

This file was downloaded from BI Brage,  
the institutional repository (open access) at BI Norwegian Business School  
<http://brage.bibsys.no/bi>

**Self-other agreement in empowering leadership: Relationships  
with leader effectiveness and subordinates' job satisfaction and  
turnover intention**

**Stein Amundsen**

Lillehammer University College, Norway  
Norwegian University of Science and Technology

**Øyvind L. Martinsen**

BI Norwegian Business School

This is the authors' accepted, refereed and final manuscript to the article published in

***Leadership Quarterly*, 25 (2014) 4: 784-800**

DOI: 10.1016/j.leaqua.2014.04.007

Publisher's version available at <http://dx.doi.org/10.1016/j.leaqua.2014.04.007>

**Copyright policy of *Elsevier*, the publisher of this journal:**

The author retains the right to post the accepted author manuscript on open web sites operated by author or author's institution for scholarly purposes, without any embargo period, when there is no open access mandate from authors' institution or from research financing funds

<http://www.elsevier.com/journal-authors/sharing-your-article#>

Self–Other Agreement in Empowering Leadership: Relationships with Leader Effectiveness  
and Subordinates' Job Satisfaction and Turnover Intention

Stein Amundsen

Lillehammer University College, Norway &

Norwegian University of Science and Technology

Øyvind L. Martinsen

Norwegian Business School

Author Note

Stein Amundsen, Faculty of Education and Social Work, Lillehammer University College, Norway; Øyvind L. Martinsen, Department of Leadership and Organizational Behavior, Norwegian Business School.

Correspondence concerning this article should be addressed to Stein Amundsen, Faculty of Education and Social Work, PO Box 952, Lillehammer University College, N-2604 Lillehammer, Norway. E-mail: stein.amundsen@hil.no.

### Abstract

We investigated the effect of self–other agreement in empowering leadership on leader effectiveness, job satisfaction, and turnover intention using a sample of 50 Norwegian municipal leaders (46 for leader effectiveness) and 168 (158) of their subordinates. The findings indicated that considering both self and subordinate ratings of empowering leadership was useful in predicting the outcome variables. In particular, subordinates of over-estimators reported lower job satisfaction and higher turnover intention. Moreover, leaders who underestimated their leadership were perceived as more effective by their superiors. For agreement (i.e., leader’s self-ratings were in agreement with subordinates’ ratings) the relationship between empowering leadership and leader effectiveness was curvilinear with an inverted U shape. Agreement in ratings of empowering leadership was not found to be related to subordinates’ job satisfaction and turnover intention. The implications of these findings are discussed.

*Keywords:* empowering leadership, self–other agreement, leader effectiveness, job satisfaction, turnover intention

Self-Other Agreement in Empowering Leadership: Relationships with Leader Effectiveness  
and Subordinates' Job Satisfaction and Turnover Intention\*

Employee empowerment was actualized as a management concept in the 1980s (Wilkinson, 1998), and, at its core, involves enhanced individual motivation at work through the delegation of authority to the lowest organizational level where a competent decision can be made (Conger & Kanungo, 1988; Thomas & Velthouse, 1990). Two theoretical approaches to empowerment at work have gradually emerged in the literature (Spreitzer, 2008). The first of these is a socio-structural macro-perspective that includes interventions and practices by the organization, leaders, and managers who aim to empower employees (e.g., Kanter, 1977; Lawler, 1986). The second is a psychological micro-perspective based on employee perceptions of their work role, conceptualized as a motivational construct called psychological empowerment (Spreitzer, 1995; Thomas & Velthouse, 1990). The two perspectives are related in that empowerment initiatives at the organization and leader levels aspire to create work conditions that facilitate psychological empowerment at the individual level (Hechanova, Alampay, & Franco, 2006; Lee & Koh, 2001).

