Leadership consensus as a cross-level contextual moderator of the emotional exhaustion–work commitment relationship ☆

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Abstract

Consensus constructs are a common topic in level-of-analysis research and, yet, leadership researchers have failed to consider their theoretical appeal as a contextual factor in the explanation of work-related attitudes and behaviors. Drawing on a sample of 27 naturally occurring occupational groups composed of 828 U.S. Air Force personnel, we examined the degree to which consensus in group members' perceptions of various leadership-climate constructs moderated the relationship between emotional exhaustion and work commitment. Results showed that group members' consensus regarding transformational leadership and laissez-faire leadership were both cross-level contextual moderators that interacted with individual member's emotional exhaustion to explain individual-level work commitment, even after controlling for mean group-level ratings of leadership climate.
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As the basic stress component of employee burnout, emotional exhaustion refers to the depletion of an individual's capacity to maintain the coping resources necessary to fulfill performance expectations. Emotional exhaustion is generally characterized by physical fatigue and mental weariness, created when supporting resources are insufficient to meet job demands (Shirom, 2003). Given its etiology, it is not surprising that emotional exhaustion has been linked to a range of physiological and mental-health outcomes, as well as an array of work-related attitudes and behavior (Cordes & Doughtery, 1993; Lee & Ashforth, 1996; Maslach, Schaufeli, & Leiter, 2001; Wright & Bonett, 1997).

Germane to the present study is emotional exhaustion's inverse relationship to work commitment (e.g., Lee & Ashforth, 1996; Leiter, 1991). As traditionally defined, commitment within a workplace setting encompasses an individual's emotional attachment to a particular organization. It is characterized by a tendency to internalize work-related problems and a willingness to "go the extra distance" (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). To

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date, the relationship between emotional exhaustion and work commitment has been principally viewed from an individual-level perspective. We move beyond this single-level focus to view the association between emotional exhaustion and work commitment from a cross-level vantage. In doing so, we explore the possibility that differences in group members' consensus about the quality of their shared social environment will reveal themselves in the direction and strength of the relationship between individuals' emotional exhaustion and work commitment. Our reasoning draws on Maslach & Leiter's (1997) conclusion that "emotions are not just private and personal but rather *social* experiences, both in their origin and effect" (p. 30). Thus, whereas emotions have been viewed as a function of the immediate stimulus (i.e., the event, object, person, behavior) that confronts an individual, we explore the extent to which they are also a function of the social context in which the stimulus occurs.

Viewing the "social context of emotions" as critical in driving important work behaviors, we hypothesize that the quality of a work group's shared social environment will moderate the relationship between its members' emotional exhaustion and work commitment. Such a subject X phenomenon interaction would indicate the presence of a heretofore unidentified boundary condition (i.e., contextual factor) influencing the impact of emotional exhaustion on work commitment. In that higher levels of work commitment have been shown to enhance an organization's performance by eliciting increased work-group effectiveness and lower absenteeism and turnover (e.g., Meyer, Becker, & Vandenberghe, 2004), identification of such an interaction would not only facilitate theory development vis-à-vis occupational stress research, in general, and employee burnout, in particular, but also aid in understanding how contextual factors influence work-related attitudes and behavior.

1. Conservation of resources theory

We draw on Hobfoll's (1989) conservation of resources (COR) theory as an underlying framework for understanding emotional exhaustion (Halbesleben & Buckley, 2004). COR theory holds that individuals strive to obtain and protect that which they value (their "resources"). A key COR corollary is that resource loss triggers stress in the form of emotional exhaustion. Accordingly, COR theory contends (Hobfoll & Freedy, 1993), and research confirms, individuals will attempt to minimize the loss of valued resources and, to the degree they are unsuccessful in doing so, will likely engage in defensive or withdrawal mechanisms to protect their self-efficacy (Lee & Ashforth, 1993; Leiter, 1991). From an organization's perspective, one of the more costly employee withdrawal-related mechanisms is the withholding of work commitment (Cooper & Viswesvaran, 2005; Lee & Ashforth, 1996). As suggested by the preceding discussion, in circumstances where employees are emotionally exhausted and, in turn, disengage by being less committed to their work, an organization's performance will suffer.

In their review of the extant literature, Halbesleben & Buckley (2004) concluded that an important direction for future research was investigating the role played by social support in influencing experiences normally associated with burnout. As broadly defined, social support refers to the "availability of helping relationships and the quality of those relationships" (Leavy, 1983, p. 5). Within the COR theory framework, social support is viewed as a potential means for acquiring resources beyond those directly possessed by an individual (Hobfoll & Shirom, 2000). Consistent with other theories that have been advanced to explain social support's role in the occupational stressor–strain relationship (for reviews, see Beehr, 1995; Cohen & Wills, 1985), COR theory hypothesizes that workplace social support limits the detrimental impact of emotional exhaustion associated with stressful work-related situations. Previous research has investigated the effect of supportive leader behaviors (as a form of social support) on coping with emotional exhaustion (for a review, see Hobfoll & Shirom, 2000). We go one step further by examining the effect of group members' perceptions of the *quality* of their shared social environment as reflected in group-level leadership consensus scores. Evidence suggests that group-level climate perceptions are differentially related to a leader's supervisory behavior under high-versus low-leadership quality (Zohar & Luria, 2004). Viewing leadership as a transactional process, we speculate that, as a contextual factor, consensus in group members' leadership climate perceptions functions as a boundary condition influencing the impact of emotional exhaustion on work commitment.

2. Contextual factors

In commenting on contextualization in organizational behavior research, Rousseau & Fried (2001) argue that the explicit addressing of contextual factors is necessary for enhancing the comprehensiveness and creativity of research findings. Similarly, Bliese & Jex (2002) suggest that individual-level models are too simplistic to accurately reflect

relationships commonly examined in occupational stress research and recommend that researchers consider cross-level models in which group-based factors serve as contextual moderators. This call for a further integration of levels-of-analysis issues has likewise been echoed in the leadership literature (Avolio & Bass, 1995). Yammarino, Dionne, Chun, & Dansereau (2005) maintain that a comprehensive theory of leadership will only be possible by incorporating levels-of-analysis issues in theory development, construct measurement, and data analysis.

