue that core affective states are inherently motivational (Izard, 1993), having their own action tendency or action readiness, such as moving toward, moving away, and moving against (Cacioppo et al., 1999; Fredrickson, 2001; Frijda, 1987; Watson et al., 1999). That is, affective reactions create a state of disequilibrium, driving and preparing an organism's body and mind to approach another state or to avoid a current state.

Within this broader perspective on self-regulation, we now turn to predictions regarding the conceptual relationships among core affective experience, key components of self-regulation underlying work motivation, and three behavioral outcomes of work motivation: direction (generative-defensive orientation), intensity (amount of effort), and persistence (duration of action). Figure 2 summarizes the hypothesized relationships.

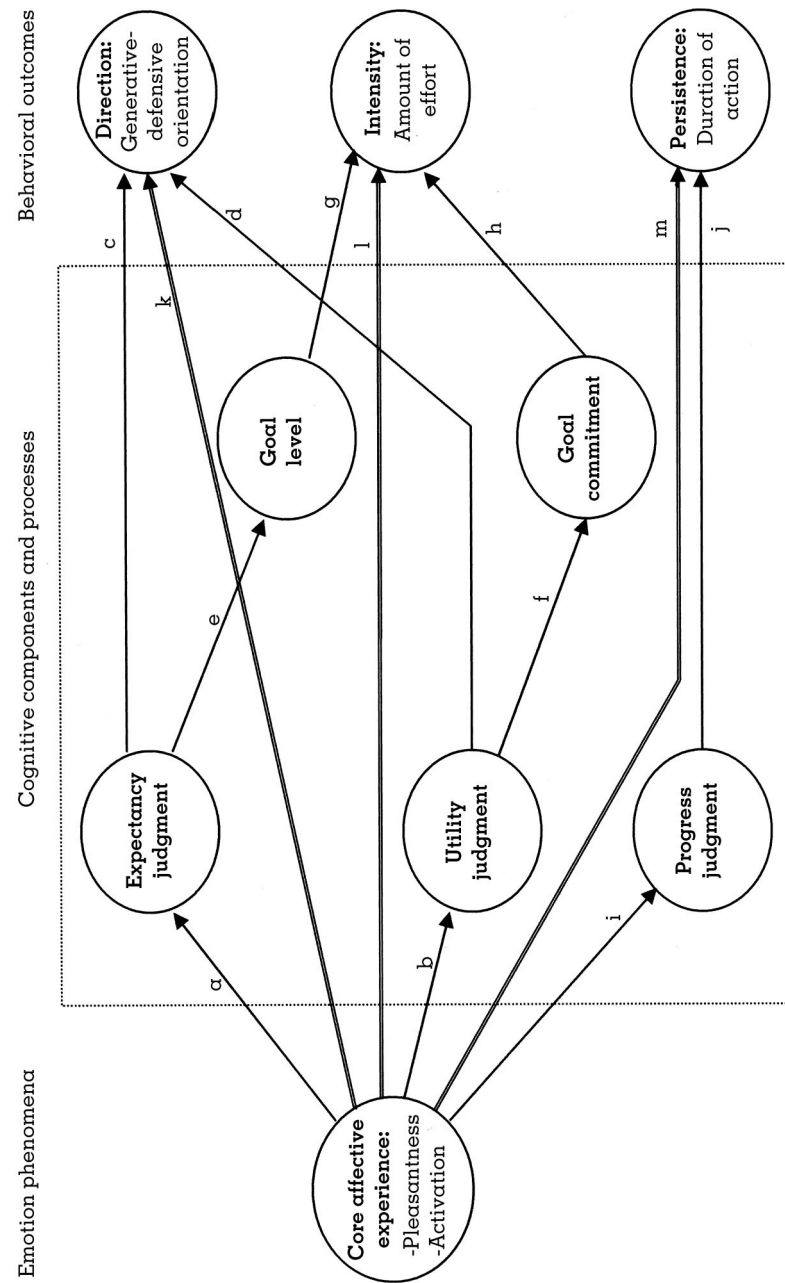
INDIRECT EFFECTS OF CORE AFFECT ON WORK MOTIVATION

Goal-setting theory, one of the most prominent and empirically supported theories of motivation (cf. Klein, 1991; Locke & Latham, 1990, 2002), is central in explaining the phenomenon of self-regulation involved in work motivation (cf. Kanfer, 1991). Its core prediction is that goal properties, such as goal level and goal commitment, are direct determinants of purposeful actions and work performance (Locke & Latham, 1990; Locke et al., 1981).

