

## **Mutuality in Leader–Subordinate Empowerment Expectation: Its Impact on Role Ambiguity and Intrinsic Motivation**

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**Mutuality in Leader–Subordinate Empowerment Expectation: Its Impact on Role**

**Ambiguity and Intrinsic Motivation**

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**Abstract**

Drawing on leader role set theory, we examine the relationship between the congruence of leaders' and subordinates' empowerment expectations and subordinates' experiences of role ambiguity and intrinsic motivation. Based on cross-level polynomial regression analysis using 168 subordinates and 33 leaders, the results indicated that the relationship between congruence and role ambiguity and intrinsic motivation vary depending on whether leaders misevaluate subordinate empowerment expectations, as well as whether the expectations match. Specifically, subordinates had low role ambiguity and low intrinsic motivation when leaders' and subordinates' empowerment expectations matched at low levels and when leaders underestimated subordinates' empowerment expectations. However, subordinates had low role ambiguity and high intrinsic motivation when expectations matched at high levels. Furthermore, role ambiguity was high and intrinsic motivation was low when the leaders overestimated subordinates' empowerment expectations. Theoretical and practical implications are discussed.

Keywords: Empowering leadership; expectation; self–other discrepancy; cross-level polynomial regression analysis

There is a potential dilemma inherent in empowerment. On the one hand, to mobilize employees, empowerment removes bureaucratic constraints and is praised as an important means to motivate employees (Gagne & Deci, 2005; Thomas & Velthouse, 1990). On the other hand, empowerment is challenged by increased role ambiguity due to the flexibility it encourages (Collins, 1999). In the literature, the trade-off between the span of control and the level of autonomy is widely debated (Collins, 1999; Wall, Cordery & Clegg, 2002). It is recognized that while empowering leadership, which emphasizes delegation of decision-making responsibilities and removal of bureaucratic control, provides a more robust and dynamic infrastructure, that role ambiguity is one of the major challenges for empowerment initiatives (Cordery, Morrison, Wright & Wall, 2010; Wall et al., 2002). While this trade-off is well recognized, little is actually known about its underlying mechanisms. Therefore, in this study we aim to reconcile these two phenomena by developing a contingency theory of the role of mutuality in leader–subordinate expectations in the face of empowerment. Specifically, we posit that role ambiguity and intrinsic motivation vary contingent on the degree to which leader’s perception of subordinate empowerment expectations and subordinate’s self empowerment expectations match and on whether the match is at high or low levels of empowerment expectations.

In the process of empowerment, subordinates develop aspirations and expectations (Paul, Niehoff & Turnley, 2000). Subordinates form expectations about how the focal leader should behave to empower them. These expectations influence a subordinate’s judgment of leader effectiveness (Tsui, Ashford, St. Clair & Xin, 1995). Leaders, on the other hand, form their received roles based on their perceptions of the role expectations sent with some degree of distortion (Katz & Kahn, 1966). The more leaders are aware of the role expectations set by others, the more effective they will be (Tsui et al., 1995). However, a sent- and a received-role expectation may not be mutual and leader–subordinate role expectation gaps can be

detrimental to employee outcomes (Hooijberg & Choi, 2000). Despite the potential importance of such gaps, this line of research is lacking in the body of empowerment literature.

Investigating whether the nature of empowerment expectation gaps have implications for role ambiguity and intrinsic motivation, we also set out to contribute to the empowerment literature in two particular ways. First, we aim to motivate further theoretical efforts directed at specifying how empowerment expectations may contribute to subordinate work motivation and their perceived role ambiguity. Several studies have discussed the roles of empowerment expectations (e.g., Paul et al., 2000; Labianca, Gray, & Brass, 2000) and stress that expectation plays an important role in guiding subordinates' cognitive judgment on how much empowerment is appropriate in a given situation and the generation of subsequent cognitive schema towards empowerment. Using the lens of role set theory, we aim to shed light into the role of empowerment expectation and how such expectations can explain subordinates' attitudinal responses to empowerment.

Second, we seek to contribute to the understanding of the relationship between leaders and subordinates in the process of empowerment. With the help of cross-level polynomial regression and response surface analytic techniques (Edwards, 1994; Jansen & Kristof-Brown, 2005), we elicit the interplay between leaders' perception of subordinate empowerment expectations and subordinates' self empowerment expectations in predicting role ambiguity and intrinsic motivation. By doing so, our study sheds light on the role of leaders' awareness and questions whether the oversimplified "the more empowerment, the better" hypothesis may have constrained the understanding of the dynamics of empowerment. Instead, "the narrower the gap between leader and subordinate expectations for empowerment, the better" hypothesis, and/or "the type of the agreement is what matters"

hypothesis (in which leaders and subordinates agree at high versus low levels) may provide a more comprehensive picture.

The sample group in the current study consisted of 168 subordinates and 33 leaders within a large manufacturing company. At the time the data were collected, this company had just undergone organizational restructuring and had employed interventions to foster greater employee involvement and responsibility, not only for the products, but also for the production process. As the implementation had been rather recent, the structural changes may not have been fully integrated at the time of data collection. Therefore, many of the individuals, including both leaders and subordinates, were very likely to have been experiencing an adapting phase, in which they were trying to understand what they should expect, with respect to empowerment. This particular adapting phase serves a somewhat unique but appropriate context for this study, as the expectations of empowering leadership at that stage may not have been fully formed among leaders and subordinates within the organization. It is well recognized that organizations are facing a turbulent environment and many are using empowerment interventions to equip themselves to be more flexible and adaptive (Labianca et al., 2000; Spreitzer & Mishra, 2002). Accordingly, this sample should be highly relevant for most contemporary organizations.

### **Theory and Hypotheses**

Role set theory suggests that organizations are role systems that involve role sending and role taking (Katz & Kahn, 1966). Each focal position in the organizational structure is presented with a set of role expectations and the focal person as a role taker is assumed to act in relation and in response to these expectations (Tsui, 1984). Expectation is defined as a set of beliefs about an event, a product, or a person (Venkatesh & Goyal, 2010), and almost all individuals are believed to entertain aspirations or expectations of outcomes (Oliver,

Balakrishnan & Barry, 1994). In accordance with role set theory, subordinates as members of a role set each constitute expectations of what their focal leaders should or should not do in relation to the various duties and responsibilities (Marginson & Bui, 2009). In other words, these leader role expectations represent standards that subordinates refer to in order to evaluate the focal leaders' performance (Tsui, 1984). Accordingly, role set expectations represent a central element influencing subordinates' judgments of leader effectiveness and their work-related attitudes and behaviors (Tsui et al., 1995).

The influence of intrapersonal and interpersonal differences on role expectations is recognized (Katz & Kahn, 1978). Subordinate expectations are mostly grounded in self-interests that comprise their own work objectives, role requirements, personal goals and other goals in the employment contract (Tsui, 1984). On the other hand, the dyadic relationship between the leader and the subordinate may also influence how the subordinate would shape the expectations towards his/her leader (Katz & Kahn, 1978). As one of the activities in role-sending, subordinates tend to communicate their individual expectations to their focal leaders (Katz & Kahn, 1978). Their focal leaders, as the role takers, would then form their received roles based on their perceptions of the role expectations sent with some degree of distortion (Katz & Kahn, 1966). The degree of distortion can be influenced by numerous factors: First, leaders often interpret the role expectations sent based on the positions of the role senders (i.e., subordinates, peers and superiors) (Katz & Kahn, 1978). Thus, the individual variation in empowerment expectations among subordinates may be neglected. Second, the received role expectations are often modified in various ways by the characteristics of the focal leaders, such as demographics, experiences and expertise (Katz & Kahn, 1978). Previous research has found that the focal leaders tend to share more similar views of role expectations with their superiors than with their subordinates (Marginson & Bui, 2009; Pfeffer & Salancik, 1975; Tsui, 1984). The differences in cognitive evaluation of leadership may affect how leaders

interpret subordinate empowerment expectations. Accordingly, the processes of role sending and taking often encounter challenges wherein the sent roles and the received roles may not be mutual (Katz & Kahn, 1978).

In the current study, we expand this line of research and investigate empowerment expectation gaps between leaders and subordinates. Empowerment refers to a process in which the one empowering (A) imparts or bestows power to the one empowered (B). Power is attained in ways that B becomes less resource-dependent on A, and thus B gains greater access to the decision-making process (Lincoln, Travers, Ackers & Wilkinson, 2002). Since we focus on the leader–subordinate dyad, the relational empowerment approach is considered appropriate. The relational empowerment approach is characterized by leader behaviors that decentralize power by involving subordinates in decision-making (Carless, 2004). In this process, empowering leadership is considered as a necessary component (Stewart, Courtright & Manz, 2011).

Empowering leadership is a leadership style which aims to transform followers into their own self-leaders (Pearce & Sims, 2002). It therefore emphasizes the development of follower self-management skills (Pearce & Sims, 2002) by prompting them to develop self-control and to act on their own (Vecchio, Justin & Pearce, 2010). This style is concerned with leaders' actions in sharing power or giving more responsibility and autonomy to subordinates (Srivastava, Bartol & Locke, 2006). Taking this relational empowerment view, empowerment in this study is seen as an interpersonal relationship between leaders and subordinates where empowerment interventions cascade from the upper hierarchy (Liden & Arad, 1996).

There are two ways to approach mutuality: through awareness and reciprocity (Dabos & Rousseau, 2004). We use the awareness perspective. Based on the awareness perspective, we define empowerment expectation gaps as the discrepancies between that which the leaders assume about subordinates' expectations of the leaders' empowerment of them, and the



subordinates' actual expectations on how the leader should empower them. We expect there to be gaps because earlier research has demonstrated that the behavior of a leader on work-related issues is influenced more by his/her superiors' expectations and less by those of his/her subordinates (Pfeffer & Salancik, 1975). These findings imply that the superior possesses greater influential power over the focal leader than other constituencies (i.e., the subordinates and the peers) in role setting (Kahn, Wolfe, Quinn & Snoek, 1964). In this way, leaders tend to be less aware of the types of leader behaviors their subordinates expect (Hooijberg & Choi, 2000), which, in turn, should result in empowerment expectation gaps.