In response to entreaties for organizational researchers to address levels-of-analysis issues more carefully, we investigated whether consensus in leadership-climate perceptions (as a reflection of the quality of a group's shared social environment) would moderate the relationship between individual member's emotional exhaustion and work commitment. Lindell & Brandt (2000) suggest that in addition to focusing on the simple arithmetic mean of group members' climate perceptions, the relative variance or dispersion in such perceptions (what they term *climate consensus*) may be of value in predicting workplace outcomes. They lament that, although a number of researchers acknowledge the theoretical significance of climate consensus (e.g., Klein & Kozlowski, 2000), there have been few empirical studies devoted to this topic. To our knowledge, no previous study has highlighted the context dependence of the emotional exhaustion–work commitment relationship vis-à-vis climate consensus conceptualized as a group-level construct.

3. Leadership climate as a consensus construct

The importance of leadership in shaping group members' climate perceptions is widely acknowledged (e.g., Feinberg, Ostroff, & Burke, 2005; González-Romá, Peiró, & Tordera, 2002; Kozlowski & Doherty, 1989). As Zohar & Luria (2005) explain, leadership is the proximal antecedent of climate to the extent that leaders are not only the most prominent aspect in a workplace environment, but are also the primary source of interpreting information related to such matters as acceptable work-related practices and desired goals. Following González-Romá et al. (2002), we likewise suggest that as "interpretive filters", leaders own behaviors and group interactions may shape group members' climate perceptions and contribute to within-group consensus.

When examining the emergent properties of group or unit-level phenomena such as leadership-climate consensus, it is necessary for researchers to both theoretically justify and statistically test the fit of their data to the proposed level of analysis. The notion of *shared composition constructs* has been the dominant theoretical basis for explaining the emergence of group-level phenomena (Brown & Kozlowski, 1999). Shared composition constructs originate in individuals and develop through group members' social interactions (Klein & Kozlowski, 2000; Morgeson & Hofmann, 1999). By definition, shared composition constructs are functionally isomorphic across levels. Testing whether data fit a proposed level-of-analysis involves determining whether there is sufficient consensus to justify aggregation of individual responses to create a group-level construct. For this purpose, agreement indices are computed and compared to threshold values. In this regard, Brown & Kozlowski (1999) argue that researchers using shared composition constructs must take a dichotomous perspective. That is, they hold that a construct cannot be said to exist at a unit level without high within-unit agreement. Similarly, Klein, Conn, Smith, & Sorra (2001) note that "in the absence of substantial within-unit agreement, a unit-level construct in untenable, moot" (p. 4).

In contrast to shared composition models, researchers have also applied *dispersion composition models*, which conceptualize within-group variance as a focal construct of theoretical importance rather than a statistical prerequisite for aggregation (Chan, 1998). Although James, Demaree, & Wolf (1984) first suggested treating within-group variance as a meaningful group-level construct rather than as error variance, few consensus constructs have been investigated within the organizational literature. Recently, however, Lindell & Brandt (2000) provided theoretical as well as methodological evidence demonstrating that climate consensus is a distinct component of organizational climate, equal in importance to absolute (i.e., average) levels of climate quality as assessed by shared composition models. They reason that climate consensus is important because some contextual and structural factors (e.g., job features and supervisory practices) serve as discretionary stimuli that produce variations in individuals' climate perceptions. Extending Lindell and Brandt's work, other researchers have begun to examine such variations employing a dispersion-based construct tagged *climate strength* (e.g., Dickson, Resick, & Hanges, 2006; González-Romá et al., 2002; Schneider, Salvaggio, & Subirats, 2002; Zohar & Luria, 2005).

Leadership theorists have also considered the idea of treating within-group consensus scores as theoretically meaningful. Klein & House (1995), for example, have suggested that workplace outcomes may vary to the extent that leaders share a relationship with all of their followers or with only a select few. Further, they speculate that homogeneity of relations between a leader and group members will reinforce members' sense of common mission and

result in higher group performance. In a recent field study, Feinberg et al. (2005) have, in fact, found a positive relationship between leader effectiveness and consensus among followers concerning a leader's behaviors. With respect to the focus of the present study, leadership researchers have only just begun to consider whether the degree to which consensus in group members' perceptions of leadership-climate may uniquely predict job-relevant outcomes.

Building on Festinger's (1950) theory of social influence, Bliese & Halverson (1998) and Bliese & Britt (2001) contend that the emergence of consensual leadership-climate perceptions reflects the quality of a group's shared social environment. Social-influence theory asserts that group members rely on one another to define their social reality, and that there are strong pressures within a group to maintain consensus on matters relevant to the group. This assertion is supported by research indicating that group members engage in various activities so as to agree on a common social reality, and that an absence of consensus leads to within-group stress (Festinger, 1950; Levine & Moreland, 1990). As the above ideas suggest, to the extent that group members' perceptions are consensual, they reflect shared representations that are an active part of organizational sense-making and, thus, are expected to inform individual behavior (Zohar & Luria, 2004).

Building on this logic, it is reasonable to expect that the development of consensual perceptions among a leader's subordinates will foster a similarity and predictability in group-member behavior and, thereby, enhance within-group relations. In turn, to the degree that conflict among group members is diminished, we would expect the likelihood of goal accomplishment to be enhanced (Lindell & Brandt, 2000). By the same token, when consensus among group members is low, motivation and performance losses would be likely to occur as increased time and energy are required to resolve intragroup conflicts (Levine & Moreland, 1990).

In the present application, we expected that groups with a high level of consensus about the leadership climate within their unit would have members who share perceptions of the quality of their social environment and, in turn, experience low levels of interpersonal stress. In contrast, we anticipated that groups with low consensus would lack a shared social reality and, by extension, would experience high levels of interpersonal stress as they struggled to establish a common reality (Festinger, 1950). Research conducted by Bliese & Halverson (1998) supports this logic and validates the contention that consensus about leadership climate is a useful indicator of the quality of a group's social environment. In a study of 3546 soldiers in 73 U.S. Army companies (i.e., work groups), they found that consensus about leadership climate accounted for unique variance in average group psychological well-being, even after controlling for level effects and covariates. This suggests that group members' consensus about leadership climate assesses a unique aspect of group functioning, and that such agreement mirrors a *positive* social environment.

In summary, consensus constructs reflect systematic variation among group members' perceptions of shared phenomena. As a group-level construct, consensus about leadership climate implies homogeneity with regard to members' shared reality as it relates to their supervisors' leadership behavior. From a social-influence theory perspective, consensus regarding a group's perceived leadership climate would indicate a well-functioning group characterized by a positive social environment and low levels of stress. In contrast, dissensus (i.e., low consensus) among group members would imply negative performance outcomes as group members engage in behaviors to establish consensus.