In the majority of goal-setting studies, researchers have examined the relationship between assigned goals and task behaviors (cf. Kanfer, 1991; Locke & Latham, 1990). Comparatively little is known about the actual processes by which individuals set their own goals and when and how this occurs in workplaces (cf. Mitchell, 1997). Even for assigned goals, however, individual judgment and choice processes are necessarily involved (cf. Locke & Latham, 1990). In many workplaces individuals are involved in a wide variety of goals, tasks, and demands. Under these circumstances, setting or accepting a new goal that will possibly lead to substantial reallocation of attention, time, and energy may not be natural and automatic. Rather, it is likely to involve a purposeful, fundamental choice process based on extensive information processing that includes the following knowledge components: (1) the situation that calls for a decision, (2) different options for action, and (3) consequences of different actions taken (Damasio, 1994).

A considerable body of emotion literature suggests that people's core affect at the time of goal setting strongly influences such extensive information processing (see, Forgas, 1995, 2001, for reviews). A number of studies suggest that pleasant versus unpleasant core affective feel-

FIGURE 2
The Conceptual Model: The Influence of Core Affective Experience on Work Motivation



ings invoke distinguishable frames of mind (Morris, 1989; Schwarz, 1990; Schwarz & Clore, 1983, 1988), influencing how people attend to, prioritize, and draw inferences from certain information during decision making (e.g., Damasio, 1994; Ketelaar & Clore, 1997; Raghunathan & Pham, 1999). For example, based on three experiments involving gambling and job selection tasks, Raghunathan and Pham (1999) suggest that sad and anxious feeling states prime an implicit goal of uncertainty reduction or reward replacement during decision-making processes, and these ultimately influence people's choice between risk and reward.

Similarly, Schwarz and Clore (Schwarz, 1990; Schwarz & Clore, 1983, 1988) suggest, in their "feeling as information" hypothesis, that feelings often function as a judgment-simplifying heuristic device. That is, people rely on their immediate feelings in forming judgments about a given object or event (by simply asking themselves, "How do I feel about it?"). Schwarz and Clore argue that momentary affective experience may directly color various social judgments and decision making when people mistake their current feeling state as a reaction to the target.

Researchers have also found other ways in which momentary affective experience influences information processing, social judgment, and decision making. One is by affecting the content of information retrieved in the brain during decision making. For example, a body of research supports a mood congruence recall effect—that is, people's tendency to recall materials from memory that are consistent with their affective state at the time of recall (e.g., Meyer, Gayle, Meeham, & Harman, 1990). A second is by influencing information-processing styles. Considerable evidence exists that people in positive affective states tend to categorize stimuli in a broader, more inclusive, and flexible fashion (e.g., Murray, Sujan, Hirt, & Sujan, 1990), which often results in enhanced creativity (e.g., Isen, Daubman, & Nowicki, 1987) and enhanced performance on complex tasks (e.g., Staw & Barsade, 1993). In contrast, people in negative affective states tend to engage in more effortful, systematic, piecemeal information processing (e.g., Conway & Giannopoulos, 1993; Edwards & Weary, 1993). They tend to make more accurate,

unbiased, and realistic judgments (e.g., Sinclair, 1988).¹

Based on this body of literature, we identify five paths through which core affective states influence behavioral outcomes via affecting five key cognitive components involved in goal choice and goal pursuit. These components are (1) expectancy judgment, (2) utility judgment, (3) goal level, (4) goal commitment, and (5) progress judgment.

Core Affect, Expectancy and Utility Judgments, and Behavioral Orientation

We hypothesize that core affective experience will influence two judgment components: expectancy judgment (Path a in Figure 2) and utility judgment (Path b). We also predict that these judgments, as a multiplicative combination, will affect the direction aspect of behavioral outcomes—their generative-defensive behavioral orientation (Paths c and d).

