



# Identity, deep structure and the development of leadership skill

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## Abstract

A theory of leadership development is advanced, suggesting that changes in leadership skills may be viewed from the perspective of a general theory of learning and expertise, with consideration of the associated changes in information processing and underlying knowledge structures that occur as skill develops. More specifically, we propose that leadership performance is organized in terms of a progression from novice to intermediate to expert skill levels. At each skill level, the emphasis is on qualitatively different knowledge and information processing capabilities. In addition, because leadership skill development requires proaction on the part of the leader, we propose that identity, meta-cognitive processes, and emotional regulation are critical factors in developing the deeper cognitive structures associated with leadership expertise. Finally, expert leaders may develop unique skills in grounding their identities and leadership activities in coherent, self-relevant, authentic values.

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## 1. Introduction

Although leadership is viewed as a source of power and competitive advantage in many organizations (van Knippenberg & Hogg, 2003), there are no general models for the development of leadership skills (Day, 2000; Day & Halpin, 2004; Yukl, 2002).<sup>1</sup> One major reason is that both

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<sup>1</sup> One notable exception is the skill-based approach of Mumford et al. (2000). Their work emphasizes the capability to creatively manage ill-structured problems as being a critical aspect of leadership. We agree with this emphasis on novel, problem-solving skills rather than specific behavioral styles. In addition, because this work and our perspective are both grounded in the cognitive literature on skill acquisition, the development of organized knowledge structures is a critical component of both theories. However, our approach complements this perspective by emphasizing the integration of knowledge with identity development and underlying values.

historical and recent treatments of leadership have taken a trait perspective which is supported by evidence showing consistent associations of specific traits with leadership emergence and perceptions (Judge & Bono, 2000; Lord, De Vader, & Alliger, 1986). Traits are typically seen as stable constructs rather than skills that need to be developed. Another reason is that leadership skills have commonly been thought of in terms of overt behavioral styles, suggesting that leadership training could be of short duration, focusing on learning specific behavioral styles. However, it has recently been argued that leadership typically involves a more complex mix of behavioral, cognitive, and social skills that may develop at different rates and require different learning experiences (Day & Halpin, 2004; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000; Zaccaro & Klimoski, 2001). Furthermore, opportunities to develop leadership skills may require proactive steps by a potential leader, making the leader's own motivation and interest in leadership a critical requirement for leadership development (Chan & Drasgow, 2001). To sustain interest for the months and years required to develop and practice complex leadership skills, it is also likely that the leadership role needs to become part of one's self-identity.

These factors suggest that an adequate model of leadership skill development needs to go beyond traditional discussions of training or self-directed learning, which tend to focus on the acquisition of what we will shortly describe as surface structure skills. Such surface approaches minimize consideration of the deeper, principled aspects of leadership that may be especially important for understanding the long-term development of effective leaders. In general, there is little leadership theory and scant empirical research regarding the slower development of core leadership qualities through extensive processes involving months or years, especially theory that describes how surface features like behavior and deeper structures involving abstract principles can both be changed, and together drive skill development.

The purpose of the present article is to propose a model of leadership skill that addresses change at this deeper level. In doing so, we will build on extant leadership research, including research relating leadership to social identity and values, as well as the acquisition of domain-specific expertise (thus, grounding it in comprehensive theory of learning). A unique role is held by the leader's self-identity in our model. Identity is a central focus because it (a) provides an important structure around which relevant knowledge can be organized; (b) is a source of motivational and directional forces that determine the extent to which the leader voluntarily puts himself or herself in developmental situations; and (c) may provide access to personal material (i.e., stories, core values, etc.) that can be used to understand and motivate subordinates. Our model suggests that as leaders progress from novice to expert, they become increasingly capable of flexibly drawing on internal resources such as identities, values, and mental representations of subordinates and situations.

In sum, our theoretically-based framework of leadership skill development generalizes ideas from the cognitive science literature on skill development and task expertise to the leadership domain. We argue that leadership skills develop from what is basically a cognitive bootstrapping process, in which micro-level skills (productions) are first learned through problem-related experiences or observational learning, and then are organized into increasingly higher level systems that guide behavior, knowledge, and social perceptions. These systems develop along with emerging personal identities in which leadership roles and skills become more central to an actor's sense of self. Thus, over time leadership skills and knowledge become inextricably integrated with the development of one's self-concept as a leader. In addition, we posit that leaders' identities tend to shift from individual to more collective orientations as their expertise develops.

The next section of this article addresses background literature that supports our basic argument and describes the information processing changes associated with the development of high skill levels. We then explain how the joint consideration of information processing and identity provides a framework for understanding leadership development. Finally, this framework is applied to the development of leadership skills in several domains including task, emotional, social and meta-cognitive skills as well as changes in values that underlie identities.

Before continuing, we briefly note that some researchers reserve a broader meaning for the term *leadership development* than we imply in this article. For example, Day (2000) uses this term to represent a perspective on leadership that conceptualizes leadership as an outcome of an entire social system where anyone, not just the formal leader, can exhibit leadership. Such a systems approach to understanding leadership is particularly useful in explaining the effects of leadership when the criterion is the performance of a larger social group (Lord & Smith, 1999). Our current focus, however, is narrower. Thus, in this article, we will use both the terms “leader development” and “leadership development” to refer to the acquisition of leadership skills by an individual, recognizing that those individual skills may at times include the capacity to elicit leadership from others or to develop effective teams.

## 2. Overview of the development of expertise

In this section, we review relevant aspects of the literatures on the development of expertise and social identities. Our presentation is organized around three important points. First, we apply to leadership development the idea that skill acquisition depends both upon the ability to access problem-specific knowledge and upon processing skills. Then, we describe general patterns of qualitative changes in process and knowledge associated with the development of expertise. Finally, we explicate a rationale for expecting the progression from novice to intermediate to expert level leadership performance to be tied to social identities.

### 2.1. Skilled performance depends upon both processing skills and access to relevant knowledge

Cognitive science approaches to skill acquisition assume that skilled performance in many complex domains (including leadership) can be understood in terms of the underlying information processing involved. This requires an understanding both of the specific processing activities and of the characteristics of the underlying knowledge accessed by these processes. Thus, we conceptualize leadership skill both in terms of how leaders *access and use* information as well as the *content* of their underlying knowledge of the tasks and social issues related to leadership. (Here, knowledge is defined broadly to include task, emotional, social, and self-relevant knowledge.) *Skill development*, then, involves changes in a leader’s information processing activities (that is how information is accessed and used) as well as both quantitative and qualitative changes in his or her knowledge base.

Meta-cognitive skill changes are likely to occur along with the development of more specific skills. In general, as skills become more practiced, working memory resources are freed so that more attention is available for self-regulation. In the leadership domain, meta-cognitions may address both progress towards task goals and the social factors that create the context in which leadership is expressed. Because they are already well-practiced in attending to the demands of social contexts, individuals high in self-

monitoring ability may have unique advantages in developing meta-cognitive aspects of leadership skills (see Day, Schleicher, Unckless, & Hiller, 2002; Mumford et al., 2000).

