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Emotional Intelligence as the Basis of Leadership Emergence in Self-Managing Teams

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Abstract

We present and test a theory on leader emergence in self-managing teams that highlights the emotional and cognitive skills underlying selection as an informal team leader. Existing theory and research reveals that informal leaders are selected because they display constructive task and team management behavior. We contribute to existing theory in two ways. First, by proposing that specific cognitive processes and skills precede the appropriate enactment of those behaviors by facilitating an accurate analysis of the task situation. Second, by proposing that empathy, an aspect of emotional intelligence, precedes and enables those cognitive processes and skills by providing an accurate understanding of team and member emotions and needs. We test our theory in a longitudinal study of 382 team members comprising 48 self-managing teams. Our theory is partially supported and implications are discussed.

Key Words: emergent team leadership; informal leadership; self-managing teams; emotional intelligence; knowledge, skills and abilities (KSAs)

Despite the growing use of empowered teams such as self-managing work teams (SMWTs) (Lawler, 1998), little research or theory have appeared in the past two decades to help answer persistent questions about their leadership needs (Cohen, Chang, & Ledford, 1997; Druskat & Wheeler, 2002). One subject that has received some research attention is leadership emergence in SMWTs and in particular, assessment of the behaviors that predict one's emergence as an informal team leader (Smith & Foti, 1998; Taggar, Hackett, & Saha, 1999). Emergent team leaders hold no formal authority and team willingness to follow their lead can end at any time. Thus, theory and research attempting to isolate why certain individuals are selected for the role lends insight into perceived leadership needs in SMWTs.

Existing research reveals that the behaviors predicting one's emergence as an informal leader can be organized into two categories -- task-focused and member-focused, and that task-focused behaviors (e.g., task coordination) are the strongest predictors (see Bales, 1950; Lord, 1977; Taggar et al., 1999). To date, however, little research or theory has sought to identify the knowledge, skills, and abilities (KSAs) that underlie and enable the behaviors that predict emergence.

In this article, we introduce and test a model of the KSAs that predict leadership emergence in SMWTs. Our model underscores the relevance of emotional and cognitive skills to the exhibition of the behaviors that predict leader emergence. It combines three propositions drawn from previous leadership theory that serve as the basis of the model: (1) That emergent leaders are socially perceptive and skilled at recognizing and understanding the feelings and emotions in their team (see Chowdhry & Newcomb, 1952 455; Steiner, 1972), (2) that this understanding augments a leader's cognitive analysis and prioritization of issues facing the team (see Salovey, Bedell, Detweiler, & Mayer, 2000; Zajonc, 1998) and (3) that the high quality

cognitive analysis underlies and leads to the skilled behavior (see Bandura, 1982) that predicts leader emergence. We combine these propositions to introduce and test a model suggesting the specific KSAs necessary for attaining informal leadership status in a self-managing team. For the purposes of our study, informal leadership status was assessed by the percentage of teammate votes each member received for “informal leader.”

We begin with our literature review and the presentation of our study hypotheses, which are presented from back to front. That is, we start by describing the skilled behaviors we propose to be most directly related to emergence as an informal team leader. We then present the cognitive skills that support those behaviors. Lastly, we present the emotional skill that we propose to be the basis of leadership emergence.

Leadership Emergence in Self-Managing Teams

The model and hypotheses we discuss in this section are presented in Figure 1.

Insert Figure 1 about here

Behaviors Predicting Leader Emergence

Leadership resides in the situation; every situation has specialized demands that call for certain leadership behaviors (Kozlowski, Gully, Salas, & Cannon-Bowers, 1996; Stogdill, 1974). Researchers studying emergent leadership in SMWTs have worked to identify the behaviors that support a team member’s ascension into the informal leadership role (Bales, 1950; Hollander, 1961; Lord, 1977; Taggar et al., 1999).

Bales (1950) conducted some of the earliest research on emergent leader behavior in leaderless teams and found that team members who emerged as informal leaders were able to identify and address the most pressing problems facing a team. He and his colleagues (1950;

Bales & Hare, 1965; Bales & Slater, 1955) produced a list of twelve categories of behavior demonstrated by group members that fell into two clusters: task focused and socioemotional. Task focused behaviors were instrumental or directed toward assisting the group in achieving its goals. Socioemotional behaviors were used to reinforce and guide group behavior (positively or negatively) and played an important role in creating or eroding satisfying inter-member relations and group solidarity. These included expressions of one's own emotion or expressions of concern about the feelings of others. Bales (1950; Bales & Slater, 1955) also consistently found two informal leaders emerging per team. The #1 or most influential leader exhibited task focused behaviors, while the #2 or second in command exhibited behavior focused on the socioemotional needs of group members.