Setting a goal implies engaging in a mental simulation (Aspinwall & Taylor, 1997) to make a within-person choice among multiple behavioral options, each with different possible consequences. Based on expectancy theory (Vroom, 1964), in order to make such a choice, one needs to make judgments at least on (1) the expectancy that certain actions lead to expected outcomes (expectancy judgment) and (2) the attractiveness of the outcomes (utility judgment²). Expectancy theory predicts that people will choose a behavioral option that produces the greatest value when its expectancy and utility values are multiplied (motivational force) compared to other alternatives.

A considerable body of literature demonstrates that affective experience influences both expectancy and utility social judgments (see, Forgas, 1995, 2001, for reviews). First, core affective feelings of pleasure or displeasure at the moment of goal setting influence expectancy

¹ Here we describe the typical and most likely effects of core affect on information processing. Researchers have also found some conditions in which positive affect leads to systematic information processing (cf. Isen, 2000).

² Although Vroom (1964) uses the term *valence* to describe the personal importance of possible outcomes, we use a different term, *utility*, to avoid a possible semantic confusion with valence in the emotion literature (positive versus negative feelings).

judgments. Studies of both mood congruence recall effects (e.g., Meyer et al., 1990) and mood congruence judgment effects (Meyer, Gaschke, Braverman, & Evans, 1992) suggest that people in a positive affective state tend to recall/focus more on possible positive outcomes in generating behavioral options, and have stronger expectancy judgments of those positive outcomes (e.g., Wegener & Petty, 1996). In contrast, those in a negative affective state will recall/focus more on possible negative outcomes in considering behavioral alternatives and have stronger expectancy judgments of those negative outcomes (e.g., Johnson & Tversky, 1983).

Second, core affective feelings affect the subjective utility judgment of certain behavioral outcomes (e.g., Damasio, 1994; Loewenstein et al., 2001). For example, based on studies of patients with serious damage to their prefrontal brain, Damasio (1994) found that when people lose their ability to make affective connections to objects, they also lose their ability to make decisions in relation to their personal well-being. In Damasio's view, the human affective system plays a critical role in generating and selecting among a potentially infinite number of alternative behavioral options by providing immediate affective evaluations of each option's relative goodness or badness for one's personal well-being. Such immediate affective evaluations enable and are infused with the utility judgments that are necessary for making personal choices among alternatives (Damasio, 1994).

According to the feeling as information hypothesis (Schwarz, 1990; Schwarz & Clore, 1983, 1988) and, recently, the "risk as feelings" hypothesis (Loewenstein et al., 2001), such infusion may occur when people experience their feelings, at the moment of goal setting (either correctly or through misattributions), as their evaluative reactions to the imminent utility judgment. Therefore, people experiencing pleasant feelings are likely to consider positive outcomes more attractive, whereas those experiencing unpleasant feelings may consider negative outcomes more unattractive.

Considering expectancy and utility judgments together, we predict that the valence aspect of core affective experience should influence the direction of behavioral outcomes into generative or defensive orientations. We predict that people in a pleasant affective state are likely to ex-

hibit a generative behavioral orientation by focusing more on possible positive outcomes in generating behavioral options and estimating higher expectancy and utility judgments for those anticipated positive outcomes. People in negative affective states, however, are likely to focus more on possible negative outcomes in generating behavioral options, judge those anticipated negative outcomes as more likely to occur, and estimate greater negative utilities for those negative outcomes, all of which may foster a defensive behavioral orientation.

This discussion leads to the first set of hypotheses.

Hypothesis 1a: The more pleasant the core affect, the more likely there will be an expectancy of positive outcomes and high utility judgments for these positive outcomes, thus resulting in more generative orientation in action.

Hypothesis 1b: The more unpleasant the core affect, the more likely there will be an expectancy of negative outcomes and high negative utility judgments for these negative outcomes, thus resulting in more defensive orientation in action.

Core Affect, Goal Characteristics, and Amount of Effort

The hypothesized effects of core affective experience on expectancy and utility judgments (Paths a and b in Figure 2) also provide a logical ground for predicting a relationship between core affective experience and the amount of effort devoted to goal attainment—the intensity aspect of behavioral outcomes. In several studies researchers have examined conceptual and empirical relationships between expectancy theory and goal-setting theory (e.g., Klein, 1991; Klein, Wesson, Hollenbeck, & Alge, 1999; Locke, Motowidlo, & Bobko, 1986; Tubbs, Boehne, & Dahl, 1993). In general, they have found that, when all possible behavioral options are considered in a within-person research design, expectancy judgments relate positively to goal level—the level of performance targeted (Path e)—whereas utility judgments positively affect goal commitment—people's determination to reach the goal (Path f [e.g., Klein, 1991; Locke et al., 1986]). These, in turn, affect amount of effort

(Paths g and h [cf. Klein et al., 1999; Locke & Latham, 1990, 2002]).