An important issue for understanding how leadership expertise develops is the recognition that knowledge is not created nor used as an unchanging and autonomous entity. Rather, it is often generated or accessed in response to the momentary requirements of one's current task (Newell, 1990), so that the knowledge available to a leader may vary depending upon the current context. Thus, knowledge access is often a critical issue in explaining performance (VanLehn, 1989). We will later argue that knowledge organization and use may closely relate to the leader's identity, and his or her motivational or emotional state. In other words, different aspects of the leader's current psychological state can make some knowledge easy to access and hinder access to other knowledge.

We also believe that self-knowledge may have a key function in leadership development, in a manner and to an extent not seen in the classic cognitive literature on the development of expertise in domains such as chess or physics where performance relies primarily on one's depersonalized cognitive endeavors. To further leadership skills, one needs both identification with the role and sufficient self-confidence to attempt developmental leadership activities. In turn, these activities need to be met with both social acceptance and task success to produce increases in skills and in one's self-view as a leader. Thus, increasing ones repertoire of leadership skills requires a concomitant change in developing identities and an increased willingness to voluntarily assume a specific social role. In short, identities affect knowledge acquisition through such social processes, and they also affect knowledge access. These ideas are summarized for skill development in general in Table 1, which is explained more fully in the next two sections. We then apply this framework to specific leadership skills.

## 2.2. Qualitative changes accompanying the development of expertise

Over three decades of research in cognitive science show that there are qualitative changes in both process and knowledge as skill develops from a novice to an intermediate to an expert level

Table 1  
Differences in the content, access and use of knowledge for novice, intermediate and expert leaders

| Skill level  | Knowledge use  | Knowledge content  | Knowledge access cued by  |
|--------------|--|--|---|
| Novice       | Heavy reliance on working-memory-dependent processing to compose novel responses that integrate generic knowledge with situation | Implicit leadership theories and heuristics representing generic leadership and problem-solving behavior | Surface level problem features<br>Self-view as leader, with emphasis on individual level identities                             |
| Intermediate | Fewer uniquely created solutions, more use of connectionist networks<br>Integration with meta-cognitive processes                | Domain-specific productions for leadership and problem-solving behavior<br>Greater knowledge of others   | Same as above, plus ...<br>Match of social situation to patterns in connectionist networks                                      |
| Expert       | Greater dependence on understanding of situation<br>More collaboration with others   | Principle-level knowledge  | Same as above, plus ...<br>Principled understanding of situation and others, often in terms of values, emotions, and identities |

(e.g., Anderson, 1987; Ericsson & Charness, 1994; Glaser & Chi, 1988; Patel & Groen, 1991; VanLehn, 1989). One such critical change is the development of a large repertoire of more targeted, domain-specific productions (a.k.a. “problem-specific” productions), rather than general heuristics which are applied to all superficially similar situations. (Productions are simply *if→then* rules which specify operations to be performed when the conditions of the “if statement” are met.) The presence of these domain-specific productions increases the likelihood that leaders will efficiently identify appropriate solutions for specific situations with which they are dealing. Further increasing efficiency, as novices develop their skills, productions are compiled into larger units, thus reducing the working memory demands of tasks (Anderson, 1987). As skill develops, knowledge is substituted for search, thus reducing time and processing demands (Newell, 1990; VanLehn, 1989). Thus, at intermediate skill levels, we typically find an increase in efficiency due to knowledge compilation, as well as the development of more specialized rules or skills for dealing with specific situations.

Theories of information processing recognize that humans have dual systems for processing information (Smith & DeCoster, 2000). One system is used for novel tasks, which require conscious, symbolic rule-based processing that creates high working memory demands. However, as considerable experience accumulates, another system based on more automatic, connectionist networks can perform many cognitive operations. Connectionist networks (Hanges, Lord, Godfrey, & Raver, 2002) use many simple units that operate in parallel to perform many cognitive operations that normally happen preconsciously. Such networks require extensive experience to learn appropriate patterns, but once learned, they can unobtrusively perform many functions such as stimulus interpretation, directed search for information, causal attributions, or goal emergence that would require more demanding symbolic processing. We would expect that leaders at intermediate skill levels would rely on many of these specific connectionist networks to interpret leadership situations and generate appropriate responses.

In addition, the intermediate skill level brings with it an increased capacity for monitoring ones own performance and for adjusting ones performance strategies based on feedback and rate of progress information. This meta-management can now occur because the increased efficiency associated with intermediate-level skill development frees up cognitive capacity and also because intermediates have the considerable experience needed to develop the interpretive standards that make performance feedback meaningful. Thus, as shown in Table 1, the use of knowledge changes as skill develops. Intermediate-level leaders are better able to adjust their own and others’ activities based on feedback.

Expert level performance, which may take as much as 10,000 h of experience and deliberate practice to obtain (Ericsson & Charness, 1994), is characterized by qualitative shifts in the nature of the knowledge that underlies skills. Especially important is the finding that experts see environments and problems differently than do novices or intermediates, defining them in terms of underlying principles rather than surface features. Such principles may involve rule-based symbolic processing, or with experience, they may also rely on connectionist networks. The deeper interpretive understanding of experts allows them to develop correspondingly deeper ways of organizing knowledge and more effective ways to cue productions, although there may also be costs to expertise such as increased rigidity (Sternberg, 1996). Experts also allocate time differently in addressing problems, spending more time on interpreting situations and planning actions (Isenberg, 1986), but then much less time searching for solutions.

### 2.3. Identity applied to the issue of leadership development

We noted earlier that because opportunities for developing leadership skills usually involve proactive behaviors in which individuals attempt leadership, at some risk to status and social acceptance, they are facilitated by seeing oneself as a potential leader and adopting a provisional leadership identity. As one's identity as a leader solidifies with increasing experience, a self-view as a leader should become a more central aspect of one's identity. This self-view may, in turn, be associated through connectionist networks with many self-relevant goals and component skills that are associated with leadership. Thus, when active, this self-view should have an increasingly important role as a meta-structure that guides knowledge access, goal formation, actions, and interpretations of social reactions.

Self-regulation, in part, depends on one's currently active identity, which may vary from individual to relational to collective (Lord & Brown, 2004). Briefly, *individual level identities* emphasize one's uniqueness and differentiation of the self from others. *Relational identities*, in contrast, define the self in terms of specific roles or relations, often including others in the definition of one's own self-identity. Finally, *collective identities* define the self in terms of specific collectives such as groups or organizations, creating a desire to develop in oneself the qualities that are prototypical of these collectives (Brewer & Gardner, 1996). Thus, each identity level provides an alternative basis for self-regulation, and alternative ways to define leadership (Hogg, 2001; Hogg & van Knippenberg, 2003).

We believe that as leaders develop, there is a shift in focus from individual to collective level identities, both for the leader's own self-identity, and the identities of the followers. Changes in the leader's own identity affect the leadership knowledge, goals and interpretive structures that are easily accessed. When the leader influences the identities of followers, their motives and behaviors may also be affected. For example, De Cremer (2002) found that leadership which fosters individual level identities in others may elicit proself motivation and self-benefiting behavior, whereas fostering more collective identities elicit prosocial motivation and behavior that benefits others.

