Running Head: EMERGENT LEADERS, GEC AND TEAM EFFECTIVENESS

The Impact of Emergent Leader Emotionally Competent Behavior on Team Trust,

Communication, Engagement, and Effectiveness

Vanessa Urch Druskat
Department of Management
Whittemore School of Business and Economics
University of New Hampshire
Durham, NH 03824
Phone: (603) 862-3348
Fax: (603) 862-3383
Email: vanessa.druskat@unh.edu

Anthony T. Pescosolido
Department of Management
Whittemore School of Business and
Economics
University of New Hampshire
Durham, NH 03824
Phone: (603) 862-3367
Fax: (603) 862-3383
Email: tuck.pescosolido@unh.edu

The Impact of Emergent Leader Emotionally Competent Behavior on Team Trust, Communication, Engagement, and Effectiveness

Abstract

The purpose of this paper is to help clarify the actions of effective emergent leaders in self-managing work teams (SMWTs). Toward that end, we present a study of the behavior of 32 emergent leaders in self-managing manufacturing teams that had worked together for five years. Multiple methods were used to test hypotheses that leader behaviors consistent with the development of emotionally competent team norms (interpersonal understanding, caring behavior, creating an optimistic environment, and proactive problem solving) would be more strongly linked to team trust, open communication, personal task engagement, and team effectiveness than traditional task-focused leader behaviors (directive statements, using questions). Most hypotheses were supported. Directive leader behaviors were for the most part negatively associated with team trust, open communication, and personal task engagement. It is argued that in SMWTs that have a history and a future together, emergent leaders who engage in behaviors that build team emotional competence are more likely to create team effectiveness than emergent leaders focused on directing team members.

Surveys show that a growing number of organizations are implementing self-managing teams in order to lower costs and improve decision-making (Lawler, 1998). Self-managing work teams (SMWTs) are defined as teams that monitor and manage their own performance, make decisions related to their work, and take collective responsibility for meeting their own goals (Hollander & Offermann, 1990). While implementing SMWTs is often productive for organizations, the most common reason for failure is poor leadership (Beyerlein, Johnson, & Beyerlein, 1996; Cohen, Chang & Ledford, 1997; Wageman, 2001).

Leading a *self-managing* team sounds paradoxical and, in fact, the unclear nature of the role makes leader over-management and under-management common problems (Manz & Sims, 1984; Druskat & Wheeler, 2003, Walton, 1977). Getting the leadership role "right" is particularly difficult because so little research has helped clarify the role. Yet, researchers have consistently found that effective leadership of SMWTs is pivotal for their success (Kirkman & Rosen, 1999; Wageman, 2001). This leadership can come from two sources: external leaders who reside outside of the team (see Druskat & Wheeler, 2003; Manz & Sims, 1987), and emergent or informal leaders who emerge from inside of the team (see Bales, 1950; Wolff, Pescosolido, & Druskat, 2002).

The purpose of this chapter is to investigate and identify the actions of effective emergent leaders in SMWTs. Most research on emergent leaders has focused on identifying the leadership behaviors that predict one's emergence into the leadership role. This research has, traditionally, suggested that group members who emerge as informal leaders exhibit two types of behavior: task-focused and socio-emotional (Bales, 1950; Smith & Foti, 1998; Taggar, Hackett, & Saha, 1999). Recently, however, research and theory have suggested that emergent leader socio-emotional skills may be most necessary team effectiveness (Pescosolido, 2002, 2004; Wolff et

al., 2002).Wolff and his colleagues (2002) argued and found that leader empathy, defined as the ability to recognize and understand the feelings and emotions in one's team, is the basis for identifying and employing the task-focused and/or socio-emotional behaviors that are most appropriate to a situation; their findings suggest that empathic skill is critical to leader emergence. Pescosolido (2002, 2004) also argued that team effectiveness is contingent on an emergent leader's ability to manage the team's emotions, and that because of an emergent leader's status; he or she is in the unique position to be able to effectively influence emotions as they arise in the team.

In a related theory, Druskat and Wolff (2001) have argued that for groups who have been working together for a long period of time, awareness and management of emotion are critical to team effectiveness. They specifically argue that because emotion is ubiquitous in groups (see Kelly & Barsade, 2001), a group's ability to develop emotionally competent norms (defined as norms that acknowledge, recognize, monitor, discriminate, and respond constructively to emotion and emotional challenge) leads to group effectiveness (Druskat & Wolff, 2001). It is important to note that research has revealed that emergent team leader socio-emotional skills predict whether a team develops emotionally competent norms (Druskat, Wolff, & Dyck, 2001).

In this chapter, our objective is to use recent theory and research to develop and test hypotheses about effective emergent leader behavior and its link to team effectiveness. Specifically, we use parts of Druskat and Wolff's (2001) socio-emotional theory of group effectiveness, Pescosolido's (2002) theory of emergent leaders as managers of emotion, and previous research findings on the role of leader task-focused behaviors (Lord, 1977; Tagger et al., 1999) to develop hypotheses about the emergent leader behaviors significantly linked to the development of group trust, open communication, task engagement, and team effectiveness.

We will use the terms group and team interchangeably in this paper. Also, was define a group or team as "made up of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (e.g., community, organization), and who perform tasks that affect others (such as customers or coworkers)" (Guzzo & Dickson, 1996: 308).

Emergent Team Leaders

Group researchers have long known that certain influential group members emerge as leaders in groups (see Bales, 1950). These emergent leaders have been formally defined as team members who exhibit initiative and have influence over group members (Hollander, 1961; De Souza and Klein, 1995). They hold no legitimate authority or power. Instead, they acquire authority from group members who give them control because they believe these individuals provide value to the group. In fact, emergent leaders have been found to be more responsive to followers' needs, more interested in the task, and more competent than appointed leaders (Yammarino, 1996).

 Two distinct trends of thought have emerged over the past few years regarding the behavior of emergent leaders. The first, exemplified by Taggart et al. (1999), suggests that individuals emerge as leaders primarily because of their knowledge of and focus on the team's task. Consequently, these individuals use their influence to create task-focused roles and strategies to assist team performance.

The second, exemplified by Pescosolido (2002) and Wolff and his colleagues (2002), and emphasized in our present study, suggests that the primary role of emergent leaders within an empowered or self-managing team context is to create a team environment that allows for

understanding of differences, expression of emotion (positive and negative), and trust between team members. The assumption underlying this premise is that, in an empowered team environment, most team members are already competent at the task, therefore, building a trusting team, member participation and communication and engagement of member talent and energy becomes a primary leadership responsibility. Schein (1980) supported this view in his argument that a relational style of leadership, as opposed to a task-focused style, becomes increasingly important as employees take on increasing responsibility. Therefore, what may be most needed in SMWTs are emergent leaders who can build the trust, communication, and task engagement necessary for SMWT success. We now turn to an explanation of the socio-emotional theory of group effectiveness to identify emergent leader behaviors that might build trust, open communication, and task engagement.

The Socio-Emotional Theory of Group Effectiveness

The socio-emotional theory of group effectiveness (Druskat & Wolff, 2001; Wolff & Druskat, 2003) contributes to current theory on group effectiveness by clarifying how emotion and relationships influence group effectiveness. As shown in Figure 1, the theory proposes that team member engagement in the group's task and in effective task-focused processes (e.g., communication), are supported by group social capital, defined as constructive group member relationships (e.g., trust), which, in turn, is supported by emotionally competent group norms (ECG norms). The cornerstone of the theory is a set of emotionally competent norms that a team must develop. Important to the thesis in this paper is Druskat and Wolff's (2001) proposal that emergent leaders play a role in the development of ECG norms. Their research has also found that emergent leader socio-emotional skills predict whether emotionally competent norms get developed (Druskat, Wolff, & Dyck, 2001). However, no research has examined whether

emergent leaders enacting emotionally competent behaviors enables team effectiveness. Below we explain the socio-emotional theory and how emotionally competent behaviors influence team effectiveness.

