

Development of a Core Confidence–Higher Order Construct

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The author develops core confidence as a higher order construct and suggests that a core confidence–higher order construct—not addressed by extant work motivation theories—is helpful in better understanding employee motivation in today’s rapidly changing organizations. Drawing from psychology (social, clinical, and developmental) and social anthropology, the author develops propositions regarding the relationships between core confidence and performance, attitudes, and subjective well-being. The core confidence–higher order construct is proposed to be manifested by hope, self-efficacy, optimism, and resilience. The author reasons that these four variables share a common confidence core (a higher order construct) and may be considered as its manifestations. Suggestions for future research and implications of the work are discussed.

Keywords: attitudes, core confidence, higher order construct, performance, subjective well-being

Hewlett-Packard’s former CEO Carly Fiorina stated that “the most magical and tangible and ultimately the most important ingredient in the transformed [work] landscape is people” (Fiorina, 2000, p. 4). This message seems clear, and many managers of today’s organizations would likely agree with it. However, evidence suggests that among U.S. employees, (a) 73% are less motivated today than they used to be, (b) 84% could be more productive if they wanted, and (c) 50% expend only enough effort to hang on to their jobs (Spitzer, 1995). A recent Gallup poll offered similar findings: Only 25% of U.S. employees were found to be highly engaged in their work, and 20% were actively disengaged (Coffman & Gonzalez-Molina, 2002).

On the basis of this information, a skeptic might conclude that the theories of work motivation are not being used, not being used properly, or not working. A more balanced view, which I support, suggests that changes in today’s workplace may have outpaced the development of work motivation theories. My argument is as follows. On the one hand, “the world of organizations has changed dramatically over the past decade, perhaps more than any other decade of this century” (Steers, 2002, p. 146). Globalization, advanced information technology, global sourcing, and new work structures and power distributions are now the norm instead of the exception (Erez, Kleinbeck, & Thierry, 2001).

On the other hand, most of the established theories of work motivation, reviewed in detail elsewhere (Ambrose & Kulik, 1999; Locke, 1997; Pinder, 1998; Porter, Bigley, & Steers, 2003), have been developed and researched a while ago, at which time they provided invaluable insight. However, there seem to have been few theoretical advances in the field in the past decade. As Steers

(2002) pointed out, for anything new in work motivation, “take a look at the articles published . . . over the past decade: little will be found focusing on genuine theoretical development in this area” (p. 146). Ambrose and Kulik (1999) agreed and suggested that, in the 1990s, our “old friends” have gotten “new faces” (p. 231), however, without much new theory development.

Considering the attributes of motivation and the rapidly changing world of work, I suggest that new conceptual development may be needed to help us better understand employees’ motivation in today’s organizations. To illustrate, work motivation involves cognitive appraisals regarding what behavior to engage in, how much effort to exert, and how to deal with obstacles to perform well (Baron, 1991; Latham & Budworth, in press; Pinder, 1998; Vroom, 1964, 1995). Yet, conceptual answers to these motivational questions are not readily apparent in light of the unprecedented demands that the current social, technological, and global dynamics of organizations place on the performance of today’s employees (Cairncross, 2002; Ireland & Hitt, 1999). What seems apparent, on the basis of evidence from more than 200,000 employees, 8,000 business units, and 36 companies, is that lower employee motivation and disengagement from work appear to be associated with many of today’s organizations (Harter, Schmidt, & Hayes, 2002).

A new conceptual development regarding employee confidence beliefs may help us better understand and address some of the motivational challenges employees face in today’s workplace. *Confidence* has a common meaning of a certainty about handling something (e.g., work, social event, relationship). The antonym is *uncertainty*, or doubt, about handling something.¹ Why is confidence important in today’s workplace? New demands of the rapidly changing workplace may easily translate into employee wor-

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¹ *New Webster’s Dictionary and Thesaurus of the English Language (NWDt)*. (1992). Danbury, CT: Lexicon; Merriam-Webster Online Dictionary and Thesaurus; Dictionary.com. The key word was *confidence*. These three sources provide similar definitions of confidence, as does the *Oxford Dictionary*. These definitions were adapted into the one that is provided here.

ries over the possibility of job loss, job changes, and dealing with new technology. Important for building the case for confidence, such employee concerns over their work are typically linked to a perceived lack of confidence to handle work demands rather than to the objective difficulty of executing such demands (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). I suggest that, in a rapidly changing workplace, employees may become less motivated or even demotivated (Armenakis & Bedeian, 1999; Aspinwall & Taylor, 1997) if they are not confident to handle changing work conditions.

Work motivation theories have suggested that successful performance needs both skill and desire (e.g., Maier, 1955; Porter & Lawler, 1968). *Skill* refers to a competency to do the job, and *desire* suggests that a person wants to do it. Both are critical. What I try to add to the literature is a suggestion that skill and desire need to be joined with confidence, a personal certainty belief that one can handle what one desires to do or needs to be done at work.

How does adding confidence to skill and desire help us better predict performance? I believe that all three components of performance need to be present for an action to unfold, and the relative absence of any one would likely stifle it. A related example would portray an employee who wants to do something (has desire) and is able to do it (has skill) but does not even try, or gives up easily, because of a lack of confidence. Thus, I propose that confidence psychologically enables the potential that is already present (having skill and desire) to unfold, and doubt keeps such potential in a psychological “bondage” where it remains unrealized.

Given skill and desire, I suggest that the enabling role of confidence in one’s motivation process is as follows. Having high confidence makes it more likely that people will initiate action, pursue it, and sustain persistence because they feel certain that they can handle what they desire to do or needs to be done. Consequently, confident people are more likely to be successful performers. Having low confidence makes it less likely that people will initiate action, pursue it, and sustain persistence because they feel uncertain (have doubt) that they can handle what they desire or need to do. Consequently, people with doubt are less likely to be successful performers.

I propose that psychologically enabling one’s potential is the role of confidence in the motivation process. I suggest that such a role seems important in today’s organizations. Rapidly changing work usually presents employees with new demands that may increasingly challenge their faculties. Navigating through the uncharted waters of such unprecedented work changes may put more than the usual pressures on employees’ motivation. A new theory regarding confidence may help us better understand employee functioning.

Conceptual Nature of a Core Confidence—Higher Order Construct

The purpose of this work is to introduce a core confidence—higher order construct (“latent commonality underlying the dimensions”; Law, Wong, & Mobley, 1998, p. 747). I propose that the core confidence—higher order construct (a) underlies the four dimensions of hope (Snyder, 2000), self-efficacy (Bandura, 1997), optimism (Peterson, 2000), and resilience (Coutu, 2002); and (b) is

positively related to performance, attitudes, and subjective well-being.

Definition

In the beginning of this article, I provided a definition of confidence as a certainty about handling something, which, to describe it further, entails what a person desires or needs to do (i.e., work, a social event, friendship, or relationship). This is a common definition of confidence and, as such, is inductively based on the past presence of confidence in people’s lives. The following short examples illustrate that confidence seems to have been, at least, mentioned as a part of our lives throughout history. On the basis of work in evolutionary psychology theory, Nicholson (1998) noted that, even “in the . . . terrifying conditions of the Stone Age, those who survived surely were those who believed they would survive. Their confidence strengthened and emboldened them, attracted allies, and brought them resources” (p. 135). In the 17th century, John Milton (1667/2003) wrote about confidence in *Paradise Lost*, “But confidence then bore thee on; secure either to meet no danger, or to find matter of glorious trial” (chap. 9). Today, the Google electronic database returns about 14 million entries for the term *confidence*.

Given these examples, to the best of my knowledge and review of 30 theories (described later in more detail), it is perhaps surprising that work motivation theories do not appear to have unequivocally conceptualized and defined the construct and the term *confidence*. Thus, in the absence of an academic definition, I adopt the common definition of confidence stated previously, do not relabel the traditional meaning of it, and do not suggest that I am inventing confidence.