Novice leaders are likely to emphasize individual identities in themselves and their followers. Their key concern is with learning leadership behaviors and being seen as leaders by others, which involves demonstrating uniqueness and differentiating oneself from other potential leaders. Thus, although novice leaders are sensitive to social feedback, their primary concern is likely whether they are recognized and accepted as leaders. From this viewpoint, then, social processes serve to validate the leader's self-view as a leader. If attempts at leadership are not accepted by others, then it may be much more difficult to establish a self-view as a leader. We speculate that women may find it more difficult to develop self-views as leaders despite equivalent performance to men, because their leadership attempts may be less accepted (e.g., Hogue & Lord, 2004; Ridgeway, 2003).

At intermediate skill levels, meta-monitoring skill (including self-monitoring) develops further, and one begins to develop context specific knowledge and connectionist networks to cue such knowledge. Thus, it is likely that a leader's orientation begins to shift from the self to others, and that leadership skills begin to incorporate differences among others as a critical aspect of context. (The ability to make this shift from self to others is facilitated by the lessened demands of routine tasks on working memory, given the development of domain-specific productions.) This shift may potentially involve one of two alternative forms of interdependent identities. First, if leaders are oriented toward relational identities, then specific other individuals become included in the leader's self-identity and their actual or implied presence may elicit unique self-regulatory processes (Andersen & Chen, 2002; Ritter, 2004). This form

of leadership, which is differentiated across subordinates, has been investigated extensively in terms of qualitative differences in leader–member exchange (Graen & Scandura, 1987; Scandura, 1999). More effective leaders are those who develop many positive, but differentiated, exchange relationships on a subordinate by subordinate basis.

Alternatively, if either the leader's proclivity or the context promotes a group-oriented identity, a collective identity level may guide knowledge about leadership. If this is the case, group membership may be very salient to both leaders and followers, and leadership may involve very close adherence to group norms, or conformity to what has been called a group prototype (Hogg, 2001; van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004). Consequently, a depersonalized leadership style which treats all group members similarly may be preferred to more differentiated style of leadership (Hogg, Martin, & Weeden, 2003).

The chronic nature of the leader's identity, as well as aspects of the specific context, likely influence whether the leader develops more dyadic-level or group-level leadership skills. Regardless, the emerging identities of leaders and their followers are validated by the leader–member exchange as a consequence of this more domain-specific use of leadership knowledge. Indeed, as Reicher and Hopkins (2003) explain, leaders and followers actively construct joint identities that help define future possibilities as well as make sense out of current realities.

The shift to a more follower- or group-centered form of leadership associated with intermediate-level skill is likely with additional experience to develop into a more principled, contingent capacity to enact and promote alternative identities. This shift to a deeper structure is the hallmark of expert level knowledge. A more abstract, general understanding of follower development is likely to underlie such changes. For example, as a leader gains experience working with followers over an extended period of time, he or she develops a more integrated sense of how those individuals develop and how specific elements of his or her leadership style may be more or less effective with them at different times. In addition, we will suggest that an understanding of underlying values is critical for expert level leaders. Rather than abruptly shifting his or her leadership style in a chameleon-like fashion when different followers or situations are encountered, expert level leaders can learn to assimilate these differences with their own underlying values to create leadership that is sensitive to the follower context (including simultaneous interactions with followers at a variety of different developmental points) as well as being authentic.

### **3. Leadership capacity: surface, intermediate and deep structures**

The general view of the development and characteristics of expert level performance described earlier can fruitfully be applied to thinking about leadership skill development. However, because a major component of leadership involves social interactions between leaders and followers, a developmental framework must accommodate the progression from novice to intermediate to expert in terms that explicitly consider the social nature of the developing leadership skills, as well as the additional demands and sources of information provided by the embeddedness of leadership performance in a social context (Mumford et al., 2000). To address this issue, in the following sections, we adopt the cognitive science distinction between surface, intermediate, and deep knowledge structures, and consider specifically what they might include when applied to the domain of leadership.

### 3.1. *Surface structure and behavioral leadership skills*

We suggest that *surface structures* are the immediately observable components of leadership processes, such as the behavior of leaders vis a vis subordinates, feedback in the form of reactions of subordinates to such behaviors, and the task contexts in which leadership occurs. In other words, surface structures involve *what leaders do* when they lead. This knowledge of what to do and the production or connectionist networks related to generating the relevant behaviors are the central skills to be acquired at the novice level. Developing surface level leadership skill involves learning normatively accepted definitions of what leaders should be and do. We suspect that novices develop implicit leadership theories consisting largely of an idealized representation of what leadership involves from observing the behavior of other leaders. Then, when given leadership opportunities, they attempt to behave in a manner consistent with their own implicit leadership theories (Lord, Foti, & De Vader, 1984). Thus, for novices, self-directed leadership development often involves developing those particular behavioral skills which result in perceived leadership by others.

#### 3.1.1. *Common sense theories of leadership*

As Calder (1977) noted, the easily observable behaviors that appear to characterize leaders are incorporated into widely held, common sense theories of leadership. In part, this is because behavior is salient, and because leaders emerge by exhibiting a disproportionate amount of behavior compared to other individuals in the setting (Lord, Brown, & Harvey, 2001; Stein & Heller, 1979). Leadership theory relevant to this level of skill development has often focused on the type and amount of behavior exhibited by leaders. Surface aspects of leadership are often captured by collecting measures of perceived leadership actions, most typically from subordinates. Related empirical research has identified a variety of behavioral dimensions that are associated with leadership (see Yukl & Van Fleet, 1992, for an extensive overview).

Leadership theories which focus on the behavioral factors that allow leaders to influence subordinates address such issues as cataloging and understanding influence tactics (van Knippenberg & Hogg, 2003; van Knippenberg & van Knippenberg, 2003; Yukl, 2002), defining and describing transformational leadership behaviors (Yukl & Van Fleet, 1992), and articulating the fit of leader qualities with follower expectations which are guided by follower implicit theories (Epitropaki & Martin, 2004; Lord & Maher, 1991; Lord et al., 2001; Offermann, Kennedy, & Wirtz, 1994) or group leadership norms (Hogg, 2001; Hogg & van Knippenberg, 2003; van Knippenberg et al., 2004). In addition, considerable surface structure-level leadership theory has also focused on explicating the contingency or contextual factors (e.g., the favorability of the situation, followers' levels of development and motivation) that moderate the relation of various leadership behaviors to performance. Behavior is often explained by perceivers in terms of underlying personality traits, thus this approach has also focused on identifying the underlying traits (Judge & Bono, 2000; Lord et al., 1986) or patterns of traits (Smith & Foti, 1998) believed to be associated with leadership.

#### 3.1.2. *Implications for patterns of novice level skill development*

Although implicit leadership theories may be based on connectionist networks that can simplify information processing (Lord, Brown, Harvey, & Hall, 2001), the cognitive demands of leadership actions on novice leaders still will be especially high and potentially disruptive. This is because novices are attempting to apply general problem-solving knowledge to specific team or organizational problems

while also attempting to demonstrate leadership ability. The translation of these theories into specific behaviors often involves invention and experimentation, rather than merely retrieving appropriate procedures or cognitive schema from memory. And, the leadership exemplars used to guide a novice leader's behavior often are not tailored to the particular context, and thus may be counterproductive. Unfortunately, because of their lesser capacity for self-monitoring, novices may be slow to recognize and respond to social feedback that indicates that their behavioral strategies are not working. Given these considerations, training interventions focused on surface features may help novices develop leadership more quickly and with fewer poor quality decisions.