Leaders are proposed to have a central role in the empowerment process of employees (Druskat & Wheeler, 2003; Randolph & Kemery, 2011), but this role is somewhat different compared with those in more traditional work designs (Ahearne, Mathieu & Rapp, 2005). Empowering leadership (EL) differs from other related leadership theories (e.g., transformational leadership) in its specific focus on power sharing and the facilitation of self-leadership, autonomy, and independence among employees (Amundsen & Martinsen, in press, Houghton & Yoho, 2005, Manz & Sims, 2001). For example, Liu, Lepak, Takenuchi, and Sims (2003, p. 143) cited Sims and Manz (1996) who claimed that while transformational leaders provide a vision for the future, power still resides in the leader and employees are not

---

\* We would like to thank the editor, Leanne Atwater and three anonymous reviewers for their thoughtful comments and suggestions on previous versions of the paper.

allowed to participate in creating the vision itself. In line with this assertion, Kark, Shamir, and Chen (2003) found that transformational leadership was positively related to follower dependence as mediated by personal identification with the leader. The distinctiveness of EL compared with other leadership approaches has been investigated in a number of studies, including Amundsen and Martinsen (in press), Arnold, Arad, Rhoades, and Drasgow (2000), Pearce et al. (2003), and Tekleab, Sims, Yun, Tesluk, and Cox (2008). These studies indicated that EL is a distinct form of leadership from aversive, directive, transactional, and transformational leadership, and from leader-member exchange (LMX), consideration and initiating of structure.

Previous research has identified a positive association between EL and leader effectiveness (Tekleab et al., 2008) and favorable employee outcomes including performance (Vecchio, Justin, & Pearce, 2010), self-leadership (Amundsen & Martinsen, in press), psychological empowerment (Randolph & Kemery, 2011), job satisfaction (Konczak, Stelly, & Trusty, 2000), affective commitment (Dewettinck & van Amejide, 2011), and creativity (Zhang & Bartol, 2010). However, several contingencies may theoretically affect such relationships, and one of these is self-other agreement (SOA), typically defined as the degree of congruence between a leader's self-rating and the ratings they receive from others (Yammarino & Atwater, 1993). The ratings of others are usually provided by subordinates, peers, and/or superiors.

Meta-studies have demonstrated that self and others' ratings are only moderately related (Conway & Huffcutt, 1997; Harris & Schaubroeck, 1988), indicative of the fact that they represent different perspectives of the same phenomenon (Yammarino & Atwater, 1997) as well as being biased in different ways (Fleenor, Smither, Atwater, Braddy, & Sturm, 2010). When considering self and others' ratings simultaneously, however, we can potentially obtain a more nuanced and accurate picture beyond the evaluations each of the rating sources

provide separately. For example, SOA is proposed as an indicator of leader self-awareness (Atwater & Yammarino, 1992; Wohlers & London, 1989), has been noted as being an important aspect of emotional intelligence (Goleman, 1995), and has demonstrated a relationship to outcomes such as leader effectiveness (Atwater, Ostroff, Yammarino, & Fleenor, 1998) and leader influence tactics (Berson & Sosik, 2007), and to subordinates' self-leadership (Tekleab et al., 2008), job satisfaction, and performance (Moshavi, Brown, & Dodd, 2003). Despite a growing body of relevant literature, we still need to better understand whether the effects of SOA can be generalized across leadership models, criteria, and cultures.

In this respect, three issues motivate the present study. First, there appears to be a lack of studies that have specifically addressed SOA in EL ratings. To the best of our knowledge, the only exception is Tekleab et al. (2008), where the authors examined the effects of SOA of EL and transformational leadership on leader effectiveness, as well as on subordinates' self-leadership and satisfaction with supervision. They found that SOA of EL was related to self-leadership but not to satisfaction with supervision or leader effectiveness. One possible explanation of this is their use of a relatively narrow seven item measure of EL that mainly tapped into leaders' ability to coordinate and work in teams and to promote independent actions among subordinates. In line with Amundsen and Martinsen's (in press) conceptualization, we consider EL to include behaviors that promote subordinates' autonomy through the influence processes of power sharing, motivation support, and development support, and our study represents therefore an important attempt to investigate SOA of a broader EL construct than Tekleab et al. (2008) did. We also believe that SOA regarding the behavior of a leader whose primary purpose is to support autonomous subordinates may be of relevance in today's contemporary work settings, which are characterized, among other things, by highly skilled and educated "knowledge workers" (Parker, Wall, & Cordery, 2001).