### **Empowerment Expectation Gaps and Role Ambiguity**

Role ambiguity is defined as the extent of uncertainty about the expectations of one's roles (Cook, Hepworth, Wall & Warr, 1981). It is an indicator of uncertainty derived from ambiguous conditions experienced (Cicero, Pierro & van Knippenberg, 2010). It reflects subordinate-perceived difficulties in predicting whether and when a complex or simple task response will be required from the subordinate (Cordery et al., 2010). This implies that necessary information available to a given organizational position is lacking (Kahn et al., 1964). The challenges of role ambiguity due to the devolution of decision-making responsibility have also been identified in the literature (Cordery et al., 2010). A contingency argument was developed directed toward the balance between unpredictability and autonomy (Wall et al., 2002); despite its importance, little is known about the variability of autonomy that empowerment brings along (Cordery et al., 2010).

Empowering leadership emphasizes leading others to lead themselves (Vecchio et al., 2010). More specifically, some representative behaviors of empowering leadership include encouraging independent action, opportunity thinking instead of performance thinking, thinking of obstacles as problems, self-development and the use of participative goal setting

(Pearce & Sims, 2002). Leaders pursue empowering leadership models appropriate to their self-leadership behavior, which will subsequently be adopted by their subordinates (Pearce & Sims, 2002). As such, the roles of empowering leaders are to assist subordinates to become their own self-leaders, roles which are different from those in more traditional designs (Ahearne, Mathieu & Rapp, 2005). This requires, however, corresponding changes in leaders' and subordinates' work roles (Wall et al., 2002).

When leaders' and subordinates' ratings of empowerment expectations do not match, it implies that the leaders are less aware of the subordinates' expectations regarding the leader's empowering roles. One reason for this lack of awareness could be that the leaders are arrogant, insensitive, or unwilling to accept input and truthful feedback from others (Gentry, Yip & Hannum, 2010). Discrepancies could also occur when subordinates are reluctant to express (Goleman, Boyatzis & McKee, 2001) or less directly express their expectations to leaders (Tsui & Ashford, 1994).

When the leader does not recognize the subordinates' views about leadership, he/she will make no effort to alter his/her behavior (Atwater, Waldman, Ostroff, Robie & Johnson, 2005). This is because in enacting behavior in an attempt to meet goals or standards, leaders must recognize that their own perceptions are not in line with the goals or standards expected by others (i.e., the subordinates) (Atwater et al., 2005; Fleenor, Smither, Atwater, Braddy, & Sturm, 2010). Turner (2009) has argued that a role is a way of relating to others in a given situation, and with lower leader awareness of subordinate empowerment expectations, leaders are less likely to enact their roles in relating to what subordinates would have expected. Expectations are believed to be a directive element in the sense-making process (Weick, 1995). This process of confirming one's expectations that are grounded in one's own beliefs is considered to be important in driving behaviors (Weick, 1995). When the sent and received empowerment expectations are not mutual, leaders and subordinates do not have a shared

understanding of their work roles with one another, and the uncertainty will increase as the behaviors become less predictable (Weick, 1979). Subsequently, subordinates would be less able to make sense of their own work roles.

In contrast, we expect that when leaders are more aware of subordinate empowerment expectations, the role ambiguity of the subordinates should be lower. This is because the congruence in expectations provides subordinates with the basis on which to align their behaviors in organizations (Dabos & Rousseau, 2004), and they can better predict how they are expected to approach their work (Weick, 1979). Moreover, this relationship should remain significant, with the same direction, regardless of whether both levels of empowerment expectations of the leaders and the subordinates are low or both are high, as the perceived role uncertainty should be low in both scenarios. Thus, we posit that:

**Hypothesis 1a.** The more leaders and subordinates agree on the level of subordinate empowerment expectation, the lower the subordinates' role ambiguity will be.

In cases when leaders' and subordinates' empowerment expectations are not mutual, the level of role ambiguity may also be dependent on whether leaders overestimate or underestimate subordinate empowerment expectations. When leaders overestimate subordinate empowerment expectations, they might expect their subordinates to be more self-managing with more discretion for decision making (Pearce & Sims, 2002). In addition, the tasks assigned to subordinates could be less structural as the leaders expect the subordinates to take the initiatives themselves to craft their jobs (Spreitzer & Doneson, 2005), while the subordinates might expect otherwise. With greater discretion in decision making and a looser task structure, subordinates might perceive their work roles with less certainty than in a

situation wherein the leaders underestimate their empowerment expectations and provide more directive and structural leadership. Thus, we posit that:

**Hypothesis 1b.** When leaders and subordinates disagree on the level of subordinate empowerment expectation, subordinates' role ambiguity is higher when leaders overestimate their empowerment expectations than when leaders underestimate them.

### **Empowerment Expectation Gaps and Intrinsic Motivation**

The motivational model is most commonly used to explain the relationship between empowering leadership behavior and subordinate intrinsic motivation (Huang, Iun, Liu & Gong, 2010). It is assumed that empowerment as sharing power is an incomplete conceptualization without taking into account the motivational effect on employees (Conger & Kanungo, 1988). The motivational model posits that the empowering behavior of leaders increases the degree to which subordinates participate in decision-making, experience greater novelty and challenge, and feel more centrally involved in the work process (Cordery et al., 2010). This will, in turn, foster the subordinate experience of intrinsic motivation (Huang et al., 2010). This relationship, however, is dependent on whether the subordinates take ownership of the delegated decision-making responsibilities and duties (Quinn & Spreitzer, 1997). Empowering leadership will not motivate subordinates unless they realize the values of such leader behaviors (Spreitzer & Doneson, 2005).

Intrinsic motivation is concerned with the desire to exert effort to perform a work task out of interest and/or enjoyment (Gagne, Senecal & Koestner, 1997; Ryan & Deci, 2000). In self-determination theory, the fulfillment of the psychological needs for autonomy, competence, and relatedness are considered as nutrients to cultivate intrinsic motivation (Deci

& Ryan, 1985). When these needs are satisfied, subordinates will inherently find their jobs to be interesting and satisfying and will be intrinsically motivated (Vallerand & Ratelle, 2004). Moreover, intrinsically motivated subordinates will function more effectively because need satisfaction provides the necessary nutrients for human growth and development (Deci, Koestner & Ryan, 1999). In other words, unfulfilled needs will undermine intrinsic motivation and result in maladaptive consequences (Baard, 2002). In contrast to traditional models of leadership, a leader who pursues empowering leadership is responsible for facilitating self-leadership among his or her subordinates (Pearce & Sims, 2002). The roles of the leaders are to implement conditions that increase the subordinates' feelings of self-efficacy and control, and to nurture conditions that diminish a sense of powerlessness, so that empowered subordinates feel competent and are allowed to exercise influence over their work process as well as make their own decisions (Ahearne et al., 2005; Gibson, Cooper & Conger, 2009; Pearce & Sims, 2002; Vecchio et al., 2010). In contrast to traditional leadership models, this creates a more robust, flexible, and dynamic leadership infrastructure (Ahearne et al., 2005; Cox, Pearce & Sims, 2003). Still, such an infrastructure appears to require the leaders and their subordinates to understand clearly and agree on their decision-making roles and responsibilities; if not, confusion and dissatisfaction may arise (Gibson et al., 2009).

A study by Greguras and Diefendorff (2009) revealed that individual psychological need satisfaction is enhanced when subordinates perceive themselves to fit with their work context (Greguras & Diefendorff, 2009). In other words, either over-fulfillment or under-fulfillment of work context would contribute to the experience of person-job misfit, which may hinder the satisfaction of psychological needs. Extending this to empowerment, we expect that unrecognized empowerment expectations, either by overestimation or underestimation, may hamper subordinate need satisfaction. Empowerment expectations provide individuals with cognitive schema to interpret their work roles (Labianca et al., 2000).

When leader empowerment expectations are higher than subordinate empowerment expectations ( $LE > SE$ ), subordinates may see these higher than expected autonomous roles as responsibilities that are unwanted or not fitting to their personal work goals. In addition, they may also not be able to see as many opportunities to work autonomously as what their leaders consider they could. On the other hand, when leader empowerment expectations are lower than subordinate empowerment expectations ( $LE < SE$ ), subordinates may evaluate their leaders as controlling and their self-determination needs would be under-fulfilled.

Accordingly, because leaders are less aware of subordinate empowerment expectations, leaders may overestimate or underestimate the levels of autonomy and self-management that subordinates are expecting. The confusion in decision-making roles and leader facilitation in participative goal and other settings may be in conflict with the subordinates' innate psychological needs to facilitate self-motivation. As such, the subordinates' expectations of how empowerment should be carried out by the leaders could be unmet, resulting in reduced intrinsic motivation. Thus, we hypothesize that:

**Hypothesis 2a.** The more leaders and subordinates disagree on subordinate empowerment expectations, the lower the subordinates' intrinsic motivation will be.

Unlike the case for role ambiguity, the agreement of empowerment expectations between leaders and subordinates should be related to higher individual intrinsic motivation when the matched expectations are high. Subordinates who possess high empowerment expectations may have different motivational orientations than those who possess low empowerment expectations. Typically, empowered subordinates are given greater autonomy and responsibility for their work (Hakimi, van Knippenberg & Giessner, 2010). Moreover, they are also given greater opportunities for self-development so as to enable them to be more

adaptive (Pearce & Sims, 2002). Previous studies have revealed that subordinates who seek to develop new skills and to exercise autonomous tasks tend to see themselves as strongly intrinsically motivated, whereas subordinates who seek control tend to be more extrinsically motivated (Amabile, Hill, Hennessey & Tighe, 1994; Deci & Ryan, 1985). Subordinates with high empowerment expectations working with leaders, who also possess high empowerment expectations, are likely to receive greater autonomy and involvement in decision-making at work than in situations where subordinates' and leaders' empowerment expectations match at lower levels. Accordingly, subordinates with high empowerment expectations see the extra autonomy and participation in decision making given by their leaders as something positive and evaluate their jobs to be more intrinsically motivating. Thus, individual intrinsic motivation should be higher when leader and subordinate empowerment expectations are both high than when they are both low. Thus, we hypothesize that:

**Hypothesis 2b.** When leaders and subordinates agree on the level of subordinate empowerment expectation, subordinates' intrinsic motivation will be higher for matched empowerment expectations at higher levels than for matched empowerment expectations at lower levels.

## **Method**

### **Sample**

Data were collected by surveys distributed to both leaders and their subordinates. The sample consisted of first-line workers in a large-sized manufacturing corporation in Norway. The target participants were geographically distributed at five different locations. Except for subordinate gender and team size (number of subordinates), no other significant difference was observed among the respondents across locations. The subordinates were all highly

skilled individuals who worked in teams with similar work tasks reporting to corresponding unit team leaders.