Therefore, we identify two indirect paths through which core affective experience at the moment of goal setting influences the amount of effort. First, the valence aspect (pleasant/unpleasant) of core affect will indirectly influence the amount of effort by affecting expectancy judgments and goal levels (Path a-e-g in Figure 2). Specifically, people who feel more pleasant at the moment of goal setting are likely to have higher expectancy judgments about the likelihood that a certain set of behavioral options will lead to the expected positive outcomes, and this, in turn, will lead them to set a higher goal level and to devote more effort to obtaining the goal (cf. George & Brief, 1996; Isen, 2000).

Second, the pleasantness of core affective experience will affect the amount of effort indirectly by influencing utility judgments and, thus, goal commitment (Path b-f-h in Figure 2). Pleasant core affective feelings at the moment of goal setting will lead people to consider pursuing their goals more important, and, thus, they will feel more committed to and devote more effort toward obtaining their goals. This discussion leads to the next hypotheses.

Hypothesis 2a: The more pleasant the core affect, the higher the expectancy judgment and goal level, resulting in greater amount of effort.

Hypothesis 2b: The more pleasant the core affect, the greater the utility judgment and goal commitment, resulting in greater amount of effort.

Core Affect, Progress Judgment, and Duration of Action

The core affective experience of pleasure or displeasure should also influence the duration of action—the persistence aspect of behavioral outcome—by affecting how people judge the progress that they are making toward reaching their goals (Paths i and j). Once they choose a goal, people begin to engage in active execution and control of actions in pursuit of the goal—that is, proximal motivational processes (e.g., Austin & Vancouver, 1996; Carver & Scheier, 1998; Hyland, 1988; Klein, 1989; Lord & Levy, 1994). Control theorists suggest that people tend to

change or even withdraw their intended course of action when they perceive that the progress they are making toward reaching their goals is notably bad (negative feedback loop [e.g., Carver & Scheier, 1998; Hyland, 1988; Klein, 1989]). However, in situations where goal attainment requires a series of action steps based on intermediate, ambiguous, and/or complex progress feedback, determining how well or poorly a person is making progress toward a given goal can be a challenging task, subject to personal discretion and judgment. In this case, people's core affective experience at the moment of goal pursuit may influence such progress judgments (Path i in Figure 2), which, in turn, affect the degree to which they change or maintain their initially intended course of action (Path j).

The predicted effect of core affective experience on progress judgments may occur in two ways. First, a number of studies suggest that core affect influences patterns of information processing and ways of responding to various signals in the environment. In general, positive affect fosters more superficial, unsystematic, and stereotype-based processing (e.g., Bless, Bohner, Schwarz, & Strack, 1990; Mackie & Worth, 1989; Sinclair, 1988), which is often beyond intentional control (Mackie & Worth, 1991). In contrast, people in negative affective states generally engage in more effortful, piecemeal information processing rather than categorical processing (e.g., Conway & Giannopoulos, 1993; Edwards, & Weary, 1993). For example, Elsbach and Barr (1999) found, in their experimental study of complex decision making, that people in negative affective states are more likely than those in positive affective states to carefully attend to, systematically execute, and rely on a structured decision protocol in making their decisions. This implies that, all else being equal, people in positive feeling states tend to be less attentive to progress feedback information and, thus, make progress judgments less frequently and less thoroughly, resulting in greater persistence.

Second, mood congruence judgment effects (e.g., Meyer et al., 1992; Johnson & Tversky, 1983) also suggest that people in positive affective states may have a higher expectation that their current course of action will lead to successful goal attainment, while people in negative affective states may have a higher likelihood judg-

ment that the current course of action will fail to attain their goals. Thus, people in pleasant affective states may make more favorable progress judgments than people in unpleasant affective states, leading to a greater likelihood they will maintain their current course of action.