4. The present study

Antonakis & House (2002) have argued that the full-range leadership theory (FRLT; Avolio & Bass, 1991) is an especially useful framework for advancing leadership research. FRLT is composed of three general categories of leadership behavior (i.e., styles) that are represented by nine components (see, also, Bass & Avolio, 1994). *Transformational leadership* consists of five components: (1) idealized influence (attributed); (2) idealized influence (behavior); (3) inspirational motivation; (4) intellectual stimulation; and (5) individualized consideration. *Transactional leadership* consists of three components: (1) contingent reinforcement (reward or punishment); (2) active management-by-exception; and (3) passive management-by-exception. *Nontransactional laissez-faire leadership* is a unidimensional component reflecting an absence of leadership.

Bliese & Halverson (1998) have shown that variability in members' perceptions of a group's leadership climate influences members' perceptions of their shared social environment. In doing so, Bliese and Halverson, however, only examined positive leader behaviors that they described as "considerate and competent" (p. 568). FRLT incorporates a range of leader behaviors, some involving ineffective actions. This leaves open whether the relationship between emotional exhaustion and work commitment might vary according to different categories or components of leadership behavior. We speculate that the relationship between emotional exhaustion and work commitment may vary depending

on the nature of the social context in which different categories or components of leadership behaviors are examined. In doing so, we suggest that it is not consensus per se, but rather group members' consensus in relation to social context which informs their perceptions of leader behaviors. At the same time, we do acknowledge, that leadership consensus may amplify or attenuate the effects of emotional exhaustion on desired outcomes depending on social context. For example, if we were to examine outcomes such as decision making or creativity, it is possible that a lack of consensus contributes to beneficial rather than negative results.

Building on Festinger (1950), the present study was conducted under the assumption that, with respect to the established negative relationship between emotional exhaustion and work commitment, within-group consensus about leadership (either effective or ineffective behaviors) climate is specifically associated with positive (as opposed to stressful) social environments. To the extent that leadership consensus constructs are indeed valid indicators of the quality of a group's social environment, we would expect members of high consensus groups to experience higher levels of work commitment than group members in low consensus groups — even when group members are experiencing high levels of emotional exhaustion.

As a side point, a word on the degree of interdependence between the arithmetic mean of group members' climate perceptions and groups' consensus scores may be in order. Research has demonstrated that the average of a group's rating of a construct is mathematically related to the group's degree of consensus about the construct (Bliese & Halverson, 1998; Lindell & Brandt, 2000). When a group's ratings are moderate, consensus scores can range from low to perfect agreement. Degree of interdependence, however, becomes particularly important when all group members respond with extreme ratings. For example, consider two work groups ("A" and "B") who are asked to evaluate their perceptions of their supervisors' leadership behavior. Assume members of Group A are in perfect consensus that their supervisor's leadership behavior is positive (i.e., all ratings of 5 on a 5-point response continuum). Thus, work Group A's high consensus indicates a shared perception at the unit-level, suggesting a consensus that its leader is considerate, inspirational, and supportive of member needs. Likewise assume that members of Group B also respond with extreme ratings (i.e., all ratings of 1 on a 5-point response continuum). In this case, the low ratings indicate complete agreement among the group's members that their supervisor is a poor leader. Therefore, despite Group A's positive leadership climate (mean = 5.0) and Group B's poor leadership climate (mean = 1.0), members of both groups are in total agreement about their respective leaders' behavior.

4.1. Transformational Leadership and Transactional Contingent-Reward Reinforcement

> Research is …also needed to understand transformational leadership as a multilevel construct that includes effects on both individuals and groups while simultaneously considering level and agreement (dispersion). Clearly, additional work is needed to understand the antecedents and outcomes of transformational leadership as a consensus construct. — (Feinberg et al. (2005), p. 485)

Past research has investigated the effects of transformational leadership on followers' motivation, job-related attitudes, and performance (Conger, 1999; Dvir, Eden, Avolio, & Shamir, 2002; Hunt, 1999; Lowe, Kroeck, & Sivasubramaniam, 1996). Bass (1985) has argued that the positive outcomes associated with transformational leadership are the consequence of transformational leaders being able to energize groups, even under the most unpredictable, difficult, and stressful working conditions. It has been recently suggested, however, that in comparison to their less flexible counterparts, leaders who are able to employ a full range of leadership styles – prior to, during, and following stressful events – are likely to be more effective in achieving workplace goals (Bass, Avolio, Jung, & Berson, 2003; Wong, Bliese, & McGurk, 2003). In this connection, Bass (1985) has contended that leader behaviors (e.g., specifying expectations, clarifying responsibilities, and providing rewards for accomplishments) associated with contingent-reward reinforcement build a foundation for establishing quality relationships between leaders and followers. As a result, contingent-reward reinforcement may serve as "a bridge" to transformational leadership and, in turn, transformational leaders may not only inspire and motivate employees to accomplish more than they believed possible, but also prompt work-group members to transcend their individual interests for their collective benefit (Bass, 1985; Bass et al., 2003). In support of this reasoning, previous research has shown transformational leadership and contingent-reward reinforcement to be positively correlated with heightened work commitment, increased job satisfaction, and improved job performance at the individual (Bycio, Hackett, & Allen, 1995) and unit levels (Bass et al., 2003; Shamir, Zakay, Breinin, & Popper, 1998).

Whereas Bliese & Halverson's (1998) study of leadership consensus was conducted using a single group-level model (see Klein & Kozlowski, 2000), in a follow-up study of 52 U.S. Army companies deployed to Haiti as part of

Operation Restore Democracy, Bliese & Britt (2001) hypothesized that consensus about leadership climate (i.e., quality of perceived shared social environment) would act as a cross-level contextual moderator. Based on a multilevel analysis, their results indicated that, relative to units with low consensus on leadership-climate perceptions (i.e., negative social environments), those with high consensus (i.e., positive social environments) experienced less depression and reported higher morale when exposed to work stressors. In their analysis, Bliese and Britt controlled for the simple arithmetic mean of group members' leadership climate perceptions, further strengthening Bliese & Halverson's (1998) conclusion that consensus variables reflect a unique aspect of group functioning.