Prior to the distribution of the surveys, the researchers received from the human resource department of that organization a list of the work unit leaders and their corresponding subordinates. The researchers then assigned unique individual identification numbers to each leader and subordinate. The surveys (either web-based or pencil-and-paper) given to the target sample were marked with the individual identification numbers for matching purposes. The surveys were first distributed through a web-based tool (Confermit) to 771 subordinates and 47 corresponding supervisors. The respondents were given three weeks to reply. Completed surveys were received from 130 (17%) subordinates and 28 (60%) leaders. However, as many of the target participants did not have regular Internet access at work, a paper survey was posted to those who had not answered the web-based survey. This resulted in 100 (13%) additional responses from the subordinates and 6 (13%) from the leaders. In total, 230 (30%) subordinates and 34 (72%) leaders returned their surveys during the period from November 2010 to February 2011. Since, in some cases, responses were not received from subordinates or leaders, the final sample consisted of 168 pairs of leader–subordinate ratings, including 168 (22%) subordinates and 33 (70%) leaders. The number of subordinates reporting to the same leader in the matched sample ranged from 1 to 12.

Of the 168 subordinates, 18 were women and 136 were men (14 did not report their gender). Their average age was 42. 33% had obtained a junior high school education; 29% had obtained a senior high school education; 13% had a university degree; 8% had obtained primary school education; 5% had pre-university education; and 3% had a master's degree. On average, they had been working for the current organization for approximately 19 years. The average age and tenure of the 33 supervisors were 47 and 19 years, respectively; 3 were women and 29 were men. Approximately 25% of the leader sample had obtained a university



degree, while 18% had obtained junior high school education; another 18% had senior high school education; 15% had a master's degree; and 8% had primary school education.

Mean comparisons were performed to examine whether there were differences between the final sample ( $N = 168$ ) and the subordinate sample without leaders' ratings ( $N = 63$ ). Except for gender, no difference was observed for the subordinate demographic variables, including age ( $M = 38.29$  versus  $M = 38.69$ , *n.s.*), education attainment ( $M = 2.55$  versus  $M = 2.10$ , *n.s.*) and organizational tenure ( $M = 16.71$  versus  $M = 17.29$ , *n.s.*). There were also no significant differences observed with respect to the three subordinate-rated independent and dependent variables studied, including subordinate empowerment expectation ( $M = 3.94$  versus  $M = 4.03$ , *n.s.*), role ambiguity ( $M = 2.05$  versus  $M = 1.92$ , *n.s.*) and intrinsic motivation ( $M = 3.48$  versus  $M = 3.40$ , *n.s.*). Thus, we concluded that selective bias of the leaders was not a problem in the present study.

## Measures

Two major actions were taken in this study to ensure reliable and valid measures. First, all the measures, except the leader empowering behavior expectation scale, were adopted from prior research, ensuring that they had been previously tested and proven to be reliable and valid. Empowering leadership expectation and role ambiguity were originally written in English, and a translation from English to Norwegian was undertaken by a native Norwegian who also had an academic background. To ensure the reliability and validity of the translation for these items, each item was translated back from Norwegian to English by a second translator and compared with the original text by three highly educated individuals who were fluent in both English and Norwegian. Some modifications were made after the review. Second, the questionnaire was pre-tested with a pilot sample of 15 individuals to ensure that all the directions and items were clearly understood. The data and feedback

collected from the pilot test were reviewed, and minor modifications were made regarding language issues.

All the items were measured using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Empowering leadership expectation was modified from Ahearne et al.'s (2005) scale, consisting of 12 items and four subscales: 1. Enhancing the meaningfulness of the work (e.g., “*I expect my manager to help me understand how my objectives and goals relate to those of the company*”); 2. Fostering participation in decision-making (e.g., “*I expect my manager to make many decisions together with me*”); 3. Expressing confidence in high performance (e.g., “*I expect my manager to believe that I can handle demanding tasks*”); 4. Providing autonomy from bureaucratic constraints (e.g., “*I expect my manager to allow me to do my job my way*”). This scale was also modified to measure the leaders' perceptions of their subordinates' expectations in terms of their empowering roles (e.g., “*My subordinates expect me to help them understand how their objectives and goals relate to those of the company*”).

*Role ambiguity.* Role ambiguity was measured by a four-item scale developed by Rizzo, House and Lirtzman (1970). An example item from this scale is: “*I know what my responsibilities are*” (Rizzo et al., 1970). To ease the interpretation of the findings, the items were reverse coded so that higher values imply higher perceived role ambiguity.

*Intrinsic motivation.* Intrinsic motivation was measured by a six-item scale developed and validated by Kuvaas and Dysvik (2009). An example item is: “*My job is so interesting that it is a motivation in itself*” (Kuvaas & Dysvik, 2009).

*Control variables.* Recent studies stress the consideration of the potential influence of demographic variables on motivational processes (Kanfer & Ackerman, 1989; Payne, Youngcourt & Beaubien, 2007); education, gender, age, and organizational tenure of both leaders and subordinates were therefore used as control variables. Education was measured by

six categories ranging from primary school education to a master's degree involving more than five years. Because education is a categorical variable, it was recoded into five dummy variables for further analyses. The respondents reported their ages and organizational tenures in true years. In addition, to control the size of the work team, the number of subordinates who reported directly to the leaders was also included.

### **Procedures**

To examine the hypotheses, a cross-level polynomial regression analysis was applied (Edwards & Parry, 1993; Jansen & Kristof-Brown, 2005). Polynomial regression procedures avoid many shortcomings, such as the reliance on simple statistical techniques apparent in much of the previous difference scores research (e.g., correlation or calculated gap score) (Atwater et al., 2005; Edwards, 1994; Fleenor et al., 2010; Gibson et al., 2009). Moreover, combined with the response surface methodology, it permits precise description and evaluation of the difference scores relationships studied (Edwards & Parry, 1993).

The polynomial regression analysis begins with a representation of the conceptual model as unconstrained regression equations (Edwards, 2002; Edwards & Parry, 1993). There are four constraints in support of the hypothesized models. First, the variance explained by the equation differs from zero. Second, the coefficients follow the prior posited pattern. Third, the constraints corresponding to the model are satisfied. Fourth, the variance explained by higher-order terms is significant (Edwards, 2002, p. 363). The two component measures were centered using a common value midway between their means (Lambert, Edwards & Cable, 2003). Centering the scales reduces multicollinearity between the component measures (i.e., leader and subordinate empowerment expectations) and their associated higher-order terms (Aiken & West, 1991).

In the present study, because some of the subordinates shared the same leaders, there is potential shared variance due to non-independence (Jansen & Kristof-Brown, 2005; Zhang, Wang & Shi, 2012). The non-independence with work units could bias the standard error estimate and the hierarchical linear modeling (HLM) technique is recommended (Jansen & Kristof-Brown, 2005). Moreover, HLM also overcomes the shortcomings of aggregating individual data to the group level (Hofmann, 1997). Data aggregation would weaken the statistical power and would discard meaningful individual level variance that may lead to inappropriate inferences (Hofmann, 1997; Raudenbush & Bryk, 2002).

HLM analytical strategy allows variables at multiple levels in a nested structure to be formally represented by submodels at their own levels. These submodels express the relationships among variables within and across given levels in order to specify how variables at one level influence variables at another (Raudenbush & Bryk, 2002). Therefore, we adapted the cross-level polynomial regression analysis where it incorporates the polynomial regression model within HLM. In the case of our study, subordinate empowerment expectation, role ambiguity and intrinsic motivation were analyzed at Level 1, while leader empowerment expectation was analyzed at Level 2. Adapting the cross-level polynomial regression method (Jansen & Kristof-Brown, 2005), the HLM equations were as follows:

Level 1 equation:

$$Z = b_0 + b_1X + b_2X^2 + e.$$

Level 2 equations:

$$b_0 = \gamma_{00} + \gamma_{01}Y + \gamma_{02}Y^2 + \mu_0,$$

$$b_1 = \gamma_{10} + \gamma_{11}Y + \mu_1,$$

$$b_2 = \gamma_{02} + \mu_2.$$

Z represents the outcome variable of interest (i.e., role ambiguity and intrinsic motivation). X represents subordinate empowerment expectation and Y represents leader empowerment expectation.

To test the hypotheses, we regressed the independent variables of interest on the set of control variables, the two component scores and their squared terms, and the cross product, using the HLM equations specified above. Then, response surface analyses were employed to test the slopes of the surfaces along the confirmation ( $Y = X$ ) and disconfirmation ( $Y = -X$ ) axes. Besides providing the basis necessary for testing the feature of the surfaces corresponding to the quadratic regression equations, response surface analyses also enabled formal interpretation of the results generated from the cross-level polynomial regression analyses by providing a nuanced view of the relationships between the combinations of leader and subordinate empowerment expectation and the outcome variables (Shanock, Baran, Gentry, Pattison & Heggstad, 2010).

H1a posited that both positive and negative empowerment expectation gaps will be positively related to role ambiguity. In addition, role ambiguity remains at lower levels along the line of agreement. Therefore, the curvilinear slopes of the response surface increase as the subordinate ratings deviate from the leader ratings in either direction. This hypothesis will be supported if the curvilinear slope, which is given by  $a_4 = b_3 - b_4 + b_5$ , (where  $b_3$  is the  $\beta$  for subordinate ratings squared,  $b_4$  is the  $\beta$  for the cross product of subordinate and leader ratings, and  $b_5$  is the  $\beta$  for leader ratings squared) is significant and positive. Moreover, the linear slope of the surface along  $Y = X$  (the congruence axis) is not significantly different from zero. Thus, the linear slope, which is given by  $a_1 = b_1 + b_2$ , of the congruence axis should not be different from zero within the 95% confidence interval. H2a posited that positive and negative empowerment expectation gaps will be negatively related to intrinsic motivation. Therefore, the curvilinear slopes  $a_4$  of the response surfaces of intrinsic motivation decrease as the

subordinate ratings deviate from the leader ratings in either direction. This hypothesis will be supported if the curvilinear slope is significant and negative.