Insert Figure 1 about here

An Emotional Structure

The interpersonal interactions and behaviors that are at the core of group work are the source of many emotions, e.g., joy, contentment, fear, anger, and embarrassment (Kemper, 1978). However, the emotional dynamics (i.e., exhibition of emotion and the way emotion is dealt with) that occur in groups are not random; they emerge through member interactions, which are restricted by the social context and the range of actions considered admissible by contextual and cultural factors (Morgeson & Hofmann 1999). Over time, group member back-and-forth interactions cause certain emotional dynamics to become routine and to emerge as a collective emotional structure or a set of norms about how emotion is exhibited and dealt with in a group. The status of emergent leaders enables them to play an influential role in determining which dynamics will emerge as group norms (Bales, 1950).

Group Emotional Competence

According to Wolff and Druskat (2003), the emotional structure a group adopts determines its level of emotional competence. Group emotional competence is defined as a group culture created by a set of norms that facilitate a productive social and emotional environment that leads to group effectiveness. "Emotionally competent group norms" are defined as rules and expectations that foster the acknowledgement, recognition, monitoring and discrimination among

emotions, and constructive responses to emotion and emotional challenge (see Holmer, 1994; Huy, 1999).

In the present field study, because of resource constraints, we chose to examine four of the nine emotionally competent norms defined by Druskat and Wolff (2001). The first of the norms we examined is "interpersonal understanding," defined as the expectation that members will work to understand the feelings, interests, concerns, strengths and weaknesses of team members. It is akin to demonstrating empathy or sympathy, the latter of which is defined as understanding someone's emotions without necessarily feeling those emotions oneself. The second norm is "caring behavior," defined as the expectation that members will take actions to communicate appreciation, respect, and possibly affection for others. The third norms is "creating an optimistic environment," defined as the expectation that members will take actions to produce positive group affect and an optimistic outlook within the group. The fourth norm is "proactive problem solving," defined as the expectation that members will work to anticipate problems before they occur or to take immediate ownership and control of a problem.

Trust, Open Communication, and Task Engagement

The socio-emotional theory of team effectiveness proposes that emotionally competent norms lead to group social capital (defined as the value added by the structure and quality of social relationships, e.g., trust, group identity -- see Nahapiet and Ghoshal 1998), and effective task processes, all of which are proposed to lead to group effectiveness. Therefore we also chose to examine constructs from each of these categories including trust, which has been defined as the most fundamental element of social capital (Coleman, 1990, Putnam, 1993), open communication, a task process that is fundamental to group interaction and effectiveness (Steiner, 1972), and task engagement, which is central to the effort

required for group task effectiveness (Hackman, 1986; Kahn, 1990). These constructs will be defined below.

<u>Team Effectiveness</u>

We agree with those who argue that long term effectiveness in SMWTs requires that teams focus on two aspects of team effectiveness: (a) performance, defined as the degree to which the team's product or service meets the needs of customers, and (b) team viability, defined as the degree to which members of the team are able to continue working together in the future (see Hackman, 1986). In teams that work together for long periods of time, a singular focus on performance would eventually harm member well-being, group viability, and eventually, customer satisfaction (Sundstrom & DeMeuse, 1990). Therefore, we also include measures of team performance and team viability to examine team effectiveness in this study.

Task-Focused Leader Behaviors

As previously discussed, two distinct trends of thought have emerged about emergent leader behavior. Some theorists (e.g., Lord, 1977; Taggart et al., 1999) suggest that the primary role for emergent leaders is to focus the team on its task. These theorists argue that emergent team leaders are most effective when they use their influence to encourage and demand task-focused norms and behavior. Leader behaviors recommended by these theorists include directing and questioning team members to increase their participation and task focus. Such behaviors optimize efficiency and productivity (Bales, 1950; Lord, 1977; Stein & Heller, 1979; Taggar et al., 1999). We examine task-focused behaviors in our study because research emphasizing task-focused emergent leader behavior has been primarily conducted in short term student groups. Thus, as presented below in our hypotheses, we propose that task-focused behavior can have a negative influence on motivation and team effectiveness in SMWTs in that work together for

long periods of time and have a history as well as a future together. Here, task focused behaviors may be perceived as controlling and might have a negative influence on trust, communication, and task engagement (see Ryan, 1982, Tetrick, 1989).

Study Hypotheses

We begin by hypothesizing that specific emergent leader behaviors will predict team trust, open communication, and task engagement and the group effectiveness constructs of team viability and team performance. Then, using the socio-emotional theory of team effectiveness, we hypothesize that some of the relationships between leader emotionally competent behaviors and team performance will be mediated by trust, open communication, and task engagement.

Emergent Leader Behaviors and their Link to Trust, Communication, and Task engagement

Team Trust. Trust involves the willingness to make oneself vulnerable to the actions of others because of the expectation that those actions will be favorable to one's interests (Mayer, Davis, & Schoorman, 1995). Trust can grow out of positive affect displayed between individuals (i.e., reciprocal care and concern) and/or out of calculus-based cognitions (i.e., I believe you will do what you say) (Rousseau et al, 1998). Group member trust is particularly important in SMWTs because it reduces member opportunism and increases participation that is cooperative, altruistic, and extra-role (Fukuyama, 1995). Research also indicates that trust can improve the enactment of task related activities by improving the coordination of actions (Dirks, 1999).

The behavior of leaders sets the tone for relationships among team members and influences the quality of those relationships (Bass, 1990; Kirpatrick & Locke, 1996; Shamir, Zakay, Breinen, & Popper, 1998). Consistent with the ideas of Mayer and his colleagues (1995) suggesting that trust involves the expectations that others' actions will be favorable to one's interest, we propose that two types of emergent leader behavior will influence the level of trust

among members of a SMWT. First, trust is enhanced when leaders exhibit behaviors consistent with "interpersonal understanding" because they increase team members' sense of being understood and valued. Second, trust is hurt when emergent leaders are directive and direct member behavior, which can be interpreted in the SMWT environment as attempting to assume control of a collectively managed team. We offer the following hypothesis:

> Hypothesis 1: Trust in team members is positively associated with emergent leader display of: (a) interpersonal understanding and (b) negatively associated with leader directive statements.

> Open team communication. Communication is the major ingredient by which a SMWT is held together (Steiner, 1972). Open team communication refers to honest and full participation in the communication and exchange of information among team members. Open communication norms invite candor and dissent. In fact, communication does not need to be agreeable to be effective; even when a dissenting viewpoint is wrong it often improves group decisions (Nemeth & Staw, 1989). Open communication is considered particularly important in SMWT environments because jobs and decisions are more complex than they are in traditional teams, and breadth and depth of member input is critical to team decisions and problem solving (Pearce & Ravilin, 1987).

Although research indicates the complex nature of the task drives members of self-managing teams to openly communicate more than members of traditional teams (LePine & Van Dyne, 1998), we argue that emergent leaders in SMWTs influence the extent and openness of that communication. We believe that team members will be more apt to take the risks inherent in speaking openly in an environment where leaders listen to and work to understand members and make them feel their presence is essential to the team (see Edmondson, 1999). We also believe

that the task-focused behavior of using questions will increase communication simply by virtue

of its intent being to get members to participate and share ideas and opinions. On the other hand,

Morrison and Milliken (2000) argue that leaders can easily close down communication and

honesty when they engage in authoritative or directive behavior because it signifies that member

input is unnecessary. We offer the following hypotheses:

> Hypothesis 2: Team open communication is positively associated with emergent leader
>
> display of: (a) interpersonal understanding, and (b) using questions, and negatively
>
> associated with (c) leader directive statements.

> Task engagement. Task engagement implies involvement, commitment, and the

application of one's "full self" to one's work. Theory and research suggest that engagement of

member energy and commitment is linked to SMWT effectiveness (Pearce & Ravlin, 1987) and

should be a fundamental leadership objective (Bass, 1990). According to Kahn (1990), leaders

influence the degree to which individuals either become engaged or alienated from their work.