In a review of research on emergent leadership, Hollander (1961) came to a conclusion that was similar to Bales'-- that attainment of informal team leadership status required two sets of behavior. First, the individual must alleviate team task concerns by being perceived as competent at the team's central task and at coordinating the fulfillment of the team's task goals. Second, the leader must be perceived as able to alleviate the team's social concerns by building trust.

More recent research on emergent leader behavior has supported the primary relevance of behavior focused on task coordination and the secondary relevance of behavior focused on member support and development (Lord, 1977; Stein & Heller, 1979; Taggar et al., 1999). Taggar and his colleagues (1999) identified three behaviors that predicted whether a member was identified by teammates as an emergent leader: performance management, goal setting/achievement, and synthesis of member ideas. Lord (1977) also identified three behaviors

associated with a team member being rated an informal team leader: coordinating behavior, developing orientation, and facilitating evaluation.

Findings from previous research lead us to the following two hypotheses:

Hypothesis 1: A team member's score in the group task coordination ability is positively related to the member's percentage of votes for emergent leader.

Hypothesis 2: A team member's score in the supporting/developing others ability is positively related to the member's percentage of votes for emergent leader.

We also extend Hollander's (1961) conclusion that trust building and task coordination matter for attainment of informal leadership status, by suggesting that trust building (obtained through supportive/developmental behavior) is a prerequisite for skillful group task coordination. The insight obtained by supporting team member needs and skills enables a leader to engage in meaningful task coordination behavior. Moreover, trust enables team members to put their faith in the team leader and allow him or her to help the team coordinate and accomplish its task. These ideas lead us to propose the following:

Hypothesis 3: A team member's score in the supporting/developing others ability is positively related to the member's score in the group task coordination ability.

Cognitive Skills Predicting Leader Behavior

There is ample evidence that cognition and cognitive analyses precede behavior (Bandura, 1982; Lazarus, 1991), yet researchers have paid little attention to the cognitive or analytical abilities that underlie exhibition of the behaviors that predict leader emergence. For example, Bandura's (1982) social cognitive theory reveals that cognitive processes underlie the behavioral strategies an emergent leader chooses and the skill with which they are executed.

Moreover, cognitive appraisal theorists like Lazarus (1991) have long recognized that behavior is dependent upon a cognitive interpretation of a situation.

Although a number of specific cognitive skills may lead to skill at group task coordination, research suggests that pattern recognition, defined as the ability to synthesize information and identify patterns in a collection of unorganized information (Boyatzis, 1982), is of central importance. Research on the behaviors that predict leader emergence suggests the necessity for skill at synthesizing ideas (Taggar et al., 1999) and orienting the team (Lord, 1977). Skill at analyzing and recognizing patterns underlies those behaviors. In their research on managerial competencies, Boyatzis and his colleagues (1982; Spencer & Spencer, 1993) consistently found pattern recognition to be one of the most central competencies to successful leadership. We believe that pattern recognition is essential to the exhibition of skilled group task coordination because of its relevance for identifying the source of team strengths and weaknesses, and for recognizing functional and dysfunctional routines (see Gersick & Hackman, 1990) that require attention. We offer the following hypothesis:

Hypothesis 4: A team member's score in the pattern recognition skill is positively related to the member's score in the group task coordination ability.

Research also suggests that the cognitive skill of perspective taking is central to the behavioral skill of supporting and developing others. Perspective taking is defined as analyzing, discerning, and considering the merits of another's point of view (Boland & Tenkasi, 1995) – in a sense stepping into another's shoes to analyze and understand the situation from his or her perspective. It has been argued that successful conversation and successful problem solving require perspective taking (Schober, 1998). We believe that when this conversation and problem solving is focused on team member support

and development; the need for cognitive perspective taking increases in importance.

Indicating that a team member's perspectives are understood allows a leader to build the rapport and interpersonal trust necessary for skillfully supporting team members and providing them with developmental advice (Dirks, 1999). We offer the following hypothesis:

Hypothesis 5: A team member's score in the perspective taking skill is positively related to the member's score in the supporting/developing others ability.

Emotional Intelligence Skills Predicting Cognitive Skills

While scholars have long recognized the relevance of cognition to problem solving and leadership, the relevance of emotion has historically been discounted (Salovey et al., 2000). Recently, however, researchers studying the brain have determined that emotion precedes or at least accompanies cognition and thus, that emotion and affective information provides a unique source of information that can improve cognition (see Dickman & Stanford-Blair, 2002; Zajonc, 1998). Moreover, individuals vary in their ability to take in and understand affective information; strength in this ability has been labeled emotional intelligence (EI) (Salovey et al., 2000). The key difference between cognitive skills and emotional intelligence is that EI involves the integration of emotion with thoughts, enabling one to understand what others are feeling, while cognitive skills involve the integration, organization, and ordering of thoughts (Goleman, 2001).