H1b posited that role ambiguity would be lower when the leaders underestimate subordinates' empowerment expectations than when the leaders overestimate them. As such, a negative linear slope along the incongruence axis ( $Y = -X$ ), which is given as  $a_3 = b_1 - b_2$  (where  $b_1$  is the  $\beta$  for subordinate ratings and  $b_2$  is the  $\beta$  for leader ratings), would give support to this hypothesis. Additionally, H2b hypothesized that intrinsic motivation is higher when both leaders' and subordinates' ratings are high than when both are low. Converting this into statistical tests, the hypothesis suggests that the linear slope  $a_1$  of the surface along the  $Y = X$  line is greater than zero, meaning that intrinsic motivation should increase along the line of perfect fit. Therefore, the linear slope of the congruence axis should be significant and positive. Thus,  $a_1$  differing significantly from and greater than zero would provide statistical support for the hypothesis (H2b) (Edwards & Parry, 1993).

Response surface analyses are susceptible to outliers (Lambert et al., 2003). Therefore, the regression equations that examined the hypothesized models with role ambiguity and intrinsic motivation as dependent variables, respectively, were screened using student adapted residuals, leverage, and Cook's D statistics criteria (Fox, 1991; Lambert et al., 2003).

Observations that were clearly discrepant from others on the screen-plots and exceeded the recommended cut-off values were removed from the analyses. In total, three cases were affected for the regression model with role ambiguity as the dependent variable, and five cases were affected for the regression model with intrinsic motivation as the dependent variable.

## Results

Because we used modified versions of Ahearne et al.'s (2005) empowering leader behavior scale, a principal components analysis was performed to validate the factor structure of the constructs (Weinfurt, Bryant & Yarnold, 1994). We examined 34 items derived from four constructs: subordinate rating on empowerment expectation, leader rating on subordinate empowerment expectation, individual role ambiguity, and intrinsic motivation. The amount of variance explained that was accounted for by subordinate empowerment expectation was 14.70 %, 14.36 % by leader rating on subordinate empowerment expectation, 8.61 % by role ambiguity, and 12.96 % by intrinsic motivation. Taken together, these four components accounted for a total of 50.63 % of variance. The common cut-off component loading of 0.5 and cross-loadings of less than  $|\cdot 10|$  were adapted as the criteria for item retention (Pedhazur & Schmelkin, 1991; Deemer, Carter & Lobrano, 2010). Out of the 34 items, three items (one from subordinate empowerment expectation, one from role ambiguity, and one from leader empowerment expectation) demonstrated factor loadings lower than the criterion levels and were thus removed. Although one item in the leader rating on the subordinate empowerment expectation scale demonstrated a loading of .46, which was slightly lower than the 0.5 cut-off, the cross-loadings with the other three factors were relatively low, ranging from 0.03 to -0.12. Thus, the item was retained. The remaining 31 items loaded (the component loadings ranged from 0.53 to 0.83) on their corresponding constructs, demonstrating a satisfactory structure with four distinct components. The four subscales of empowerment expectation (either of the leaders or of the subordinates) loaded on a single component, consistent with previous studies that used the original empowering leadership scale (e.g., see Ahearne et al., 2005; Zhang & Bartol, 2010). They were thus collapsed into one overall scale. An assessment of the potential multicollinearity of all the independent variables was carried out using variance inflation

component scores, and all the values were far below 10 (Hair, Anderson, Tatham & Black, 1998).

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Insert TABLE 1 about here  
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The means, standard deviations, coefficient alphas, and inter-correlations for the study's variables are depicted in Table 2. An internal consistency analysis of the items measured was conducted using Cronbach's alpha, where values above 0.70 are usually deemed to be acceptable for research purposes (Nunnally, 1978). The Cronbach's alpha values of the four constructs measured ranged from 0.79 to 0.88. Thus, all the constructs measured in this study reached satisfactory internal consistency. The means and standard deviations of the variables measured indicated good dispersion and little evidence of floor or ceiling effects (Edwards, 2002). According to our theorizing, the correlations among the variables were modest in magnitude and directions. Accordingly, the descriptive statistics and correlations indicate that the measures were suitable for this study. For the demographic variables, both of the leaders and of the subordinates, those that were not correlated to any of the predictors and outcome variables were removed from further analyses in order to downsize the number of relevant variables included in the polynomial regression models.

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Insert TABLE 2 about here  
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As some of the subordinate respondents shared the same leaders, a test of interdependence between the groups was needed to examine the potential independence errors



of the dyadic relationships investigated (Gonzalez & Griffin, 2000). The intra-dyadic similarity can be assessed by the significance of the variance of the dependent variables at the individual level (i.e., role ambiguity and intrinsic motivation) that can be explained by the predictors at the group level (Gonzalez & Griffin, 2000). Thus, using the leader as the group identity, null hierarchical models, with role ambiguity and intrinsic motivation as the dependent variables at the individual level without any predictor, were used to test the significance of their interdependence (Gonzalez & Griffin, 2000). The results revealed that there were no significant unexplained between-group variances of role ambiguity and intrinsic motivation with *p*-values greater than the 0.05 level. However, the unexplained variations of role ambiguity and intrinsic motivation within groups who shared the same leaders were significant at the *p*-value levels of less than 0.01. This implies that role ambiguity and intrinsic motivation varied among subordinates, but the variations did not demonstrate systematic patterns among subordinates across leaders.

In addition, we tested whether subordinate empowerment expectations varied within and among different leaders and the examination yielded significant results at the *p*-values of less than 0.05 and 0.10 respectively. Sauley and Bedeian (1989) demonstrated that for relatively smaller samples, such as the final sample (33 leaders) in this study, a *p*-value of less than 0.10 is considered to be satisfactory. The results revealed that subordinate empowerment expectations varied within and across different leader groups. This implies that among subordinates with the same leaders there was a considerable amount of variation in terms of their empowerment expectations. This variation could be due to individual differences in terms of their backgrounds and experiences (Katz & Kahn, 1966). On the other hand, they also tended to share more similar expectations regarding leader empowering behaviors than others who worked under different leaders. The variation among leaders could be due to more normative determinants directed to the team structure and goals. This finding is consistent

with role se theory, pinpointing the complexity of role expectations that being influenced by both personal and normative attributes (Katz & Kahn, 1978). To test the hypotheses, we then conducted cross-level polynomial regression analyses. Table 3 shows the fixed effects estimates of the parameters, including the set of control variables, the two component scores, their squared terms and their cross product (the interaction term). With respect to role ambiguity, the unconstrained equation indicates that this was minimized when the leaders were more aware of the subordinates' empowerment expectations and increased as their expectations deviated from each other in either direction. For intrinsic motivation, the results indicate that it was maximized when the subordinate–leader ratings were similar and decreased as they deviated. The interaction terms of subordinate and leader empowerment expectations were significant for both role ambiguity and intrinsic motivation. Both models demonstrated more significant increases in the total explained variance than the null models. Based on the results generated from the polynomial regression models, response surface analyses were performed to examine the significance of the hypothesized expressions.

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 Insert TABLE 3 about here  
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### **Role ambiguity as the dependent variable**

H1a posited that role ambiguity increases on either side of the point of perfect fit. This implies a parabolic surface that is U-shaped along the incongruence ( $Y = -X$ ) line. In other words, role ambiguity would be higher when leader empowerment expectations are higher than subordinate empowerment expectations ( $LE > SE$ ) and when leader empowerment expectations are lower than subordinate empowerment expectations ( $LE < SE$ ). This expression was examined by testing the significance of the curvilinear slope  $a_4$  of the disconfirmation axis. The curvilinear slope was positive (convex), but non-significant ( $a_4 =$

.51,  $p > .05$ ), as shown in Table 3. However, the linear slope  $a_1$  along the congruence ( $Y = X$ ) axis was examined to investigate whether role ambiguity would stay low along the agreement line. The 95% confidence interval of the linear slope  $a_1$  included zero with a lower bound of -0.29 and an upper bound of 0.54. This means that the linear slope was not significantly different from zero. Thus, the null hypothesis of role ambiguity being higher/lower from one region to another is rejected. Taken together, the results imply that role ambiguity remained at lower levels when they agreed at low levels as when they agreed at high levels, which provides partial support for H1a. For H1b, the linear slope on the disconfirmation line  $a_3 = b_1 - b_2$  was significant and negative ( $a_3 = -.82, p < .01$ ) implying that subordinates had higher role ambiguity when the leaders overestimated their empowerment expectations ( $LE > SE$ ) than when the leaders underestimated them ( $LE < SE$ ), as illustrated in Figure 1, providing support for H1b.

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 Insert FIGURE 1 about here  
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### **Intrinsic motivation as the dependent variable**

H2a hypothesizes that intrinsic motivation decreases on either side of the perfect fit (i.e., when  $LE > SE$  and when  $LE < SE$ ). This hypothesis implies an inverted U-shaped (concave) surface along the incongruence line ( $Y = -X$ ). Thus, the curvilinear slope along the incongruence line  $a_4$  should be significant and negative. The results demonstrate a strong inverted U-shaped surface along the incongruence line ( $a_4 = -1.28, p < .05$ ), as shown in Figure 2. That is, subordinates had lower intrinsic motivation when the leaders overestimated their empowerment expectations ( $LE > SE$ ) and when the leaders underestimated them ( $LE < SE$ ), providing support for H2a.

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Insert FIGURE 2 about here

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The linear slope  $a_1$  of the response surface of intrinsic motivation (H2b) along the congruence line ( $Y = X$ ) was also tested. The linear slope was positive and significant ( $a_1 = .67, p < .01$ ), providing support for H2b. That is, intrinsic motivation increases along the matched empowerment expectation line. As such, subordinates had higher intrinsic motivation in the region where both leader and subordinate empowerment expectations were high (agreed at high levels) than in the region where both leader and subordinate empowerment expectations were low (agreed at low levels).

### **Discussion**

The current study contributes to the empowerment literature by shedding light on the roles of subordinate empowerment expectations and leaders' awareness of these expectations. Whereas the vast majority of empowerment research has focused on subordinates' perceived experiences of empowerment, our findings suggest that expectations of subordinates also serve as an important component in the evaluation of how subordinates respond to empowering leadership. In addition, our study also stresses the importance of leaders' awareness of subordinate empowerment expectations. By incorporating self-other agreement literature, we suggest that subordinates evaluate empowerment not only based on their expectations, but also by leaders' awareness of their expectations. This contributes to the literature pertaining to the relational empowerment perspective by extending the understanding of leader-subordinate interpersonal relationships in the face of empowerment. As empowerment requires commitment from both leaders and subordinates, previous research recognizes the importance of leader-subordinate interpersonal relationships to the effectiveness of empowerment (Aryee & Chen, 2006; Avolio, Zhu, Koh, & Bhatia, 2004;

Gao, Janssen & Shi, 2011; Liden, Wayne & Sparrowe, 2000; Wat & Shaffer, 2005). The findings of our study indicate that dyadic interactions could be substantially different in situations in which leaders are aware and in which they are not aware of their subordinates' individual empowerment expectations. More specifically, more aware leaders seem to be able to better align their behaviors to each subordinates' expectations.