His research revealed that engagement increases in an environment experienced as

psychologically safe, that is, where individuals feel accepted, supported and able to participate

without negative consequences (Kahn, 1990). We propose that by virtue of their respect and

influence in the group, emergent leaders are in a position to behave in ways that help to create

such an environment and to increase member involvement in the task and in the team's self-

management. Thus, we believe that a psychologically safe environment that facilitates task

engagement is likely to be created through interpersonal understanding, which lets members

know their input is valued, and through caring behavior, which helps create the type of

supportive environment discussed by Kahn. We also believe that task engagement will be

reduced if members feel that leaders are indirectly *pushing* them to engage through the use of

tactics like "using questions". We offer the following hypotheses:

Hypothesis 3: Member task engagement is positively associated with leader display of:

(a) interpersonal understanding and (b) caring behavior, and negatively associated with

leader display of (c) using questions.

Emergent Leader Behaviors and their Link to Team Effectiveness: Team Viability and

Performance

Research indicates that team leaders influence team performance (see Bass, 1990). One

of the most robust predictors of individual performance is a sense of efficacy or belief in one's

capability to perform a task (Gibson, Randel, & Earley, 2000). A growing body of research

suggests that team efficacy, or a team's belief in its capability to perform well is also a strong

predictor of task performance (Campion et al., 1993; Gibson, 1999; Guzzo et al., 1993,

Pescosolido, 2001). Positive expectations seem to stimulate behavior that makes them self-

fulfilling (Darley & Fazio, 1980; Lindsley, Brass, & Thomas, 1995). We, therefore, argue that

team leader behavior that creates optimism about the team's ability to be successful will be

associated with team performance. We also believe that leader behavior that encourages

members to manage their negative emotions through proactive problem-solving will be

associated with team performance. Recent research examining the socio-emotional theory of

group effectiveness reveals that a norm of proactive problem solving is strongly linked to team

performance (Wolff, Druskat, Koman, & Messer, 2006). We offer the following hypotheses:

Hypothesis 4: Team performance is positively associated with emergent leader display

of: (a) creating an optimistic environment and (b) proactive problem solving.

Team viability is defined as a group's ability to continue working together effectively in

the future. Viable teams are healthy teams in which members feel they are valued by the team,

feel optimistic about the future, and feel that when it works together the team is strong and effective. Therefore, we argue that leader interpersonal understanding and creating an optimistic environment will increase team viability. We also believe that leader behavior aimed at overtly directing member behavior will reduce the teams sense of strength and have a negative influence on team viability.

> Hypothesis 5: Team viability is positively associated with emergent leader display of: (a) creating an optimistic environment and (b) interpersonal understanding, and negatively associated with leader display of (c) directive statements.

Mediation of the Effects of Leader Emotionally Competent Behavior on Team Effectiveness

The socio-emotional theory of group effectiveness proposes that the link between emotionally competent behaviors and team effectiveness is mediated by social capital and task processes (Wolff & Druskat, 2003). Thus, using ideas from the socio-emotional theory of group effectiveness (see Figure 1) and the logic provided in the above hypotheses, we propose three mediating relationships.

First, we propose that the link between leader interpersonal understanding and team performance will be mediated by the social capital variable of trust. Second, we propose that the link between leader interpersonal understanding and team performance will also be mediated by the group process variable of open communication. Finally we propose that the link between leader caring behavior and team performance will be mediated by task engagement. Therefore, we offer the following hypotheses,

> Hypothesis 6: The effects of interpersonal understanding on team performance will be mediated by trust.

> Hypothesis 7: The effects of interpersonal understanding on team performance will be

mediated by open communication.

Hypothesis 8: The effects of caring behavior on team performance will be mediated by task engagement.

Method

Setting

The research site was a Fortune 500 chemical processing manufacturing plant with 2000 employees and 150 self-managing production teams. Teams had undergone the change from manager-led to self-managing approximately five years prior to data collection. The manufacturing operation was a continuous process, running for 24 hours, seven days a week. Teams rotated their four day, 12 hour shifts so that all teams eventually worked all shifts. Team members belonged to one team.

Data Collection and Procedures

Data were collected as part of a larger study of norms and processes in SMWTs. A sample of 20 teams out of the 150 was selected for in-depth study. To obtain the sample we obtained nominations from managers and team members, and performance data. Teams were selected to represent all areas of the plant, to be conducting comparable production tasks, and to be considered at least average performers. According to plant management this latter criterion meant teams were fully self-managing and a primary research objective was to study self-managing teams. All teams in the sample were responsible for running large manufacturing equipment with the objective of achieving high production quantity and quality through the management of time, coordination, equipment breakdowns, and frequent product changes. Teams ranged in size from 6-13 members (M = 9.75).

Emergent leader behavior. Emergent leader behavior was assessed by coding leader

behavior on video-tapes each team. Coding leader behavior enabled us to get a measure of

emergent leader behavior in the context of their team without subjecting the study to the biases

and inaccuracies inherent in self-reports or other-reports (e.g., ratings from peers). Video-tapes

were obtained from in a 2.5 hour video taped team interviews conducted with each team. The

interview format was the Critical Incident Interview (Flanagan, 1954) adapted for use with a full

team. The interviewer asked the team to discuss two types of events: (a) events in which the team

worked well together and felt effective as a team, and (b) events in which members did not work

together well and felt less than effective as a team. The role of the interviewer in a critical

incident interview is to say as little as possible so as not to lead the interviewees. In a team

critical incident interview, the interviewer asks questions and lets the interviewees tell their story

and come to consensus on issues with as little interruption as possible. The full interview

consisted of going back and forth between the two types of events and discussion among group

members.

Interview Data Processing and Analysis

Of the twenty teams included in the study, four teams were eliminated leaving a final

sample of 16 teams. Two teams were eliminated because technical errors made the videotapes

difficult to code. Two more teams were eliminated because they had elected a team coordinator

who was unable to attend the interview. Field observations suggested that in this plant election

meant that a member was respected and influential within the team. Consequently, we felt that

the absence of these elected leaders would have significantly impacted our ability to study

emergent leaders within the group. These elected leaders missed the interviews because they

were members of the plant paramedical team, which was undergoing training at the time of the

interviews. Field notes were examined to determine if there were other missing team members

who stood out as being highly influential on the plant floor, no cases of this were discovered.

Team member participation in interviews ranged from 57% to 100% ($\underline{M}$ = 83%, $\underline{Mdn}$ = 82%), with 3 teams falling below 75% participation and 5 teams achieving 100% participation. Absences were in most cases due to illness, or conflicting meetings. Given the size of the teams (range = 6-13 members, $\underline{M}$ = 9.8), the percentage of members in each team who participated in the team interviews was high. This was most likely because team members were either given time off the production line or paid overtime wages to participate. Total participation included 130 team members.

Identification of the emergent team leaders. To identify emergent team leaders we used the definition cited in previous research: team members who take initiative and have influence over other team members (DeSouza & Klein, 1995; Wheelan & Johnston, 1996), which led us to use two criteria for leader selection. The first was election by the team into the role of team coordinator. Team coordinators had no formal authority in the team. They worked on the production line and received the same pay as other members, but had time off of the line each day to: monitor the daily "line-up" (i.e., ensure team members knew their daily positions on the line), get supplies, take product samples to labs, keep daily records, and act as a contact person for external management. Teams decided whether to rotate this position or to elect one coordinator. Eight of the sixteen teams in our final sample chose to elect a coordinator. Our use of election as a criterion was based on field notes suggesting that election signaled that an individual had influence in the team and that his or her ideas were respected by team members. As a validity check for the use of this criterion, the researchers watched these members on the videotapes and using the criteria outlined below for selection of emergent leaders in the remaining eight teams, determined that these members acted as emergent leaders during the

session. In all eight cases this was true. This check also reinforced the validity of our leader
selection criteria outlined below.

Our second criterion for leader selection was selection by a panel of four judges who
independently viewed the videotapes to select team members who showed initiative and had
influence, which was operationalized as: (a) when this individual talks, others take notice and
listen, (b) the individual's statements and ideas have influence over the statements and actions of
other members, and (c) the individual shows initiative by suggesting topics and sharing ideas;
importantly, consistent with point b, these initiatives must be accepted by team members (as
opposed to rejected or ignored).