For example, if the leader thinks he/she is empowering while subordinates do not agree with this, it may result in little actual empowerment being provided, which may have implications for leader effectiveness and attitudes among subordinates. It is therefore important, from both a research perspective and a practitioner point of view, to gain more insight into how a leader's self-awareness of an autonomy and development supportive leadership style affects relevant outcome variables.

Second, previous research (e.g., Sosik, 2001; Tekleab et al., 2008) indicates that SOA in leader behavior ratings may have a somewhat different impact on outcome variables related to leaders and subordinates. Thus, in the present study we emphasize both leader effectiveness (rated by a leader's superior) and subordinates' self-reporting of job satisfaction and turnover intention. Third, in accordance with Atwater, Wang, Smither, and Fleenor (2009, p. 876) most prior leadership studies "that have examined self and others' ratings have taken place in the U.S. on American samples", and relatively consistent patterns have emerged. However, their study, including 21 countries, indicates that cultural characteristics may play a role in understanding relationships between self and others' ratings. Likewise, Atwater, Waldman, Ostroff, Robie, and Johnson (2005) found the effect of self and others' ratings in relation to the prediction of leader performance differed between U.S. and European leaders (the European countries studied were Germany, France, Italy, Denmark, and the U.K.). It is therefore important that more SOA research be carried out in countries other than those that have been previously studied in order to better understand potential cultural differences and their implications for SOA. The present study of Norwegian leaders is such a contribution. Compared with the countries studied by Atwater et al. (2005) Norway can roughly be categorized in the same group as Denmark and France; that is, relatively lower individualism and low masculinity. However, if we consider Hofstede's (1983) index values on cultural dimensions in more detail, Norway has the lowest value for these dimensions compared with

both Denmark and France. As such, the present study investigates a country with a combination of cultural values different from those studied by Atwater et al. (2005), and may therefore be an important contribution to SOA research.

### **Hypothesis Development**

Comparison between self and others' ratings has given rise to an SOA model consisting of four categories, which are believed to have different consequences for individual and organizational outcomes (Atwater & Yammarino, 1997; Yammarino & Atwater, 1997). Leaders who provide ratings that are higher than the ratings of others are referred to as over-estimators; leaders whose ratings are lower than others' ratings are referred to as under-estimators; leaders who rate themselves highly and similar to others' ratings are referred to as in-agreement/good leaders; and, leaders whose ratings are low and similar to others' ratings are referred to as in-agreement/poor leaders. In the same way as several previous studies of SOA (e.g., Berson & Sosik, 2007; Ostroff, Atwater, & Feinberg, 2004; Tekleab et al., 2008), we will use this terminology in the development of our hypotheses. However, as recommended by several scholars (e.g., Edwards, 1994; Fleenor et al., 2010) we employed polynomial regression analysis instead of categories or difference scores in the exploration of our hypotheses.

Previous SOA research has largely assumed the same patterns of results regardless of leadership approach and we have therefore assumed that these patterns were also applicable for our hypotheses regarding EL. Moreover, because the theory of SOA and its effects has been primarily developed in the U.S. (cf. Atwater et al., 2005, p. 27), and there is a lack of SOA studies that have been conducted in European countries, we mainly based our hypotheses on the U.S. model. However, studies by Atwater and colleagues (2005, 2009) indicate that cultural characteristics may play a role in the relationship between self and others' ratings as well as in the effects of SOA on outcome variables, and therefore point out

that “we must exercise caution when applying U.S.-based findings to a global context” (Atwater et. al, 2005, p. 38). We will therefore discuss our hypotheses in light of possible cultural implications at the close of this section.