With respect to role ambiguity, the results indicate that the levels of role ambiguity were particularly higher when subordinate empowerment expectations were overestimated. In addition, the levels of role ambiguity were lower when both leaders' and subordinates' ratings matched, providing a partial support to H1a. This may imply that when leaders are more aware of subordinates' empowerment expectations, subordinates will have a greater understanding of their work roles within the organization. This finding is consistent with the sense-making literature, implying that interlocked behavior is more predictable for the actors within the organization and therefore perceived uncertainties otherwise increase (Weick, 1979).

On the other hand, the linear (negative) slope on the incongruence line was significant (H1b). This implies that role ambiguity increases when leaders' ratings are higher than subordinates' individual expectations (i.e.,  $LE > SE$ ), but not in the opposite situation wherein leaders' ratings are lower than subordinates' individual expectations (i.e.,  $LE < SE$ ). In other words, leaders' overestimation of empowerment expectations is positively related to subordinates' experiences of role ambiguity. Although the response surface figure (Figure 1) reveals a slight upward curvature in the region where subordinate empowerment expectation is higher than the leaders' rating ( $LE < SE$ ), the curvature did not yield statistical significance. Accordingly, while role ambiguity is significantly higher in the region where leaders over-evaluate subordinates' individual empowerment expectations, it is not significantly higher in the region where leaders under-evaluate subordinates' empowerment expectations. One

possible explanation for these observations is that, according to structural empowerment theory, the empowerment structure (i.e., organizational policy and hierarchical structure, etc.) might constrain subordinates. Nevertheless, they often look for latent opportunities to alter the structure in which they are placed (Kanter, 1977). This argument is further supported and elaborated by Spreitzer (1995), who argued that subordinates who feel empowered do not see their work as static, but as something that can be shaped by their actions. As such, subordinates with high empowerment expectations might be less dependent on their leaders and have a more active orientation toward their work role in terms of looking for boundaries at work and trying to make sense of their work role in determining which actions to take to shape their work. Future research investigating this possibility is warranted.

We also observed some unexpected findings regarding the relationships between the leader–subordinate empowerment expectation gap and role ambiguity. The results indicate an inverted U-shaped curvilinear relationship with leader–subordinate empowerment expectations along the congruence line ( $Y = X$ ). Although the non-significant linear slope provides support that role ambiguity remains at lower levels when leader–subordinate empowerment ratings are high and when they are low (H1a), the significant and negative curvilinear slope indicates that role ambiguity increases in the region when both leaders' and subordinates' individual ratings are modest. This could mean that when both leaders and subordinates agree at a modest level, even though their ratings match, the interpretations of how these empowerment expectations should be related to their work roles would be looser than in situations when both agree at higher or at lower levels. Accordingly, it is not only about matching the empowerment expectations between leaders and subordinates; it might also be wise to pay attention to the degree of agreement. Our findings suggest that subordinates seem to benefit from having high empowerment expectations that are also recognized by their leaders, but more research is needed on role ambiguity before firm

conclusions can be drawn. Taken together, our findings imply that the unstructured task assignment and the discretion of decision-making that are higher than subordinates' individual expectations may be significant contributors to the experience of role ambiguity.

The results for intrinsic motivation imply that the less the leader is aware of subordinates' individual empowerment expectations (either  $LE > SE$  or  $LE < SE$ ), the lower the intrinsic motivation of the subordinate (H2a). In addition, our findings indicate that subordinates' intrinsic motivation is higher in the region where both agree at high levels than where both agree at low levels (H2b). Across the large body of research on motivation, it is generally agreed that intrinsic motivation is associated with positive organizational and individual outcomes, including, to name a few, more citizenship behaviors, higher work performance and affective commitment (Deci & Ryan, 1985; Gagne & Deci, 2005; Kuvaas, 2006; Piccolo & Colquitt, 2006). Thus, based on our findings, leaders should not only improve their communication with their subordinates in order to match their expectations, but also try to interlock the empowerment expectations with those of their subordinates at a higher level.

Both cross-level polynomial regression models indicate that role ambiguity and intrinsic motivation fluctuate differentially along the congruence and incongruence lines. Seemingly, empowerment does not necessarily increase intrinsic motivation and, at the same time, increases role ambiguity. Role ambiguity and intrinsic motivation might even move in opposite directions in relation to empowerment. This provides us with a nuanced understanding on the dilemma of role ambiguity versus intrinsic motivation for empowerment implementation.

**Varying in the same directions.** Role ambiguity and intrinsic motivation are both lower in the region where leaders and subordinates agree at lower to modest levels. The same situation applies when leaders' ratings are lower than subordinates' individual ratings ( $LE <$

SE). These results are consistent with the current empowerment literature, indicating that, in these specific situations, companies might face a dilemma in which, on the one hand, they benefit from having subordinates who are clear about their work roles due to the structured task assignment and limited discretion at work (Cordery, et al., 2010), but, at the same time, the companies might also suffer from having demotivated subordinates due to the lack of autonomy and opportunities to shape their own work (Thomas & Velthouse, 1990).

**Varying in opposite directions.** Role ambiguity is highest and intrinsic motivation is lowest in the region where leaders' ratings are higher than subordinates' individual empowerment expectations ( $LE > SE$ ). Leader overestimation of subordinate expectation is strongly related to detrimental employee outcomes; leaders should not blindly assume high empowering expectations without taking action to facilitate high empowerment expectations among subordinates. This particular observation also highlights investigations into the antecedents of empowerment expectations as a potentially fruitful avenue for future research. As discussed in previous research, empowerment comes with extra responsibilities, autonomy, and duties (Collins, 1999; Spreitzer, 2008), and whether subordinates see these as burdens or challenges has an important bearing on how they would expect and respond to empowerment at work. In addition to such attitudes, whether subordinates are ready for empowerment with respect to competences may also be relevant to how empowerment expectations are formed. Empowering leadership is about facilitating subordinates to be their own self-leaders (Pearce & Sims, 2002). It involves certain skills, competences, and understandings of organizational procedures and policy in order to be able to make decisions on how to approach work (Vecchio et al., 2010). Without such necessary skills and competencies, subordinates might not feel comfortable with the extra responsibilities and autonomy, which in turn may lower their empowerment expectations.



On the other hand, role ambiguity is lowest and intrinsic motivation is highest in situations where leaders and subordinates agree at higher levels. This appears to be the most ideal scenario of the four. Under this situation, companies would not suffer from having either high role ambiguity or de-motivated subordinates. On the contrary, they benefit from having highly motivated subordinates who are clear about their work roles. This may imply that when leaders recognize a high level of subordinate empowerment expectation, to fulfill their roles, they provide their subordinates with greater autonomy, decision-making latitude and fewer bureaucratic constraints. Extra responsibilities and greater involvement are even required for the jobs; subordinates with high empowerment expectations accept and enjoy their work roles. This sheds light on the discussion in the current empowerment literature in which we might be able to seek solutions to the dilemmas that empowering leadership may generate.

In addition, we found that among other demographic variables, leader age was positively related to subordinate intrinsic motivation. This implies that subordinates who worked under older leaders tended to demonstrate higher intrinsic motivation. A meta-analytic study by Kooij, De Lange, Jansen, Kanfer, and Dijkers (2011), reveals a positive relationship between age and intrinsic motivation. It is argued that, unlike younger leaders who rely more on externally oriented primary control strategies, older leaders tend to employ secondary control strategies that amplify preferences for intrinsically rewarding features of the job (Kooij et al., 2011). As such, the preferences of these secondary control strategies to reinforce intrinsic rewards might have been highlighted by the older leaders and affected their subordinates.

Finally, the present study underscores Follett's position that, in order for empowerment to grow, there is a collective responsibility and a reciprocal influencing relationship between management and workers (Follett, 1918). That is, management and

workers each have a level of influence on the other (Boje & Rosile, 2001). Only with joint inquiry and joint action can we jointly develop power (Follett, 1941). Empowerment should, therefore, not be determined without considering other subordinates' own opinions. Otherwise, empowerment may just be disempowerment. If subordinates are to be empowered, their opinions on the practices need to be heard and integrated.

### **Limitations and Conclusion**

Some of the values obtained in the surface analysis for the dependent variables fell outside of the scale range, i.e., 1 to 5, and the interpretation of the results was only based on the portion of the surface that lies above the bivariate distribution of X and Y. This might imply that the findings are less stable. However, given the relative small sample size, i.e., 168 subordinates and 33 leaders, the significant results obtained are considerable. Still, attention should be paid to the potential weaknesses in terms of reliability.

Moreover, the findings of the present study are based on cross-sectional data and a cross-sectional design cannot examine the causality of the relationships studied. Also, the stability of expectation is a topic of debate in expectation disconfirmation theory (Irving & Meyer, 1994). Whether leader empowerment expectation, subordinate empowerment expectation, and individual and organizational outcomes are reciprocally related would therefore be an interesting topic for future research. Longitudinal studies are recommended in order to investigate the potential reciprocal nature over time.

This study focused on the mutuality of leaders' and subordinates' ratings of subordinate empowerment expectations. An interesting avenue for future research would be to investigate whether the leaders' reciprocity of subordinates' empowerment expectations would also have an effect on subordinates' outcomes (Dabos & Rousseau, 2004). Future investigation on this issue is warranted. Moreover, previous studies in the self-other

agreement literature have provided us with evidence on a wide range of antecedents, such as raters' biographical characteristics, their cognitive ability and the contextual factors that could affect self–other agreement/disagreement (Fleenor et al., 2010). Although we included a wide set of demographic variables to control for their potential influence on role ambiguity and intrinsic motivation, we cannot exclude the possibility that the inferences claimed could be attributed to other variables. As noted by an anonymous reviewer, subordinates often fail to make clear distinctions about different leader behaviors as evidenced by the findings in the 360 degree literature wherein different leader attributes are often collapsed into a single scale. Accordingly, a research opportunity that deserves more attention is to investigate whether our findings are applicable to other and more generalized leader expectation gaps. Despite the merits of this question, however, a study by Pearce and Sims (2002) examined team effectiveness across various leadership styles including aversive, directive, transactional, transformational, and empowering leader behaviors. They found that these leadership styles were distinct from each other and that empowering leadership was most effective. Moreover, our theorizing leads to the potential dilemma inherent in empowerment (increased autonomy versus role ambiguity), to which we consider the alleged leader–subordinate empowerment expectation gaps particularly relevant.