Early research on emergent leaders suggested that these individuals are skilled at taking in and understanding emotional information. This research revealed that informal team leaders were socially perceptive and uniquely able to identify and understand unstated team needs (Chowdhry & Newcomb, 1952). They also used their perceptiveness to address team needs in ways they knew would be acceptable to the team (Steiner, 1972). This was clearly depicted in an observational study on leader emergence in children's playgroups. Those children who emerged

as playgroup leaders first spent time watching, listening, and figuring out the rules that governed children's actions and then stepped in to take the lead in creating and facilitating games the way the children liked them to be played (Merei, 1957). Given this description, it comes as no surprise that when compared with formal team leaders, emergent leaders have been rated as more responsive to follower needs (Yammarino, 1996).

Thus, we propose that what underlies an emergent leader's ability to perceive and understand team task and member needs is a critical component of EI labeled empathy (see Gardner, 1983; Goleman, 1995; Mayer, DiPaolo, & Salovey, 1990; Salovey & Mayer, 1990). Emotional intelligence is defined as one's ability to accurately identify, appraise, and discriminate among emotions in oneself and others, understand emotions, assimilate emotions in thought and to regulate both positive and negative emotions in self and others (Mayer, Caruso, & Salovey, 2000; Salovey & Mayer, 1990). Empathy is defined as actively seeking to identify with another's emotions so that one experiences oneself to be similar to or nearly identical with the other person (Sally, 2000).

We believe that emergent team leaders will score high in empathy for two reasons. First, because social situations such as work team environments are laden with emotion (Barsade & Gibson, 1998; Kemper, 1978), and an individual with empathic skills will be better able to understand and identify the needs of other team members and, consequently, of the team (Bell & Hall, 1954). Mayer and Geher (1996) demonstrated that individuals who were able to understand and interpret emotions scored lower on measures of emotional defensiveness, and suggested that this openness to emotion allows an individual to perform better in problem solving situations. Specifically, we believe that empathic skill will add to and strengthen the critical cognitive problem solving skills of pattern recognition and perspective taking.

The emotional information that comes through empathy can aid in pattern recognition by enabling a leader to take in and understand the full range of issues facing a team and the actions necessary to coordinate and move forward to meet team goals. For example, knowing that team members are feeling strongly about a recent conflict, assignment, or task allows the leader to organize and prioritize information about the team's situation. On the other hand poor skills in empathy would result in less information to prioritize and organize, which may ultimately end up leading to less effective task coordination activities. We are led to the following hypothesis:

Hypothesis 6: A team member's score in the empathy ability is positively related to the member's score in the pattern recognition skill.

Empathy differs from perspective taking because it involves identifying, subjectively, with the emotion of another and experiencing concern for that emotion (Eisenberg & Miller, 1987; Goleman, 1995; Hoffman, 1984). Perspective taking involves detaching oneself and analyzing the perspectives of another so as to understand the objective merits of perspective. Thus, we also believe that high levels of empathy will strengthen skill in perspective taking. Empathy enables one to incorporate a greater range of information into his or her attempt to accurately and as objectively as possible assess and understand another persons' perspective.

Hypothesis 7: A team member's score in the empathy ability is positively related to the member's score in the perspective taking skill.

Summary of the Proposed Model

As shown in Figure 1, we propose that empathy, a seminal emotional intelligence ability, improves a leader's ability to perceive and understand team and member emotion. We further propose that this emotional understanding improves the cognitive skills of "pattern recognition" and "perspective taking." These cognitive skills are then proposed to enable and improve one's

skill at group task coordination and at supporting/developing team members. Lastly, we propose that skill at group task coordination and supporting/developing others predicts one's emergence as an informal team leader, which we operationalized in this study through team member votes for informal leader. A final proposed link in our theory is a relationship between the group task coordination and the supporting/developing others abilities.

Method

Sample

Three hundred and eighty-two full-time MBA students, comprising 48 self-managing teams took part in this study. Teams were composed before the start of the MBA program (August) and remained intact working on small or large projects in each course until the end of the first academic year (May). Classes were all lock step and standardized so that all students took the same courses in the same order using standardized syllabi. Faculty in the organizational behavior department composed the teams with the goal of maximizing team diversity. Participation in the study was voluntary. Students were ensured confidentiality. To ensure that participation would not affect course grades, signed permissions were kept in an envelope until after grades were turned in. Ninety-two percent of students agreed to participate in the study. The percentage of members responding from each team ranged from 50% (1 team) to 100% (19 teams), with a mean of 84%. Missing data were due mostly to random absences from classes. Teams ranged in size from seven to ten members with most teams (27) having eight members and only one team having ten members. The sample consisted of 270 males and 112 females who ranged in age from 20 to 52 with a mean age of 27 (SD = 4.11) and a median age of 27.