### **Self-Other Agreement and Leader Effectiveness**

Fleenor et al. (2010) noted that “a straightforward hypothesis is that leaders with congruent ratings are more effective than those whose ratings are incongruent” (p. 1019), but added that the relationship appears to be more complex. Specifically, over-estimators tend to ignore negative feedback from subordinates when it is inconsistent with their self-perception and thereby see themselves in an unrealistically positive light (Yammarino & Atwater, 1997). This may prevent them from developing as leaders (Bass & Yammarino, 1991) and lead them to pursue unrealistic tasks that represent risks and uncertainties (Atwater et al., 1998). Overestimation also may be an indication of egotistical and arrogant behavior, which may negatively influence performance and effectiveness (Yammarino & Atwater, 1997). Although previous studies have concluded that over-estimators are generally poor performers and less effective (e.g., Atwater et al., 2005; Ostroff et al., 2004; Tekleab et al., 2008; Yammarino & Atwater, 1997), there are nevertheless some indications that this picture is more nuanced. For example, Atwater et al. (1998) found that leaders who received high ratings from others (i.e., peers and subordinates) but provided still higher self-ratings were rated as more effective by their direct supervisor. Likewise, Sosik and Megerian (1999) found that over-estimators received the highest mean performance scores from their superiors as compared with both under-estimators and those in the agreement category.

Under-estimators provide self-ratings that are lower than others’ ratings, and, in accordance with Yammarino and Atwater (1997), these may be associated with mixed performance results. On the one hand, low self-perception may lead them to pursue easy and unchallenging improvement goals, which may, in turn, result in decreased overall

effectiveness (Tekleab et al., 2008). On the other hand, their tendency to overestimate weaknesses may be compensated through hard work, resulting in greater success in task accomplishment (Atwater et al., 1998). Continued positive feedback from others highlights their potential for improvement (Yammarino & Atwater, 1997) and provides them with incentives to undertake corrective actions. Moreover, Atwater and Yammarino (1997) noted that underestimation, in some cases, may reflect modesty and suggested under-estimators may be effective leaders. Underestimation has typically been more strongly associated with good performance (e.g., Atwater et al., 1998), which also forms the basis for our present expectations.

Leaders in the in-agreement/good category have been described as effective leaders (Yammarino & Atwater, 1997) who are able to accurately diagnose their strengths and weaknesses and set appropriate self-improvement goals (Tekleab et al., 2008). Because feedback provided to these leaders is consistently favorable, it may support their self-efficacy beliefs and have positive implications for their effectiveness. In-agreement/poor leaders also have accurate self-perceptions compared with others, but receive largely negative feedback and their self-worth may thus be low (Atwater et al., 1998). Although they recognize their weaknesses, they are often unwilling or unable to change due to low self-efficacy regarding their leadership abilities (Fleenor et al., 2010; Tekleab et al., 2008), which results in poor performance and diminished effectiveness. Atwater and Yammarino (1997) suggested that in-agreement/good estimators are more effective leaders than in-agreement/poor leaders and over-estimators. Previous research has typically identified a positive relationship between in-agreement ratings and leader effectiveness (e.g., Atwater et al., 1998; Ostroff et al., 2004). Taken together, the body of theory and the empirical findings discussed above lead us to propose the following hypothesis:

**Hypothesis 1:** Leader effectiveness is highest for in-agreement/good leaders of empowering leadership, second highest for under-estimators, third highest for over-estimators, and lowest for in-agreement/poor leaders.

### **Self-Other Agreement and Subordinates' Job Satisfaction and Turnover Intention**

Beyond the implications SOA may have for a focal leader's effectiveness, previous research has shown that SOA also has the potential to affect employees' work attitudes (e.g., Krishnan, 2003; Moshavi et al., 2003; Sosik, 2001). For this reason, we have chosen to investigate the effects of SOA in EL ratings for job satisfaction and turnover intention. We consider these employee attitudes to be important because meta-studies have shown that job satisfaction is associated with performance (Judge, Thoresen, Bono, & Patton, 2001) and turnover intention is associated with actual turnover (Griffeth, Hom, & Gaertner, 2000). Both job satisfaction and turnover intention have previously been related to empowering leader behaviors (Amundsen & Martinsen, in press; Dewettinck & van Amejide, 2011).