Taken together, people experiencing positive core affect are likely to make progress judgments less frequently, less thoroughly, and/or more favorably, which will lead to greater persistence in following the current course of action. In contrast, people in negative affective states will be less persistent in maintaining the intended course of action by making progress judgments more frequently, thoroughly, and/or less favorably.

Hypothesis 3: The more pleasant the core affect, the less frequent, less thorough, and more favorable the progress judgments, thus leading to greater duration of action.

DIRECT EFFECTS OF CORE AFFECT ON WORK MOTIVATION

As noted earlier, most mainstream theories of work motivation, such as goal-setting theory, expectancy theory, and control theory, focus on cognitive components and processes that underlie motivational processes (cf. Kanfer, 1991; Mitchell, 1997). Despite their very valuable contribution to enhancing our understanding of work motivation, their lack of attention to affective processes constrains the scope of such understanding because of their implicitly shared and largely unquestioned assumption that people deliberate and plan before they act (cf. Loewenstein et al., 2001). As a result, motivation theories fail to explain motivational phenomena that are not based on discrete choice processes.

Intuitively, however, we all know that sometimes people engage in action first and think or justify it later, particularly when they have no previous knowledge of possible choice alternatives and their consequences, when situations require such urgent actions that conscious deliberation is neither possible nor effective (e.g., responses to a sudden attack by an animal), or when some stimuli are so strong that both engagement and continuation of actions naturally occur without or even against conscious choice (e.g., addiction to computer games). Several

scholars have investigated these phenomena. For example, Haidt (2000), in his social intuitionist model of moral judgment, suggests that moral judgments often suddenly and effortlessly appear in consciousness, without any conscious awareness of having gone through the steps of searching, weighing evidence, or inferring a conclusion. This is then followed by an effortful process of searching for arguments that support the already-made judgments. Csikszentmihalyi (1990) also suggests that people experience "flow" when they are so engaged in tasks that an optimum level of effort is devoted to the tasks almost automatically, without the conscious choice of doing so.

Core affect seems a central factor in such motivational phenomena. The affective system can be activated outside conscious awareness (e.g., Winkielman et al., 1997; Zajonc, 1980). Affective reaction or evaluation processes that underlie core affective experience occur rapidly, automatically, and continuously, before any conscious processing has taken place (e.g., Bargh, 1990; Bargh et al., 1992; Damasio, 1999; LeDoux, 1989, 1996; Zajonc, 1980). But once activated, the affective system is sufficient in itself to generate behavioral responses (Brehm 1999; Izard, 1993).

For example, Winkielman and his colleagues (Berridge & Winkielman, 2003; Winkielman et al., 1997) found that participants are affectively primed through mere exposure to a stimulus presented for 1/250 of a second—an interval so short there is no conscious recognition of the stimulus but still sufficient to produce affectively charged responses in liking ratings and drinking behavior. Moreover, as Loewenstein and colleagues (2001) argue, people often experience affective reactions that are divergent from or in conflict with their conscious assessments, and when such divergence occurs, affective reactions often exert a dominating influence on behavior. Such instances are common not only for mood disorder patients (e.g., feeling anxious and acting anxiously while knowing that there is little to worry about), but also for ordinary people (e.g., feeling nervous and speaking badly in public with little compelling reason for the nervousness, or feeling and pouring out extreme anger while knowing that doing so is destructive to all the parties involved, including themselves).

Therefore, we predict direct paths from core affect to each of the three behavioral outcomes

(Paths k, l, and m in Figure 2). First, pleasant and unpleasant feeling states include their own inherent action tendencies of moving toward or away from (e.g., Frijda, 1987), behavioral predispositions to approach or avoid (e.g., Cacioppo et al., 1999; Watson et al., 1999), and/or built-in propensities to broaden or narrow momentary thought-action repertoires (e.g., Fredrickson, 2001). Such inherent action propensities are more likely to lead to orientations toward defensive or generative behaviors, even when such orientation is not mediated or controlled by discrete, conscious choice processes.

Second, affective activation (regardless of its valence) itself creates a motivational state associated with the experience of energy that urges individuals to make an active effort to attain or avoid a particular outcome (Brehm, 1999; Cacioppo et al., 1999). This can occur quickly, beyond any conscious awareness or control (e.g., Brehm, 1999; Damasio, 1994, 1999; Izard, 1993). Therefore, people in more activated feeling states, regardless of whether they feel pleasant or unpleasant, are likely to devote more effort to a given task, independently from their current goal level or goal commitment.