Even though our sample may have been appropriate with respect to observing empowerment expectation gaps between leaders and subordinates due to the recent structural change, it remains an empirical question whether the gaps are large enough in other organizations to impact on employee outcomes. Accordingly, whether our findings can be generalized needs to be tested by research in other organizations. Finally, since we investigated constructs that offer few alternatives to self-reported data, future research should investigate employee outcomes that can be measured by other sources (e.g., peers, managers, or measures of objective performance, if available).

In conclusion, our study adds to the growing body of empowerment research by introducing empowerment expectation gaps. Prior empowerment research has revealed a robust and positive relationship between empowerment and important employee outcomes. By investigating the leader–subordinate empowerment expectation gap, we can probably explain more variances in such outcomes, as evidenced in this study by role ambiguity and intrinsic motivation.

### References

- Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology, 90*, 945–955. doi:10.1037/0021-9010.90.5.945
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Amabile, T. M., Hill, K. G., Hennessey, B. A., & Tighe, E. M. (1994). The work preference inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology, 66*(5), 950–967. doi: 10.1037//0022-3514.68.4.580
- Aryee, S., & Chen, Z. X. (2006). Leader-member exchange in a Chinese context: Antecedents, the mediating role of psychological empowerment and outcomes. *Journal of Business Research, 59*(7), 793-801. doi: 10.1016/j.jbusres.2005.03.003
- Atwater, L. E., Waldman, D., Ostroff, C., Robie, C., & Johnson, K. M. (2005). Self–other agreement: Comparing its relationship with performance in the U.S. and Europe. *International Journal of Selection and Assessment, 13*, 25–40. doi: 10.1111/j.0965-075X.2005.00297.x
- Avolio, B. J., Zhu, W. C., Koh, W., & Bhatia, P. (2004). Transformational leadership and organizational commitment: mediating role of psychological empowerment and moderating role of structural distance. *Journal of Organizational Behavior, 25*(8), 951-968. doi: 10.1002/job.283
- Baard, P. P. (2002). Intrinsic need satisfaction in organizations: A motivational basis of success in for-profit and not-for-profit settings. In E. L. Deci, & R. M. Ryan (Eds.),

*Handbook of self-determination research* (pp. 255–275). Rochester, NY: University of Rochester Press.

- Boje, D. M., & Rosile, G. A. (2001). Where's the power in empowerment?: Answers from Follett and Clegg. *The Journal of Applied Behavioral Science*, *37*(1), 90–117. doi: 10.1177/0021886301371006
- Carless, S. A. (2004). Does psychological empowerment mediate the relationship between psychological climate and job satisfaction? *Journal of Business and Psychology*, *18*(4), 405–425. doi: 10.1023/B:JOBU.0000028444.77080.c5
- Cicero, L., Pierro, A., & van Knippenberg, D. (2010). Leadership and uncertainty: How role ambiguity affects the relationship between leader group prototypicality and leadership effectiveness. *British Journal of Management*, *21*, 411–421. doi: 10.1111/j.1467-8551.2009.00648.x
- Collins, D. (1999). Born to fail? Empowerment, ambiguity and set overlap. *Personnel Review*, *28*(3), 208–221. doi: 10.1108/00483489910264598
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, *31*, 471–482. doi: 10.2307/258093
- Cook, J. D., Hepworth, S. J., Wall, T. D., & Warr, P. B. (1981). *Experience of work: A compendium and review of 249 measures and their use*. New York: Academic Press.
- Cordery, J. L., Morrison, D., Wright, B. M., & Wall, T. D. (2010). The impact of autonomy and task uncertainty on team performance: A longitudinal field study. *Journal of Organizational Behavior*, *31*, 240–258. doi: 10.1002/job.657
- Cox, J. F., Pearce, C. L., & Sims, H. P. (2003). Toward a broader agenda for leadership development: Extending the traditional transactional-transformational duality by developing directive, empowering and shared leadership skills. In R. E. Riggio, & S.

- Murphy (Eds.), *The future of leadership development* (pp. 161–179). Mahwah, NJ: Lawrence Erlbaum.
- Dabos, G. E., & Rousseau, D. M. (2004). Mutuality and reciprocity in the psychological contracts of employees and employers. *Journal of Applied Psychology, 89*(1), 52–72. doi: 10.1037/0021-9010.89.1.52
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*, 627–668. doi: 10.1037/0033-2909.125.6.627
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. *Psychological Bulletin, 125*, 627–668.
- Deemer, E. D., Carter, A. P., & Lobrano, M. T. (2010). Extending the 2 x 2 achievement goal framework: Development of a measure of scientific achievement goals. *Journal of Career Assessment, 18*(4), 376–392.
- Edwards, J. R. (1994). The study of congruence in organization-behavior research – Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes, 58*, 51–100. doi: 10.1006/obhd.1994.1029
- Edwards, J. R. (2002). Alternatives to difference scores: Polynomial regression analysis and response surface methodology. In F. Drasgow, & N. W. Schmitt (Eds.), *Advances in measurement and data analysis* (pp. 350–400). San Francisco: Jossey-Bass.
- Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to differences scores in organizational research. *Academy of Management Journal, 36*, 1577–1613. doi: 10.2307/256822
- Fleenor, J. W., Smither, J. W., Atwater, L. E., Braddy, P. W., & Sturm, R. E. (2010). Self–other rating agreement in leadership: A review. *The Leadership Quarterly, 21*(6), 1005–1034. doi: 10.1016/j.leaqua.2010.10.006

- Follett, M. P. (1918). *The new state*. New York: Longmans, Green.
- Follett, M. P. (1941). *Dynamic administration: The collected papers of Mary Parker Follett*. New York: Harper.
- Fox, J. (1991). *Regression diagnostics*. Newbury Park, CA: Sage.
- Gagne, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331–362. doi: 10.1002/job.322
- Gagne, M., Senecal, C., & Koestner, R. (1997). Proximal job characteristics, feelings of empowerment, and intrinsic motivation: a multidimensional model. *Journal of Applied Social Psychology*, 27, 1222-1240.
- Gao, L., Janssen, O., & Shi, K. (2011). Leader trust and employee voice: The moderating role of empowering leader behaviors. *The Leadership Quarterly*, 22, 787-798.
- Gentry, W. A., Yip, J., & Hannum, K. M. (2010). Self-observer rating discrepancies of managers in Asia: A study of derailment characteristics and behaviors in Southern and Confucian Asia. *International Journal of Selection and Assessment*, 18, 237–250. doi: 10.1111/j.1468-2389.2010.00507.x
- Gibson, C. B., Cooper, C. D., & Conger, J. A. (2009). Do you see what we see? The complex effects of perceptual distance between leaders and teams. *Journal of Applied Psychology*, 94, 62–76. doi: 10.1037/a0013073
- Goleman, D., Boyatzis, R., & McKee, A. (2001). Primal leadership: The hidden driver of great performance. *Harvard Business Review*, 79, 42–51.
- Gonzalez, R., & Griffin, D. (2000). On the statistics of interdependence: Treating dyadic data with respect. In W. Ickes, & S. W. Duck (Eds.), *The social psychology of personal relationships* (pp. 181–213). Chichester: John Wiley & Sons.
- Greguras, G. J., & Diefendorff, J. M. (2009). Different fits satisfy different needs: Linking person–environment fit to employee commitment and performance using self-



determination theory. *Journal of Applied Psychology*, *94*, 465–477. doi:

10.1037/a0014068

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.

Hakimi, N., van Knippenberg, D., & Giessner, S. (2010). Leader empowering behavior: The leader's perspective. *British Journal of Management*, *21*, 7041–7716. doi:

10.1111/j.1467-8551.2010.00703.x

Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management*, *23*(6), 723–744.

Hooijberg, R., & Choi, J. (2000). Which leadership roles matter to whom? An examination of rater effects on perceptions of effectiveness. *Leadership Quarterly*, *11*, 341–364. doi:

10.1016/S1048-9843(00)00044-8

Huang, X., Iun, J., Liu, A., & Gong, Y. (2010). Does participative leadership enhance work performance by inducing empowerment or trust? The differential effects on managerial and non-managerial subordinates. *Journal of Organizational Behavior*, *31*, 122–143. doi: 10.1002/job.636

Irving, P. G., & Meyer, J. P. (1994). Re-examination of the met-expectations hypothesis: A longitudinal analysis. *Journal of Applied Psychology*, *79*, 937–949.

Jansen, K., & Kristof-Brown, A. L. (2005). Marching to the beat of a different drummer: Examining the impact of pacing congruence. *Organizational Behavior and Human Decision Processes*, *97*, 93–105.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., & Snoek, J. D. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York: John Wiley.

- Kanfer, R., & Ackerman, P. L. (1989). Motivation and cognitive abilities: An integrative aptitude treatment interaction approach to skill acquisition. *Journal of Applied Psychology, 74*, 657–690. doi: 10.1037/0021-9010.74.4.657
- Kanter, R. M. (1977). *Men and women of the corporation*. New York: BasicBooks.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York: John Wiley & Sons.
- Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organizations* (2nd ed.). New York: John Wiley & Sons.
- Kooij, D. T. A. M., De Lange, A. H., Jansen, P. G. W., Kanfer, R., & Dikkers, J. S. E. (2011). Age and work-related motives: Results of a meta-analysis. *Journal of Organizational Behavior, 32*(2), 197–225. doi: 10.1002/job.665
- Kuvaas, B. (2006). Work performance, affective commitment, and work motivation: The roles of pay administration and pay level. *Journal of Organizational Behavior, 27*, 365–385. doi: 10.1002/job.377
- Kuvaas, B., & Dysvik, A. (2009). Perceived investment in employee development, intrinsic motivation, and work performance. *Human Resource Management Journal, 19*, 217–236. doi: 10.1111/j.1748-8583.2009.00103.x
- Labianca, G., Gray, B., & Brass, D. J. (2000). A grounded model of organizational schema change during empowerment. *Organization Science, 11*, 235–257. doi: 10.1287/orsc.11.2.235.12512
- Lambert, L. S., Edwards, J. R., & Cable, D. M. (2003). Breach and fulfillment of the psychological contract: A comparison of traditional and expanded views. *Personnel Psychology, 56*, 895–934.