Several arguments underpin our proposal that SOA in EL ratings may affect our two attitude variables. Specifically, it is suggested that leaders who overestimate their leader behaviors have negative attitudes (Atwater & Yammarino, 1997), including hostility and resentment (Yammarino & Atwater, 1997), and their subordinates may view them as self-centered and uncaring (Sosik, 2001). They may be less sensitive to the concerns of others (Moshavi et al., 2003), and their need for self-aggrandizement and independence may result in lowered contact and consultation with subordinates (Berson & Sosik, 2007). As mentioned above, severe overestimation may also be an indication of egotistical and arrogant behavior (Yammarino & Atwater, 1997). In an upward feedback field experiment study, Atwater, Waldman, Atwater, and Cartier (2000) reported that leaders who received lower ratings from their subordinates reduced their commitment to them after receiving the feedback. Likewise, Brett and Atwater (2001) reported that lower ratings received by over-estimators resulted in

negative reactions such as anger and discouragement. Overestimation on the part of leaders may therefore affect subordinates' job satisfaction negatively and turnover intention positively.

Like over-estimators, under-estimators also provide self-ratings that are incongruent with others' ratings but in the opposite direction. Their lack of self-awareness may stem from overly critical self-evaluation combined with setting high standards for themselves (Godshalk & Sosik, 2000). Krishnan (2003) argued that such leaders have self-discipline and, "might possess humility often associated with subrogation of self-interests for the good of others" (p. 347). Yammarino and Atwater (1997) emphasized that under-estimators can be pleasant to be around and raise their self-evaluations when provided with feedback from others. In line with this finding, Sosik (2001) argued that under-estimators continually strive to meet feedback expectations from their subordinates, which may foster perceptions of openness and a concern for others. This may also lead subordinates to perceive these leaders as altruistic (Kanungo & Mendonca, 1996). Thus, under-estimators are seen as likeable individuals who maintain pleasant interpersonal and developmental relationships with others (Yammarino & Atwater, 1997), which clearly should be expected to influence subordinates' satisfaction and turnover intention favorably.

In accordance with Yammarino and Atwater (1997), in-agreement/good leaders tend to have very positive job attitudes and few conflicts with others, and they tend to be aware of their good performance. They have high efficacy expectations and constructively apply feedback from others to alter their behavior. Berson and Sosik (2007) pointed out that such individuals are easy to work with, which may contribute to the development of high-quality relationships with subordinates. In-agreement/poor leaders seem to be aware of their weaknesses but take few actions to improve (Yammarino & Atwater, 1997). They tend to have more negative attitudes (Atwater & Yammarino, 1997; Yammarino & Atwater, 1997),

and to consult with their subordinates less frequently than do in-agreement/good leaders (Berson & Sosik, 2007). These characteristics may result in more favorable work attitudes among subordinates of in-agreement/good leaders than subordinates of in-agreement/poor leaders. However, there is a lack of studies that have directly investigated the difference between the two in-agreement categories and their impact on subordinates' work attitudes; instead, congruence has commonly been treated as a single category (e.g., Krishnan, 2003; Moshavi et al., 2003; Sosik & Megerian, 1999). Tekleab et al. (2008) represent an exception in that they found subordinates of in-agreement/good leaders of transformational leadership as more satisfied with supervision than subordinates of in-agreement/poor leaders. In addition, they found that satisfaction was higher among those reporting to under-estimators and in-agreement/good leaders, than among those reporting to over-estimators and in-agreement/poor leaders.

Previous studies of SOA have consistently reported that under-estimators and self-aware leaders outperform over-estimators in promoting positive affective outcomes among subordinates. For example, Sosik (2001) found that the subordinates of under-estimators reported higher levels of organizational commitment than did subordinates of leaders categorized as over-estimators. Additionally, subordinates of under-estimators reported higher levels of trust in their managers than subordinates of in-agreement leaders, who in turn reported higher trust than those of over-estimators. Moshavi et al. (2003) found that subordinates of under-estimators were the most satisfied with their supervisor and job, followed by subordinates of in-agreement leaders, whereas subordinates of over-estimators were the least satisfied. Similarly, Krishnan (2003) reported that subordinates of under-estimators exerted higher extra effort than those of self-aware leaders, who in turn exerted higher extra effort than those of over-estimators. Moreover, subordinates of under-estimators were similarly satisfied with their leader as those of self-aware leaders and more satisfied than

those of over-estimators. In sum, these findings seem to indicate that under-estimators influence subordinates' attitudes most positively and over-estimators most negatively, whereas work attitudes of self-aware leaders appear to be located at a level between these two categories of incongruence.