From a surface feature perspective, leadership training has a central behavioral component that attempts to teach leaders to exhibit more effective behavioral styles (e.g., Dvir, Eden, Avolio, & Shamir, 2002). Such behavioral skills may be relatively quickly acquired, so that behavioral skill training programs often are of only a few days duration. However, one implication of thinking about leadership skills in terms of knowledge structures is the recognition that, in addition to the behaviors presented in training, novice leaders may be simultaneously attempting to conform to their own, vicariously-learned implicit theory of leadership. Such implicit theories are likely to vary from leader to leader (Engle & Lord, 1997). Consequently, behavioral training might be effectively coupled with training that produces implicit leadership theories that are consistent with organizational norms.

Hirst, Mann, Bain, Pirola-Merlo, and Richver's (2004) 1-year longitudinal study of managers who are "learning to lead" is characteristic of surface level approaches. They applied an *action learning* approach, which emphasizes real-life learning through confronting project demands in the workplace. Their study of novice and experienced leaders found that self-reported learning was greater for novices than experienced leaders. Two specific types of leadership behavior, facilitative leadership (which encourages teamwork) and team reflexivity (which pertains to fully airing and resolving conflict) were believed to be critical mediators linking leader learning and performance. Interestingly for us, these two types of behavior are likely to help in the intertwined process of leadership identity development that we mentioned earlier, by increasing the likelihood that the leader moves from a more individual to a more relational or collective orientation.

One view of the psychological and cognitive processes that may be important in development arising from real-life experiences comes from Ibarra's (1999) work, which illustrates how social, cognitive and motivational factors may combine in a process of identity development and skill learning. She suggests that when exploring new roles, individuals often adopt "provisional identities" which allow them to try out new behaviors. In an empirical investigation of role transitions for investment bankers and management consultants, Ibarra found that successful behaviors were retained—becoming part of the repertoire associated with this provisional identity—but unsuccessful behaviors were abandoned. Applying this idea to leadership, we would expect that the transition from group member to leader involves the adoption of a provisional leader identity and the development of new behavioral skills. For novice leaders, these provisional identities and associated skills are refined through task and social feedback, solidifying self-views as skilled leaders when feedback is positive, and causing one to discard this potential self or specific types of behavior when feedback is unfavorable. The nature of this process suggests that over extended periods of time, we may see greater leader development in those individuals who are more open, exploratory, and flexible about adopting provisional identities and learning from them.

We also note here that when leaders must confront ill-structured and novel problems, even experienced leaders may fall back on very resource intensive cognitive processes. These types of

problems are especially challenging because they require innovative responses. Although more seasoned leaders may have considerable experience in managing the processes related to solving such problems (see Mumford et al., 2000 for a formal model), even they may demonstrate processes more similar to novice than expert problem solvers. This occurs because the required problem-solving skills draw heavily on general cognitive abilities (e.g., general intelligence, divergent thinking ability, creativity) rather than specific productions that incorporate highly refined, context specific knowledge.

One approach for studying such problem-solving skills (Zaccaro, Mumford, Connelly, Marks, & Gilbert, 2000) has leaders organize information pertaining to novel, complex and ill-structured leadership scenarios, and then builds skill-based measures from their responses. Like many general cognitive measures outside the specific domain of leadership, these cognitive capacity measures heavily emphasize the symbolic information processing system that we described earlier, with a heavy reliance on skills related to the processing of academic, written information. Similarly, many case-based studies of creativity related to leadership (Mumford, Connelly, & Gaddis, 2003) involve role playing by undergraduates, which again is likely to illustrate novice approaches to leadership creativity.

Although such tasks can increase our understanding of how leaders—especially novice leaders—process information in a symbolic mode, the ill-structured nature of the problems limit the application of expertise (Johnson, 1988; Lawrence, 1988; Voss & Post, 1988), and thus they do not provide us with much insight into how experienced leaders typically process more routine situations. Consequently, there is a need to also develop tasks or measures that allow us to study the application of domain-specific knowledge in the leadership realm. This is especially true if we want to increase our understanding of very skilled leaders. We suggest that an advantage enjoyed by expert leaders may be that most of the problems they encounter are not experienced as unique and ill-structured, thus they can be expediently addressed through the application of domain-specific knowledge. This frees up their capacity to deal with what, for them, are the proportionally fewer problems that truly do require creativity.

### 3.2. *Intermediate structure and cognitive, emotional, and identity-related regulation*

Intermediate knowledge structures involve proceduralized skills in task and social domains. Such proceduralization frees resources for more complex processing. Intermediate-level skills rely on internal processes in leaders that are used to make sense of specific situations and to generate leadership behaviors. Critical features of these knowledge structures are the development of connectionist networks to automate processing, and increased reliance on meta-monitoring skills which afford better self-regulation of the leadership process. Because knowledge has developed on a situation- or person-specific basis, retrieving needed knowledge from memory can replace the novice's need to compose or discover appropriate behaviors as they are needed. Consequently, working memory demands are reduced, but accessing appropriate knowledge becomes a more critical problem. Knowledge access problems can be solved by using patterns learned through experience as cues for retrieving knowledge. Connectionist networks often perform this pattern recognition function automatically, effectively cueing appropriate knowledge as situations are understood. As noted earlier, an important input to such networks is one's self-view as a leader.

#### 3.2.1. *Cognitive and identity-related changes*

With experience, intermediate-level leaders have developed skill which is “knowledge-rich” rather than “knowledge-lean” as they substitute the cognitively faster and more efficient *recognition* of

appropriate responses in familiar environments for a more thoughtful *construction* of appropriate responses as unfamiliar situations are encountered (VanLehn, 1989). These cognitive changes are assimilated with an emergent identity as a leader. They involve a shift from normative definitions of leadership, which are heuristically applied to all situations, to contextually dependent definitions of appropriate leadership. One critical aspect of the sense-making in which intermediate-level leaders engage involves assessing appropriate social roles, and conceptualizing the social situation as requiring specific leadership activities that one can and should perform.

For intermediate-level leaders, cognitive demands should be reduced as interaction skills become more automatic, allowing the capacity for the development and application of meta-monitoring skills in social and task domains. At this level, meta-cognitive processes are likely to become integrated with self-relevant goals and schema. Leaders with this degree of skill and experience may increasingly be able to focus on characteristics of their followers, building knowledge structures of followers' needs, identities, and reactions to leader behavior. Cognitive structures, in turn, may increasingly include other individuals (when dyadic identities predominate) or groups (when collective identities predominate). These externally oriented perceptions can be used to regulate leadership activities and also help to generate one's provisional identity as a leader. Indeed, willingness to attempt leadership is often driven, in part, by status issues that guide initial social expectations (Hogue & Lord, 2004; Ridgeway, 2003).