Throughout the first academic year, student teams were self-managing; that is, they held full responsibility for executing their work and for monitoring and managing their own process

(Hackman, 1986). For example, in their Human Values in Organizations course, teams were required to complete a large team project that involved data collection in an organization around a chosen topic and a synthesis of that data with scholarly information. The team project grade was worth 35% of member's individual grade in the course. The project, which was designed to foster team interdependence, culminated in a final written and oral report with recommendations for solving the problem. Written and oral reports were presented to their class and to their participating organizations.

Individual Skills and Abilities

To operationalize and measure the skills and abilities in our model, we looked to Boyatzis' (1982; 1995) taxonomy of managerial competencies, arguably the most well cited taxonomy of individual KSAs. This comprehensive taxonomy was developed through inductive interviews with 253 managers conducting 41 different tasks in 12 distinct organizations and includes emotional, cognitive, and behavioral skills and abilities. Importantly, Boyatzis model was developed through the use of individual interviews (similar to the 382 interviews conducted in the present study), thus the definitions in Boyatzis taxonomy were easily transformed into an interview coding scheme. Researchers who have used Boyatzis' coding scheme have found it to present reliable and valid (see Spencer & Spencer, 1993) indicators of specific skills and abilities. We used five skills and abilities from Boyatzis' model to operationalize the emotional, cognitive, and behavioral skills and abilities in our theory. Boyatzis coding scheme for these skills and abilities are presented in Table 1.

Insert Table 1 about here

Critical incident interviews. Individual skills and abilities were measured during the first two weeks of the MBA program (late August to early September), through the use of one-hour tape-recorded, standardized critical incident interviews (see Flanagan, 1954) that were subsequently coded for exhibition of the skills and abilities using Boyatzis (1995) coding scheme discussed above.

Over the years researchers have adapted Flanagan's (1954) CII methodology to fit their needs and have received mixed reviews. For example, Herzberg and his colleagues (Herzberg, Mausner, & Synderman, 1959) received criticism for their CII method because they failed to recognize the human tendency to make attribution errors when describing reasons for positive and negative events (House & Wigdor, 1967) and to organize attitudinal information in consistent rather than accurate ways (Salancik & Pfeffer, 1977).

We used an adaptation of the CII designed by McClelland and Dailey (1972) that focuses on obtaining highly detailed descriptions of job events, rather than on attitudes and attributions. Research has shown this type of CII format to be a reliable, valid, and useful method for obtaining accurate and detailed descriptions of work behavior (Motowidlo et al., 1992; Ronan & Latham, 1974) and for measuring individual skills and abilities (McClelland, 1976; McClelland, 1998). A primary reason we chose to use the CIIT method, was because we felt it to be a more objective measure of emotional intelligence, cognitive skills, and emotional abilities than self-report data that would more likely measure espoused theories about how one tends to or likes to behave than actual behavior used (see Argyris & Schon, 1974).

This CII method we used requires interviewees to alternate between describing job events in which they felt effective and ineffective. The role of the CII interviewer is to obtain detailed information while remaining as unobtrusive as possible. Interviewer questions are limited to:

What led up to the event? Who did and said what to whom? What happened next? What were you thinking or feeling at that moment? and What was the outcome? Although the CII method provides a retrospective account of behavior and thoughts, validity and reliability of event descriptions are strong (Motowidlo et al., 1992; Ronan & Latham, 1974) because the interviewer probes for highly detailed responses. Further, because the interviewee selects the events to discuss, they are usually salient events for which details are easy to recall. Discussions of both effective and ineffective events were sought because they reveal a range of challenges experienced by the individual.

Ten doctoral assistants who underwent two days of formal interview training with an expert on the CII methodology conducted the critical incident interviews. Each interview began with a standardized introduction. Interviews were included as a course requirement and students were asked for permission to tape record the interview. Students were informed that the interview would be used to provide them with feedback on their KSAs. About 6 weeks after the interviews, students received individual reports that showed the skills and abilities for which they were coded. The interviewer then proceeded with the critical incident interview, which consisted of asking the participant to describe events within the past year in which he or she either felt effective or ineffective inside or outside of work. The interview then alternated between the two types of events until the one-hour interview was complete (resulting in discussions of three events). Interview probes were limited to those described above. Most events discussed in this study involved work incidents in the year prior to joining the MBA program. Examples of events discussed include overcoming challenges to complete difficult projects at work, managing problem employees during specific incidents at work, and the process from beginning to end of gaining entrance into MBA programs.

Coding the interviews. The tape recorded interviews were coded by doctoral assistants who underwent a two-week training period that involved coding practice tapes and getting feedback from experts on the code (i.e., colleagues of Richard Boyatzis who worked closely with the code) on their level of accuracy in identifying the skills and abilities. Coder training culminated with a reliability test that involved coding a training tape. To be hired as a coder, doctoral assistants had to achieve a minimum of .70 inter-coder reliability for all abilities examined with expert coders.