Over the years, research has repeatedly found that more than one emergent leader
emerges in most teams (see Bales, 1950; Burke, 1971; DeSouza & Klein, 1995; Neubert, 1999;
Wheelan & Johnston, 1996). Thus, our first task was to determine the number of leaders
emerging in the SMWTs in our sample. Four members of our research team used the criteria
outlined above while independently and repeatedly watching the videotapes. There was
consensus that two emergent leaders emerged in these teams. Previous researchers has also found
that two leaders emerge in groups the size of those we were studying (Bales, 1950; Bales &
Slater 1955; Neubert, 1999; Wheelan & Johnston 1996), thus, we decided to code the leadership
behaviors of the two emergent leaders in each team.

After we viewed the tapes to determine number of leaders, four independent judges
proceeded to independently review the tapes (using the criteria outlined above) to select the two
leaders in each team. They achieved an interrater reliability (James, Demaree & Wolf, 1984) of
.98 (range for all leaders = .89 – 1.0). It is worth noting that we conducted a post-hoc analyses
(e.g., after data were analyzed) and found no significant differences between the frequencies of

each coded behavior exhibited by the leaders in our sample that had been elected as coordinators and those who were selected by the judges. We also found no significant differences between those exhibited by the two leaders in each team.

Content analysis of leader behaviors. Our research questions ask about the specific behaviors exhibited by the emergent leaders of SMWTs. Consequently, we created a behavioral code to describe and operationalize the individual leader behaviors examined in this study. The behavioral code was created by the authors through a careful process of examining of the research literature and the videotapes to ensure that our descriptions of leader behaviors were relevant to the types of behaviors seen in the SMWTs. Table 1 presents the final codes, their definitions, and examples of the statements coded for a behavior. This list served as a codebook.

Insert Table 1 about here

Coding leaders and determining code reliability. At this point, two coders joined our research team to code the behavior of each emergent leader in the 16 teams (32 leaders). The coders underwent a training process to learn the codes by iteratively coding clips from four training video tapes (clips not used in the final analyses) and meeting with the researchers to clarify applications and code definitions. Once the coders reached an inter-rater reliability of .75 on each code using the training tapes, they independently coded three 15 minute clips from each of the sixteen tapes (coding the two leaders on each tape for a total of 45 minutes per tape). The first 15 minute clip occurred one half hour into the interview, the second clip occurred one hour into the interview and the third clip occurred one and a half hours into the interview. The timing of these clips was selected to capture representative sections of the tape that did not involve the

early warm-up or winding down phases of the interview.

Coding involved marking a code on a scoring sheet and indicating the timing on the tape when an emergent leader exhibited the behavior as it was described in the codebook. Coding videotaped critical incident interviews allowed the codes to be applied in three ways: (a) To non-verbal behaviors exhibited during the team interview (e.g., a head nod to signify affirmation of a member idea), (b) to statements made during the interview (e.g., the leader stating that she agrees with a member's idea), and (c) to leader behaviors that occur within the critical incident being described (e.g., as part of the critical incident, a member describes how the leader supported her ideas). The leader was the unit of analysis and the number of times a code could be applied was unlimited.

When coders completed a tape, they made a frequency count of the number of times each code had been applied to each leader. When all tapes had been coded, coding reliabilities were calculated for each separate code as the percent agreement across all tapes between both coders (Boyatzis, 1998). Coders achieved a mean reliability of .88 (range for all 13 codes = .75 to .99). To determine the final frequency count for each code for each leader, we averaged the code applications of the two coders. The end result was a frequency count of the number of times a leader exhibited each of the seven behaviors. Table 2 presents the means and standard deviations for exhibition of each behavior by the 32 emergent leaders and intercorrelations among the behaviors. Because team self evaluation occurred so infrequently ($\underline{M}$ = .22, $\underline{SD}$ = .49), we chose to drop it from all further analyses.

Insert Table 2 about here

Trust, communication, and task engagement. Trust in group members was measured using seven items from Cook and Wall's (1980) interpersonal trust at work survey; sample items include, "Most of my teammates can be relied upon to do as they say they will do," and "I can rely on the other workers in my team not to make my job more difficult by careless work." Cronbach's alpha estimated scale reliability was .73. Item anchors for this and all other scales used in the study were 1 = strongly disagree to 7 = strongly agree.

Open group communication was assessed using Seashore, Lawler, Mirvis, and Cammann's (1982) four item open group process scale; example items include, "My teammates are afraid to express their real views" (R), and "In my opinion everyone's opinion gets listened to." Cronbach's alpha scale reliability was .86.

Task engagement was measured using six task engagement items from Hackman and Oldham's (1980) Job Diagnostic Survey; sample items include, "Whether or not this job gets done right is clearly my responsibility," and "I feel a very high degree of personal responsibility for the work I do on this job." Cronbach's alpha scale reliability was .79.

Scale aggregation. Individual responses to the scales (including the three listed above and the team viability scale listed below) were aggregated to the team level because aggregation was consistent with Rousseau's (1995) suggestion that the level of analysis be based on the focal unit of the study. We were interested in the influence of emergent leader behavior on the team as a whole, thus the focal unit of the dependent measures was the team. To determine if aggregation was empirically justifiable we performed the intraclass correlation coefficients (ICCs) test (Shrout & Fleiss, 1979). The ICC test has been discussed as difficult to pass because significance requires both high within-team agreement and low between-team agreement (see James et al., 1984). Our ICC analyses showed all of our scales were significant at the $p < .05$ level. Overall,

we felt these analyses supported our conceptual argument for aggregation, and the scales were

aggregated.

Team effectiveness. Because production tasks varied slightly, interviews were conducted

with managers to determine the objective data most representative of each team's performance.

Data type included: Amount of top quality product produced per "person hour," average amount

of time taken for product changes, and average amount of waste produced. Daily performance

data were collected for a mean of 10 weeks. To enable comparisons of performance data across

teams conducting different tasks, data were standardized using z-scores. This resulted in a score

for each team showing how far above or below the mean its performance stood relative to all

other teams in the plant doing the same work. For all teams included in the study, tasks and

equipment were considered of comparable difficulty to perform and operate.

Team viability was measured using items from the group viability scale from Hackman's

(1990) Flight Crew Survey; sample items include, "There is a lot of unpleasantness among

people in this team (R)," and "Sometimes one of us refuses to help another team member out."

Cronbach's alpha scale reliability was .79. Table 3 shows descriptive statistics and

intercorrelations among our various dependent variables

Insert Table 3 about here

Results

To test our hypotheses, we conducted a series of regression analyses using the trust,

communication, task engagement, team viability and team performance as the dependent

variables and entering the hypothesized emergent leader behaviors as the independent variables.

Table 5 shows the results.

Insert Table 4 about here

Trust, communication, and task engagement. Hypothesis 1 predicted that team trust

would be positively associated with emergent leader display of: (a) interpersonal understanding

and negatively associated with leader (b) directive statements. The overall regression model was

significant (F = 5.13, p <. 01) indicating that together these behaviors significantly predicted

trust and accounted for 26% of the variance in trust. Hypothesis 1a was supported; leader

exhibition of interpersonal understanding was a positive predictor of trust (Beta = .56, p < .01).

Hypotheses 1b was not supported; however leader exhibition of directive statements was almost

a significant negative predictor of trust (Beta = -.35, p < .10).

Hypothesis 2 predicted that team open communication would be positively associated

with emergent leader display of: (a) interpersonal understanding and (b) using questions, and

negatively associated with leader (c) directive statements. The overall regression model was

significant (F = 3.08, p < .05) indicating that together these behaviors significantly predicted

open communication and accounted for 25% of the variance in open communication.

Hypothesis 2a was supported; interpersonal understanding was a significant predictor of open

communication (Beta = .40, p <.05.). Hypothesis 2b was also supported; leader "using

questions" was a significant predictor of open communication (Beta = .38, p < .05). Hypothesis

2c was also supported; leader directive statements were a significant negative predictor of team

responsibility (Beta = -.50, p < .05).