We were not able to identify any studies involving SOA of leadership and turnover intention. However, our hypothesis regarding turnover intention appears to have indirect support in that turnover intention has been shown to have significant association with job satisfaction in a number of studies. For example, Tett and Meyer (1993) found in a meta-analysis including 88 samples ( $N = 35,494$ ) a mean corrected correlation of  $-.58$  (95% confidence interval  $-.23$  to  $-.93$ ) between job satisfaction and turnover intention/withdrawal cognitions. In a study including four samples ( $N = 107$  to  $459$ ) van Dick et al. (2004) reported correlations in the range from  $-.35$  to  $-.64$  ( $p < .01$ ) between the two constructs. Harris et al. (2009, 2011) found in their studies ( $N = 244$  and  $205$ ) a correlation of  $-.58$  ( $p < .01$ ) and  $-.63$  ( $p < .01$ ), respectively. Accordingly, in line with the above discussion, we put forward the following hypothesis:

**Hypothesis 2:** (a) Job satisfaction is highest and (b) turnover intention lowest for subordinates of under-estimators of empowering leadership, second highest/lowest for subordinates of in-agreement/good leaders, third highest/lowest for subordinates of in-agreement/poor leaders, and lowest/highest for subordinates of over-estimators.

### **Possible Cultural Implications**

Atwater et al. (2005) found that only others' ratings were significant in the prediction of leader performance in five European countries; that is, self-rating and the interaction between self and others' ratings played an insignificant role. In contrast, they found both self and others' ratings to be significant predictors in the United States. These findings indicate that the simultaneous consideration of self and others' ratings may not be as important in

Europe as it is in the U.S., and that, “particularly over- and underestimation issues seem not to be relevant” (Atwater et al., 2005, p. 34). Compared with the U.S., Norway can be characterized as a less individualistic and less masculine culture (Hofstede, 1983). Because “masculinity implies a predominance of assertiveness over nurturance” (Hofstede, 1983, p. 68), it is reasonable to argue that assertiveness (i.e., the willingness and interest in expressing positive and negative messages to others) is practiced to a lesser degree in Norway than in the U.S. Coupled with the wider use of 360-degree feedback in the U.S., this cultural difference may carry with it implications for SOA, in that leaders in the U.S. receive relatively more information about how others see them and thereby “recognize the need to adjust their self-perceptions accordingly in order to succeed” (Atwater et al., 2005, p. 29). This was supported in Atwater et al.’s study (2009), which found that the relationships between self and others’ ratings of leadership were higher in countries that were characterized to a greater extent by assertiveness. This may, in turn, lead to a higher degree of congruence between self and others’ ratings, which raises the question of whether SOA “is an equally important predictor of managerial effectiveness across cultures” (Atwater et al., 2009, p. 883).

A recent study by Kopperud, Martinsen, and Humborstad (2014), however, found support for the effects of SOA in a sample consisting of employees in a Norwegian audit company. Specifically, they found a significant interaction effect between self and subordinate ratings of transformational leadership in the prediction of subordinate ratings of service climate. The direction of the interaction was such that a leader’s underestimation was positively related to service climate. Moreover, the polynomial test values of the three-dimensional surface pattern revealed that service climate was higher for under-estimators than for over-estimators. Accordingly, while Atwater et al. (2005) suggested that SOA may not be relevant in a European work context, others have found that it is. As such, our hypothesized effects above appear to be appropriate.

## Method

### Participants and Procedure

Self-reported EL data were collected from leaders employed in three Norwegian municipalities that participated in a joint leadership development program. The program spanned over two years and was primarily directed towards developing skills in EL and self-leadership. As part of the program, upward feedback data of EL, as well as measures of job satisfaction and turnover intention, were obtained from the leaders' subordinates. In addition, their superiors provided ratings of the leaders' effectiveness but were not, however, asked to provide downward feedback data of EL. The program was flexibly arranged in that leaders could attend and resign during the two-year period. Data were gathered three times – before the program started, after one year, and after the program was finished (turnover intention was only measured at the last data collection). The first author had feedback sessions with the leaders regarding their self and subordinates' ratings of EL. To maximize sample size and the amount of complete data, as well as inclusion of turnover intention, we used data from the last data collection, which included 70 leaders and 326 of their subordinates.