### 3.2.2. *Implications for patterns of intermediate-level skill development*

At intermediate skill levels, one would expect the key skill factor to be the development of cognitive and emotional structures that guide the interpretation and understanding of situational information. The critical situational information may be task-oriented, social, team-based, or organizational, but in each of these domains, we would expect intermediate leadership skills to have moved beyond simply understanding how to produce leadership behaviors and instead to be oriented towards developing a richer and more organized understanding of the situational factors determining when and how those behaviors should be applied. Leaders with intermediate-level skills would not only have more refined behavioral skills that are easier to use, they would be better at matching these skills to situational demands. Kozlowski, Gully, Nason, and Smith (1999) describe just such changes in the development of adaptive teams, and we would also expect them to characterize the development of leadership skills. This line of thinking has been characterized by research on cognitive structures involving perceptual categories, cognitive maps, mental models, schemas and scripts.

### 3.2.3. *Increasing importance of identity and motivational factors in skill development*

The critical factor in developing intermediate-level knowledge is *personal experience in relevant task environments*, which broadly means experience with specific tasks, individuals, teams, or cultures. Normative implicit theories can be developed from observing others, but intermediate-level knowledge integrates with self-views as a leader, which in turn, develop from attempted leadership and favorable social reactions and tasks outcomes associated with these attempts. Consequently, to develop intermediate-level skills, potential leaders must attempt leadership in varied environments and receive accurate feedback to help them tune their skills to an understanding of context. However, as noted earlier, leadership skill development is likely to be a proactive process in which potential leaders assume some responsibility for initiating and sustaining the actions or creating the situations in which leadership is attempted and reinforced. Motivational factors such as interest in leadership are thus important in

predicting proactive learning of leadership skills including learning from experience (Chan & Drasgow, 2001).

Identity development is likely to be quite important in the intermediate stage of skill development for cognitive, motivational, and emotional reasons. Whereas novices may focus on developing a specific provisional identity as a leader, intermediate-level leaders have the experience to develop many provisional leader identities incorporating more specialized styles of leadership. Further, specific skills, goals, and self-regulatory structures become associated with different identities. As contexts change and different identities become salient, different knowledge, motives and emotions are elicited. As suggested by Lord and Brown (2004), different working self-concepts pertaining to leadership emerge in different situations. In this sense, identities cue different types of self-regulatory structures for leaders. Because of their self-relevance, such structures have emotional, motivational and cognitive significance, which we will discuss more thoroughly when we address emotional and meta-cognitive skills in the final major section of the article. We simply note here that leadership contexts can be viewed as threats or as opportunities, triggering alternative motivational structures. In addition, leadership may involve many self-relevant “episodes” which produce emotional reactions in both leaders and followers. Effective skill development must effectively address these motivational and emotional aspects of meta-cognitive processes as well as the more cognitive components.

As leadership identities develop, it is also likely that individuals will become increasingly motivated to attempt new leadership activities, creating the potential for learning new leadership skills and further identity development. For example, Hall, Lord, Ritter, Swee, and Dubois (2004) found in a longitudinal study of leadership that West Point cadets who had more social and leadership experience in high school had higher initial leadership performance at West Point, and plateaued less rapidly, perhaps indicating a greater readiness to master complex leadership skills. Similarly, Day, Sin, and Chen (2004) who studied team leaders in the National Hockey League, found that assuming leadership positions had facilitative, rather than detrimental, effects on other aspects of performance, which again illustrates the effect of leadership identities on skill development.

We expect the development of intermediate-level skills to span considerable time, with leadership performance rising as familiar situations become thoroughly understood and leadership skills in these domains are reinforced through practice and feedback, but falling, at least temporarily, as new situations are encountered or less favorable feedback is received. But over time, self-views as leaders should be solidified and organized into differentiated structures, and effective, multifaceted, meta-cognitive structures should develop and be assimilated with identities. In addition, more relational and collective identities should be emphasized.

### *3.3. Deep structure: principled leadership skill*

For experts, added to the changes we discussed for intermediate-level leaders, we also expect to find deeper, more principled definitions of problems, which may involve a greater understanding of the factors defining the situational contingencies that influence *both* leaders and subordinates. *Deep structures* that might be associated with such expertise include principle-level task and social expertise or emotional regulation skills. Other deep structures include the personal articulation of self-identity and core values, which we view as an important source of flexibility in leadership skills, in part, because different values prime different identities (Lord & Brown, 2001). These structures allow leaders to construct sophisticated understandings of situations (including detailed cognitive representations of

tasks, relevant cultures, subordinate qualities, etc.) that can be used to guide their thoughts and behaviors. Expert leaders may also increase their effectiveness by building relevant knowledge and self-regulatory capacities in others rather than in themselves, thus making possible the delegation of some leadership tasks to others.

### 3.3.1. *Principled knowledge*

In general, experts' more extensive knowledge, organized around general principles, leads them to different understandings than those derived from the less extensive knowledge of novices, which tends to be organized around surface features (Glaser & Chi, 1988). For example, Chi, Feltovich, and Glaser (1981) found that experts in physics tended to organize problems around the principles of mechanics, whereas novices used literal aspects of problem descriptions as a means to organize problems. Day and Lord (1992) report similar results in a study comparing the knowledge structures of CEOs in the tool and dye industry to those of MBA students. Experts used a combination of deeper principles (e.g., quality control) and surface features (e.g., machinery problems) to classify organizational problems, whereas novices primarily used explicit surface features.

Applied to leadership, these findings from the expertise literature suggest that leaders will develop *domain-specific and principled* task and social expertise. For example, expert military leaders would have extensive and principled knowledge of military tactics and strategies for specific types of battle conditions, as well as knowledge structures for how to interact with other soldiers under those conditions. Principle-level knowledge might be grounded in basic military doctrine and knowledge of command and control systems. In keeping with the typical findings in the expertise literature that skills are domain-specific, one would not expect this knowledge to generalize to domains that did not build on the same principles. For example, battlefield skills may not generalize to the demands of peacekeeping situations and interactions with civilians. Similarly, generals may occasionally become national presidents, but they need to learn additional new leadership and political skills along the way. This is because some of the underlying principles are different in each situation. Where the principles are similar, such as understanding the different implications of individual, relational, or collective identity activation for eliciting cooperative behavior, then leadership skills should generalize across domains.

Another important aspect of deeper leadership structures is that they may involve an increased focus on *changing others* rather than on changes within leaders. Thus, while the development of surface leadership skills may involve leader-relevant changes, expert level leadership may involve knowledge and principles pertaining to developing behavioral and self-regulatory skills in others. We suspect leaders must have proceduralized behavioral and self-regulatory skills in addition to strong social and emotional skills in order to develop other-focused, principled leadership knowledge. We also believe that such expert level knowledge is required for developing effective systems level leadership rather than leader-focused leadership (see our prior mention of Day's (2000) perspective on "leadership development").

### 3.3.2. *Implications for patterns of expert skill development*

Expert leaders can build on domain-specific knowledge that is cued by identities to develop flexible leadership skills. Because these skills tend to be grounded in a more abstract, principled understanding, the development of expert leadership will vary as the understanding of specific principles develops. We suspect that there is not a general set of principles, but rather that different skill domains have different

underlying principles. For example, skill in emotional aspects of leadership may be guided by different constructs than skill in task accomplishment. Thus, we will discuss relevant principles in the following section where we address specific skill domains.