- Liden, R. C., & Arad, S. (1996). A power perspective of empowerment and work groups: Implication for HRM research. In G. R. Ferris (Ed.), *Research in personnel and HRM* (Vol. 14, pp. 205–252). Greenwich, CT: JAI Press.
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology, 85*(3), 407–416. doi: 10.1037//0021-9010.85.3.407
- Lincoln, N. D., Travers, C., Ackers, P., & Wilkinson, A. (2002). The meaning of empowerment: The interdisciplinary etymology of a new management concept. *International Journal of Management Reviews, 4*(3), 271–290.
- Marginson, D., & Bui, B. (2009). Examining the human cost of multiple role expectations. *Behavioral Research in Accounting, 21*, 59–81.
- Nunnally, J. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Oliver, R. L., Balakrishnan, P. V., & Barry, B. (1994). Outcome satisfaction in negotiation: A test of expectancy disconfirmation. *Organizational Behavior and Human Decision Processes, 60*(2), 252–275. doi: 10.1006/obhd.1994.1083
- Paul, R. J., Niehoff, B. P., & Turnley, W. H. (2000). Empowerment, expectations, and the psychological contract: Managing the dilemmas and gaining the advantages. *Journal of Socio-Economics, 29*, 471–485.
- Payne, S. C., Youngcourt, S. S., & Beaubien, J. M. (2007). A meta-analytic examination of the goal orientation nomological net. *Journal of Applied Psychology, 92*, 128–150. doi: 10.1037/0021-9010.92.1.128
- Pearce, C. L., & Sims, H. P. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive,

- transactional, transformational, and empowering leader behaviors. *Group Dynamics – Theory Research and Practice*, 6, 172–197. doi: 10.1037//1089-2699.6.2.172
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. New York: Psychology Press.
- Pfeffer, J., & Salancik, G. R. (1975). Determinants of supervisory behavior: A role set analysis. *Human Relations*, 28, 139–154. doi: 10.1177/001872677502800203
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49, 327–340. doi: 10.5465/AMJ.2006.20786079
- Quinn, R. E., & Spreitzer, G. M. (1997). The road to empowerment: Seven questions every leader should consider. *Organizational Dynamics*, 26(2), 37–49.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex firms. *Administrative Science Quarterly*, 15, 150–164.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Sauley, K. S., & Bedeian, A. G. (1989). 05: A case of the tail wagging the distribution. *Journal of Management*, 15(2), 335–344.
- Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggestad, E. D. (2010). Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. *Journal of Business Psychology*, 25, 543–554. doi: 10.1007/s10869-010-9183-4

- Spreitzer, G. M. (1995). Psychological empowerment in the workplace – Dimensions, measurement, and validation. *Academy of Management Journal*, 38, 1442–1465. doi: 10.2307/256865
- Spreitzer, G. M. (2008). Taking stock: A review of more than twenty years of research on empowerment at work. In J. Barling, & C. L. Cooper (Eds.), *The Sage handbook of organizational behavior* (Vol. 1: Micro approaches, pp. 54–72). Thousand Oaks, CA: Sage.
- Spreitzer, G. M., & Doneson, D. (2005). Musings on the past and future of employee empowerment. In T. Cummings (Ed.), *Handbook of Organizational Development* (pp. 311-324). Thousand Oaks: Sage.
- Spreitzer, G. M., & Mishra, A. K. (2002). To stay or to go: Voluntary survivor turnover following an organizational downsizing. *Journal of Organizational Behavior*, 23, 707–729. doi: 10.1002/job.166
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, 49, 1239–1251. doi: 10.5465/AMJ.2006.23478718
- Stewart, G. L., Courtright, S. H., & Manz, C. C. (2011). Self-leadership: A multilevel review. *Journal of Management*, 37(1), 185–222. doi: 10.1177/0149206310383911
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An interpretive model of intrinsic task motivation. *Academy of Management Review*, 15(4), 666–681. doi: 10.2307/258687
- Tsui, A. S. (1984). A role set analysis of managerial reputation. *Organizational Behavior and Human Performance*, 34, 64–96. doi: 10.1016/0030-5073(84)90037-0

- Tsui, A. S., & Ashford, S. J. (1994). Adaptive self-regulation: A process view of managerial effectiveness. *Journal of Management*, *20*(1), 93–121. doi: 10.1177/014920639402000105
- Tsui, A. S., Ashford, S. J., St. Clair, L., & Xin, K. R. (1995). Dealing with discrepant expectations: Response strategies and managerial effectiveness. *Academy of Management Journal*, *38*, 1515–1543. doi: 10.2307/256842
- Turner, R. H. (2009). Role taking: Process versus conformity. In D. Brissett & C. Edgley (Eds.), *Life as Theater* (3rd ed.). New Brunswick, NJ: Transaction.
- Vallerand, R. J., & Ratelle, C. F. (2004). Intrinsic and extrinsic motivation: A hierarchical model. In E. L. Deci, & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 37–63). Rochester, NY: University of Rochester Press.
- Vecchio, R. P., Justin, J. E., & Pearce, C. L. (2010). Empowering leadership: An examination of mediating mechanisms within a hierarchical structure. *The Leadership Quarterly*, *21*, 530–542. doi: 10.1016/j.leaqua.2010.03.014
- Venkatesh, V., & Goyal, S. (2010). Expectation disconfirmation and technology adoption: Polynomial modelling and response surface analysis. *MIS Quarterly*, *34*(2), 281–303. doi: 10.1016/j.obhdp.2006.09.008
- Wall, T., Cordery, J. L., & Clegg, C. (2002). Empowerment, performance and operational uncertainty: A theoretical integration. *Applied Psychology – An International Review*, *51*, 146–149.
- Wat, D., & Shaffer, M. A. (2005). Equity and relationship quality influences on organizational citizenship behaviors: The mediating role of trust in the supervisor and empowerment. *Personnel Review*, *34*(4), 406–422. doi: 10.1108/00483480510599752
- Weick, K. E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: Sage.

- Weick, K. E. (1979). *The social psychology of organizing* (2nd ed.). New York: McGraw-Hill.
- Weinfurt, K. P., Bryant, F. B., & Yarnold, P. R. (1994). The Factor Structure of the Affect Intensity Measure: In Search of a Measurement Model. *Journal of Research in Personality, 28*(3), 314-331. doi: 10.1006/jrpe.1994.1023
- Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of Management Journal, 53*(1), 107–128.
- Zhang, Z., Wang, M. O., & Shi, J. (2012). Leader–follower congruence in proactive personality and work outcomes: The mediating role of leader–member exchange. *Academy of Management Journal, 55*(1), 111–130. doi: 10.5465/amj.2009.08

Table 1 Principal component analysis with quartimax rotation

	SE	LE	RA	IM
SE1: I expect my leader to help me understand how my objectives and goals relate to those of the company.	.53	.11	.47	.00
SE2: I expect my leader to help me understand the importance of my work to the overall effectiveness of the company.	<b>.63</b>	.12	.38	-.14
SE3: I expect my leader to help me understand how my job fits into the bigger picture.	<b>.66</b>	.06	.42	-.05
SE4: I expect my leader to make many decisions together with me.	<b>.63</b>	.03	-.07	.13
SE5: I expect my leader to consult me often on strategic decisions.	<b>.56</b>	.09	-.10	.28
SE6: I expect my leader to solicit my opinion on decisions that may affect me.	<b>.66</b>	.09	-.01	.25
SE7: I expect my leader to believe that I can handle demanding tasks.	<b>.57</b>	-.01	.34	.24
SE8: I expect my leader to believe in my ability to improve even when I make mistakes.	<b>.66</b>	.07	.27	.06
SE9: I expect my leader to express confidence in my ability to perform at a high level.	<b>.68</b>	.06	.15	.23
SE10: I expect my leader to allow me to do my job my way.	<b>.55</b>	.18	-.18	.01
SE11: I expect my leader to make it more efficient for me to do my job by keeping the rules and regulations simple.	<b>.57</b>	.03	-.12	.07
SE12: I expect my leader to allow me to make important decisions quickly to satisfy customer needs.	<b>.60</b>	.10	-.11	.12
LE1: My subordinates expect me to help them understand how their objectives and goals relate to those of the company.	-.08	<b>.69</b>	.19	.17
LE2: My subordinates expect me to help them understand the importance of their work to the overall effectiveness of the company.	.06	<b>.83</b>	.13	.15
LE3: My subordinates expect me to help them understand how their jobs fit into the bigger picture.	.03	<b>.80</b>	.16	.01
LE4: My subordinates expect me to make many decisions together with them.	.14	<b>.53</b>	-.17	-.01
LE5: My subordinates expect me to consult them often on strategic decisions.	.07	<b>.46</b>	.03	-.12
LE6: My subordinates expect me to solicit their opinions on decisions that may affect them.	-.01	<b>.65</b>	-.10	-.05
LE7: My subordinates expect me to express confidence that they can handle demanding tasks.	.11	<b>.59</b>	.00	.19
LE8: My subordinates expect me to express confidence in their ability to improve even when they make mistakes.	.20	<b>.63</b>	.09	.02
LE9: My subordinates expect me to express confidence in their ability to perform at a high level.	.23	<b>.67</b>	.02	.12
LE10: My subordinates expect me to allow them to do their jobs their ways.	.05	.33	-.17	.26
LE11: My subordinates expect me to make it more efficient for them to do their jobs by keeping the rules and regulations simple.	-.02	<b>.65</b>	.02	-.03
LE12: My subordinates expect me to allow them to make important decisions quickly to satisfy customer needs.	.02	<b>.56</b>	-.15	-.03
RA1: I have clear, planned goals and objectives for my job (reverse coded).	.28	-.03	.46	.48
RA2: I know exactly what is expected of me (reverse coded).	.07	.02	<b>.69</b>	.37
RA3: I know what my responsibilities are (reverse coded).	.08	-.01	<b>.72</b>	.13
RA4: I feel certain about the level of authority I have (reverse coded).	.04	-.01	<b>.74</b>	.24
IM1: The tasks that I do at work are themselves representing a driving power in my job.	.32	.11	.23	<b>.60</b>
IM2: The tasks that I do at work are enjoyable.	.21	.06	.13	<b>.80</b>
IM3: My job is meaningful.	.13	.15	.23	<b>.75</b>
IM4: My job is very exciting.	.18	.05	.20	<b>.84</b>
IM5: My job is so interesting that it is a motivation in itself.	.23	.05	.09	<b>.83</b>
IM6: Sometimes I become so inspired by my job that I almost forget everything else around me.	.21	.03	-.09	<b>.71</b>



Note: N = 168. Boldface loadings are included in the final scales; SE = subordinate empowerment expectation; LE = leader empowerment expectation; RA = role ambiguity; IM = intrinsic motivation.