Participants received an e-mail inviting them to complete an online survey, which could be accessed through a hyperlink embedded within the e-mail. To minimize the tendency to respond in a socially desirable way, participants were urged in the instructions to answer as honestly as possible (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). They were also assured that any use of data would adhere to strict requirements for confidentiality and anonymity and that leaders only had access to subordinates' feedback data of EL in aggregated form. The order of the items in the subordinate survey was counterbalanced regarding independent and dependent variables to reduce eventual response bias effects related to survey design (Podsakoff et al., 2003). The 26 items that constituted the subordinate

variables were part of a lengthier survey consisting of 84 items, which may have helped to decrease the likelihood of previous responses influencing answers to current items.

After two reminders, 56 leaders (80 percent) and 212 subordinates (65 percent) had responded to the survey, and 61 leaders (87 percent) had been rated by their superior. When we combined the surveys, 50 leaders had a complete dataset of self and subordinates' ratings ( $N = 168$ ), and 46 leaders had a complete dataset of self, subordinates' ( $N = 158$ ), and superiors' ratings. The slightly fewer data set that included superiors' ratings was due to the fact that four of the focal leaders lacked effectiveness ratings from their superior. On average, 3.4 subordinates rated each leader (range: 1–6 raters). Seventy-two percent of the leaders had received two feedback sessions regarding self and subordinates' ratings of EL before collection of data employed in the present study, 16 percent had received one session, and 12 percent had not received any feedback session. Among the leaders, 60 percent were female and 72 percent were aged 45 or older. Forty-six percent worked in municipality one, 36 percent in municipality two, and 18 percent in municipality three. Two percent had a high school degree, 30 percent had three years or less of college/university and 68 percent had four or more years of college/university. The leaders represented the three highest levels in their organizations and had different areas of responsibility, including education and children, health care, administration and staff, technical tasks, and cultural tasks (i.e., library, cinema, and culture school). Among the subordinates, 71 percent were female and 64 percent were aged 45 or older.

### **Measures**

All the scales have previously been used in the Norwegian language. Each item was scored on a seven-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Empowering leadership rated by leaders and subordinates.** EL was measured with an 18-item scale (ELS), recently developed by Amundsen and Martinsen (in press), which reflects the two sub-dimensions *autonomy support* (12 items; sample item: “My leader gives me authority over issues within my department”) and *development support* (6 items; sample item: “My leader guides me in how I can do my work in the best way”). According to Amundsen and Martinsen’s (in press) conceptualization, autonomy support is a combined dimension consisting of behaviors that reflect both power sharing and motivation support. Leaders and subordinates completed identical surveys, except that the leader survey was self-referential, whereas the subordinate survey was worded to prompt upward evaluation of the focal leader. The inter-correlation between the two subscales was .59,  $p < .01$  for the leader sample and .66,  $p < .001$  for the subordinate sample.

The validity of the ELS was investigated by Amundsen and Martinsen (in press) through three studies representing different work settings. They found the psychometric properties and factor structure to be consistent and stable across all three studies. The ELS demonstrated discriminant validity compared with LMX and transformational leadership, and, additionally, predicted incremental variance in psychological empowerment beyond these two leadership constructs. They also investigated the concurrent validity of the scale and found that it was related to subordinates’ job satisfaction, work effort, job performance, creativity, self-leadership, and psychological empowerment.

We followed the recommendation of Fleenor et al. (2010, p. 1025) and assessed whether the ELS was psychometrically equivalent across the two rating sources. To do this we performed multigroup confirmatory factor analysis (CFA) using AMOS (Byrne, 2004). Prior to the analysis both the leader and subordinate sample were screened for multivariate outliers by calculating Mahalanobis distance scores. Using a critical value of  $\chi^2 = 42.31$ ,  $df = 18$ ,  $p < .001$ , 6 multivariate outliers were identified and removed in the subordinate sample,