Bliese et al.'s (1998, 2001) research suggests that group members' consensus about a unit's leadership climate is a unique explanatory variable that merits further investigation. Moreover, their research intimates that, when conceptualized as a consensus construct, leadership climate is a viable means of assessing the perceived quality of group members' social environment. In accordance with the research summarized above, when conceptualized as consensus variables, we expect transformational leadership and contingent-reward reinforcement to reflect members' shared perception of the leadership climate within their unit and, thus, the quality of their shared social environment. Further, following social-influence theory (Festinger, 1950), we reason that groups with a high consensus about their supervisor's transformational/contingent-reward leadership have a positive social environment that buffers the inverse relationship between emotional exhaustion and work commitment. Both theory (Festinger, 1950) and prior research (Bliese & Halverson, 1998) suggest that in groups with low consensus on transformational/contingent-reward leadership, conflicts between group members are likely to increase in frequency as members struggle to establish consensus. Because conflict has negative consequences, including interpersonal hostility, increased tension, and decreased productivity, we further expect that members of groups with a low consensus about transformational/ contingent-reward reinforcement to experience a work environment that could be characterized as negative, which may amplify the inverse relationship between members' emotional exhaustion and work commitment.

Hypothesis 1. Group members' consensus about effective leadership behavior (viz., transformational leadership and contingent-reward reinforcement) will moderate the negative relationship between emotional exhaustion and commitment, such that when consensus is low, there will be a strong inverse relationship between emotional exhaustion and commitment, and when consensus is high, this relationship will be weakened.

4.2. Management-by-exception and laissez-faire leadership

As a component of transactional leadership, management-by-exception can take two forms — active and passive. Leaders characterized by either form tend to use negative feedback in dealing with their followers. In the active form of management-by-exception, a leader constantly monitors subordinates for deviations from prescribed standards, taking immediate action in response to performance that falls below expectations. In contrast, leaders who typify passive management-by-exception are unaware of performance problems until brought to their attention by others. Thus, active and passive management-by-exception differ in that whereas both forms employ negative feedback, the latter is applied on an intermittent rather than a continuous reinforcement schedule.

As the third general category of leadership behavior comprising FRLT, nontransactional laissez-faire leadership reflects an absence of leadership. Laissez-faire leaders sidestep responsibilities, avoid making decisions, are absent when needed, fail to follow up on requests, and are unconcerned with developing their followers. Past research has shown laissez-faire leadership to be negatively correlated with individual-level effectiveness (Lowe et al., 1996) and unit-level outcomes, including work commitment (Bass, 1998).

As laissez-faire leadership and both forms of management-by-exception are associated with what are generally considered less effective styles of leadership behavior (Bass & Avolio, 1994), we expected that they would interact with emotional exhaustion in a less direct manner than either transformational leadership or contingent-reward reinforcement in predicting work commitment. Whereas prior research (Bliese & Britt, 2001) has shown that variability in members' perceptions of a group's leadership climate influences members' perceptions of their shared social environment, the generalizability of this research has been limited in only examining positive leader behaviors

More specifically, we anticipated that consensus about ineffective leadership behaviors would have a beneficial effect on work commitment when group members' emotional exhaustion is high. Recall that group members' consensus about leadership climate reflects the quality of a group's positive, shared social environment; consensus scores do not reflect group members' averaged ratings of supervisors' ineffective leadership behaviors as leadership

consensus and leadership climate are related but distinct concepts (Lindell & Brandt, 2000). Based on social-influence theory, we therefore expected group consensus about ineffective leadership to weaken the negative relationship between emotional exhaustion and work commitment. With consensus established, group members would be expected to experience a more positive social environment because internal conflicts and stress associated with reintegrating dissenting members are lessened and, subsequently, a supportive and positive social environment would act to buffer the negative impact associated with emotional exhaustion on work commitment. Alternatively, we reasoned that stress associated with a lack of group consensus about ineffective leadership behaviors would interact with group members' high exhaustion to further reduce work commitment.

Hypothesis 2. Group members' consensus about ineffective leadership behaviors (viz., active and passive management-by-exception and laissez-faire leadership) will moderate the negative relationship between emotional exhaustion and commitment, such that when consensus is low, there will be a strong inverse relationship between emotional exhaustion and commitment, and when consensus is high, this relationship will be weakened.

5. Method

5.1. Participants and procedure

Data for the present study were collected as part of the U.S. Air Force Material Command's (AFMC) study on "generational gap" considerations as they relate to leadership, morale, and retention. The AFMC's roughly 85,000 military and civilian employees are located across 10 military installations, where they conduct research related to developing advanced technology, acquiring weapon systems, support and logistics, and maintaining existing and future weapon systems. The study was designed to gain insights into the views of a cross-section of the AFMC's junior military and civilian employees.

An initial pool of potential study participants was randomly selected from across all AFMC employees under age 30 and with 1–8 years service. In addition, a small number (approximate $n=150$) of field grade officers with more than 8 years of service were also randomly selected to participate. Unit representatives from each base were contacted and asked to randomly identify personnel (roughly 25%) from each functional occupation in their command so that all occupations would be represented in each base's sample. Quotas were not established for gender, although an AFMC official involved in the research indicated the resulting random sample yielded a fair representation of both male and female employees. Once identified, potential participants were sent a memorandum that described the purpose of the study and explained that they were chosen, at random, to voluntarily participate in a study concerning morale and retention. The memorandum closed by informing targeted recipients of the time and place of a group meeting at which the study would be discussed and data collected. In total, 78 group meetings (mean $n=11$) were held within a 4-week time frame. During the meetings, trained individuals provided participants with a general overview of the research and administered paper-and-pencil surveys. All participants were guaranteed complete anonymity.

The final study sample ($N=869$) was comprised of a 3/4–1/4 split of military (76%) and civilian (24%) employees. Participants were primarily male (70%); roughly half were married (54%); and predominately without children (65%). The majority (79%) reported they had not been deployed by the U.S. Air Force to an overseas forward operating location or combat zone in the last 5 years. A breakdown of participants' functional occupations is as follows: operations (flying or flying support)—8%, logistics (maintenance and parts management)—14%, support (base and operations support)—27%, medical—5%, legal—2%, and acquisitions (contracting and program management of weapon systems)—44%. Respondents' ranks were: company grade officer (military ranks of lieutenant through captain)—17%, science and technology company grade officer (scientist/statistician, engineer, program manager)—25%, field grade officer (military ranks of major through colonel)—12%, enlisted airmen—22%, Air Force civilian salaried employee—20%, and Air Force civilian hourly employee—5%.