In considering temporal patterns of expert skill development, we should acknowledge the role of hierarchical level in organizations. With increasing hierarchical level in organizations, the time required for managerial actions to have effects which are fed back to the organization increases (Jaques, 1989). In addition, the visions held by leaders may take many years to implement. Consequently, at higher organizational levels, it is much more difficult to learn from feedback because the cycle time is quite long. For this reason, principled level skill may be grounded in cultural values or in principles that are formally taught as with management science. The cognitive literature on the acquisition of expertise emphasizes that experts spend considerable time learning and deliberately practicing skills (Ericsson & Charness, 1994). Thus, formal principles associated with many aspects of expert level leadership may benefit from formal instruction and deliberate practice by leaders. Although formal instruction and practice can be applied to novice or intermediate-level leadership as a means of increasing skill, we suspect that it is much more effective with expert level leaders because they have the experience to make principles more meaningful, the cognitive and meta-cognitive resources needed to benefit from practice, and sufficiently developed self-views as leaders to assimilate formal principles into their identities.

#### **4. Specific skills associated with leadership development**

So far, we have addressed leadership skill development in abstract and general terms. We turn now to a discussion of five specific skill domains associated with leadership, consisting of task, emotional, social, meta-monitoring, and values. Table 2 summarizes issues related to each of these domains.

##### *4.1. Task skills*

At lower levels of the organizational authority hierarchy, leadership skills are often thought to involve technical mastery either related to the work group's or organization's product or to skills at making decisions (Vroom & Jago, 1988). Learning such skills may be conceptualized in cognitive terms at either a symbolic level (Newell, Rosenbloom, & Laird, 1989) or a subsymbolic, connectionist level (Rumelhart, 1989). Considerable research shows that the development of such skills follows a power law with respect to practice, particularly with skills closely tied to perceptual processes (Newell & Rosenbloom, 1981). In other words, the developmental trajectory expected for the proceduralization of task skills would show a steep initial positive change with a decelerating slope that approaches an upper boundary or asymptote over time.

Leadership at higher levels of the organizational hierarchy is generally thought to involve a wider and more flexible set of skills. For example, Zaccaro and Klimoski (2001) organize such skills into seven imperatives for executive-level leaders: cognitive, social, political, personal, financial, technological, and staffing. Skill development at higher levels is also thought to involve more complex and diffuse processes which often depend on other individuals or groups and which take much longer to produce observable results. Team-building skills are but one example of such skills.

Table 2  
Knowledge content emphasis of different leadership skill levels

| Skill Domains     | Novice   | Intermediate  | Expert   |
|-------------------|--|---|--|
| Task              | Technical and task skills<br>Generic decision-making<br>and problem-solving skills   | Domain-specific task skills;<br>Meta-monitoring capacity  | Principled understanding of task<br>and self-regulation  |
| Emotional         | Expression   | Empathy and understanding<br>of others<br>Domain-specific emotional<br>regulation techniques                              | Formal principles of emotional<br>regulation<br>Principles specifying the effects of<br>situational labeling, change, and<br>social justice on emotions<br>Understanding the synthesis of<br>cognitions and emotions |
| Social            | Fit with implicit leadership<br>theories<br>Understanding of agentic<br>behaviors and social influence<br>tactics                | Integration with dyad or<br>group<br>Communal behaviors<br>Self-monitoring skill  | Capacity to develop others<br>Authentic, principle-based<br>leadership   |
| Identity Level    | Individual identity as leader<br>differentiates self from others   | Relational or collective identity<br>includes others or group   | Value-based identity grounded in<br>abstract principles  |
| Meta-monitoring   | Largely based on social<br>reactions and task progress;<br>focused within one's own<br>emotional and motivational<br>orientation | Integrated with identities;<br>greater adjustment to others;<br>flexibility in emotional and<br>motivational orientations | Based on formal principles relating<br>identities to value structures<br>Principled understanding of positive<br>and negative emotions/motivation  |
| Value orientation | Value orientation learned and<br>applied implicitly  | Integration of identities and<br>values   | Principled understanding of value<br>structures and their relation to<br>authentic leadership  |

This complexity and extension over longer time periods introduces greater difficulties in monitoring development and effectiveness. However, although we would expect the development of the skills needed for higher level leadership to occur more slowly, there is nothing fundamentally different about the process of developing such skills. Thus, they should still follow a power law of practice, although we would generally expect the practice to be distributed over longer time intervals. Because such skills are often tied to particular groups or individuals, particular organizational contexts, or the particular identities they evoke in leaders, they would also have the domain-specific quality associated with expertise. Transfer of these skills to new contexts such as different organizations may take considerable time as leaders must adjust to a new set of contextual contingencies. It is also worth noting that many of the cognitive structures supporting such higher level leadership skills can be conceptualized and measured in terms of mental models (Johnson, Daniels, & Huff, 2001) and the similarity of one's mental model to those of experts or trainers (Day, Arthur, & Gettman, 2001). The identity-related structures that facilitate the use of such knowledge can be measured in terms of leadership self-schema (Smith, Brown, Lord, & Engle, 1999). Although considerable "hands-on" experience is required to attain expert levels of task performance, as noted previously, formal instruction and/or deliberate practice is also required to understand many expert level principles.

#### 4.2. Emotional skills

Particularly during times of crisis, effective leaders must regulate their own emotions, and they must also communicate appropriate emotions to others. Indeed, charismatic leadership is often thought to have a substantial emotional component. Simply displaying appropriate emotions may be thought of as being part of the set of behavioral skills associated with leadership, which would suggest it is a surface feature. However, for many reasons, we believe that insight into one's own emotions and skill at regulating and communicating emotions is harder to develop, and has a situation-specific nature, suggesting that it involves intermediate or expert level skills. When emotional regulation is based on principles that are formally taught, such as those suggested by Gross (1998), it may require expert level knowledge.

Because human emotional reactions have been honed through evolution to address important human survival issues (Cosmides & Tooby, 2000), some aspects of emotional processing and behavior have a strong hereditary component that may be relatively inflexible (Deckers, 2001). Further, emotions involve very fast-acting processes that may have effects that are unconscious, making them difficult to identify and adjust. Emotional processing also may function as a leading system that can structure subsequent cognition and motivation (Gray, 2004; Lord & Harvey, 2002). All of these factors make it difficult to learn to regulate emotions. Finally, emotional regulation, when it occurs, may require considerable attentional resources (Wenzlaff & Bates, 2000) which can be difficult to marshal in the very conditions that make emotional regulation critical. For these reasons, we would expect that learning to regulate emotions would be a challenging leadership requirement that would take considerable time and perhaps would require a reorientation of attention toward emotions in learning contexts which have traditionally emphasized the role of cognitions. Finally, learning to regulate emotions may require implicit as well as explicit processes.