The novelty and contribution of my work is that I define confidence as a higher order (or core, for the ease of use) construct. I also propose that core confidence influences four manifestations that portray a person who figures out what is to be done and how to do it (hope), develops a belief that he or she can do specific tasks (self-efficacy), forms a positive outcome outlook on the entire undertaking (optimism), and works on the belief that he or she can bounce back if things go awry (resilience). Hope, self-efficacy, optimism, and resilience are well-researched variables in psychology and are referenced in more than 47,054 articles (PsycINFO search, July 4, 2005). Despite the research prominence of these variables and some suggestive links among them, they have not been discussed as a part of a common core.²

² Research on integration of observable variables into higher order constructs has had a long tradition in psychology (Fishbein & Ajzen, 1974; Spearman, 1927; Titchener, 1910). However, several labels for such research and constructs have been used over time. E. L. Kelley (1927) used *jangle fallacy* to refer to the practice of introducing new variables without sufficient consideration of those already in existence. Researchers in this tradition were later labeled by Cronbach (1956) as either *splitters* (focus on reduction) or *lumpers* (focus on integration). The term *bandwidth-fidelity paradox* was used recently (John, Hampson, & Goldberg, 1991). To complicate labeling further, several terms have been used for constructs at a higher level of abstraction: *higher order construct*, *core*, *latent commonality/construct*, or *factor*. Henceforth, for the clarity of presentation, for the

Level of Analysis and Characteristics of Appraisal

Core confidence is proposed to operate at the individual level of analysis and is based on appraisals that an individual makes. Lazarus (1991) differentiated between knowledge and appraisals. This distinction is important because what is being considered in looking for knowledge and making an appraisal differs. *Knowledge* refers to the generalized truth about something (e.g., I am an engineer). Looking for knowledge about something (e.g., one's education) focuses on determining a certain factual property of it (e.g., engineering degree) that is not relative. *Appraisals* refer to a cognized view about something in a certain context. Making an appraisal focuses on making a relative assessment of an aspect of a person in a context (e.g., Am I certain that I can handle this job in this firm? Do I think that I can deal with this particular social event?). Core confidence is based on the psychological appraisals one makes.

Generalizability

Because psychological appraisals may relate to one or more domains of interest (Lazarus, 1991), I treat core confidence as both a malleable, state-like belief that refers to a particular domain of functioning and as a more stable, trait-like belief that may generalize to other domains of related activity. Conceptual treatment of core confidence as both a state-like and a trait-like belief is consistent with the nature of its four proposed indicators; each has been defined in the literature as having both state-like and trait-like properties (described in the next section).

If the core confidence appraisal is directed toward a specific domain of activity (e.g., entrepreneurship), then it would result in a domain-specific core confidence belief. Depending on how a person appraises his or her performance experiences (e.g., previous dealing with customers), capacities needed for that domain of functioning (e.g., skills in negotiating a deal), and relevant circumstances (e.g., favorable vs. not favorable), a core confidence assessment may vary, hence representing a state-like belief. An example may be a young entrepreneur who is trying to gauge his or her core confidence for that domain of activity and where that assessment fluctuates.

The same theme may be used to illustrate core confidence as a more generalizable trait-like belief. Another entrepreneur may, through a prolonged engagement, have built a mastery of performance for an entrepreneurship domain of activity. If such experiences and capacities are perceived to be similar to those needed for performance in another domain, then core confidence for one domain of activity may generalize to related domain(s). The more similar the domains are, the more predictable is the generalization of core confidence from one domain to the other.

There are several implications of conceptualizing core confidence as both a state-like and a trait-like belief. First, a state-like core confidence is a less broad and a more proximal belief in regard to ongoing events, and a trait-like core confidence is a more

broad and enduring belief. Thus, an assessment of a state core confidence would have a more specific and temporal focus (e.g., I know what to do in my business *these days*; I cannot handle it in *this situation*). An assessment of a trait-like core confidence would have a more broad and enduring emphasis (e.g., I know what to do in my business *most of the time*; I cannot handle it *in general*). Second, a trait-like core confidence likely sets a range within which a state core confidence varies: the higher the former, the greater the latter, because people may tend to put themselves in situations for which they have a broader core confidence. Third, a state-like core confidence for handling a certain activity should be more strongly related to it than would a trait-like core confidence, which samples situations more broadly. Also, a test-retest reliability of a state versus a trait core confidence is likely to be lower because of the greater sensitivity of the former to proximal and specific situations.

The Manifestations of Core Confidence

"Distinct and segregated literatures have developed around a number of personality traits that, despite different names, nevertheless intercorrelate so highly that they must be considered measures of the same construct" (Watson & Clark, 1984, p. 465). This view does not imply that all variables are redundant and should be lumped together. Rather, the key question in research on higher order constructs has been, What does it buy us in terms of building new knowledge to study individual variables that may reasonably be considered as measures of the same higher order construct? The answer has been that measures that appear similar should be evaluated, and when there is a conceptual or empirical reason to suggest the existence of a higher order construct, such a commonality should be given attention (Block, 1995; Cronbach, 1956; Dawis, 1992; Judge, Locke, & Durham, 1997; E. L. Kelley, 1927; Watson & Clark). I believe that the conceptual evidence points out that hope, self-efficacy, optimism, and resiliency may share a common confidence core. Because these four variables have been researched apart from each other, I first define them individually and then discuss their similarities.

Hope

There are two views of hope: a common one and one that is used in psychology research. *Hope* is commonly used in everyday language as in "hope for the best," which represents an expectation that a desire will be fulfilled (Snyder, 2000). To distinguish and clarify the common use of hope from that used in research, I label it *passive hope* and define it as an expectation that a desire will be fulfilled but not accompanied by a related action (e.g., hope to win the lottery; E. Locke, personal communication, October 2003).

As a variable in psychology research, "hope is defined as a cognitive set that is based on a reciprocally derived sense of successful: (a) agency (goal-directed determination) and (b) pathways (planning of ways to meet goals)" (Snyder et al., 1991, pp. 570–571). Given the action orientation implied in both the agency part of hope (person's determination to achieve a certain goal) and the pathways part of hope (person's knowledge of ways to achieve such a goal), I label hope used in research *active hope*. Consistent with the definition by Snyder and colleagues, active hope, as I use the term, means that a person knows what to do and is determined

field, I use the term *research on higher order constructs*, and for my construct, I use the term *core confidence* and assume the rest of the description: higher order construct manifested by four observable variables: hope, self-efficacy, optimism, resilience.

about it (agency or determination about a goal) and also knows or is convinced about finding a way to do it (has thought of pathways to reach a goal; E. Locke, personal communication, October 2003). I focus on active hope (henceforth *hope*) as an indicator of core confidence.

Hope has been recognized as both a trait-based disposition and as a state-like appraisal: "People probably have dispositional hope that applies across situations and times, but they also have state hope that reflects particular times and more proximal events" (Snyder et al., 1996, p. 321). Hope research has a long tradition in clinical psychology related to topics of hopelessness and mental illness (Erickson, Post, & Paige, 1975), but there has been little research on hope in work contexts. Perhaps indirectly related to work, hope has been found to be positively related to academic and athletic success (Curry, Snyder, Cook, Ruby, & Rehm, 1997; Onwuegbuzie & Snyder, 2000), mental health (Kwon, 2000), and survival beliefs (Range & Penton, 1994). More closely related to work is the positive relation between hope and perceived control and affect (Curry et al.). In addition, there is evidence that a manager's hope is related to employees' satisfaction, retention, and unit performance (Adams et al., 2002; Jensen & Luthans, 2002). Hope in stressful jobs is negatively related to emotional exhaustion and turnover and positively related to performance (Kirk & Koeske, 1995; Spencer & Spencer, 1993; Taylor & Brown, 1988).

Self-Efficacy

Self-efficacy is defined as a belief regarding one's capabilities to execute a specific task within a given, specific context (Bandura, 1997). More often than not, people's beliefs in their abilities to execute specific tasks are thought to be a virtue (Gist & Mitchell, 1992). Bandura (1986, 1997) defined self-efficacy as a task- and context-specific state-like variable. The key finding in self-efficacy research is that the higher the self-efficacy, the better the outcomes. This positive relation of self-efficacy to various outcomes has been described by Bandura (1997).

The positive relation between self-efficacy and work performance is also well documented (Bandura, 1997; Stajkovic & Luthans, 1998). General self-efficacy has been offered as a trait-based version of self-efficacy (Sherer et al., 1982). Related research on general self-efficacy is reviewed and discussed in detail by Bandura and Stajkovic and Luthans.

Optimism

Optimism has considerable common everyday usage and a long tradition in anthropology (Tiger, 1979) and psychology (Peterson, 2000). A classic definition of optimism is provided in social anthropology: Optimism represents "a mood or attitude associated with an expectation about the social or material future—one which the evaluator regards as socially desirable, to his/her advantage, or to his/her pleasure" (Tiger, p. 18). Optimism is not only associated with cognitive processing of expectations but also with emotions. As Peterson pointed out, "Optimism is not simply cold cognition, and if we forget the emotional flavor that pervades optimism, we can make little sense of the fact that optimism is both motivated and motivating" (p. 45). Optimism has been defined both as a disposition (e.g., Scheier & Carver, 1992) and as a malleable

state-like construct (e.g., Peterson; Schneider, 2001; Seligman, 1998).