Finally, valenced core affective feelings may directly influence the persistence aspect of work motivation. Such known effects as "mood maintenance"—that is, people's tendency to behave in a way that maintains their current positive affective states (cf. Isen, 2000)—and "mood repair"—that is, people's tendency to behave in a way that changes their current negative affective states (cf. Forgas, 1995)—suggest that pleasant and unpleasant affective feelings may create two distinctive motivational impetuses for either maintaining or altering the current course of action (cf. Oatley & Johnson-Laird, 1996), neither of which requires conscious awareness or control (e.g., Raghunathan & Pham, 1999; Wegener & Petty, 1996). For example, feeling fearful is sometimes powerful enough to stop current behaviors, even without thinking about whether or why to stop (e.g., LeDoux, 1996). Thus, the valence aspect of core affective states may have a direct effect on the duration of the current behaviors.

Hypothesis 4a: The more pleasant the core affect, the more generative the action orientation.

Hypothesis 4b: The more activated the core affect, the greater the amount of effort.

Hypothesis 4c: The more pleasant the core affect, the greater the duration of action.

DISCUSSION

In this article we have explored the crucial role of core affect in work motivation. We first defined the concept of core affective experience and then proposed it as a useful unit of analysis for emotional phenomena. We have indicated several indirect paths through which core affective experience at the moment of goal setting and goal pursuit influences behavioral outcomes by affecting several essential judgment components in work motivation. Moreover, moving beyond the implicitly adopted assumption that motivational processes are (always) thought-based, discrete choice processes, we have also shown that core affective experience has direct impacts on those behavioral outcomes in ways that are unmediated by such discrete, conscious choice processes.

Our conceptual framework points to several important motivational implications of affective experiences at work. First, core affective feelings of pleasure or displeasure may influence the direction of behavioral outcomes (choice of behavior). In particular, people in positive feeling states are more likely to behave generatively, focusing on exploring and obtaining anticipated positive outcomes, whereas people in negative affective states are more likely to focus on avoiding and preventing possible occurrences of negative outcomes, thus exhibiting a defensive behavioral orientation. Second, the activation aspect of core affective experiences, regardless of its valence, likely positively influences the intensity aspect of work motivation (amount of effort), the behavioral dimension on which most work motivation scholars have traditionally placed a primary emphasis (e.g., Staw, 1984). This effect may occur directly. Pleasant feelings may have an additional motivational implication for behavioral intensity by either promoting more optimistic positive outcome expectations and, thus, a higher goal level or fostering greater subjective utilities for performance outcomes and, thus, stronger goal

commitment. Finally, core affective feelings influence the persistence aspect of behavioral outcome. In general, pleasant core affective feelings may foster continuation of the current course of action, whereas negative feeling states may promote modification of action during goal pursuit.

Although our proposed model is a general framework, applicable to most work settings, we suggest that its applicability will be more or less limited by several situational factors. First, we predict in our framework that core affective experience at the moment of goal setting and goal pursuit will be infused with three essential judgment components: expectancy, utility, and progress. According to Forgas's (1995) affective infusion model, such infusion will be limited when the situation is so familiar that people respond with habituated judgments, or when the tasks requiring judgments are so simple and straightforward there is little room for affective infusion. It is likely that the same conditions—task familiarity and complexity—will apply to our framework. Second, we also assume in our framework a work situation where (1) the time gap between goal setting and goal attainment is long enough for judgment processes to occur, (2) goal attainment requires a number of intermediate action steps, and (3) information is ambiguous and complex regarding how good or bad the progress is toward a goal. If any of these conditions are not met, the predicted effect of core effective experience on the persistence aspect of behavior may not occur.

Implications for Managers

Inasmuch as organizational lives are filled with the ebb and flow of affective experiences, with varying degrees of pleasure and activation (cf. Weiss & Cropanzano, 1996; Weiss et al., 1999), those experiences will, of necessity, influence thoughts and behaviors in organizations. Appreciation and in-depth understanding of such influences are the first steps for managers to take to effectively recognize the role of emotions in work motivation. This article may help provide such understanding.