The six coders who passed the reliability test coded the audiotapes of all student interviews. The end result was a frequency count of the number of times each student was coded for each of the five skills/abilities used in the study. The codebook definitions used for coding the abilities are listed in Table 1. The code was applied to a behavior described in an interview if it met two criteria: 1) the interviewee intended to exhibit the behavior, and 2) the behavior was consistent with one of the specific examples listed in the codebook. Coders erred on the side of conservatism and coded by the rule of thumb—“When in doubt, leave it out.”

Selection as Emergent Leader

The measure for selection of emergent leaders was part of a larger questionnaire administered to measure team norms as part of a course requirement. Questionnaires were administered in November of the first semester at which point team members had been working together in all their classes for three months. As part of this questionnaire we asked each individual to select two members who they felt were the “informal leaders” of the team. For each team member, the percentage of the total number of votes cast was used as a measure of the degree to which the team chose this member as an emergent team leader.

Results

Table 2 shows correlations among the variables in our model and descriptive statistics. The hypotheses were tested using AMOS4 structural equation modeling. Figure 1 shows the model tested and the resulting standardized path coefficients. To test the model for fit, a number of indicators were examined beginning with the χ^2 statistic and degrees of freedom ($\chi^2 = 37.3$, $df = 8$, $p=.00$). A good fitting model has a χ^2 value approaching the degrees of freedom and a non-significant p-value (Jöreskog & Sörbom, 1993), thus this indicator does not indicate a fit. However, for large sample sizes the χ^2 statistic is overly sensitive (Tabachnick & Fidell, 2001). Also, the chi-squared measure assumes that the model fits perfectly in the population; it does not take parsimony into account (Jöreskog & Sörbom, 1993). For these reasons, Tabachnick (2001) and Jöreskog (1993) suggest that additional indications of model fit be examined including the Root Mean Square Error of Approximation (RMSEA), the normed fit index (NFI), the relative fit index (RFI), and the comparative fit index (CFI). The RMSEA does not assume perfect fit in the population and examines the error per degree of freedom. Using RMSEA, a poor fitting model occurs when the RMSEA is greater than .10 (Tabachnick & Fidell, 2001). By this measure, our model is marginally acceptable (RMSEA=.10). The NFI, RFI and CFI are indices that, using different criteria, measure how much better the model fits than “no model at all.” The closer these indices are to 1.0, the better the fit of the model. When these indices are greater than .90 the model is considered acceptable (Arbuckle & Wothke, 1999). These indices provide inconsistent indications about the fit of our model. The NFI and CFI indicate a good fit (NFI=.96, CFI=.96), while the RFI is below, but close to, the cutoff (RFI=.88). As a whole, the fit statistics again suggest our model to be marginally acceptable.

Four of our seven hypotheses are supported at $p < .05$: hypothesis 3 (group task coordination is positively related to percentage votes for leader), hypothesis 5 (perspective taking is positively related to supporting/developing others), hypothesis 6 (empathy is positively related to pattern recognition), and hypothesis 7 (empathy is positively related to perspective taking). Two of our hypotheses are partially supported at $p < .10$: hypothesis 1 (supporting/developing others is positively related to group task coordination) and hypothesis 2 (supporting/developing others is positively related to percentage votes for leader). The only hypothesis for which there was no support is hypothesis 4 (pattern recognition is positively related to group task coordination).

 Insert Table 2 about here

Given the marginal fit of the model, a series of modifications using a model generating approach (Jöreskog & Sörbom, 1993) were made to the model. The model generating approach uses modification indices to suggest changes to the model; it also requires that any change be theoretically grounded. The model we generate is exploratory and requires further testing with an additional sample. Nevertheless, we present the revised model here because: (1) it adds confidence to the findings that are consistent across both models and (2) it provides information that can guide future theory and research.

The revised model differs in four ways from the hypothesized model. First, the direct path from supporting/developing others to percentage votes is deleted and replaced by a direct path from perspective taking to percentage votes. This is consistent with research that shows task-related behavior is more likely to be related to selection as an informal leader than relationship-oriented behavior (Lord, 1977). As we have defined our constructs,

supporting/developing others is more relationship-oriented than perspective taking.

Supporting/developing others is focused on working with and improving a member's performance whereas perspective taking is the ability to see and use another person's perspective to achieve better task results. Additionally, the high degree of diversity in the groups may have made the ability to value differing perspectives a particularly appreciated skill.