For data analysis purposes, we only retained surveys completed by participants that could be classified into an occupation-rank group and who were members of a group large enough to allow aggregation. This reduced our effective sample to 828 respondents from 27 occupation-rank groups (mean $n=31$). When using consensus variables it is necessary to establish that the groups being analyzed are meaningful social units. That is, that the units to be analyzed are partially nested within a surrounding social system. As a consequence of being partially nested, McGrath (1991) notes that individuals are usually members of more than one group and that groups can be a

part of more than one social system or subculture. Within the military context, we view the functional occupation-rank groups as specific subcultures with their own value systems. Thus, following Brown & Kozlowski (1999), we adopted the "work group" perspective provided by Guzzo & Dickson (1996). As such, units in the present study (a) could be perceived as a social entity, (b) consisted of members performing interdependent tasks, (c) were embedded in a larger social system, and (d) performed tasks that influenced other units.

5.2. Measures

5.2.1. Emotional exhaustion (α = .90)

Emotional exhaustion was assessed using 8 items from Maslach & Jackson's (1981) Emotional Exhaustion measure. Example items include, "I am emotionally drained from my work" and "At the end of each work day, I feel all used up." Responses were gauged using a 6-point response scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

5.2.2. Work commitment (α = .74)

We assessed work commitment using 8 positively worded items adapted from Porter, Steers, Mowday, & Boulian's (1974) 15-item attitudinal commitment measure. We selected these items as it has been suggested that the measure's negatively keyed items tap an intent-to-quit factor (Settoon, Bennett, & Liden, 1996). Example items include, "This Command really inspires the very best in me in the way of job performance" and "I find that my values and the Air Force Core Values are very similar." Responses were collected using the same 6-point response scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

5.2.3. Leadership consensus

Leadership consensus was calculated from the variability of group members' responses to the Multifactor Leadership Questionnaire (MLQ) Form-5X (Bass & Avolio, 2000). Participants were asked to indicate, using a 5-point frequency scale that ranged from 0 (*not at all*) to 4 (*frequently, if not always*), how often their supervisors exhibited each of the 36 leadership behaviors that comprised the MLQ's nine components.

The first leadership consensus variable reflected the five transformational leadership components (viz., idealized influence-attributed, idealized influence-behavioral, inspirational motivation, intellectual stimulation, and individualized consideration). We chose to combine the 20 items reflecting the five components on the basis of prior evidence that they are best represented as a higher order construct (Avolio, Bass, & Jung, 1999), and to enhance our statistical power by reducing the number of estimated parameters in the ensuing analysis. Contingent-reward reinforcement, active management-by-exception, passive management-by-exception, and laissez-faire leadership were each measured with four items. As recommended by Bliese & Halverson (1998), consensus scores were calculated for each component based on the variability of participants' perceptions of leadership within their unit. This was done by first calculating group variances for the items comprising each component and then computing the mean variance for each component. Mean variance scores were converted to consensus scores by multiplying through by −1, such that high scores represent high consensus.

5.3. Data analyses

Multilevel random-coefficient modeling (Bryk & Raudenbush, 2002; Snijders & Bosker, 1999) was used to test our cross-level interaction hypotheses that leadership consensus across different components of leadership behavior would moderate the relationship between group members' emotional exhaustion and work commitment. When testing for consensus effects, researchers have noted the importance of controlling for the absolute variation in the frequency of group-level variables (Bliese & Britt, 2001; Lindell & Brandt, 2000). Therefore, we included both the arithmetic mean and variance of members' leadership ratings as Level-2 variables. Finally, we grand-mean centered our Level-1 variable (emotional exhaustion) and Level-2 variables (absolute leadership ratings and leadership consensus) to reduce multicollinearity (Bryk & Raudenbush, 2002). Our analyses were conducted using the Nonlinear and Linear Mixed Effects (NLME) program for S-PLUS and R (Pinheiro & Bates, 2000).

6. Results

Table 1 presents the means, standard deviations, and individual-level correlations among all study variables. The general pattern of correlations among the leadership measures is similar to that reported in Bass et al. (2003) and is consistent with

Table 1
Descriptive statistics and correlations for all study variables [a]

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Emotional exhaustion	3.32	1.12	–										
2. Transformational (TFL)	2.49	.89	−.31	–									
3. Contingent-reward (CR)	2.32	1.02	−.28	.81	–								
4. Active management-by exception (AME)	2.00	.99	.09	.18	.22	–							
5. Passive management-by-exception (PME)	1.34	.99	.28	−.40	−.32	.04	–						
6. Laissez-faire (LF)	.90	.91	.30	−.50	−.43	−.03	.60	–					
7. TFL consensus	−1.41	.23	−.06	.12	.07	−.03	−.07	−.08	–				
8. CR consensus	−1.56	.32	−.05	.08	.08	.03	−.03	−.05	.78	–			
9. AME consensus	−1.37	.15	−.01	.01	.01	−.01	.04	.01	.45	.44	–		
10. PME consensus	−1.44	.27	−.07	.10	.06	−.09	−.15	−.11	.37	.29	.30	–	
11. LF consensus	−1.22	.34	−.13	.10	.05	−.11	−.18	−.18	.50	.35	.21	.63	–
12. Work commitment	4.03	.81	−.26	.35	.27	.12	−.09	−.13	.13	.10	.08	.01	.01

Note. $ns = 780$ to 830. Correlations $\geq |.07|$ are significant at the .05 level.

[a] Although all correlations were computed using individual-level data, the effective n for the leadership absolute values and consensus scores at the group level is 27.

accepted theory. The first step in multilevel random-coefficient modeling (MRCM) involves testing the group-level properties of a target variable. If, for example, the intercept variation (τ_{00}) of a focal variable does not differ across groups by more than chance, there is little reason to expect between-group differences. We estimated two models (one with and one without a random intercept) and compared their chi-squared log likelihood values. Results indicated the models were significantly different (likelihood ratio = 13.90, $p < .001$), indicating a significant variation in terms of work commitment scores across groups. Furthermore, the ICC(1) value for commitment was .048, signifying that 5% of the variation in group members' commitment was a function of the occupation-rank group to which they belonged (Bliese, 2000). This result thus provides support for our classification of respondents into groups based on functional occupation and rank.