The beneficial effects of optimism on physical and psychological health and its positive impact on academic, athletic, and political success have been well documented (Peterson, 2000; Seligman, 1998). The work-related studies on optimism have been done largely in psychology research. For example, although uncertain about the direction of causality, Seligman and Schulman (1996) studied optimism in sales and found that the top half of optimistic sales agents sold 37% more insurance than the bottom half and had higher retention rates. Other work-related studies have found optimistic leaders to be more effective in initiating change and to have more optimistic followers (Wunderley, Reddy, & Dember, 1998) and optimistic managers and employees to have higher performance, satisfaction, retention, and less stress than their pessimistic counterparts (Peterson; Schneider, 2001; Schulman, 1999; Wanberg, 1997).

Resilience

Resilience has been examined mostly in clinical (e.g., child psychopathology; Huey & Weisz, 1997; Hunter & Chandler, 1999; Stewart, Reid, & Mangham, 1997) and social (Block & Block, 1980; Bonanno, 2004) psychology. *Resilience* is defined as "the capability of individuals to cope successfully in the face of change, adversity, and risk" (Stewart et al., p. 22; see also Dyer & McGuinness, 1996). Whereas the term *capability to cope successfully* may be seen through different lenses, resilience research defines it as the capability of a person to maintain or regain a psychological equilibrium relatively quickly in the face of adversity and not to succumb to aversive feelings (e.g., depression). Put simply, resilient individuals seem to have the capacity to bounce back when faced with change uncertainty, conflict, and failures (Coutu, 2002).

Resilience has been defined both as a disposition (Egeland, Carlson, & Sroufe, 1993; Luthar, 1991) and as a state-like appraisal. Coutu (2002) described resilient individuals, relevant to today's turbulent organizations, as having a strong awareness and acceptance of reality and an ability to be flexible, to improvise, and to adapt to change. Yet, except for research on stress (Lazarus, 1999; Luthar, Cicchetti, & Becker, 2000; Rutter, 1987), resilience has been given little attention in the workplace. To my knowledge, there have been only a few attempts to apply (largely at the organizational level) resilience to the workplace (e.g., Cameron, Dutton, & Quinn, 2003).

The Similarities Among the Manifestations of Core Confidence

Research suggests that hope and self-efficacy are defined as similar to each other. Hope involves agency (determination to achieve a goal; Snyder et al., 1991), which is conceptually similar to self-efficacy (a belief that one can accomplish a specific task; Bandura, 1997). It is hard to imagine one without the other. On the one hand, it seems unlikely that a person may have a strong determination for a goal (hope's agency), yet does not believe that he or she can accomplish a specific task leading to that goal (self-efficacy). On the other hand, believing that one can do a specific task (self-efficacy) without that task being linked to goal attainment (hope's agency) may question the direction and purpose

of that task. Hope's second component—pathways—is also related to self-efficacy. *Pathways* is defined as knowing how to meet goals, and self-efficacy has been positively related to finding and executing good task strategies (Bandura; Snyder, 2000). Knowing how to meet goals seems fairly similar to finding good task strategies.

Research has suggested that hope is also similar to optimism (an expectation about the future) in that both hope and optimism refer to expectations about future outcomes. Hope treats them as *goals*, and optimism treats them as a *social/material future*. These two labels for future outcomes to which hope and optimism refer seem difficult to distinguish because they can easily represent the same outcome, event, or situation. Research examining hope and optimism in the same study has indicated that the two variables may share an overlapping variance. In their book *Hopeful Optimist*, Carver and Scheier (2002) attempted to conceptually differentiate hope from optimism: "One of the main conceptual divergences . . . is the role assumed for perceptions of personal agency" (p. 288). Yet, Magaletta and Oliver (1999) found that the agency part of hope (as noted in the preceding quote) was empirically indistinguishable from optimism. Magaletta and Rocco (1997) also could not empirically differentiate the pathways part of hope from optimism.

Finally, research has defined resilience as being based partly on self-efficacy: "The literature has portrayed a resilient individual as one who has a healthy sense of self, is *self-efficacious* [italics added], bold, determined" (Hunter & Chandler, 1999, p. 243; see also Wagnild & Young, 1993; Werner & Smith, 1982). Wagnild and Young noted that one dimension of resilience is *competence*, which is defined as consisting of "attributes related to *self-efficacy* [italics added]" (Hunter & Chandler, p. 44). These definitions seem explicit in that self-efficacy and resilience have a partly overlapping meaning. A number of the same adjectives also are commonly used in self-efficacy research to describe being self-efficacious as they are used in resilience research to describe being resilient: strong, malleable, resistant despite obstacles, adaptable, and determined (e.g., Bandura, 1986, 1997; Hunter & Chandler; Stajkovic & Luthans, 1998, 2003; Wagnild & Young).

Occasional setbacks are a part of life, and both self-efficacy and resilience relate to the mental processing of taxing events (e.g., failure, change) in beneficial ways (Bandura, 1997; Stewart et al., 1997). Bandura noted that it is not past performance (e.g., failure on a task) that determines future behaviors (e.g., bouncing back) but what is psychologically made out of it. This view is fairly similar to that of resilience research, which is characterized by an idea that it is not what happens that matters but how one takes it (Coutu, 2002; Hunter & Chandler, 1999). Thus, both self-efficacy (e.g., Can I do this task in this context to succeed?) and resilience (e.g., Can I bounce back from this misfortune and move on?) relate positively to situations in need of successful personal adaptation (e.g., Hill, Smith, & Mann, 1987; Wagnild & Young, 1993).

To summarize, the evidence reviewed in this section points to an overlap among the four constructs. In my conceptual framework, this overlap is proposed to indicate (and to mean) that the four constructs share a common confidence core that exists at a higher level of abstraction.

Relationships to Work Outcomes: Performance, Success, Attitudes, and Subjective Well-Being

Core Confidence and Performance

I propose that core confidence is related to performance. I elaborate here on the proposal noted earlier in the article that, to perform, skill makes action possible, desire motivates one to do something, and, I propose, core confidence psychologically enables, or unlocks, one's existing potential by believing that one can handle what needs to be done. These proposed relations can be shown as

$$\text{Performance} = \text{Skill} \times \text{Desire} \times \text{Core Confidence.} \quad (1)$$

Each of these three components carries an important weight in determining performance. In other words, performance likely would suffer if one of these three components is low or missing; work cannot be successfully performed without a skill, and actions would not have much meaning and direction without a desire for them. I propose that little in the way of performance would be initiated, or last long, if a person does not believe that he or she can handle the work. By this reasoning, the lack of core confidence would tend to neutralize one's potential, resulting in weak or no action, whereas the presence of core confidence would allow a person to use his or her potential, resulting in action based on what one can (skill) and wants (desire) to do.

In terms of cognitive processes, I suggest that one's thinking about core confidence may unfold along these lines. Before they initiate their actions, people likely consider the information about their core confidence. The more they perceive that they can handle the work (know what to do, how to do it, believe they can do the specific tasks, are positive about the expected outcomes, and believe that they can mentally handle potential setbacks), the more likely they are to initiate the action, put enough effort in it, and sustain that effort. In contrast, the more employees harbor doubt about handling the work, the more likely they are to dwell on the perceived deficiencies, ponder over them, and ultimately either not begin the action (e.g., Why bother if I believe that I cannot handle this?) or give up easily after they tried to do something (e.g., I knew I could not handle this in the first place). On the basis of this reasoning, I propose that, controlling for skill and desire, core confidence is positively related to performance (Proposition 1).

I also propose partial mediation of this relationship through goals: Employees high on core confidence are more likely than employees low on core confidence to set high performance goals. The more employees are confident about handling work, the more likely they are to set difficult goals, and vice versa (Proposition 2). The positive effects of goals on performance have been reviewed extensively elsewhere (Locke & Latham, 1990, 2002). Core confidence and goals work in concert. Core confidence relates to the difficulty of a goal set, and goals guide action toward a desired end state. The more difficult the goal set, the greater the performance. I also suggest that the greater the core confidence, the more likely employees are to accept the goal, be committed to it, and persist on the course of action, especially in the face of difficulty.