Hypothesis 3 predicted that task engagement would be positively associated with

emergent leader display of: (a) interpersonal understanding and (b) using questions, and

negatively associated with (c) using questions. The overall regression model was significant (F =

5.45, p < .01) indicating that together these behaviors significantly predicted task engagement

and accounted for 37% of the variance in task engagement. Hypotheses 3a was not supported.

Interpersonal understanding was not a significant positive predictor of task engagement (Beta =

.06, n. s.). Hypotheses 3b and 3c were both supported. Caring behavior was found a significant

positive predictor of task engagement (Beta = .35, p < .05). Using questions was found a

significant negative predictor of task engagement (Beta = -.51, p <.01.).

Team effectiveness

Team performance. Hypothesis 4 predicted that team performance would be associated

with emergent leader display of: (a) creating an optimistic environment and (b) proactive

problem solving. The overall regression model was not significant (F = 2.67, p < .10), however,

it was approaching significance. This indicated that together these leader behaviors did not

significantly predict team performance. However, it is encouraging that creating an optimistic

environment was a significant predictor team performance (Beta = .38, p < .05). We were

surprised to find that not only was proactive problem solving not a significant predictor of team

performance, it was negatively related to team performance (Beta = -.27, n. s.).

Team viability. Hypothesis 5 predicted that team viability would be positively associated

with emergent leader display of: (a) interpersonal understanding and (b) creating an optimistic

environment, and negatively associated with (b) using questions. The overall regression model

was significant (F = 4.02, p < .05) indicating that together these behaviors significantly predicted

team viability and accounted for 30% of the variance in team viability. Hypothesis 5a and 5b

were not supported. Interpersonal understanding was not a significant positive predictor of

viability (Beta = .27, n. s.), nor was creating an optimistic environment (Beta = .13, n. s.).

Hypotheses 5c was supported as leader directive statements (Beta = -.57, p < .01) was a

significant negative predictors of team viability.

    <u>Tests for mediation</u>. To assess the degree to which trust, communication, and task

engagement mediate the relationship between leader behavior and team performance, we used

the multi-step analysis suggested by Kenny, Kashy, and Bolger (1998). Three relationships must

be investigated to demonstrate mediation: (1) the proposed mediator must significantly predict

the dependent variable, (2) the independent variable must predict the mediator, and (3) the

contribution of the independent variables must drop considerably for *partial* mediation and must

become insignificant for *full* mediation, when entered into the model together with the mediating

variable.

    Hypothesis 6 predicted that trust would mediate the relationship between leader

interpersonal understanding team performance. As shown in Table 5, the degree of team trust is

strongly related to team performance (step 1), interpersonal understanding predicts team trust at

an acceptable level (p<.10; Kenny et al., 1998) (step2), and interpersonal understanding drops to

insignificant when entered in to the model simultaneously with trust (step 3). Thus, Hypotheses 6

is supported. Trust fully mediates the relationship between leader interpersonal understanding

and team performance.

Insert Table 5 about here

Hypothesis 7 predicted that open communication would mediate the relationship between

leader interpersonal understanding and team performance. As shown in Table 6, the degree of

open communication is strongly related to team performance (step 1), interpersonal

understanding does not predict open communication at an acceptable level (p=.36) (step2),

however Kenny and his colleagues (1998) state that this association does not need to be

significant. Finally, the relationship between interpersonal understanding and performance drop

(but not significantly as it was not significantly related to open communication in the first place)

when it is simultaneously entered into the model with open communication (step 3). Thus,

Hypotheses 7 is partially supported. Open communication partially mediates the relationship

between leader interpersonal understanding and team performance.

Insert Table 6 about here

Hypothesis 8 predicted that task engagement would mediate the relationship between

leader caring behavior and team performance. As shown in Table 7, the degree of task

engagement is not significantly associated with performance. Thus, we never get beyond step 1.

Thus, Hypotheses 8 is not supported. Task engagement does not mediate the relationship

between leader caring behavior and team performance.

Insert Table 7 about here

Discussion

Since the mid 1980's there has been a steady increase in the number of SMWTs

implemented at all levels of organizations (Cohen & Bailey, 1997; Lawler, 1998). However, despite knowledge that leading SMWTs is more complex than leading a traditional team (Hackman, 1986) and that leadership is pivotal to their success SMWTs (Cohen et al., 1997; Kirkman & Rosen 1999) little research has examined the leadership role in these teams (Druskat & Wheeler, 2003). For the present study, we chose to examine closely the efficacy of emergent team leader behaviors on team behavior and effectiveness, because we believe emergent leadership is fundamental for SMWT effectiveness. Unlike external leaders of SMWTs, emergent leaders are continuously present and thus have continuous influence over team behavior.

Our study makes several contributions to current knowledge. First, as predicted, our results indicate that emergent leader behavior consistent with emotionally competent norms has a positive influence on team trust, open communication, task engagement, and on team effectiveness. This suggests that emotionally focused emergent leader behavior influences positively the experience of working in a SMWT and influences the bottom line. As predicted, a second contribution to knowledge is the finding that in the SMWT context, task-focused leader behavior generally has a negative influence on the team experience, particularly when it is directive behavior. It is important that we stress that these results are very likely due to the types of teams we studied. That is, self-managing teams that have a five year past and a long future in front of them. Recent research (Robert, Cheung, & Trembath, 2004) has found that team task has a strong influence on the emergent leader traits that influence team effectiveness. It may be that when a SMWT is in a start-up phase, or if team members do not know each other well, that task-focused leader behavior is most effective. This is a question for future research.

Our results also contribute to knowledge about specific emergent leader behaviors and

the routes through which they influence team performance. The first, and perhaps most powerful, behavior we studied was interpersonal understanding. This behavior involved taking actions to fully understand team members – even to the point of empathizing with them. This behavior linked significantly to the exhibition of leader trust and open communication and linked strongly to team viability. Moreover, the behavior also linked to objective team performance through the mediating relationship of trust and open communication. This suggests that one of the most important ways an emergent leader in a well-established SMWT can impact team performance is by making members feel emotionally understood and validated. Such behaviors create a climate of trust and open communication which increases performance.

Another leader behavior we examined was "caring behavior," which linked significantly to member task engagement. We found that when members feel supported and cared for it enables them to fully engage in the task at hand. This finding is consistent with Kahn's research on caring behavior in organizations (1990). In a strange twist, task engagement was not found to be related to team performance. This may have been due to our small sample size and clearly needs to be examined again in future research.

Creating an optimistic environment was another leader behavior we examined. Because of its link to team efficacy, which has consistently been found to be associated with team performance (see Gibson, 1999), we hypothesized and found that optimistic leader behavior was linked to objective team performance. This suggests that emergent team leaders have an influence on this critical climate variable. It also suggests that managing emotion so that the outlook in the group is positive may be a fundamental part of the emergent leader's role.

We predicted that the leader behavior of "proactive problem solving" would have a positive influence on objective team performance since the norm of proactive problem solving

has previously been linked to team effectiveness (Wolff et al., 2006); however, this prediction was not supported. It may be that this behavior, which is hypothesized in the socio-emotional theory of group performance to manage group anxiety and emotion, was perceived as too task-focused in an environment where leader task-focused behaviors were not helpful to the team.

Although we found that the task focused behavior of "directive statements" was consistently negatively related to team trust, open communication and viability, we did find that, as predicted, the task-focused behavior of asking questions had a positive impact on open communication. It may be that when task-focused behaviors are directly related to improving the group emotional climate, they have a positive affect on the team climate.

Finally, our study provides some support for the socio-emotional theory of group effectiveness. As shown in Figure 1, the theory proposes that emotionally competent norms link to group effectiveness through their influence on trust and task processes like open communication. We tested whether trust and open communication mediated the relationship between leader interpersonal understanding (an emotionally competent norm) and objective team performance. Results supported our hypotheses. It appears that the socio-emotional theory of group effectiveness has some promise and should be studied further.