Moreover, our framework provides an understanding that the effects of our momentary feelings on behavioral outcomes are diverse and complex. Therefore, we oppose any managerial presumptions that emotions are always good or

bad at work, or that certain emotions (positive) are more or less effective than others (negative). Instead, we suggest that the performance implications of core affective experiences are highly situation dependent, requiring managerial attention and discretion. For example, in situations where upcoming events can potentially affect people and their organizations negatively (e.g., deadlines), negative feelings such as anxiety or stress, which are often perceived as bad or to be avoided, can serve an adaptive motivational function by pushing people to devote more time and energy to avoiding the occurrence of possible negative outcomes. In situations where precision, thoroughness, or sticking to procedural rules is the most important criterion for effectiveness (e.g., accounting firms, law firms, and high-reliability firms such as nuclear power plants), the defensive behavioral orientation and the less persistent (more responsive) reaction patterns associated with negative feelings can also serve important positive functions (cf. Elsbach & Barr, 1999).

Positive affective feelings are particularly useful when situations require creativity and flexibility (Isen et al., 1987), broad momentary responses (Fredrickson, 2001), and/or proactive coping in the midst of problems and obstacles (Aspinwall & Taylor, 1997). However, positive feelings sometimes foster illusive optimism, overconfidence, and persistence in particular ways of acting, even when a change is required, which may have detrimental impacts on both individuals and organizations (cf. Hastings, 1999; Lim, 1997; Weitzel & Johnson, 1989).

Suggestions for Research

Several future research directions may advance our understanding of the role of core affect in work motivation. First, empirical studies that test all or a part of the conceptual framework presented here are important for exploring the extent to which the proposed conceptual relationships between core affect and other key variables of work motivation have predictive power. To adequately study dynamic impacts of momentary core affective feelings on work motivation, we encourage use of an experience-sampling procedure in which participants rate their momentary affective experiences immediately after they occur, on a moment-to-moment basis (e.g., Feldman, 1995; Feldman Barrett,

1998). Experience-sampling procedures minimize the biases that can affect memory-based self-reports (Reis & Wheeler, 1991; Stone & Shiffman, 1994). Thus, it is important to measure core affect at many critical moments during the behavioral processes, rather than assume that core affect at one moment will be constant over time or correctly remembered by the participants. This is particularly important when studying affective experience, because memory biases have been detected when using standard self-report measures (Feldman Barrett, 1997; Feldman Barrett & Pietromonaco, 1997; Feldman Barrett, Robin, Pietromonaco, & Eysell, 1998).

Second, for simplicity's sake, we have focused here only on the effects of core affective experience on work motivation. We have not incorporated feedback loops or predictors of core affect at work. However, for a more complete understanding, such work is important. By definition, core affective experience may vary momentarily and be caused by many different factors (cf. Fisher, 2000; Weiss et al., 1999). Moreover, little is known about what causes core affective experiences at work and to what degree. It is important to examine (1) how the key constructs of work motivation (expectancy/utility judgments, goal characteristics, and progress judgments) recursively influence core affective experiences as people go through processes of goal setting and goal pursuit and (2) how one affective state will condition or influence subsequent affective states (cf. Carver & Scheier, 1998). Experience-sampling methods can also be useful for this type of research.

Finally, research suggests that individuals differ not only in their tendency to experience a certain valence (pleasant or unpleasant) of affective states predominantly over time—called "affective disposition" (e.g., Judge & Larsen, 2001; Judge, Locke, & Durham, 1997)—but also in how they incorporate certain affective states into conscious emotional experience. Some focus on valence—pleasant-unpleasant—while others focus on arousal—high-low activation (e.g., Feldman, 1995; Feldman Barrett, 1998). Studies that further explore and examine how these individual differences have different implications for work motivation can prove another valuable future research direction.

In conclusion, scholarly understanding of work motivation cannot proceed without an examination of affective influence. This article has

suggested a way in which aspects of affective experience can be integrated more fully into current understandings of work motivation. This approach opens up and suggests new components of motivational experience as these are linked with well-studied components. In addition, our approach links the study of motivation with organizational research in which emotion is studied more generally (Ashkanasy et al., 2000; Fineman, 2000; Fisher & Ashkanasy, 2000). Thus, our work, in conjunction with others', opens up the study of motivation to a wider array of affective experience in organizations.

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