Table 2

*Means, Standard Deviations, Alpha Reliabilities, and Correlations among Variables*

Variable	SG	SA	SP	SJ	ST	SF	SM	SOT	LG	LA	LJ	LT	LF	LM	LOT	TS	SE	LE	RA	IM
1. SG		.19	.04	.11	.03	.09	-.28	.17	.01	-.08	.13	.05	-.20	.03	.04	.11	-.23	-.03	.01	-.12
2. SA			.23	-.06	-.02	.17	-.14	.78	-.17	-.18	.11	.04	.03	.17	-.22	.00	-.09	.00	.07	.19
3. SP				-.23	-.13	-.07	-.06	.28	.07	-.06	.05	-.05	-.08	-.06	.02	.07	-.01	.00	-.07	.05
4. SJ					-.31	-.18	-.14	.03	.04	-.04	-.17	.06	.05	.15	.02	-.08	-.20	-.09	.09	-.21
5. ST						-.10	-.08	-.03	-.09	.15	-.02	.05	-.04	-.06	.07	.05	.03	.12	.07	.00
6. SF							-.04	-.06	-.15	.01	-.06	.01	.18	-.07	-.14	-.09	.01	.06	.06	.06
7. SM								-.21	.04	.07	-.06	-.01	-.03	.25	-.05	-.10	.10	-.02	.00	.03
8. SOT									-.10	-.15	.13	.07	-.10	.10	-.20	.11	-.22	-.06	-.02	.12
9. LG										.06	.08	.12	.02	-.42	.09	.12	-.07	-.03	.02	-.13
10. LA											-.26	-.17	.05	-.01	.52	-.19	.09	.51	-.16	.15
11. LJ												-.17	-.21	-.13	-.06	.05	-.04	-.28	.04	.00
12. LT													-.32	-.20	-.55	.26	-.19	-.24	.08	-.21
13. LF														-.25	.04	-.46	.04	.15	-.01	.02
14. LM															.12	-.14	.13	.17	-.13	.18
15. LOT																-.18	.13	.63	-.19	.06
16. TS																	-.16	-.35	.09	-.14
17. SE																		.24	-.21	.40
18. LE																			-.10	.19
19. RA																				-.40
20. IM																				
21. M	0.88	42.05	0.09	0.36	0.15	0.05	0.03	18.91	0.95	47	0.10	0.21	0.29	0.13	20.22	3.48	3.94	4.02	2.05	3.48
22. SD	0.33	10.52	0.28	0.48	0.35	0.23	0.18	10.70	0.22	8.02	0.30	0.40	0.45	0.34	9.93	0.92	.57	.45	.66	.79
23. $\alpha$	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	.86	.80	.79	.88

Note. N = 168. Correlation values above |.16| are significant at the .05 level (2-tailed). Correlation values above |.21| are significant at the .01 level (2-tailed). SG = Subordinate Gender; SA = Subordinate Age; SP = Subordinate Primary School Education Attainment; SJ = Subordinate Junior School Education Attainment; ST = Subordinate Two Year College Education Attainment; SF = Subordinate Four Year College Education Attainment; SM = Subordinate Master Education Attainment; SOT = Subordinate Organizational Tenure; LG = Leader Gender; LA = Leader Age; LJ = Leader Junior School Education Attainment; LT = Leader Two Year College Education Attainment; LF = Leader Four Year College Education Attainment; LM = Leader Master Education Attainment; LOT = Leader Organizational Tenure; TS = Team Size; SE = Subordinate Empowerment Expectation; LE = Leader Empowerment Expectation; RA = Role ambiguity; IM = Intrinsic Motivation. Leader Primary School Education Attainment was not included in the correlation analysis as no respondent was under that category.

Table 3

*Cross-level Polynomial Regression Analyses with Role Ambiguity and Intrinsic Motivation  
Regressed on Subordinate and Leader Empowerment Expectation*

Variables	Fixed Effects Coefficients	
	Role Ambiguity	Intrinsic Motivation
Control variables:		
Subordinate gender	-.19(.15)	-.12(.16)
Subordinate age	.02(.01)**	.01(.01)
Subordinate junior school education	.28(.11)***	-.19(.12)
Subordinate organizational tenure	-.02(.01)**	.01(.01)
Leader age	-.01(.01)	.02(.01)**
Leader junior school education	-.14(.19)	-.01(.19)
Leader two year college education	.20(.17)	-.12(.18)
Leader master education	.48(.17)***	.25(.17)
Leader organizational tenure	-.02(.01)**	-.01(.01)
Team size	-.02(.07)	.09(.07)
Component scores:		
Subordinate empowerment expectation (SE)	-.31(.11)***	.68(.13)***
Leader empowerment expectation (LE)	.55(.18)***	-.01(.18)
Squared component scores:		
SE <sup>2</sup>	.02(.15)	-.33(.18)*
SE × LE	-.91(.28)***	.83(.33)**
LE <sup>2</sup>	-.44(.30)	-.11(.32)
Total variance explained	.23***	.39***
$a_1 (b_1 + b_2)$	.20(.20)	.67(.22)***
$a_2 (b_3 + b_4 + b_5)$	-1.30(.34)***	.39(.37)
$a_3 (b_1 - b_2)$	-.82(.23)***	.69(.25)***
$a_4 (b_3 - b_4 + b_5)$	.51(.58)	-1.28(.68)**

Note. N(subordinate) = 168; N(leader) = 33. Fixed effects coefficients and their standard errors are shown in each equation. \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01. Total variance explained was calculated as 1 – (variance of full model/variance of null model); significance was determined by  $\chi^2$  difference across models.  $a_1 (b_1 + b_2)$  and  $a_2 (b_3 + b_4 + b_5)$  represent the linear and curvilinear slopes along the congruence line respectively.  $a_3 (b_1 - b_2)$  and  $a_4 (b_3 - b_4 + b_5)$  represent the linear and curvilinear slopes along the incongruence line respectively.

Figure 1

*Response Surface Analysis for Leader-Subordinate Empowerment Expectation Predicting Role Ambiguity*

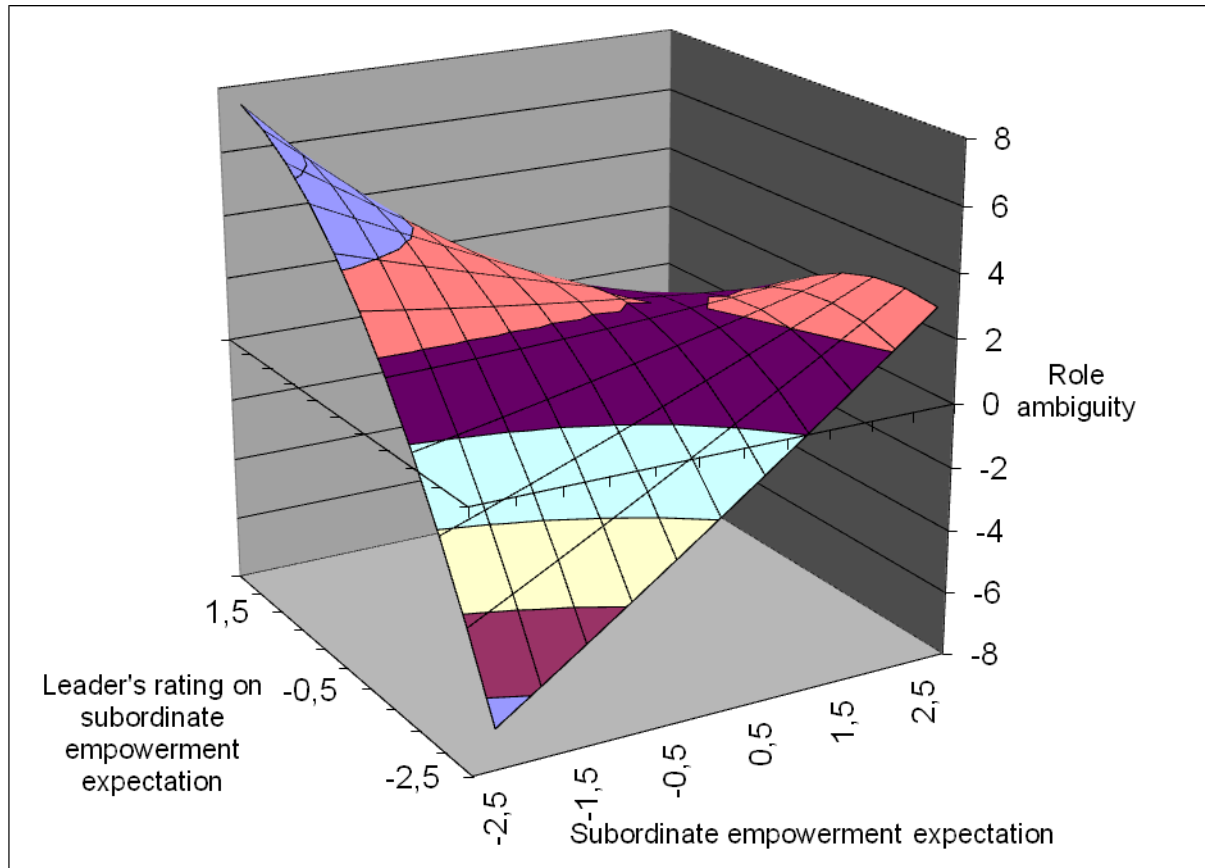


Figure 2

*Response Surface Analysis for Leader-Subordinate Empowerment Expectation Predicting Intrinsic Motivation*