Study limitations

There were a number of limitations in our study that must be noted. First, we had a small sample of emergent leaders. Second, and perhaps most important, we coded leader behavior during one team meeting that was, in fact, an interview. We cannot guarantee that when these emergent leaders and these teams are on the shop floor that leader behaviors will be the same. On the plus side, however, despite the fact that we used multiple methods in this study (coded leader behavior, questionnaires, and objective performance), many of our predictions were

supported. This suggests that the coded interviews were demonstrating behaviors of importance to the team.

Conclusion

In 1998, three organization scholars predicted that if someone could crack the code on how to effectively lead SMWTs – they would fare well in the new millennium (Maertz, Moregson, & Campion, 1998). By no means have we yet cracked that difficult code. Much more research is needed on the leadership of SMWTs. However, we do believe that we have added to current knowledge and thus taken one more step closer to cracking the SMWT leadership code. Specifically, our research suggests that emergent leaders have an important influence on SMWT climate and performance. Also, that one of the most useful skills an emergent leader can bring to an SMWT is an awareness of emotion and its influence on the team

References

Ancona, D. G., & Caldwell, D. F. 1992. Bridging the boundary: External activity and

performance in organizational teams. *Administrative Science Quarterly*, 37: 634-665.

Arrow, H., J. E. McGrath, & Berdhal, J. L. 2000. *Small groups as complex systems: Formation,*

coordination, development, and adaptation. Thousand Oaks, CA, Sage.

Bales, R. F. 1950. *Interaction process analysis: A method for the study of small groups*.

Cambridge, MA: Addison-Wesley.

Bales, R. F. 1953. The equilibrium problem in small groups. In T. Parsons, R. G. Bales, & E. A.

Shils (Eds.) *Working papers in the theory of action*. Glencoe, IL: Free Press.

Bales, R. F., & Slater, P. E. 1955. Role differentiation in small decision-making groups. In T.

Parsons & P. E. Slater (Eds.) *The family, socialization and interaction processes* (pp

259-306). Glencoe, IL: Free Press.

Barker, J. R. 1996. Communal-rational authority as the basis for leadership on self-managing

teams. In M. M. Beyerlein, D. A. Johnson, & S. T. Beyerlein, (Eds.) *Advances in*

interdisciplinary studies of work teams, 3: 105-126. Greenwich, CT: JAI Press.

Bass, B. M. 1990. *The Bass & Stogdill handbook of leadership (3rd. ed).* New York: Free

Press.

Boyatzis, R. E. 1998. *Transforming qualitative information: Thematic analysis and code*

development. Thousand Oaks, CA: Sage.

Burke, P. J. 1971. Task and socio-emotional leadership role performance. *Sociometry*, 34: 22-40.

Burt, R. S. 1997. The contingent value of social capital. *Administrative Science*

Quarterly, 42: 339-365.

Byerlein, M. M., Johnson, D. A., & Beyerlein, S. T. 1996. Introduction. In M. M. Beyerlein,

D. A. Johnson, & S. T. Beyerlein, (Eds.) *Advances in interdisciplinary studies of work teams*, 3: ix-xv. Greenwich, CT: JAI Press.

Campion, M. A., Medsker, G. J., & Higgs, A.C. 1993. Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology*, 46: 823-850.

Cohen, S. G., & Bailey, D. E. (1997). What makes team works: Group effectiveness research from the shop floor to the executive suite. The Journal of Management, 23, 239-290.

Cohen, S. G., Ledford, G. E., Jr., & Spreitzer, G. M. (1996). A predictive model of self-managing work team effectiveness. Human Relations, 49, 643-676.

Cohen, S. G., Chang, L., & Ledford, G. E., Jr. (1997). A hierarchical construct of self-management leadership and its relationship to quality of work life and perceived work group effectiveness. Personnel Psychology, 50, 275-308.

Coleman, J. S. (1988). Social capital in the creation of human capital. American Journal of Sociology, 94, 95-120.

Coleman, J. S. 1990. Foundations of social theory. Cambridge, MA: Belknap Press.

Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment and person need non-fulfillment. Journal of Occupational Psychology, 53(1), 39-52.

Cooperrider, D. L., & Srivastva, S. (1987). Appreciative inquiry in organizational life." In R. Woodman, and B. Pasmore (eds.), Research in organizational change and development: 129-169. Greenwich, CT: JAI Press.

Darley, J. M., & Fazio, R. H. 1980. "Expectancy confirmation processes arising in the social interaction sequence." *American Psychologist*, 35: 867-881.

Denison, D. R., S. L. Hart, & Kahn, J. A. (1996). From chimneys to cross-functional teams: Developing and validating a diagnostic model. Academy of Management Journal, 39, 1005-1023.

De Souza, G. & Klein, H. J. (1995). Informal leadership in the group goal-setting process. Small Group Research, 26, 475-496.

Dirks, K. T. 1999. The effects of interpersonal trust on work group performance. *Journal of Applied Psychology,* 84: 445-455.

Druskat, V. U., & Wheeler, J. V. 2003. Managing from the boundary: The effective leadership of self-managing work teams. *The Academy of Management Journal*, 46: 435-457.

Druskat, V. U., & Wolff, S. B. 1999. The link between emotions and team effectiveness: How teams engage members and build effective task processes. In S. J. Havlovic (Ed.) *Academy of Management Best Papers Proceedings*.

Druskat, V. U. & Wolff, S. B. 2001. Building the emotional intelligence of groups. *Harvard Business Review*, 79: 81-90.

Druskat, V. U., Wolff, S. B., & Dyck, L. R. 2001. *Using group member skills and abilities to predict emotionally competent group norms*. Presented at the Annual Meeting of the Academy of Management, Washington D.C.

Edmondson, A. 1999. Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44: 350-383.

Flanagan, J. C. 1954. The critical incident technique. *Psychological Bulletin*, 51: 327-358.

Fukuyama, F. 1995. *Trust: The social virtues and the creation of prosperity*. New York: Free Press.

Gersick, C. J. G., & Hackman, J. R. 1990. Habitual routines in task-performing groups."

Organizational Behavior and Human Decision Processes, 47: 65-97.

Gibson, C. B. 1995. *Determinants and consequences of group-efficacy beliefs in work*

organizations in the U.S., Hong Kong, and Indonesia. Unpublished doctoral thesis,

University of California, Irvine.

Gibson, C. B. 1999. Do they do what they believe they can? Group efficacy and group

effectiveness across tasks and cultures. *Academy of Management Journal*, 42: 138-152.

Gibson, C. B., Randel, A. E., & Earley, P. E. 2000. Understanding group efficacy: An empirical

test of multiple assessment methods. *Group and Organization Management*, 25: 67-97.

Guzzo, R. A., & Dickson, M. W. 1996. Teams in organizations: Recent research on performance

and effectiveness. *Annual review of psychology*, 47: 307-338.

Guzzo, R. A., P. R. Yost, et al. 1993. Potency in groups: Articulating a construct. *British*

Journal of Social Psychology, 32: 87-106.

Hackman, J. R. 1986. The psychology of self-management in organizations. In M. S. Pallack &

R. O. Perloff (Eds.), *Psychology and work: Productivity, change, and employment* (pp.

89-136). Washington, D.C.: American Psychological Assoc.

Hackman, J. R. 1990. *Flight crew survey*. Unpublished Survey. Harvard University, Cambridge,

MA.

Hackman, J. R., & Oldham, G. R. 1980. *Work redesign*. Reading, MA: Addison-Wesley.

Hollander, E. P. (1961). Emergent leadership and social influence. In L. Petrullo & B. Bass

(Eds.). *Leadership and interpersonal behavior* (pp. 30-47). New York: Holt, Rinehart

and Winston.

Hollander, E. P. 1964. *Leaders, groups, and influence*. New York: Oxford University Press.

Hollander, E. P. 1985. Leadership and Power. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., pp. 485-538). New York: Random House.