Core Confidence and Educational and Career Success

I also propose, inductively, that success-indicating outcomes in one's educational and career pursuits may be positively influenced

by core confidence. My underlying reasoning for the role of core confidence in educational and career success is consistent with my previous conceptualizations: Given skill and desire, individuals higher on core confidence are more likely than those low on core confidence to initiate educational and career pursuits, put enough effort in them, and sustain needed persistence. Specifically, education-wise, as a likely-to-be relevant aspect of one's career, I propose that, given skill and desire, more core-confident individuals would have more education (e.g., years of school), attain more educational honors (e.g., *sum cum laude*), and take part in related extracurricular activities (e.g., join or participate in student and career-related professional organizations; Proposition 3a). Once a person has embarked on a career track (e.g., entry-level engineer), I propose that, given skill and desire, the higher the core confidence, the more likely an employee is to have rapid career advancement (e.g., get frequent promotions); occupational status (e.g., get higher level promotions); attain a high salary and receive other types of rewards (e.g., social recognition at work); and work long, productive hours (Proposition 3b). Research is needed to test these proposed relationships.

Core Confidence and Work Attitudes

I propose that core confidence is related to attitudes. One of the frequently examined variables manifesting work attitude has been job satisfaction (Judge et al., 1997). *Job satisfaction* is defined as an affective response formed through the process of evaluating the current job (Hackman & Oldham, 1980), and I suggest that core confidence is likely to affect the satisfaction evaluation of the job. Out of at least three approaches to studying job satisfaction (reviewed elsewhere, i.e., Judge et al.), the approach I take here would likely fall into the interactionist camp, where job satisfaction is viewed as the result of the interaction between job properties and a person's preferences (see Locke, 1976; Smith, Kendall, & Hulin, 1969).

Under this approach, an employee goes through the process of evaluating his or her job and forms an affective response to a typical job satisfaction statement, such as "I am currently satisfied with my job" (e.g., Hackman & Oldham, 1980). Thus, the job satisfaction depends on the match of the job attributes and the person's wants and values. A job that is seen as having attributes that satisfy an employee's wants and values is deemed satisfying and the one that does not as dissatisfying (see Chatman, 1989; Porter, 1962). These relationships from extant research can be shown as

Job Satisfaction = Job Attributes

× Job Wants and Values. (2)

Perhaps adding to the interactionist camp of job attitudes research, I propose that, in addition to job wants (having a good-paying job) and values (working in an ethical workplace) being met, a person still needs to be confident about handling job demands. These relationships can be shown as

Job Satisfaction = Job Attributes × Job Wants and Values

× Core Confidence About Job Demands. (3)

Each of these components has an important role in determining job satisfaction; job satisfaction would be adversely affected if one is

low or missing. To show a role of core confidence in fostering job satisfaction, first assume, on the basis of previous research, that an employee is satisfied with the match between his or her job wants and attributes. However, then assume that an employee does not feel confident to handle work demands. To use the proposed indicators of core confidence, an employee does not know how to do the work, feels incapable of doing a specific task, is pessimistic about success, and is not resilient to handle setbacks. Job dissatisfaction seems an unavoidable evaluative response to these core confidence appraisals. Reversing the correlates would likely contribute to employee job satisfaction. Thus, I propose that core confidence is another factor that is positively related (in concert with previously established job attributes and job wants and values) to job satisfaction (Proposition 4).

Perhaps the direction of influence is from job satisfaction to core confidence. I would speculate that job satisfaction may be related to a greater desire to do the job about which a person feels satisfied. However, whether job satisfaction leads to greater core confidence (which is based on *can I handle this* perceptions) is possible but a bit less inductively clear. Future research is needed to empirically examine the potential reciprocity of these relationships.

Core Confidence and Subjective Well-Being at Work

I propose that core confidence is related to subjective well-being, which "refers to people's evaluations of their lives—evaluations that are both affective and cognitive . . . [and is] in colloquial terms sometimes labeled happiness" (Diener, 2000, p. 34). Happiness (term used henceforth) has been studied in psychology (Diener; Diener, Suh, Lucas, & Smith, 1999; Kahneman, Diener, & Schwartz, 2003), is a topic (called *happiness and economics*) of growing interest in economics (Frey & Stutzer, 2002), and has been featured in psychology–economics joint research (Nickerson, Schwartz, Diener, & Kahneman, 2004). Happiness, as a construct of research interest, has infrequently been considered in organizational studies.

Happiness evaluations refer to different aspects of human existence, from one's life as a whole to more specific domains of functioning, such as marriage and friendships. Literature on happiness has identified work as one of the important domains in need of research (Diener, 2000; Seligman, 2002). Thus, I introduce work happiness as a relevant affect at work, especially in today's rapidly changing organizations. Why is this so? The main suggestion of happiness research is that "it is desirable for people to think that they are living good lives" (Diener, p. 34). In light of recent career-impacting work changes (e.g., 24/7 global work demands, high insecurity), studying whether people feel that they live a good work life is a timely and relevant research question.

Job satisfaction and work happiness. I do not propose that work happiness is a replacement for job satisfaction. Rather, I propose that work happiness as another potentially relevant emotion variable at work that is defined (on the basis of happiness research in psychology) more broadly than job satisfaction. The results of the following surveys are illustrative. When asked about their satisfaction with life, 80% of North Americans said that they are more satisfied than dissatisfied (Myers, 1993). Yet, when asked, "Are you happy?" only 20% said that they were (Wholey, 1986). Many were surprised that even 20% of people said that they

were happy: "I would have thought that the proportion is much lower!" noted Hart (1988, quoted in Myers, 2000, p. 56); Powell (1989) found that only 10–15% of Americans think that they are happy.

Job satisfaction is an attitude typically associated with one's job per se (Hackman & Oldham, 1980). For instance, as measured by, say, Hackman and Oldham's widely used three-item job satisfaction scale, an employee may be satisfied with the job itself (Item 1; e.g., it is secure, pays well, and is not hard to do), feels a sense of attainment from doing that job (Item 2; e.g., he or she is good at it), and likes the type of activities done in that job (Item 3; e.g., analytical, accounting, job that fits one's preferences). I propose that being happy at work may encompass a broader range of emotions than captured by these three job satisfaction items.

I base this contention on Diener's (1984, 2000) definition of happiness. He stated that happiness goes beyond attitudes to include positive work-related emotions (e.g., I feel pleasant at work), subjective views about the value of the individual (e.g., I feel good about myself here), and cognition that transcends the monetary bases (e.g., I believe I am being engaged at work). Thus, Diener (2000) defined happiness as a broader emotional concept that encompasses more specific attitudes such as job satisfaction. I found two studies that lend some support for the notion that happiness is more broadly defined than job satisfaction: Happiness was a significant predictor of job satisfaction, but not vice versa (Judge & Hulin, 1993; Judge & Watanabe, 1993).

Applying Diener's (2000) view of happiness to the work domain, I define *work happiness* as a subjective evaluation of the quality of one's work life. I propose that employees are happy at work when they experience more pleasant than unpleasant emotions, feel good about themselves, and believe that they are engaged in fulfilling work. Employees are unhappy at work when they experience more unpleasant than pleasant emotions, feel bad rather than good about themselves, and believe that they are disengaged from fulfilling work activities.

Core confidence and work happiness. Why is predicting work happiness potentially important? Research has shown that "happy individuals seem on average to be more productive and sociable" than unhappy ones (Diener, 2000, p. 41). In addition, it has alluded to potential benefits of happiness to one's physical and mental health (Myers, 2000; Ray, 2000; Salovey, Rothman, Detweiler, & Steward, 2000). I inductively suggest that several outcomes at work may appear to be linked to one's subjective evaluation of feeling happy: organizational commitment, work engagement, job satisfaction, organizational citizenship behaviors, and the quality of management-labor relations. However, what predicts happiness in general or in life is a bit less clear (Myers), and what predicts happiness at work has not been addressed. I propose that core confidence is positively related to work happiness.

Myers (2000) reviewed research on life happiness. In short, he concluded that, although lack of money may cause distress, "once comfortable, however, more money provides diminishing returns on happiness" (p. 59; see also Diener & Oishi, 2000). Gender and age have little to do with life happiness, and the number of close personal relationships one has is positively related to it. What predicts happiness at work? In the absence of such research, I first assume that similar findings apply as in the life happiness domain (which is an open question). Thus, if it is not money, age, and gender, what is it? To try to provide some answers, I draw from

research in psychology that offers some indications. In particular, the conceptual ideas I present build on (a) Seligman's (2002) notion that "happiness comes from identifying and cultivating your most fundamental strengths and using them everyday in your work" (p. 18), (b) Diener's (2000) suggestion that being engaged in interesting activities is an important source of happiness, (c) Csikszentmihalyi's (1999) work on an increased quality of life when one has a chance to engage skills at work, and (d) the aforementioned findings regarding close personal relationships.