Also, a path from pattern recognition to supporting/developing others replaces the path from pattern recognition to group task coordination. Although we originally argued that pattern recognition would be needed to analyze the group's performance and recognize group needs, upon reflection, our measure of group task coordination may have tapped more strongly into one's ability to engage members in the task by creating team spirit and collaboration than to actually managing task processes. Also, supporting/developing others requires cognitive skill at recognizing and labeling the behavioral patterns exhibited by team members. Thus, it seems reasonable that, as our constructs are defined, pattern recognition would be more directly related to supporting/developing others than to group task coordination.

The revised model is shown in Figure 2. The fit statistics for this model indicate that the model is a good fit for the data ($\chi^2 = 10.8$, $df = 8$, $p = .21$, $RMSEA = .03$, $NFI = .99$, $RFI = .97$, $CFI = .997$). In this model, as in our hypothesized model, hypotheses 3, 5, 6, and 7 are supported, thus, we gain additional confidence in the support for those findings. Additionally, hypothesis 1 (supporting/developing others being directly related to group task coordination) is now supported at $p < .05$, thus the revised model gives greater support to this hypothesis. The marginal relationship originally found for hypothesis 2 (supporting/developing others being directly related to percentage votes) was not supported in the revised model, thus, we do not have confirmation for this hypothesis. Hypothesis 4 was not supported in either model, thus, we

cannot say pattern recognition is directly related to group task coordination, however, the revised model suggests that the relationship between pattern recognition and group task coordination is mediated by the ability to support/develop others.

Insert Figure 2 about here

Overall, the study findings support our fundamental premise that empathy enables the cognitive skills of pattern recognition and perspective taking, which form the foundation for the leadership behaviors used by emergent leaders. However, hypothesis 2 was not supported, thus, the ability to develop others does not appear to lead directly to being selected as informal team leader, rather, it does so indirectly through its role in supporting group task coordination.

Discussion

We proposed a model of leadership suggesting that a specific set of individual skills and abilities would support an individual's emergence as an informal team leader. We proposed that the behavioral abilities of group task coordination and supporting/developing others would predict one's selection as emergent team leader. We also proposed that these abilities are supported by the analytic skills of pattern recognition and perspective taking. The analytic skills allow the leader to cognitively process information that helps identify the needs of the group and its members. Finally, we proposed that the input information necessary for processing information that leads to socially and emotionally competent behavior must come from emotional intelligence, specifically empathy.

The basic premise of our model – that empathy serves as the foundation for the cognitions and behaviors that support leader emergence – was supported. However, our

hypothesis that pattern recognition would lead to group task coordination and our hypothesis that supporting/developing others would influence whether a person is chosen as a leader were not supported. Empathy formed a foundation for the analytic skills of pattern recognition and perspective taking. These cognitive skills enabled skill in supporting/developing others, which supported skill in group task coordination. Selection as informal leader was influenced by group task coordination skills as predicted but it was not directly influenced by supporting/developing others. Instead we found that supporting/developing others indirectly supports being chosen as informal leader through its effect on group task coordination. This is consistent with the findings of Bales and his colleagues (1950; Bales & Slater, 1955) and Taggar and his colleagues (1999) that task focused behavioral skill is most predictive of leader emergence. Our exploratory findings suggest an addition to those previous findings -- that member focused behavioral skills (i.e., supporting/developing members) improve one's skill at task focused behavior. This suggestion must be tested in further research.

Our exploratory findings also revealed that the cognitive skill of perspective taking was directly related to being chosen as informal leader. Since the teams included a large number of international students (40% of MBA students were not U.S. citizens) and were composed with the intent of maximizing the diversity within each individual team, it is possible that the ability of the leader to take on different perspectives was a particularly important and appreciated ability for teams with a highly diverse demographic makeup. It remains for further study whether perspective taking is directly related to being chosen as informal leader for teams of varying demographic composition.

Overall, our research suggests that emotional intelligence, and in particular empathic skill, play a role in leadership emergence within self-managing teams. This may be rooted in the

emergent leaders need to understand, coordinate, and motivate individual team members without the benefit of formal rewards and punishments.

Since the use of self-managing teams has been rising steadily over the past decade (Lawler, 1998), several theorists have issued calls for greater understanding of how to best lead, supervise, and manage these types of teams (Cohen & Bailey, 1997; Nygren & Levine, 1996). Several studies have revealed that relying on external leaders to give governance and guidance to self-managing teams may be problematic – likely because of the tendency for external leaders to over control their SMWTs (see Beekun, 1989; Cohen, Ledford, & Spreitzer, 1996; Druskat & Kayes, 1999). Consequently, the emergence of leadership within SMWTs becomes important to their success. Emergent leaders have been shown to have influence over the performance and processes of self-managing teams (De Souza & Klein, 1995; Pescosolido, 2001).