We hypothesized that consensus across different components of leadership behavior would moderate the relationship between group members' emotional exhaustion and work commitment. Results are reported in Table 2. Consistent with prior research, emotional exhaustion (Level-1 variable) was negatively associated with work

Table 2
Multilevel random coefficient model predicting work commitment

| Variable	Parameter estimate	SE	t ratio	p-value
Level-1 model				
Intercept	4.062	.043	94.763	.001
Emotional exhaustion	−.195	.025	−7.920	.001
Level-2 model (intercepts)				
Transformational (TFL) climate	−.148	.388	−.381	.708
Contingent-reward (CR) climate	−.221	.483	−.458	.653
Active management-by-exception (AME) climate	.422	.217	1.948	.069
Passive management-by-exception (PME) climate	.316	.280	1.129	.275
Laissez-faire (LF) climate	.134	.610	.219	.829
TFL consensus	.959	.305	3.318	.006
CR consensus	−.253	.189	−1.338	.200
AME consensus	−.085	.285	−.300	.768
PME consensus	.137	.226	.603	.555
LF consensus	.127	.276	.461	.651
Level-2 model (slopes)				
Emotional exhaustions * TFL consensus	−.527	.219	−2.408	.016
Emotional exhaustion * CR consensus	.208	.146	1.419	.156
Emotional exhaustion * AME consensus	.168	.184	.912	.362
Emotional exhaustion * PME consensus	−.017	.121	−.142	.887
Emotional exhaustion * LF consensus	.228	.107	2.135	.033
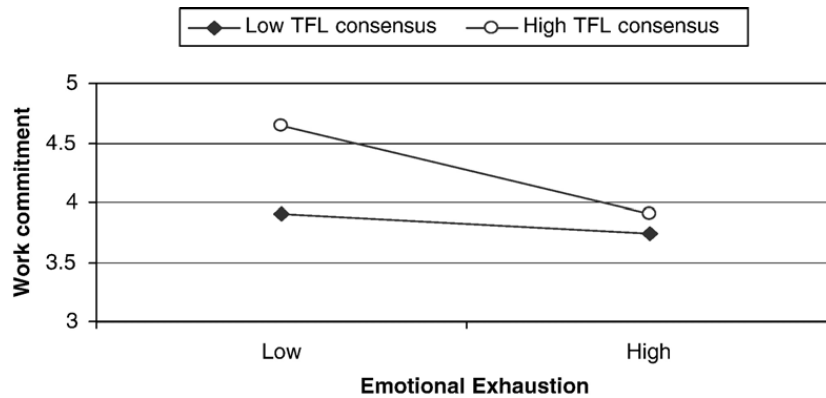
Fig. 1. Plot of interaction between emotional exhaustion and transformational leadership (TFL) consensus in predicting work commitment. Low=−1 standard deviation below the mean. High=+1 standard deviation above the mean.

commitment, *coefficient*=−.195, *p*<.001, $\triangle R^2$=07. The hypothesized cross-level interactions are shown at the bottom of Table 2. Even after controlling for absolute levels of leadership at Level-2 (i.e., group mean of leadership ratings; $\triangle R^2$=.10) and leadership consensus main effects ($\triangle R^2$=.02), interactions between emotional exhaustion-transformational leadership consensus (*coefficient*=−.527) and emotional exhaustion-laissez-faire leadership consensus (*coefficient*=.228) were significant (*p*<.05, $\triangle R^2$=.01). The forms of these interactions are shown in Figs. 1 and 2. Results concerning contingent-reward reinforcement, and management-by-exception (active and passive) did not support our cross-level hypotheses.

Fig. 1 depicts the interaction effect between consensus about transformational leadership and emotional exhaustion for work commitment. As illustrated in the figure, when consensus about transformational leadership was high, individuals were more likely to report higher levels of work commitment than when consensus was low (a main effect for transformational leadership consensus). Also shown in Fig. 1, the slope of the relationship between emotional exhaustion and work commitment was relatively flat when consensus about transformational leadership was low. With respect to groups with a high consensus about transformational leadership, group members reported only slightly higher levels of work commitment when emotionally exhausted than members of groups with low consensus. This latter finding was unexpected (and will be discussed in more detail in the Discussion section). In contrast, work commitment levels increased more dramatically for members of groups with high consensus about transformational leadership as the extent of emotional exhaustion decreased. As such, transformational leadership-consensus climate moderated the relationship between emotional exhaustion and work commitment. Work commitment was highest for group members experiencing low amounts of emotional exhaustion and who were in groups with a high consensus about transformational leadership. The lowest levels of work commitment were experienced by group members experiencing high amounts of emotional exhaustion and who were in groups with a low consensus about
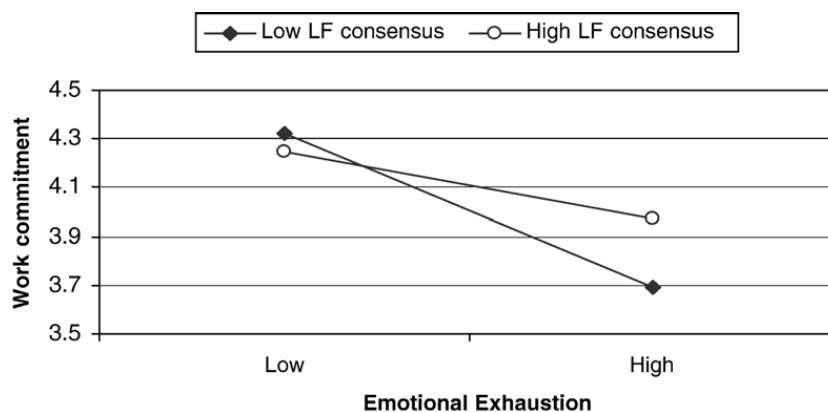

Fig. 2. Plot of interaction between emotional exhaustion and laissez-faire leadership (LF) consensus in predicting work commitment. Low=−1 standard deviation below the mean. High=+1 standard deviation above the mean.

transformational leadership. Thus, we can conclude consensus about transformational leadership buffered the exhaustion–work commitment relationship.

Fig. 2 depicts the interaction effect between emotional exhaustion and consensus about laissez-faire leadership on the prediction of work commitment. High group consensus about laissez-faire leadership was expected to positively influence work commitment scores for emotionally exhausted individuals when compared to group members who were exhausted and in low consensus groups. As shown in Fig. 2, the slope of the relationship between emotional exhaustion and work commitment was relatively strong (and negative) for individuals in groups low in consensus, whereas the emotional exhaustion–work commitment slope was relatively weak for individuals in groups with a high consensus about laissez-faire leadership. The form of the interaction is similar to that obtained by Bliese & Britt (2001). This finding supports our buffering hypothesis and, more importantly, the argument that the emergence of consensual leadership-climate perceptions reflects a group's positive shared social environment.