Hollander, E. P., & Offermann, L. R. 1990. Power and leadership in organizations: Relationships in transition. *American Psychologist*, 45, 179-189.

Holmer, L. L. 1994. Developing emotional capacity and organizational health. In R. H. Kilmann, I. Kilmann and Associates, *Managing ego energy: The transformation of personal meaning into organizational success.* San Francisco, Jossey-Bass**:** 49-72.

Huy, Q. N. 1999. "Emotional capability, emotional intelligence, and radical change." *Academy of Management Review,* 24: 325-345.

James, L. R., Demaree, R. G., & Wolf 1984. Estimating within-group inter-rater reliability with and without response bias. *Journal of Applied Psychology*, 69: 85-98.

Jehn, K. A., Shah, P. P. 1997. Interpersonal relationships and task performance: An examination of mediating processes in friendship and acquaintance groups. *Journal of Personality and Social Psychology*, 72: 775-790.

Jones, G. R., & George, J. M. 1998. The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review*, 23: 531-546.

Kahn, W. A. 1990. Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33: 692-724.

Kelly, J. R. and S. G. Barsade 2001. Mood and emotions in small groups and work teams. *Organizational Behavior and Human Decision Processes,* 86: 99-130.

Kemper, T. D. 1978. *A social interactional theory of emotions.* New York, John Wiley & Sons.

Kenny, D. A., Kashy, D. A., & Bolger, N. 1998. Data analysis in social psychology. In D. T. Gilbert & S. T. Fiske (Eds.), *The handbook of social psychology* (Vol. 2, 4th ed., pp.

233-265). New York, NY: McGraw-Hill.

Kirkman, B. L., & Rosen, B. 1999. Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42: 58-74.

Kirkpatrick, S., & Locke, E. 1996. Direct and indirect effects of three core charismatic leadership components on performance and attitudes. *Journal of Applied Psychology*, 81: 36-51.

Lawler, E. E., III. 1986. *High involvement management*. San Francisco: Jossey-Bass.

Lawler, E. E. III (1998). *Strategies for high performance organizations*. San Francisco: Jossey Bass.

LePine, J. A., & Van Dyne, L. 1998. Predicting voice behavior in work groups. *Journal of Applied Psychology*, 83: 853-868.

Lindsley, D. H., Brass, D. J., & Thomas, J. B. 1995. Efficacy performance spirals: A multilevel perspective. Academy of Management Review, 20: 645-678.

Lord, R. G. 1977. Functional leadership behavior: Measurement and relation to social power and leadership perceptions. *Administrative Science Quarterly*, 22: 114-133.

Maertz, C. P., Morgeson, P., & Campion, M. A. 1998, April. How to make a million in the new millennium. *The Industrial-Organizational Psychologist*, 35: 97-99.

Manz, C. C. & Sims, H. P., Jr. 1987. Leading workers to lead themselves: The external leadership of self-managing work teams. *Administrative Science Quarterly*, 32, 106-128.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. Academy of Management Journal, 20: 709-734.

McIntyre, R. M., & Salas, E. 1995. Measuring and managing for team performance: Emerging principles from complex environments. In R. A. Guzzo, E. Salas, and Associates (eds.),

Team effectiveness and decision making in organizations: 9-45. San Francisco: Jossey-Bass.

Morgeson, F. P. and D. A. Hofmann 1999. "The structure and function of collective constructs: Implications for multilevel research and theory development." *Academy of Management Review,* 24: 249-265.

Morrison, E. W., & Milliken, F. J. 2000. Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review*, 25: 706-725.

Nahapiet, J., & Ghoshal, S. 1998. Social capital, intellectual capital, and the organizational advantage*. Academy of Management Review*, 23: 242-266.

Nemeth, C. J., & Staw, B. M. 1989. The tradeoffs of social control and innovation in groups and organizations. *Advanced Experimental Social Psychology*, 22: 175-210.

Neubert, M. J. 1999. Too much of a good thing or the more the merrier? Exploring the dispersion and gender composition of emergent leadership in manufacturing teams. *Small Group Research*, 30, 635-646.

Pearce, J. A., & Ravlin, E. C. 1987. The design and activation of self-regulating work groups. *Human Relations*, 40: 751-782.

Pescosolido, A. T. 2002. "Emergent leaders as managers of group emotion". *Leadership Quarterly*, vol. 13. pp 583-599.

Pescosolido, A. T. 2004. Managing emotion: A new role for emergent group leaders. In Härtel, C. E. J., Zerbe, W. J. & Ashkanasy, N. M. (Eds.) (2004). *Emotions in Organizational Behavior*: 317-334, Mahwah, NJ: Lawrence.Erlbaum Associates, Inc.

Putnam, R. 1993. *Making democracy work*. Princeton, NJ, Princeton University Press.

Robert, C., Cheung, Yu Ha, Trembath, J. R. 2004. *Conscientiousness and performance:*

Negative relationships with a creative group task. Paper presented at the Annual

Meeting of the Society for Industrial & Organizational Psychology, Chicago.

Rousseau, D. 1985. Issues of level in organizational research: Multi-level and cross-level

perspectives. In L. L. Cummings & B. Staw (Eds.) *Research in organizational behavior*

(Vol. 7, pp. 1-37). Greenwich, CT: JAI Press.

Rousseau, D., Sitkin, S., Burt, R., & Camerer, C. 1998. Not so different after all: A cross-

discipline view of trust. *Academy of Management Review*, 23: 387-392.

Ryan, R. M. 1982. Control and information in the intrapersonal sphere: An extension of

cognitive evaluation theory. *Journal of Personality and Social Psychology*, 43: 450-461.

Seashore, S., Lawler, E., Mirvis, P., & Cammann, E. 1982. *The Michigan organizational

assessment questionnaire*. Institute for Social Research, University of Michigan, Ann

Arbor, MI.

Schein, E. H. 1980. *Organizational psychology*, 3rd Ed. Englewood Cliffs, NJ: Prentice-Hall.

Shamir, B., Zakay, E., Breinennn, E., & Popper, M. 1998. Correlates of charismatic leader

behavior in military units: Subordinates attitudes, unit characteristics, and superiors'

appraisals of leader performance. *Academy of Management Journal*, 41: 387-409.

Shea, G. P., & Guzzo, R. A. 1987. Group effectiveness: What really matters? *Sloan

Management Review*, 28: 25-31.

Shrout, P. E. & Fleiss, J. L. 1979. Intraclass correlations: Uses in assessing rater reliability.

Psychological Bulletin, 86: 420-428.

Smith, J. A., & Foti, R. J. 1998. A pattern approach to the study of leader emergence. *Leadership

Quarterly*, 9:147-160.

Stein, R. T. 1977. Accuracy of process consultants and untrained observers in perceiving

emergent leadership. *Journal of Applied Psychology*, 62: 755-759.

Stein, R. T., & Heller, T. 1979. An empirical analysis of the correlations between leadership

status and participation rates reported in the literature. *Journal of Personality and Social

Psychology*, 37: 1993-2002.

Steiner, I. D. 1972. *Group process and productivity.* New York: Academic Press.

Sundstrom, E., K. P. De Meuse, et al. 1990. Work teams: Applications and effectiveness.

American Psychologist, 45: 120-133.

Taggar, S., Hackett, R., & Saha, S. 1999. Leadership emergence in autonomous work teams:

Antecedents and outcomes. *Personnel Psychology*, 52: 899-926.

Taninecz, G. December 1997. Best practices and performances. Industry Week, 246(22): 28-43.

Tetrick, L. E. 1989. The motivating potential of leader behaviors: A comparison of two models.

Journal of Applied Social Psychology, 19: 947-958.

Wageman, R. 2001. How leaders foster self-managing team effectiveness: Design choices versus

hands-on coaching. *Organization Science,* 12: 559-577.

Walton, R. E. 1977. Work innovations at Topeka: After six years. *The Journal of Applied

Behavioral Science*, 13: 422-433.

Wheelan, S. A., & Johnston, F. (1996). The role of informal member leaders in a system

containing formal leaders. *Small Group Research,* 27: 33-55.