The value-added contribution of my viewpoint is based on Seligman's (2002) idea of engaging one's strengths in daily work. I believe that having confidence at work can be considered as one of the work-related strengths. Is engaging one's strength (confidence) in any type of work conducive to work happiness? Regarding the properties of work, first, I agree with Diener (2000) that it likely helps if work is interesting (appealing, attention-grabbing) as opposed to uninteresting. Second, building on Csikszentmihalyi's (1999) work, I suggest that engaging one's skills in challenging (demanding, stretching one's mind and behaviors) as opposed to easy and simple activities may be another happiness-contributing property of work. Third, on the basis of happiness research, I suggest that having friendly and supportive relationships at work as opposed to exclusionary and unsupportive ones is likely another happiness-related property of one's work. For the ease of communicating my next proposition, I label having interesting, stimulating, and socially supportive work as having, in two words, *stimulating work*.

I propose that stimulating work is one part of the work happiness story; core confidence about handling stimulating work is another, or

Work Happiness = Stimulating Work

× Core Confidence. (4)

As I espouse in this work, I also see the role of core confidence here as enabling. Core confidence is likely to psychologically enable one to get engaged in stimulating work, take a chance to apply his or her skills, and experience work happiness from that fulfilling engagement. Such a fulfilling engagement in stimulating work leads to work happiness, and core confidence is there to make possible such an engagement. For example, an employee may reflect on work, "I have a chance to do stimulating work, and I am confident that I can handle it. I am doing it, and I feel happy." Thus, I propose that stimulating work and core confidence work in concert: The higher the core confidence about handling stimulating work, the stronger the relationship between being engaged in stimulating work and work happiness (Proposition 5).

Antecedents and Boundary Conditions

At this early stage of my work, antecedents of core confidence and boundary conditions of the proposed relationships are not immediately clear, but there are several that I propose. At this point, I discuss two antecedents of state core confidence (the perception of previous experience and the perception of ability) and two boundary conditions (the presence and nature of feedback and overconfidence and arrogance) that appear inductively to be relevant.

Antecedents

The perception of previous experience. The more positive previous experiences that employees have with certain work in the same or related domain of activity, the more likely they are to feel confident for such work. The longer that these positive (and preferably consistent) experiences last, the more stable the core confidence will be. Having positive experiences is important and represents one half of the story. How such past experiences are perceived is the other half, and attributions (H. H. Kelley, 1973; Weiner, 1985) about them seem to play a role. Success attributed to internal causes (ability, effort) may increase core confidence, but success attributed to external ones (luck, easy task) may not. Failure attributed to internal causes may diminish core confidence, whereas external attributions may deflect the blame and take the sting out of the failure for some time. However, continuing to make external attributions for failure may be harmful if a person fails to recognize what he or she can do to improve.

The perception of ability. Because ability is predictive of performance (Schmidt & Hunter, 2004), perhaps there is a similar link with core confidence: The greater the ability, the greater the core confidence. I suggest that this is partly so. Core confidence is proposed to be manifested by knowing what to do and how to do it, believing that one can do the specific task, and being optimistic and resilient. These core confidence aspects likely depend on ability but also on other factors. For instance, knowing what to do and how to do it has to do with ability but also with acquired knowledge; believing that I can do a specific task relates to ability but also to available resources and constraints; optimism has a cognitive part that may be tied to ability but also an emotional part that is largely separate from ability; and resilience has mostly to do with keeping it together mentally. Thus, ability is a relevant antecedent of core confidence, but may be only one half of the story. The other half may be how people perceive other information relevant to forming their core confidence.

Boundary Conditions

Feedback. In organizational literature, *feedback* is broadly defined as information about some aspect of one's work and has been described in detail elsewhere (Kluger & DeNisi, 1996). Feedback has an important boundary condition role in my theory: It can moderate the strength of the relationship between core confidence and work outcomes. As I discussed previously in this article, context is part of a core confidence appraisal, and the information about it comes from feedback. I see, at least, three types of feedback being relevant here.

First, feedback can relate to the performance operation (e.g., performing maintenance duties), and it can relate to, for instance, needed cognitive and behavior cues, sequencing of operations, and dynamics of procedures. The more feedback about such operations an employee has, the more likely he or she is to appraise core confidence accurately. The less feedback about such performance operation an employee has, the less likely he or she is to appraise core confidence accurately. Inaccurate or ambiguous appraisals of core confidence regarding performance operation are likely to lead to adverse consequences.

Second, feedback can relate to factors in the environment that may represent constraints to performance operation, such as availability of needed resources (e.g., materials, finances), time limits,

or relevant physical conditions (e.g., frequency of interruptions, temperature issues, even a presence of potential hazards). If an employee perceives such factors as indicating problems with successful execution of performance operations, his or her core confidence may suffer. If such information is perceived as facilitative, core confidence may be enhanced.

Finally, feedback can relate to the consequences of work to which an employee may be subjected. I would suggest that the more personal consequences work has for an employee, the more seriously he or she will take the core confidence appraisal for such work. Feedback related to such consequences (positive or negative) of work will likely be useful for core confidence appraisals.

To conclude, the proposed role of feedback in forming core confidence is informational. Feedback, from the task itself or others, provides information about the undertaking in question: The more information employees have about it, the more likely they are to appraise their core confidence (and then performance) effectively.

Overconfidence and arrogance. Is having more core confidence always better? It may be if it is commensurate with skills and available external resources. If perceived core confidence is beneath these factors, the situation is that of untapped potential. If it is above, that would indicate overconfidence. I do not see issues with some overconfidence, which may even be somewhat beneficial. However, I do see potential problems with substantial overconfidence. Overconfident people may attempt more than they can bear, which in turn may set them up to fail. The other potential result of overconfidence may be complacency, which may lead to inaction and negative outcomes. Perhaps asking oneself "Am I being overly confident?" from time to time may be a relatively easy a priori way to help us think about and distinguish confidence from overconfidence.

It is also important to separate core confidence from arrogance (pomposity). Admittedly, core confidence may be the source of arrogance. In such a case, a person is showing an *inflated front* (or *swelled head*) that, although based on core confidence, is nonetheless annoying. Such an appearance may perhaps be remedied by friendly advice to tone it down. A more complex case is when arrogance is based on narcissism, which is a psychological disorder. In such an instance, a person is displaying a *false front*. Wagner (2002) described narcissism and its manifestations in relations to work as arrogance, refusing feedback, taking undue credit, and denying failure and responsibility. Remedies for narcissism and its manifestations entail professional assistance.

Comparison With Previous Work

To this point, I have focused on theoretically defining the core confidence construct: its nature, relations to outcomes, and antecedents and boundary conditions. In the following sections, I address core confidence in the context of the broader literature and discuss whether core confidence has been examined before, suggestions for empirical testing, and implications.

Confidence Portrait in a Gallery of Work Motivation Theories

Looking back, many theories of work motivation have been developed over the years (see Ambrose & Kulik, 1999; Locke,

1997; Pinder, 1998). They have provided an invaluable contribution. The question pertinent to the present work is, Have extant theories of work motivation addressed confidence as a motivational variable or as a higher order construct? I propose that there may be a unique place for a core confidence portrait in the gallery of work motivation theories. To support this view, I outline the historical progress of the field and review 30 work motivation theories.

Has Core Confidence Been Considered? Review of 30 Theories

Frederick Taylor (1911) introduced scientific management almost 100 years ago, which was followed by the related work of Lillian and Frank Gilbreth (1923). This research focused on wages, improving worker skills, and organizing for higher productivity. In the 1930s, the focus shifted for a while to the results of the Hawthorne studies, and then to the content (need) theories of motivation, such as McGregor's (1960) Theory Y and McClelland's need for achievement (e.g., 1961). These theories posit that employees are motivated for an action because they have a need (psychological or physiological deficiency) for it. Behavior modification research followed, which focused on reinforcing behaviors by external contingent consequences. Because behaviorists did not see cognition as a valid scientific construct (Locke, 1997), it took until the 1960s–70s to develop theories that emphasized conscious regulation of work motivation (e.g., expectancy, equity, goal, attribution). These process theories of motivation focused on both what motivates employees and related cognitive processes. This theory building was followed by testing and refinements in the 1980s and, according to Steers (2002), a seeming decline in interest in the 1990s.