Three other factors complicate the development of emotional skills. One is that emotions and emotional reactions tend to be focused in time, occurring with respect to particular events (see Lord & Brown, 2004, Chapter 6). This suggests a strong domain- and event-specific quality to emotions and emotional regulation skills, where the domains are very narrowly defined in terms of types of events. This topic has not been carefully examined by leadership researchers, and we know little about the potential dynamics of emotional reactions and regulation. The second complication is that emotions often occur in a social context. Thus, a critical quality in leaders may be their sensitivity to the emotions of others. Indeed, the capacity to perceive and respond to the emotions in others, *emotional empathy*, has recently been shown to be a strong predictor of leadership emergence (Kellett, Humphrey, & Sleeth, 2002). This leadership skill may be one in which females have a developmental advantage over males, in that they may have experienced more previous situations in which they were expected to demonstrate empathy as a consequence of gender role expectations. Third, emotional reactions often occur when tasks engage the self. Hence, as leadership identities expand to include not just one's own performance and outcomes, but those of one's subordinates or team members, the potential for emotions to be aroused is expanded. Thus, for meta-cognitive leadership skills to be effective, emotions may also have to be managed effectively.

Because of the complexity and implicit nature of emotional skills, we would expect learning to regulate and harness them will be slow. Furthermore, skill in handling emotions will likely interact with individual difference variables such as emotional orientation or working memory capacity, such that emotional regulation strategies that work well for one leader may not be optimal for another. In other words, as skill in this domain develops, the novice strategy of patterning one's behavior on what appear

to be effective examples from others should be replaced by a more sophisticated and personalized strategy that incorporates self-knowledge about the best regulatory strategy for oneself. Thus, we would expect the trajectories for emotional skill development to be extended over long time periods and we would also expect relatively large individual differences in emotion-related skills. Furthermore, abilities to communicate felt emotions, self-manage emotions, and respond appropriately to the emotions of others may also be quite distinct skills that develop at different times and in response to different contingencies.

Based on other theories of skill development (Anderson, 1987; Sternberg & Ben-Zeev, 2001), we would expect emotional regulation skills to also become more efficient with practice and to eventually become proceduralized, reducing the cognitive demands in their use (Moon & Lord, submitted for publication). Some support for this argument comes from Kanfer and Kantrowitz (2002), who found that emotional regulation skills are higher in older adults. However, the proceduralization of regulatory skills may have disadvantages as well as advantages. Because proceduralized skills are implemented with less cognitive awareness, it is more difficult to correct these processes when feedback indicates that they no longer fit a particular situation. This problem is likely to be particularly severe as one attempts to generalize proceduralized emotional regulation skills from one domain to another (e.g., from competitive to cooperative situations).

One particularly challenging issue for leaders is developing strategies to help others to regulate their own emotions. One approach may be through emotional contagion processes which “infect” others with the appropriate emotions as felt and expressed by the leader. However, it may also be important to manage the emotions of others by creating appropriate contexts in which they can more effectively regulate their own emotions.

Three issues are particularly important with respect to this concern. One issue is how leaders label situations. Many situations have an ambiguous character and can be labeled as either threats or opportunities (Dutton & Jackson, 1987). Labeling situations as threats may elicit a more cautious, avoidance orientation, whereas labeling them as opportunities may foster a more creative, approach orientation (Naidoo, 2005).

The second issue pertains to organizational change, which often must be initiated by leaders. Radical change elicits emotional reactions from others (Huy, 2002), which must be adequately managed for change to be accepted. How change is labeled and how it articulates with follower identities is crucial to effective emotional management. In addition, the redistribution of power, prestige, and organizational resources that accompany radical change evoke justice concerns and associated emotions which leaders must skillfully address.

The third issue pertains to what Lind (2001) labels the Fundamental Social Dilemma, which pertains to how social exchanges are interpreted. When leaders are seen by others as being procedurally and interpersonally just, then trust is elicited, collective follower identities are fostered, and maximal contributions are offered by others. In contrast, injustice on the part of leaders promotes distrust, individual level follower identities, minimal contributions, and an orientation towards avoiding exploitation and potential harm. Thus, leaders need to understand that through labeling environmental events, through processes related to change management, and through various degrees of social justice, they can create supportive or threatening environments which can have strong implications for the success and direction of subordinate emotional regulation. Formal training in such aspects of emotional regulation in others may contribute to principle-based, expert level knowledge in the emotional leadership domain.

### 4.3. *Social skills*

Although many proceduralized social skills are implemented with little conscious thought, they are not necessarily knowledge-lean. Rather, these skills may be highly dependent on implicit knowledge learned through extensive experience in a particular domain. This topic has been investigated extensively with respect to leadership perception processes, with the typical finding that recognition of leadership in others depends on a match of their traits and behaviors to the perceivers' implicit leadership theories (Lord & Maher, 1991). The production of leadership behaviors may similarly be guided by implicit theories that are held by leaders themselves (Engle & Lord, 1997) as well as by the identities they have developed (Platow, Haslam, Foddy, & Grace, 2003).

Implicit theories are thought to be acquired by lower level learning processes associated with neural networks (Lord, Brown, Harvey, & Hall, 2001); however, the nature of such learning may also be guided by self-monitoring processes. Self-monitoring refers to the tendency to monitor and regulate the public appearance of the self that is displayed in social settings and interpersonal relationships. It is associated with leadership emergence in part because high self-monitors are able to construct and maintain more effective social relations (Day et al., 2002). One would expect high self-monitors to develop richer implicit theories to guide social perceptions because of their greater social orientation and greater sensitivity to feedback from social cues.

Because social cues are often communicated through emotional reactions, emotional intelligence may also facilitate the development of social skills. Female leaders may tend to have advantages in this skill domain, but like most skills, emotional sensitivity can be learned. Such learning should follow the normal power function trajectory of skill learning. However, one additional difficulty in learning social skills is that in many contexts task activities occupy most of the conscious attention of individuals, while social factors are secondary and are managed implicitly. For this reason, we would expect novice leaders to have particular difficulty with social (or emotional) skill learning. However, when intermediate or expert skill levels in other domains are attained, leaders should have the additional attentional capacity and an orientation towards others that needed to permit the refinement of social skills. Formal training and deliberate practice may also facilitate the development of leadership skill in the social domain. This may be particularly true with attempts to create authentic, value-based leadership skills, which we will address in the subsequent section on values.

### 4.4. *Meta-monitoring skills*

We explained earlier that intermediate and expert skill levels also show an increase in meta-monitoring capacities which involve the ability to gauge progress in task or social domains and to adjust behavior accordingly. Increases in these capacities occur, in part, because the cognitive resources for meta-monitoring activities become available when lower level skills become proceduralized and working memory demands are reduced. Increased self-knowledge and more clearly defined identities also organize and appropriately activate the goals and standards that allow self-regulation. Application of formal principles may also guide self-monitoring activities.

The same argument applies to meta-monitoring with regards to leadership roles and identities. While provisional leadership identities initially may be closely monitored, requiring both cognitive and emotional resources, over time they become established as more central aspects of ones identity, and thus can be evaluated more efficiently. Thus, skilled leaders may adjust the identities they enact and

communicate them to others based on a variety of situational factors such as the need for cooperation or competition. Meta-monitoring may also require a deliberative shift towards focusing on others and their reactions to leadership rather than on one's own skill in behaving as a leader.