Our study contributes to knowledge in several ways. It reveals that exhibiting the appropriate leadership behavior skillfully, e.g., task or relationship, requires empathy. It also identifies specific abilities that predict leadership emergence in self-managing teams and provides information about how emotional, cognitive, and behavioral skills work together to meet the leadership needs of SMWTs.

There are several study limitations that must be considered when interpreting our results. The first is that the composition of these teams was culturally diverse. Even though all team members were students within the same MBA program, their high level of diversity may have put a premium on the need to accurately empathize with and understand one's teammates. Second, we chose the CIIT method to measure the skills/abilities in our model because we believe it is less biased than standard self-report measure, like any method, CIIT interviews are not problem free. Because our interviews were only one hour in length, we can be certain that the

amount of times an individual is coded for an ability is consistent with his or her demonstration and skill at the ability. However, we cannot be certain that if someone does not get coded for an ability that he or she does not demonstrate the ability—he or she may simply not have had time in a one hour interview to discuss that strength. Thus, future research should examine our model using an alternative ability measurement tool.

Abilities such as empathy, perspective taking, supporting/developing others, and group task coordination not only contribute to leadership emergence, but may also strengthen team member participation and engagement because they convey a sense of inclusion, support, and respect (Druskat & Wolff, 2001). As such, it may be that a role of the emergent leader is to not only to improve task coordination, but also to build a sense of belonging, support, and optimism within the team, so that team members can engage their full attention in their performance of the team's task.

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Table 1
Boyatzis' Managerial Competencies^a with Definitions and Clusters Used For the Present Study

Cluster	Competency	Definition	Examples
Emotional	Empathy	The intent is to understand others.	<ul style="list-style-type: none"> a.) Understands the strengths and limitations of others; b.) Understands the reasons for others' behavior (i.e., know what motivates or de-motivates specific other individuals); c.) Accurately reads, or interprets the moods, feelings, or non-verbal behavior of others; or d.) Listens to others by asking and waiting for their reply, or taking the time to allow another person to explain or describe something at his/her own pace and manner.
Cognitive/Analytical	Pattern Recognition	The intent is to identify a pattern in an assortment of information, unorganized, or seemingly random data.	<ul style="list-style-type: none"> a.) Identifies a pattern in events or information not used by others and uses the pattern to explain or interpret the events or information; or b.) Reduces large amounts of information through the use of a concept not previously applied to this situation or information; c.) Sees similarities between a new situation and aspects of past situations of a different type: d.) Uses metaphors or analogies to explain events or information (this should be more than a figure of speech or single phrase.)
	Perspective Taking ^b	The intent is to perceive another person's beliefs, emotions, and perspectives, particularly when they are different from the observer's own beliefs, emotions, and perspectives.	<ul style="list-style-type: none"> a.) Perceives multiple perspectives, or views, of the same situation or issue b.) Sees merits of differing perspectives, especially when they are different from his/her own c.) Describes another person's thoughts, feelings, or values as unique to the individual in the context of others claiming or making stereotypical generalizations about the person because of a group, or category of individuals to which he/she belongs.

Table 1 (continued)

Cluster	Competency	Definitions	Examples
Behavioral Abilities	Group Task Coordination ^c	The intent is to stimulate members of a group to work together effectively.	<ul style="list-style-type: none"> a.) Creates symbols of group identity, pride, trust, or team effort; b.) Acts to promote commitment to a team, task, or shared goal; c.) Involves all parties concerned in openly resolving conflicts within the group as a vehicle toward collaboration among the group members; d.) Allows the group to take responsibility for certain task accomplishments and does not assume personal responsibility for them; e.) Explicitly communicates to others the need for cooperation or teamwork within the group.
	Supporting/Developing others ^d	The intent is to support and stimulate someone to develop his/her abilities or improve his/her performance toward an objective.	<ul style="list-style-type: none"> a.) Gives someone performance feedback to be used in improving or maintaining effective performance; b.) Provides others with information, tools, other resources, or opportunities to help them get their job done or to improve their abilities (e.g., giving a promotion as part of their development); c.) Invites others to discuss performance problems with the explicit purpose of improving their performance; d.) Explicitly tells another that he/she can accomplish an objective and provides encouragement and support.

Note. ^aAdapted from “Cornerstones of change: Building the path for self-directed learning,” by R. E. Boyatzis, 1995, in R. E. Boyatzis, S. S. Cowen, and D. A. Kolb, *Innovations in professional education*, pp. 82-88. San Francisco, Jossey-Bass. ^bBoyatzis calls this competency Social Objectivity. ^cBoyatzis calls this competency Group Management. ^dBoyatzis calls this competency Developing Others.