7. Discussion

Research has repeatedly shown that the full range of transformational, transactional, and laissez-faire leadership styles are linked to an array of outcomes that organizations, individuals, and leaders value (Judge & Piccolo, 2004). Because leaders direct many of their behaviors to entire groups rather than to individuals, the practice followed in much of this research has been to treat leadership constructs as shared composition variables (e.g., Avolio, Zhu, Koh, & Bhatia, 2004; Bono & Judge, 2003). Accordingly, leadership research has tended to focus on the absolute level (arithmetic mean) of group members' leadership ratings and effectiveness outcomes. As we previously indicated, such a focus neglects the possibility that effective leadership may depend, at least in part, on perceptual agreement among group members (Feinberg et al., 2005; Klein & House, 1995). Our results, therefore, answer the mounting call for viewing leadership in a multiple-level framework by providing partial support for our hypotheses that group consensus across different components of leadership behavior would moderate the relationship between group members' emotional exhaustion and work commitment.

In addressing Hypothesis 1, the present data indicated that members' consensus about transformational leadership served as a cross-level contextual factor as it was found to moderate the emotional exhaustion-commitment relationship. As noted, however, the interaction when graphically plotted was different from what we had initially hypothesized. Drawing from theory (Festinger, 1950) as well as empirical research (Bliese & Britt, 2001), we predicted a "traditional" buffering effect in that high consensus about transformational leadership was expected to weaken the strength of the negative relationship between emotional exhaustion and work commitment. On the contrary, our results (see Fig. 1) demonstrated that group members' consensus about transformational leadership was only beneficial under conditions of low emotional exhaustion; high emotional exhaustion was shown to take its toll on work commitment levels regardless of whether members were in groups with high or low consensus about transformational leadership.

Why would consensus about transformational leadership only have a beneficial effect on work commitment when group members' emotional exhaustion was low? We believe that it may involve how transformational leadership is generally defined (and measured) and the perceived relevance or importance of transformational behavior when emotional exhaustion is high. From a measurement viewpoint, we suggest that the transformational leadership items included in Bass & Avolio's Multifactor Leadership Questionnaire may be perceived as luxuries that are far from being relevant when followers are physically tired and emotionally weary. Further, from a theoretical perspective, social-influence theory suggests, and empirical research supports, the assertion that group consensus only matters on issues of relevance (Bliese & Halverson, 1998; Festinger, 1950). Therefore, when group members are physically fatigued and mentally weary, we question whether they are truly concerned with transformational behaviors such as "teaching and coaching" or "talking optimistically and enthusiastically" about the future. Such examples of transformational behavior strike us as considerations more relevant when group members are no longer fatigued and exhausted. Rather, we suspect that the major concerns of group members who are emotionally exhausted pertain to more fundamental considerations that may depend on their leader's (in)effectiveness. When group members believe that their leader is generally effective, they are likely to be more confident that transformational related behaviors can be addressed when they are no longer emotionally exhausted. On the other hand, if a leader is seen as ineffective, group members may be less confident in their leader's ability to engage in transformational behaviors and may even perceive their leader's ineffectiveness as being responsible for their exhaustion. Consequently, until members' fundamental

concerns are no longer active and they have had an opportunity to re-energize, we can infer that group members will think of little else, including the transcendence of their individual interests for their collective benefit.

In considering Hypothesis 2, our results extend Bliese & Britt's (2001) work by investigating leadership behaviors generally considered to be ineffective. It was predicted that the additional stress associated with group dissensus about laissez-faire leadership would interact with group members' high exhaustion to further reduce commitment. As anticipated, when consensus about laissez-faire leadership was high, the emotional exhaustion-commitment slope was weaker than when consensus about laissez-faire leadership was low. At first glance, this finding may appear counterintuitive given that the contextual effect involved group consensus about laissez-faire leadership, otherwise considered a general absence of leadership. This result is, however, a unique contribution of the present study as it supports Bliese et al.'s (1998, 2001) contention that consensual leadership-climate perceptions, even within-group homogeneity of members' perceptions of ineffective leadership, are a sign of a positive shared social environment.

When considered collectively, although the hypotheses concerning contingent-reward reinforcement and management-by-exception were not supported, our results relating to transformational leadership and laissez-faire leadership suggest there is potential value in considering leadership consensus constructs as indicators of the quality of a groups shared social environment. As demonstrated by Bliese & Britt (2001), because we controlled for group members' mean ratings of the leadership components, we can assert with some confidence that the observed cross-level interactions involving transformational leadership and laissez-faire leadership were a result of the buffering effect associated with a group's positive social environment and were not confounded by individual-level factors. In line with Bliese et al.'s conclusion, our findings demonstrate that low consensus about leadership-climate contributes to stressful working environments that, in turn, can lead to costly withdrawal-related mechanisms such as the withholding work commitment. This result has theoretical significance for occupational stress research, in general, and employee burnout-commitment research, in particular.

Our results also have practical importance given the established link between levels of work commitment and organization-level performance (e.g., Meyer et al., 2004). We found consensus regarding transformational leadership positively influenced group members' work commitment in high and low emotional exhaustion conditions. Emotionally exhausted (i.e., +1 standard deviation above the mean) individuals in groups with high consensus about transformational leadership reported work commitment scores that were .17 higher than individuals in low consensus groups. Likewise, emotionally exhausted individuals in groups with high consensus about laissez-faire leadership reported work commitment scores that were .28 higher than individuals in low consensus groups. On the surface, these increases in levels of work commitment would appear to have little practical significance. These effects, however, are based on a contextual factor. Therefore, we can infer that the cumulative effect of multiple individuals having work commitment scores increased by .17 and .28 would have meaningful practical implications in terms of performance, citizenship behaviors, and employee turnover (cf. Cropanzano, Rupp, & Byrne, 2003). Consensus about transformational leadership exhibited an even more pronounced effect on group members' work commitment scores (they were raised by .74) in the low emotional exhaustion condition (−1 standard deviation below the mean).

Considering the practical benefits associated with high consensus about leadership, non-leaders and leaders both may speculate with regard to what they might do to foster consensus perceptions among group members. One important aspect that must be considered is the effect on a group's consensus about leadership-climate when new group members are inserted into the group. Membership changes, in particular, are viewed as damaging to a group as the socialization of new members requires time and energy that would otherwise be directed towards activities such as goal attainment (Levine & Moreland, 1990). For example, within their group-socialization framework, Moreland & Levine (1988, 1989) contend that the two most stressful phases of the socialization process include the socialization of new members and the resocialization of dissenting members. These two phases are taxing on members because their successful resolution involves either (a) the successful (re)integration of the new or dissenting members or (b) the rejection or exit of group members. In organizational settings, however, rejection and exit decisions are most likely not an option for group members who disagree with a majority of their coworkers As a consequence, low consensus groups are more likely to experience increased inefficiencies due to increasing amounts of time allocated for the re-alignment of new or dissenting members. Activities designed to resolve intragroup conflicts take their toll on all group members because such activities and behaviors consume valuable time and are emotionally draining. This suggests that organizations and leaders should be more cognizant of the potential adverse consequences associated with the introduction of new members into long-standing and well-established groups.