More detailed comparison of 30 work motivation theories is shown in Table 1. This review includes conceptualizations (a) other than those of the four variables (hope, self-efficacy, optimism, and resilience) discussed throughout this article as a part of the theoretical framework I propose and (b) that have been identified as motivation theories frequently examined in organizational research (e.g., Ambrose & Kulik, 1999; Locke, 1997; Pinder, 1998).

Key focus of theories reviewed. On the basis of the comparative review I conducted, it is plausible to suggest that confidence as an observable variable or core confidence as a higher order construct has not been conceptualized. This is not to say that some theories did not assume confidence, implicitly had it in mind, or left room for such interpretation. This is to say that none of the motivation theories reviewed has confidence conceptualized as the key, focused construct. To use an analogy of what I mean here, if the key focus of goal theory is goals, and if the key focus of attribution theory is attributions, and if the key focus of need for achievement theory is the need to achieve, then no existing theory of work motivation has as its key focus "confidence" or "core confidence." These conclusions drawn from my review are congruent with the most recent review of the historic development of motivation theories in the 20th century done by Latham and Budworth (in press).

Implicit focus of two theories. I next discuss two instances in which confidence may have been considered, not as a key focus, but either implicitly or through similar variables. One theory—

expectancy—may imply confidence, and one—goal setting—discusses self-efficacy. In particular, it could be that Vroom's (1964) expectancy theory implies confidence in effort–performance expectancy (e.g., The more effort I put forth, the more I can achieve). It could also be that expectancy theory also implies confidence in others (e.g., I am confident that our leaders will take care of us) in performance–outcome expectancy (performance leads to outcomes).

Goal-setting theory discusses self-efficacy as an antecedent of goal level. Although self-efficacy research (Bandura, 1997) rarely mentions confidence, the definition of self-efficacy (Can I do this specific task in this specific context?) is, as I propose in this article, indicative of one's underlying core confidence. Per my earlier discussion, briefly, I see self-efficacy as one of the four observable manifestations of a core confidence–higher order construct, where a higher order construct (core confidence) is proposed to influence its observable manifestations (self-efficacy).

The possibilities just discussed are important and should certainly be recognized and acknowledged. However, the role of this work is to build a case for core confidence as a higher order construct. That is, I hope that providing initial theory building on core confidence as a higher order construct will be the contribution of this work to the work motivation field.

Comparison to a Core Self-Evaluations–Higher Order Construct

Stepping out of motivation into the personality field, one finds a recently introduced higher order construct of core self-evaluations (as called at the positive end) and personal negativity (as called at the negative end; Judge, Erez, Bono, & Thoresen, 2002, p. 707). It consists of the following indicators: self-esteem (person's perception of his or her self-worth), neuroticism/emotional stability (neuroticism is emotional maladjustment; emotional stability is emotional adjustment), locus of control (whether perceived control of one's actions is within or outside the person), and general self-efficacy (trait-based self-efficacy). Both confidence and self-evaluations/personal negativity are defined as higher order constructs. This leads to the following question: Does core confidence add anything beyond core self-evaluations/personal negativity? I suggest that it does.

First, core confidence and core self-evaluations differ in their theoretical meanings. Whereas core confidence is defined in this work to represent confidence, core self-evaluations/personal negativity is defined to represent neuroticism. As Judge, Erez, et al. (2002) clearly explained,

What is the nature of this latent trait that explains the associations among the four individual traits? We believe that the four individual traits may be indicators of neuroticism, although broader than usually conceptualized. . . . Thus, it appears more likely [than not] that the four measures represent a general neuroticism factor. (p. 707)

Neuroticism represents a personal "tendency to exhibit poor emotional adjustment and experience negative effects, such as anxiety, insecurity, and hostility" (Judge, Bono, Ilies, & Gerhardt, 2002, p. 767) and "stress and depression" (Judge & Ilies, 2002, p. 797). Judge, Erez, et al. (2002) suggested that there are two main indicators of neuroticism. One is trait-anxiety. "The other, the one at study here, is the self-concept aspect and might be called *core*

Table 1

Conceptual Focus of Several Work Motivation Theories Developed in the Past Century

Theory	Source(s)	Major variable/key focus	Confidence
Early work			
1. Scientific management	Taylor (1911)	Wage incentives, time and motion analysis, task and tool design, job design and engineering	No
2. Ability	Spearman (1927)	General intelligence factor (g); precursor of the related works on other various forms of ability	No
3. Hawthorne studies	Roethlisberger & Dickson (1939)	Started with external determinants of performance, then attitudes, precipitated Human Relations Movement	No
4. Reinforcement theory	Skinner (1953)	Reinforcement, contingent reinforcers, observable behaviors; exclusive focus on environment	No
5. Social comparison theory	Festinger (1954)	Social comparison processes, especially slightly upward	No
6. Cognitive dissonance theory	Festinger (1957)	Creation and dealing with cognitive dissonance	No
Content (need) theories			
7. Hierarchy of needs	Maslow (1943)	Primary, safety, love, esteem, and self-actualization	No
8. nAch., nPow., nAff.	McClelland (1961)	Needs for achievement, power, and affiliation	No
9. Two-factor theory of motivation	Herzberg (1966)	Hygiene factors (prevent dissatisfaction) and internal motivators (cause motivation)	No
10. ERG theory	Alderfer (1969)	Response to Maslow, three needs instead of five are focused: existence, relatedness, and growth	No
Process theories of motivation			
11. VIE theory	Vroom (1964)	Valence, expectancies (E1 and E2), and instrumentality as motivational force	No
12. Equity theory	J. S. Adams (1965)	Degree if equity or inequity of outcomes (distributive justice) is input into job performance	No
13. Porter and Lawler model	Porter & Lawler (1968)	Refined and extended VIE; adds ability and perceived equitable rewards, performance causing job satisfaction	No
14. Goal-setting theory	Locke (1968)	Specific and difficulty goals are regulators of performance. Goal commitment considered an important moderator	No
15. Attribution theory	H. H. Kelley (1973); Weiner (1985)	Attributions about past outcomes; dimensions: loci, stability, controllability; consensus, consistency, distinctiveness	No
16. Cognitive evaluation theory	Deci (1975)	Intrinsic versus extrinsic motivation: External rewards are controlling when task is intrinsically motivating	No
Job design			
17. Job enrichment	Herzberg (1966)	Enriching the jobs vertically with intrinsic motivators	No
18. Sociotechnical approach	Steiner (1972)	Interface and harmony among personal, social, and technical functioning	No
19. Job characteristics model	Hackman & Oldham (1980)	Three job characteristics lead to three psychological states, which lead to outcomes; moderated by growth need strength	No
20. Social information processing	Salancik & Pfeffer (1978)	Attitudes and task design; cognitive evaluation of the task, past actions, and information from the social context	No
Attachment processes			
21. Job satisfaction	Judge, Thoresen, Bono, & Patton (2001)	Job satisfaction as an antecedent and consequence of work outcomes	No
22. Organizational commitment	Meyer, Allen, & Smith (1993)	As antecedent and consequence of work outcomes; three types of organizational commitment: cost, normative, emotional	No
23. Organizational citizenship behavior (OCB)	Van Dyne, Graham, & Dienesch (1994)	Predicting nonrequired behaviors at work that contribute to various positive outcomes	No
Dispositions			
24. Cognitive ability	Schmidt & Hunter (2004)	General mental ability (GMA) as a predictor of work outcomes	No
25. Personality	George (1992)	Predictor of work outcomes; review of the numerous variables examined and their role in organizations	No
26. Affect	George & Brief (1992)	Affect as predictor of work outcomes (e.g., Positive affect/Negative affect)	No

(table continues)

Table 1 (continued)

Theory	Source(s)	Major variable/key focus	Confidence
Selected recent work			
27. Procedural justice	Folger & Greenberg (1985)	Perceived fairness of the work procedure used in decision making; interacts with distributive justice in prediction	No
28. Participation in decision making	Schweiger & Lena (1986)	Whether different forms of participation in decision making lead to different work outcomes	No
29. Impression management, organizational socialization	Jones (1986)	Managing impressions others form about a person; potential implications for performance evaluation	No
30. Person-organization fit	Chatman (1989)	The better the fit, the better the outcomes	No

Note. I focus mostly on theories used in work motivation research in organizational studies. I follow three reviews of work motivation theories—Ambrose and Kulik (1999, reviewed 10 theories), Locke (1997, reviewed 8 theories), and Pinder (1998, book)—in selecting the theories. Although I expanded the list of reviewed theories to 30, not all theories or topics could be covered. I do not list again theories discussed in the text (e.g., indicators of core confidence). I provide only one (initial, major, or recent review) source to save space. Column confidence refers to whether a theory has confidence as a key, focused construct, or deals with it in substantive fashion.

self-evaluations . . . in the positive, or *personal negativity* . . . in the negative” (Judge, Erez, et al., p. 707).