Wolff, S. B. & Druskat, V. U. 2003. *A socio-emotional theory of workgroup effectiveness*.

Paper presented at the annual meeting of the American Psychological Association,

Toronto.

Wolff, S. B., Druskat, V. U., Koman, E. S. & Messer, T. E., 2006. The link between group

emotional competence and group effectiveness. In V.U. Druskat, F. Sala, and G. Mount

(eds.) *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups*: 223-242. Mahwah, NJ: LEA

Wolff, S. B., Pescosolido, A. T., & Druskat, V. U. 2002. Emotional intelligence as the basis of leadership emergence in self-managing teams. *Leadership Quarterly*, 13: 505-522.

Yammarino, F. J. 1996. Group leadership: A levels of analysis perspective. In M. A. West (Ed.,) *Handbook of work group psychology:* 89-224. New York: Wiley.

Table 1

Emergent Leader Behaviors, Definitions, Sample Quotes and Examples

Emergent Leader Behaviors	Definitions	Sample Quotes and Examples
Emotionally Competent Behaviors		
1. Interpersonal Understanding	(a) Demonstrating insight into a member's personality or personal situation, or b) Expressing empathy or the ability to hear and understand the thoughts, feelings, needs and concerns of others.	"That recognition made her light up like a light bulb." "You can tell when she's smiling inside. She's smiling inside right now."
2. Caring Behavior	(a) Supporting members in the conversation by affirming their ideas or input through statements or body language (e.g., affirmative nods). (b) Praise comes from the leader and goes to specific individuals (c) Verbal or non-verbal support, affection, or warmth.	"Exactly." "What she just said." "Most of the time [Pam] was right." The leader made coffee for another team member and gave it to her before getting his own coffee. The leader touches team member in a caring way.

Table 1 continued

Emergent Leader Behaviors	Definitions	Sample Quotes and Examples
3. Creating an Optimistic Environment	(a) Explicit comments demonstrating optimism about the teams ability to handle problems and to manage itself.	"We knew what (the external leader) expected of us. We knew what we wanted to do and what was needed to do a good job."
		"I think <u>we</u> could have made that decision."
		"We don't need a supervisor to do a good job."
4. Proactive Problem Solving	Statements made to influence the team to think proactively about a problem.	"You have to give people in the creel time to catch up"
		"We just had to do whatever we could.
Task-Focused Behaviors		
5. Using Questions	(a) Using questions that involve/invite team members into the conversation, or	"How long did it take?"
		"Sally, you were there… what did you think had
	(b) using questions to confirm own assessment or	happened?"
	interpretation of the situation.	"Is that not right?"

Table 1 continued

Emergent Leader Behaviors	Definitions	Sample Quotes and Examples
6. Directive Statements	(a) Intervening to direct conversation or member conversation (e.g., stepping in to define what happened or has to happen), or (b) directive questions. The difference between this code and #6 (Using Questions) is the tone involved. Here, the question is in the form of a directive or command.	"What happened is this…" "No. No, you were there then…" "Can't you tell some things about that meeting?" "How do you think we are going to tell them if you don't want to bring it up so we can talk about it?"

Table 2
Descriptive Statistics for Emergent Leader Behaviors and Intercorrelations Among Behaviors

(N=32)

Leader Behaviors	Mean	S.D.	1	2	3	4	5	6
1. Interpersonal Understanding	1.06	1.76	--					
2. Caring Behavior	14.4	9.44	.38*	--				
3. Optimistic Environment	1.50	2.45	.20	-.03	--			
4. Proactive Problem Solving	3.78	4.36	-.02	.14	.30	--		
5. Directive Statements	7.75	5.94	.44*	.39*	.03	.14	--	
6. Using Questions	2.59	3.59	-.04	.09	-.09	.31	.31	--

Note.   *p < .05.   **p < .01. ***p < .001.

Table 3

Descriptive Statistics, Reliability Estimates, and Intercorrelations among the Dependent

Variables (N=16)

Variable	M	SD	1	2	3	4	5
1. Trust	5.63	.38	(.73)				
2. Open communication	5.08	.74	.55*	(.86)			
3. Task engagement	5.84	.38	.43	.19	(.79)		
4. Team performance	.26	.90	.48	.40	.24	-	
5. Team viability	5.10	.81	.64**	.73**	.13	.18	(.79)

Note.   Cronbach's alpha reliability estimates are shown along the diagonal in parentheses.

*p < .05. **p < .01.

Scales ranged from 1 = strongly disagree to 7 = strongly agree.

Team performance is reported as z-scores.

 N=16

Table 4

Results of Regression Analyses Used to Test Hypotheses about Leader Behaviors that Predict Trust, Communication, Task engagement and Team Effectiveness (N=32)

Independent Variables	Dependent Variables			Team Effectiveness	
Emergent Leader Behaviors	Trust	Open Communication	Personal Engagement	Team Viability	Objective Team Performance[a]
Interpersonal Understanding	.56**	.40*	.06	.27	
Caring Behavior			.35*		
Optimistic Environment		.		.13	.38*
Proactive Problem Solving				.	-.27
Directive Statements	-.35+	-.50*	.	-.57*	
Using Questions		.38*	-.51**	.	
F	5.13	3.08	5.45	4.02	2.67
p	<.01	<.05	<.01	<.05	<.10
R^2	.26	.25	.37	.30	.17
Adjusted R^2	.21	.17	.30	.23	.10
df	2, 29	3, 28	3, 28	3, 28	2, 27

Note. Standardized regression coefficients are shown.

*** $p < .001$. ** $p < .01$. * $p < .05$. +$p < .10$

[a] $N = 30$

Table 5

Mediating Effects of Trust on the Link between Interpersonal Understanding and Team Objective Performance

Step 1

Predicting: Team Objective Performance $R^2 = .10$

Independent Variable	Beta	t	p
Team Trust	.48	2.86	.008

.

Step 2

Predicting: Team Trust $R^2 = .23$

Independent Variable	Beta	t	p
Interpersonal Understanding	.31	1.80	.08

.   .

Step 3

Predicting: Team Objective Performance $R^2 = .24$

Independent Variables	Beta	t	p
Interpersonal	-.14	-.79	.43
Understanding			
Team Trust	.52	.30	.007

Note.   Standardized regression coefficients are shown.

Table 6

**Mediating Effects of Open Communication on the Link between Interpersonal
Understanding and Team Objective Performance**

Step 1

Predicting: Team Objective Performance $R^2 = .16$

Independent Variable	Beta	t	p
Open Communication	.40	2.30	.03

.

Step 2

Predicting: Open Communication $R^2 = .03$

Independent Variable	Beta	t	p
Interpersonal Understanding	.17	.92	.36

. .

Step 3

Predicting: Team Objective Performance $R^2 = .16$

Independent Variables	Beta	t	p
Interpersonal Understanding	-.04	-2.1	.84
Open Communication	.40	2.3	.03

Note.   Standardized regression coefficients are shown.

Table 7

Mediating Effects of Task engagement on the Link between Caring Behavior and Team Objective Performance

Step 1

Predicting: Team Objective Performance $R^2 = .05$

Independent Variable	Beta	t	p
Task engagement	.23	1.23	.22

.

Step 2

Predicting: Task engagement $R^2 = .08$

Independent Variable	Beta	t	p
Caring Behavior	.33	1.90	.07

.   .

Step 3

Predicting: Team Objective Performance $R^2 = .07$

Independent Variables	Beta	t	p
Caring Behavior	-.29	-1.54	.13
Task engagement	.32	1.69	.10

Note.   Standardized regression coefficients are shown.

Figure 1
Simplified Socio-emotional Model of Group Effectiveness (Druskat & Wolff, 2001)

Team Effectiveness
(e.g., team viability, team performance)

↑

Task-Focused Processes
(e.g., open communication, task engagement)

↑

Social Capital
(e.g., trust)

↑

ECG Norms
(e.g., interpersonal understanding, caring behavior, optimism, proactive problem solving)