Table 2

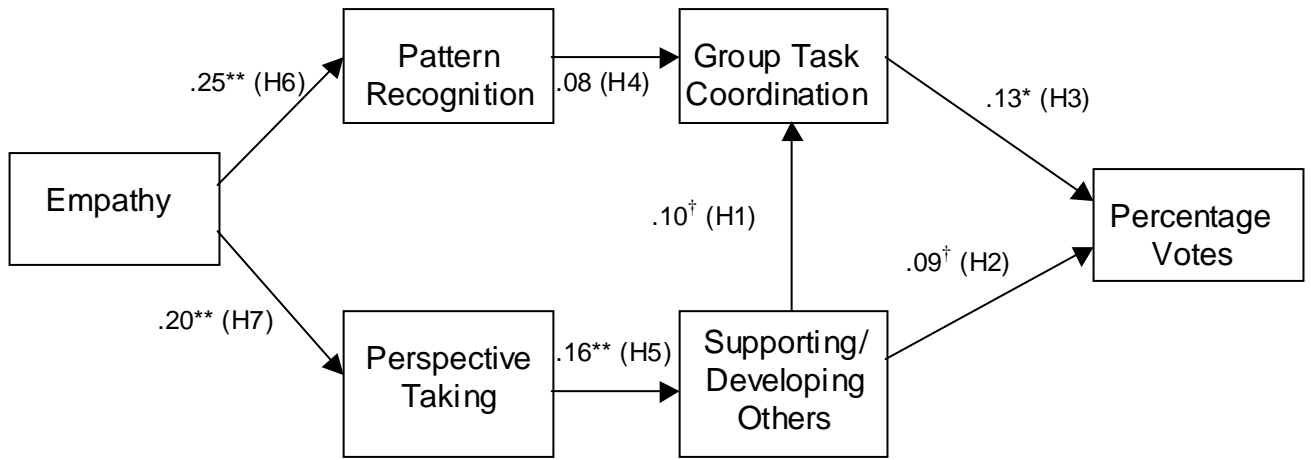
Correlations and Descriptive Statistics (n=347)

	Mean	S.D.	Empathy	Pattern Recognition	Perspective Taking	Supporting/ Developing others	Group Task Coordination	Percent Vote
Empathy	1.04	.97	1.00					
Pattern Recognition	.23	.54	.25**	1.00				
Perspective Taking	.31	.57	.20**	.04	1.00			
Supporting/ developing others	.41	.60	.19**	.27**	.16**	1.00		
Group Task Coordination	.13	.37	.07	.10*	.07	.12*	1.00	
Percent Vote	.13	.18	.07	.11*	.13**	.11*	.14**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Figure 1: Hypothesized Model and Results

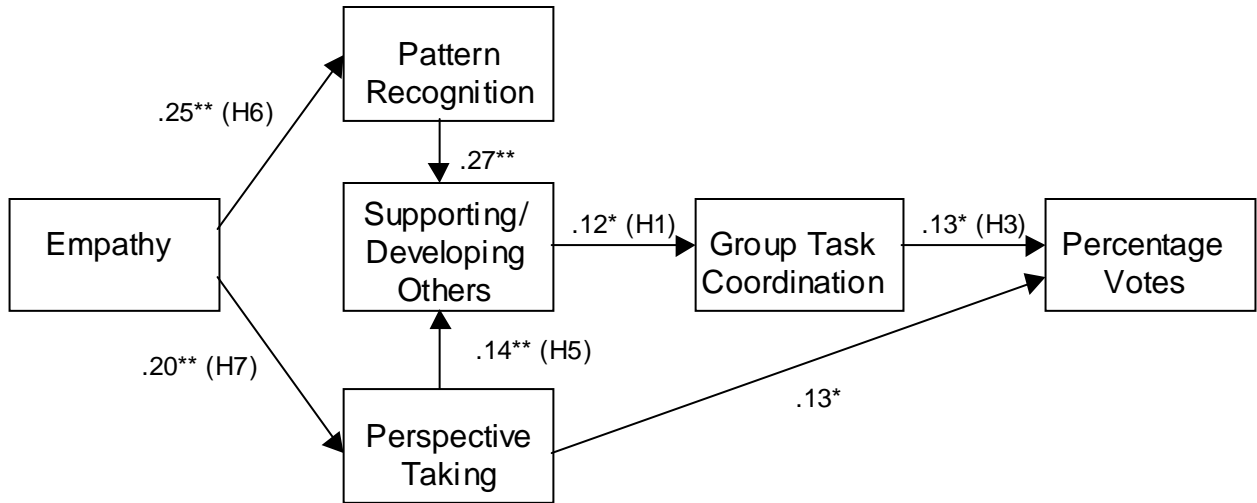


** Standardized path coefficient is significant at the 0.01 level

* Standardized path coefficient is significant at the 0.05 level

\dagger Standardized path coefficient is significant at the 0.10 level

Figure 2: Revised Model



** Standardized path coefficient is significant at the 0.01 level

* Standardized path coefficient is significant at the 0.05 level