Second, as I have described in this article for core confidence and noted for core self-evaluations/personal negativity (henceforth *core self-evaluations*), the two higher order constructs have different indicators (besides overlapping general efficacy when core confidence is considered as a trait). The two higher order constructs also differ in their conceptual treatment of the importance of their indicators. *Core self-evaluations* are defined as having self-esteem as a key indicator: Judge and Bono (2001) explicitly noted that they consider “self-esteem to be the most fundamental manifestation of core self-evaluations as it represents the overall value that one places on oneself as a person” (i.e., one’s self-worth; p. 80). In the core confidence conceptual framework of this work, all indicators are proposed to be of the same importance (I further discuss this point as an empirical question for future research in the next section).

Finally, the core self-evaluations construct represents one’s conception of self-worth that is enduring, with evidence being indicative of substantial heritability of neuroticism (see Costa & McCrae, 1988; Judge, Erez, et al., 2002; Loehlin, 1992). Judge and his colleagues are unequivocal in their definition of core self-evaluations as a solely trait-based construct (Judge & Bono, 2001; Judge, Bono, et al., 2002; Judge, Erez, et al., 2002; Judge & Ilies, 2002). As described in this work, I define core confidence as both a state-based and a trait-based higher order construct.

In sum, I suggest that confidence and core self-evaluations differ in what they represent (confidence vs. neuroticism) and in how they represent it (through different indicators, different importance of indicators, and different trait-only vs. both the trait and state natures of the constructs). As a result, although the two constructs may operate in concert, it is possible that a person can be high on core self-evaluations and low on core confidence and vice versa. For instance, an employee can be high on core self-evaluations (feels very self-worthy) but not confident to handle work (e.g., completing an audit). Conversely, one can be high on core confidence (e.g., I am confident about handling this audit) and at the same time low on core self-evaluations, that is, high on personal negativity (e.g., I feel low self-worth and emotional instability). As an example from history, the famous painter Vincent Van Gogh was both severely neurotic (with grim health consequences) and very confident about his painting, as portrayed in the book *The Letters of Vincent Van Gogh* that published correspondence with his brother. I posit that core self-evaluations and core confidence are different higher order constructs and are both important in their own right.

Suggestions for Empirical Testing and Implications

Theory development guided me in connecting the core confidence with its indicators and the proposed outcomes. The next step is empirical: operationalization of variables and testing the propositions. Along these lines, I next discuss the measurement of indicators, analyses for construct validation, the potential need for a scale of core confidence, analyses for testing the propositions, and open questions and suggestions for further empirical development of this work.

Measurement of Indicators

The four indicators (first-order factors) of core confidence (second-order factor) can be measured as follows. In general, a state-based core confidence would use state-based scales for indicators and a trait-based core confidence would use trait-based scales for indicators.

Hope. Scales of both state and trait hope have been offered by Snyder et al. (1991, 1996). One half of the Snyder et al. scale refers to *agency* (goal-directed determination: e.g., "At the present time, I am energetically pursuing my goals"), and the other half refers to *pathways* (planning ways to meet goals: e.g., "I can think of many ways to reach my current goals"). Snyder et al. (1991, 1996) suggested that this scale be called "the goals scale" during administration. Its state-like properties are emphasized by time-related qualifying statements such as "at this moment," "here and now," and "at the present time." The trait-based hope scale has very similar items (also equally split between agency and hope), but they are all without the time-related qualifiers. Snyder et al. (1991, 1996) suggested that this scale be called "the future scale" because of its time-unbound items.

Self-efficacy. Bandura (1986, 1997) suggested that state self-efficacy be measured by items developed to closely correspond to a research question (e.g., "I can fix this particular machine problem in 1 hr"). Items are listed in an ascending order of difficulty, and each precedes two columns. The first pertains to magnitude (difficulty level) and second to strength (certainty about the level) of self-efficacy. For each item, *Yes* or *No* is written in the magnitude column and 0–100% in the strength column. Lee and Bobko (1994) recommended the sum of strength numbers for all the *yes* magnitude levels as the total self-efficacy score. Trait self-efficacy has frequently been assessed by the Sherer et al. (1982) scale, which consists of more general items (e.g., "One of my problems is that I cannot get down to work when I should").

Optimism. Seligman (1998) provided a state optimism scale called the Attribution Style Questionnaire. It has 48 items, each with two subitems, one of which is to be picked based on imagining oneself in the situation provided; optimists expect positive outcomes and take credit for them ("Your employer comes to you for advice" because "I am good at giving useful advice") and deflect the sting from unflattering outcomes by explaining them away (e.g., "You run for a community office position and you lose" because "the person who won knew more people"). Scheier and Carver (1985) provided a trait optimism scale, the Life Orientation Test. It has 8 (nonfiller) items, evenly split between optimistic (e.g., "I'm always optimistic about my future") and pessimistic views (e.g., "If something can go wrong for me, it will").

Resilience. Resilience has been studied in different fields (psychology, mental health, medicine, social welfare, forensics; see Dyer, & McGuinness, 1996; Klonhnen, 1996; Rutter, 1987), and various scales exist. A recent account of state-based resilience related to psychology and organizations has been offered by Coutu (2002). Although a specific scale was not provided, the gist of the content may be illustrated by an item such as "I can bounce back when . . . goes wrong." W. M. Dennis (multirecipient personal e-mail communication, 2002) used state-like items to assess coping with a specific tragedy, such as "I have not fully recovered either emotionally or psychologically from the events of Septem-

ber 11th." An example of more trait-like resilience items is, "I do not dwell on things that I can't do anything about" (Wagnild & Young, 1993).

Analyses for Construct Validation

Testing whether hope, self-efficacy, optimism, and resilience share a common confidence core can be done by convergent and discriminant analyses (see Schwab, 2005) and by second-order confirmatory factor analysis using covariance structures (see Bollen, 1989). High convergent validity among measures of hope, self-efficacy, optimism, and resilience suggests that they convey little unique information and indicates an existence of a shared core. Similar correlations of these four measures with other variables indicate low discriminant validity and presence of a shared core. The advantage of a second-order confirmatory factor analysis is that it allows for covariation among first-order factors through the second-order factor. High factor loadings and good model fit indexes indicate the existence of a shared confidence core.

Scale of Core Confidence

Support for the existence of a shared confidence core would both empirically substantiate my conceptual rationale and encourage the development of a core confidence scale. The latter suggestion is based on past research. "To the extent a variable correlates with other variables . . . it is said to be 'explainable' by these other variables and convey no unique information" (Block, 1995, p. 188) and may be considered empirically interchangeable (Lubinski & Dawis, 1992). As Dawis (1992) stated, "One has to wonder how much of the effort is overlapping and redundant. . . . Psychologists may be charting the same area but with instruments of different names" (p. 16).

Core confidence can be measured indirectly by being extracted by factor analyzing the four indicator scales. A new scale of core confidence would allow for its direct assessment. Because it would be designed to tap into the underlying construct itself, a direct scale would likely be more valid. It would also substantially reduce the number of items (compared with factor analyzing four indicator scales) considered in the analysis, which may enhance its usefulness in organizations.

Example items for the direct scale of state-based core confidence may be, "These days, I am confident about handling [e.g., this project]" and "I am not confident about handling [e.g., this project] under these circumstances." A trait version of the direct scale may have similar items but with a more enduring time emphasis (e.g., most of the time, in general) or a broader content focus (e.g., work vs. a certain project). The psychometric theory-guided full scale development analyses are beyond the scope of this article and have been described in detail by Nunnally and Bernstein (1994). In short, a direct core confidence scale would preferably be relatively short (to facilitate its use), be reliable, have unitary factor structure, demonstrate predictive validity, and show incremental predictive validity over any combination of the four single indicator scales.

Analyses for Testing the Propositions

The relationships I have proposed between core confidence and other constructs can be tested by covariance structure analysis.

Structural equation models can be estimated for each construct discussed (see Bollen, 1989). Variables expected to covary with core confidence are those described as antecedents (perceptions of previous experience and ability), mediators (goal level), and outcomes (performance, educational and career success, job satisfaction, work happiness). The latter two outcomes need scales; job satisfaction could be measured, among other scales, by Hackman and Oldham's (1980) scale, and there are several standardized scales for happiness (see Fordyce, 1988, for a review), and each can be easily adapted for work purposes. For instance, the 11 items with responses ranging from *extremely unhappy* to *extremely happy* of the Happiness Measure (Fordyce) can be modified by adding "at work" in the instructions for the scale completion (e.g., How happy or unhappy do you feel at work?).