An interesting question that arises from such a discussion is "What if the recently introduced member is the group's new supervisor?" The present findings suggest that group members will experience increased levels of stress as they attempt to establish a consensus regarding their perceptions of the new supervisor's leadership behavior. Further, while the group is engaged in processes and activities aimed at reestablishing homogeneity within the group, members are likely to experience motivation losses and performance decreases. In such instances, if possible, it would seem desirable for a group's exiting supervisor to communicate directly to the incoming supervisor the norms and values of the group. With a better understanding of the group, it is likely that the incoming supervisor will be assimilated more quickly and easily into the group and, in turn, the group's functioning is less likely to experience performance losses due to member conflicts (Moreland & Levine, 1988).

7.1. Limitations

As in all studies, there are limitations that should also be acknowledged. First, the use of self-report measures to assess focal constructs raises the concern of common-method variance. Several points should be made in this regard. First, the use of personal-report data is appropriate given that self-perceptions of stressors and outcomes are key variables in most stress models. Second, the complex pattern of reported findings is an unlikely result of same-source confounds. Third, we followed procedures outlined by Williams, Cote, & Buckley (1989) to explore the possibility that some of our observed relationships were measurement artifacts. We first estimated the fit of a seven-factor measurement model that allowed the latent constructs to covary (CFI=.96, TLI=.95, RMSEA=.064). We then included a "same source" factor to each item indicator of all seven constructs and re-estimated the model. The chi-square difference test between the two models suggests that a same-source factor is present ($\triangle X^2 = 911.3$, $\triangle df = 48$, $p < .01$). Nonetheless, a comparison of the latent correlations (ϕ) between constructs in both models indicates that the method bias is minimal, as the correlations in both models were nearly identical (average $\triangle \phi = .03$, SD = .02). Of the 21 correlations, seven were inflated, 11 were attenuated, and three remained unchanged. Based on this evidence it is unlikely that the current study's results are due to common-method bias.

A second limitation is, that our study design was cross-sectional, which limits any inferences regarding causal influences. Although it is theoretically possible that work commitment influences emotional exhaustion, stressors are typically considered to be antecedents of work commitment. Future research should, therefore, determine to what extent our results replicate using a longitudinal research design. A final limitation is that we assumed being a leader was synonymous with occupying a formal position of authority (Bedeian & Hunt, 2006). We believe, however, that our use of a military sample, wherein leadership is an expected attribute, mitigates against this concern. Nonetheless, we recognize that in certain groups there may have been other individuals without formal authority who may have filled leadership roles. Thus, this limitation should also be considered when interpreting our findings.

7.2. Directions for future research

Lazarus (1993) has argued that social support emanating from a variety of sources will enhance an individual's ability to cope with emotionally exhausting conditions. Future research may, therefore, benefit from a focus on the buffering effect of cross-level effects of coworkers' support and consideration behaviors on the relationship between group members' emotional exhaustion and work commitment. For instance, what is the role played by consensus about work-group members' support versus consensus of supervisor support? Do the two interact? A second area of future research flows from our use of a military sample. Whether our findings generalize to other populations in different settings is unknown. Although we can speculate that consensus about leadership is important in other organizational settings and occupational groups, future research is needed in this regard.

A final direction for future research involves the consideration that the absolute level of leadership and consensus about leadership-climate may interact in the prediction of individual and/or unit-level outcomes. Research has previously shown that absolute levels of leadership behavior predict an array of outcomes; however, leadership scholars have similarly suggested that an effective leader creates consensus among group members' perceptions and that consensus about leadership behavior can be considered as an additional component with which to assess leader effectiveness (Conger, 1999; Feinberg et al., 2005). As put forward by these two perspectives, absolute levels of leader behavior and the extent of consensus among group members may be viewed as separate yet related indicators of leadership behavior.

As an example, consider one of the more heavily researched leadership constructs — transformational leadership. The above ideas suggest that absolute levels of leadership behavior may be one of two factors that determine transformational leadership. The degree to which group members develop a high consensus about transformational leadership may also be critical in determining whether a leader is transformational (Conger, 1999). On this basis, a researcher might develop the hypothesis that leaders who are rated high on absolute levels of transformational leadership and their work-group members agree about these behaviors will likely be the most effective leader in terms of positively influencing individual (e.g., work commitment, performance) and unit-level outcomes (e.g., performance). On the other hand, a leader perceived as transformational (high absolute level), but whose group members do not agree might be expected to be viewed more negatively and this could be hypothesized to have a detrimental influence on work group members (because of the frustration and conflict associated with low consensus). In support of this possible future research, Feinberg et al. (2005) recently argued that to be perceived as transformational, leaders must exhibit an appropriate set of transformational behaviors and promote consensus among group members that they (the leaders) are consistently displaying these behaviors, whereas leaders exhibiting a similar level of appropriate behaviors in the absence of consensus will likely yield lower transformational attributions by their subordinates.

Although Lindell & Brandt (2000) only reported limited support for a similar interaction hypothesis, they indicated more research is needed before it is abandoned. Together with Bliese et al.'s (1998, 2001) results, our findings suggest leadership consensus variables are viable climate constructs worthy of future investigation. Therefore, we suggest that more systematic research be conducted to clarify the role of leadership consensus. This includes future studies designed to test the hypothesis that absolute levels of leadership and leadership consensus-climate act in a multiplicative manner to predict individuals' work-related attitudes and behaviors as well as unit-level performance.

8. Conclusion

It has been suggested that even a minimal occurrence of emotional exhaustion warrants attention (Gaines & Jermier, 1983). As an extreme state of being, emotional exhaustion can result in "ripple effects" that resonate as one negative outcome begets another (Wright & Cropanzano, 1998). Thus, we investigated how consensus across different components of leadership behavior would moderate the relationship between group members' emotional exhaustion and work commitment. Our results provide support for Bliese & Britt's (2001) argument that leadership consensus, conceptualized as an indicator of shared social environment quality, can act as a cross-level contextual (moderator) variable. If these results are replicated in other organizational contexts, the use of leadership consensus variables to more fully understand the social environment shared by group members promises to open new insights for developing leadership research and theory.

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