Meta-monitoring activities of leaders may also differ on a key emotional/motivational dimension. Some individuals are more sensitive to positive emotions and approach motivation, whereas others are more attuned to negative emotions and potential losses (Carver, 2001, 2004; Shah & Higgins, 2001). Thus, it is likely that the monitoring procedures that develop are oriented towards these different domains. We would expect meta-monitoring skill for intermediate-level leaders to be focused on their preferred domain, but expert leaders should develop a more principled and flexible understanding of this process. Thus, they should develop meta-monitoring skills related to both positive and negative emotions and potential gains or losses. Interestingly, the consistency of these emotional and motivational orientations may be an important determinant of effective leadership (Naidoo, 2005).

The motivational/emotional orientation demonstrated by leaders may have important effects on followers in two respects. First, as Lord and Brown (2004) suggest, leaders may influence performance by altering the self-regulatory structures of subordinates. Second, recent thinking regarding perceptions and sense-making (Barsalou, 1999) indicates that an important component of understanding is the emotional and behavioral reactions that a stimulus creates in a perceiver. Thus, a follower's understanding of a leader may be driven not just by cognitive factors such as implicit theories, but also by the emotional and motivational reactions that a leader elicits in followers. In this manner, sense-making reflects "embodied cognitions" that reflect the total response of perceivers. Such effects may affect perceptions of leaders as well as other aspects of perceiver cognitions. For example, because leaders manage the creative context surrounding work (Mumford, 2003), the emotions that leaders convey may be an important determinant of creativity in others. Displaying positive emotions may be particularly important in this respect because positive emotions tend to increase creativity (Ashby, Isen, & Turken, 1999).

The use of meta-monitoring capacities with respect to motivation, emotions and identities raises an interesting issue for both leaders and leadership researchers. Namely, if leaders are perceived as being chameleon-like and disingenuous rather than being authentic, trust and willingness to follow leaders may diminish. We suspect that one solution for leaders may be to ground situational adjustments of emotional/motivational orientations or identities in their core values rather than in situational demands. Indeed, one way that leaders can profoundly influence others is by recounting stories or experiences that reveal central aspects of their identities (Shamir, 2004) and symbolize underlying values. However, leaders who are too loose with facts relating to their own history run the risk of alienating rather than inspiring followers if more accurate personal histories are uncovered and leaders are seen as being manipulative and disingenuous. In contrast, leaders who are seen as being authentic, that is behaving in a manner that is consistent with their core values and beliefs while transparently interacting with others, cannot only affect their organization's bottom line, but they can have a profound effect on society (Avolio, Gardner, Walumbwa, Luthans, & May, 2004).

#### 4.5. Values

We have argued that expert leaders develop principled understandings that guide task and social actions and self-regulatory processes. We begin this section by explaining how such understandings depend on values. Schwartz (1992) defines values as "desirable states, objects, goals, or behaviors,

transcending specific situations and applied as normative standards to judge and to choose among alternative modes of behavior (p. 2).” According to Schwartz, values provide a framework for the development of socially sanctioned purposes and coherence in behavior across situations. Thus, values are often an important aspect of culture, and they are transmitted by many formal and informal means. Leaders play an important role in this process. In addition, conformity to appropriate values is often an important component of self-evaluation. Thus, we would expect there to be a strong linkage between values and identities. For example, Lord and Brown (2001) maintain that the values that leaders espouse and symbolize through their actions prime specific identities in their followers, eliciting specific self-evaluation processes in followers. Values inherent in a situation may also influence a leader’s own salient identity, and thereby indirectly structure the development of other leadership skills and the principles on which they rest.

One way to understand the linkage from culture to identities to leadership skills is to begin with the content and structure of values. Schwartz (1992) maintains that values themselves are organized according to underlying principles, and for this reason, *value systems* based on these organizing principles are appropriately thought of as deep structures that are related to leadership. Schwartz argues that four higher order factors underlie the organization of ten universal values. These ten values are organized around a circumplex structure, with four higher order factors comprising the dimensions underlying this circumplex (i.e., focus on opportunity versus focus on organization and focus on social context outcomes versus focus on individual outcomes). This structure incorporates both an identity-relevant dimension (individual versus social orientation focus) and a dimension related to self-regulatory orientation (opportunity versus organization focus). Consequently, it provides alternative bases for leadership processes, individual self-regulation and for social processes in general.

Because values reflect solutions to problems that are important to societies, their effects are multifaceted. Values have utility for self-regulation and for evaluating others. In addition, emotions and motivational orientation also are related to Schwartz’s circumplex structure (Lord, Hall, Naidoo, Selenta, & Dubois, 2004; Rohan & Zanna, 2001), so that emotional orientations may be reinforced and justified in terms of underlying values. It is also likely that values will tend to elicit and reinforce specific identities. Indeed, Lord et al. (2004) found that individual, relational, and collective identities were associated with specific value orientations in terms of Schwartz’s circumplex model, as were individual differences in positive versus negative emotional orientations.

These multifaceted effects may make it difficult for leaders to appreciate the full impact of values or to learn that there are alternative constellations of values that may make sense in different societies. Consequently, we would expect that the development of expert knowledge of values would require formal training, and the skilled use of values in connection with leadership would require deliberate practice and extensive experience. We would also expect these processes to take considerable time to develop to an expert level, consequently the developmental trajectory for value-based leadership skills may be long. We expect that development of a deep level understanding of values and their relation to identity levels is the mark of sophisticated, expert level international leaders. Lord and Brown (2004) provide a more detailed description of how such value systems can be integrated with leadership theory.

Values have recently become a fashionable topic in conjunction with discussions of authentic leadership, and prescriptions have been developed for value-based, authentic leadership. For example, Avolio et al. (2004) maintain that authentic leadership is associated with positive emotions and collective identities as well as with transparency. However, by grounding an understanding of values and identities in formal principles such as Schwartz’s (1992) circumplex structure, it is apparent that such approaches

to authenticity reflect only one of several potential patterns of authentic leadership. Training leaders to adopt and communicate a specific value pattern may not be appropriate when leaders manage organizations that operate in many cultures. An expert level, principled understanding of value structures, and how they relate to identities and self-regulation, is a more appropriate basis for leadership development.

## 5. Conclusions

To summarize, our view of the development of leadership skills is that it occurs over an extended period of time, with multiple loosely-connected skills first effortfully (although not necessarily completely consciously) attempted. These early attempts at leadership are guided by leaders' desires to match their surface features (e.g., behaviors) to implicit theories of effective leadership. Those skills become increasingly proceduralized and contextualized, and finally their application becomes more driven by the internally-held values and proclivities of the leader. A critical aspect of this process is the integration of leadership skills with identities as leaders. One's self-view as a leader not only influences proactive attempts to gain leadership experience, it may also be an important cue to access knowledge related to leadership. With sufficient development, the integration of leadership skills with identity can result in an expert and unique manner of leading that can include the development of internal qualities and abilities located not only within the leader but also within the followers. Thus, at all stages of development, the acquisition and improvement of leadership skills will be influenced by individual differences in cognitive capacities, personality and temperament, ability to emotionally regulate, identities, and values that derive from both the cultural context and personal experience.

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