Aspects of each relationship proposed could also be tested by covariance structure analysis. For instance, regarding the core confidence–job satisfaction relationship, do items of the proposed core confidence indicators load only on the core confidence factor or do they also load on job want (pay) and job value (ethical workplace) factors? Regarding the core confidence–work happiness relationship, is having interesting, stimulating, and supportive work actually perceived as having stimulating work, that is, do these constructs load on the same factor?

At this initial stage of this work, based on my understanding and conceptualization of the core confidence construct, I would not necessarily expect core confidence to covary with variables related to personality disorders (e.g., schizophrenia). For instance, Nobel Prize–winning mathematician John Nash had a grave personality disorder health problem but, according to Nasar (1998), was still apparently very confident about conducting mathematics research.

Open Questions and Suggestions for Empirical Testing

I next put this work in perspective and discuss several open questions. The work I offer here represents only a first step, hopefully in a right direction, in a longer journey toward a theory of core confidence. As a reminder, Locke and Latham (in press) wrote, "Inductive theory building takes time, especially when starting from scratch" (p. 28). I could not agree more. That is, I do not claim to have all the answers to all reasonable questions now. I only hope that future empirical research would address some of the open questions that linger.

Is core confidence empirically different from core self-evaluations? There is little doubt that they are conceptually different as I have described them, but are they empirically different? Perhaps there is one mega factor that influences all eight indicators; four in core self-evaluations (neuroticism, self-esteem, general efficacy, locus of control) and four in core confidence (hope, self-efficacy, optimism, resilience). It would be interesting to examine whether such a mega factor (with eight indicators) would better predict work outcomes than either latent factor alone. Moreover, this question can be expanded and tested by adding the Big Five model of personality (Barrick & Mount, 1991) and personal negativity factor (Furr & Funder, 1998) to the mix.

A related question is, Is the mix of indicators in core self-evaluations and core confidence correct? Although the two latent constructs may be empirically different, perhaps indicators from one also load (or load better) on the other. For instance, one may ask why self-esteem is not part of core confidence. I define core

confidence as a motivation higher order construct and, as discussed earlier, self-esteem is an affective construct (Brockner, 1988; Gardner & Pierce, 1998; Judge, Erez, et al., 2002), which is also frequently used as a measure of emotional instability (e.g., "Following the classification in prior research, we classified measures of self-esteem and . . . as measures of Neuroticism"; Judge & Ilies, 2002, p. 800). Future research is needed for clearer answers.

Is core confidence a second-order construct, or is one of the four constructs proposed as a first-order construct? Perhaps optimism is the second-order factor and core confidence is the first-order factor. I feel that this is unlikely on the basis of the definitions involved. In short, and as discussed previously, optimism refers only to the belief that a certain performance will result in certain outcomes, but it has little to do with enabling such a performance in the first place. Core confidence, as defined in this work, relates to knowing what and how to do something, believing that one can do specific tasks, being optimistic that a performance will result in outcomes, and having resilience that one can cope with potential setbacks. Thus, I believe that core confidence is a broader construct, and that optimism is a narrower construct. The same question (which is a second-order and which is a first-order construct) can be asked for hope, self- and general efficacy, and resilience. These possibilities could be empirically tested by covariance structure analysis. Each model can alternate a second-order factor and examine corresponding factor loadings and fit indexes each time. I call for such empirical testing for optimism and the other three indicators.

Is core confidence different from its indicators or other potentially relevant variables (e.g., perceived sense of control)? For instance, regarding its indicators, perhaps core confidence as a trait appears similar to trait-based general efficacy? First, certain similarities between core confidence and its manifestations must exist because I propose that confidence is a core belief that affects its observable manifestations. Second, I propose core confidence as a higher order construct and each of its manifestations, including general efficacy, has been defined only as an observable variable in the literature. Future research is needed to test these questions.

I suggest that the four manifestations of core confidence are equally important, but are they? I propose that, to succeed, a person must have the right mix of core confidence ingredients that work together. To fail, only one of them needs to deteriorate. For instance, it is hard to imagine a purposeful action without knowledge of what to do or how to do it (hope). Having this component is the first step, but if a person does not believe (self-efficacy) that he or she can execute the specific tasks in the specific context (e.g., anatomy class lab work in a medical school), little will occur. If previous components are present but one believes (optimism) that performance will not lead to desired outcomes (e.g., promotion due to bias), the point of such action is in question. Finally, if one's resilience to handle failure (e.g., denied tenure) is weak, the action may be modified (change school). Empirical testing is needed to offer clearer answers to these initial conceptualizations.

I make two concluding remarks to this section. First, I propose that the core confidence–higher order construct is predictive of several outcomes. I also propose that core confidence as a higher order construct is more predictive of outcomes than the indicators it is said to influence would be if tested on their own. Sulloway (1997) illustrated the premise,

... in the world around us, a multitude of crisscrossing influences limits our ability to predict individual action. Still, *multiple* predictors—far more effectively than *single* ones—provide an effective means of explaining individual behavior. (p. 363)

However, I do not call for a reduction in research on indicators. Such work should continue, as should research comparing predictions of core confidence versus its single indicators.

Second, to examine a complex phenomenon proposed, I outlined a program of empirical research. The broad spectrum of analyses and levels is involved in it. Thus, multiple studies, which should be stimulating for future applied psychology research, will be needed to operationalize this proposed program of research. Nonetheless, it is possible (even likely) that other constructs may be relevant to my proposed framework but are not covered in the present work. This is one of the reasons that I see this theory-development work as just a beginning and hope that future research will test and improve on what I propose. On this point, I embrace Locke's (2005) approach to offered changes and additions to (in his case, goal) theory,

I would always put reality (evidence, facts, logic) first in my work and never defend something to death, simply because I had written it, regardless of the validity of the criticism. To me this "reality first" attitude was the key requirement of scientific objectivity and progress. (p. 77)

Implications

Confidence is important because it matters to people. Not to overstate the case, I see confidence as a human strength that may contribute to different forms of human betterment. By studying confidence, as a mechanism that psychologically enables one's potential, we may be better able to discover the best people have to offer, especially in today's turbulent world. For instance, in the aftermath of the 9/11 attacks, the leaders at all levels of the United States have been calling for hope in our actions, belief that we can do what it takes to do, optimism about the future, and resilience to bounce back from the tragedy that happened to the United States. The calls for building confidence about handling the future permeate the airwaves of our times. I suggest that motivation in life is not that different from motivation at work, and one's confidence likely plays a role in both.

In terms of day-to-day suggestions for organizations, it may be premature to present firm applied implications. This is because I have offered several ideas for future empirical studies, and they are yet to be conducted. In the meantime, perhaps an easy and initial thing to do may be to emphasize the positive core confidence aspects and promote thoughts and activities that build core confidence. I am not suggesting that managers promote core confidence regardless of the work circumstances. Handling a battered and cynical workforce in the next round of downsizing may benefit more from help on dealing with psychological trauma that people may face. However, if employees have a chance to perform, are faced with alternative choices, and are pondering how many personal resources to exert, core confidence may make a difference.

Conceptualizing the core confidence—higher order construct that underlies hope, self-efficacy, optimism, and resilience may also facilitate building cumulative knowledge, which is currently not the case. For instance, whereas one study focused on the role of

optimism in dealing with breast cancer (Lauver & Tak, 1995), another study focused on the role of resilience in dealing with breast cancer (Boer, 1996). Neither of these two studies discussed the other variable or cited the work from that field. The existence of a common confidence core may foster the integration of results from one field with the other (e.g., studies on optimism and cancer may complement those on resilience and cancer) and help grow a cumulative body of knowledge.

Finally, this work highlights the importance of fundamental research examining the structure of personality and delineation of higher order constructs. Thus, I strongly call for a broad research effort into the relationships among many micro psychological constructs and their potential relationships with higher order constructs, both those discussed here (e.g., core confidence, core self-evaluations, the Big Five) and the new ones that may be conceptualized.

Conclusion

Although the change phenomenon is certainly not new, the current dynamics of it are. The resulting complexity and ever more demanding workplace have prompted me to write this article and conceptualize confidence. If I were to summarize my message in one sentence, I would say that confident employees may be better able to cope with the contemporary work dynamics than those harboring doubt. If I were to summarize my work in one sentence, I would say that I view it to be just a beginning, a first step, toward building a theory of core confidence.

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