leaving 162 cases for further analysis. This procedure reduced the Mardia's multivariate kurtosis coefficient (Mardia, 1970) from 18.31 to 13.58 for the subordinate sample, whereas it was 1.12 for the leader sample. The univariate skewness and kurtosis of the 18 indicators in the subordinate sample were moderately non-normal and in the range -1.44 to .14 for skewness and -.78 to 3.07 for kurtosis. Univariate skewness of the leader sample was in the range -1.45 to .54 and kurtosis in the range -.94 to 4.46. In accordance with Lei and Lomax (2005) the worst effect of severe non-normality on parameter estimates in structural equation modeling (SEM) is "generally considerably less than 10%" (p. 16). Their study also indicated that standard errors of parameter estimates were not significantly affected by non-normality conditions. Moreover, they reported that CFI is a more robust fit indicator than chi-square when data are non-normal, and therefore, we concluded that the psychometric properties of our data were sufficient to perform SEM. We allowed the same two pairs of measurement errors to correlate, as did Amundsen and Martinsen (in press). First, a baseline, two-factor, configural model was tested, in which all parameters were freely estimated. This model provided a reasonable fit to the data [ $\chi^2(264, N = 212) = 507.91, p < .001$ ; RMSEA = .093; SRMR = .076; CFI = .90], indicating that the factor structure was equivalent across rating sources. The factor loadings were then constrained as equal across the two groups (i.e., a metric invariance model). Again we found a reasonable fit to the data [ $\chi^2(280, N = 212) = 523.03, p < .001$ ; RMSEA = .091; SRMR = .076; CFI = .90], and the model was not significantly different from the baseline model [ $\chi^2_{\text{diff}}(16, N = 212) = 15.12, ns$ ]. These results indicated that the ELS had equivalent psychometric properties across rating sources, and "that differences in ratings between rating sources are not due to, or created by, the multisource instrument itself" (Fleenor et al., 2010, p. 1024).

Although the two dimensions of EL were considered facets of the EL construct, we initially analyzed them separately regarding the effects of SOA on our three outcome

variables. In accordance with Edwards (1994) we performed polynomial regression analysis and plotted the results on a three-dimensional graph together with calculating surface coefficients to test specific aspects of the surface pattern (see the analysis section for details of this procedure). A comparison of the separate findings regarding the two dimensions and the findings regarding a summated scale of EL revealed that autonomy support was the main contributor of the summated scale. However, the findings regarding development support did not contradict the findings of autonomy support although the pattern of the response surface was more flat and the surface coefficients were mainly non-significant (results are available by request addressed to the first author). Given the theoretical link between the two EL dimensions, where they are part of the superordinate EL construct (Amundsen & Martinsen, in press) and where they to a large extent showed a similar pattern of findings, we decided that the use of a common construct could be justified. The use of whole constructs rather than correlated parts has also been common in previous SOA research regarding transformational leadership (Atwater & Yammarino, 1992; Moshavi et al., 2003; Sosik & Megerian, 1999). To further justify our decision, we additionally investigated whether there were significant interactions between the two EL dimensions in prediction of the outcome variables. If interactions exist between subscales, they cannot be added together and treated as a summated scale (Menon, 2001, p. 172). The analysis revealed no significant interactions, and single composite scores were therefore calculated for EL by averaging all 18 items. The reliability coefficients of the summated scale were .90 for the leader sample and .94 for the subordinate sample.

**Subordinates' self-report of job satisfaction.** Three items were adapted from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1983). Example items include: "All in all, I am satisfied with my job", and, "In general, I don't like my job" (R). Since Chronbach's coefficient alpha is dependent on both item

covariances and the number of items, and since this measure had a number of items that we considered to be in the lower range, we added one item to secure alpha for this measure. The item was: “All in all, I feel fine about my job”. Alpha for the four items scale was .91.

**Subordinates’ self-report of turnover intention.** Turnover intention was measured by five items ( $\alpha = .87$ ) based on prior measures (e.g., Khatri, Fern, & Budhwar, 2001) and further developed by Kuvaas (2006). Example items include: “I will probably look for a new job in the next year”, and, “I often think about quitting my present job”.

**Leader effectiveness rated by superiors.** Leader effectiveness was assessed by four items ( $\alpha = .92$ ) created for the current leadership development program. This approach was based on the fact that superiors normally have responsibility for evaluating each subordinate leader’s effectiveness as background for e.g., performance appraisal and promotion. The items were: “My subordinate leader reaches his/her goals”, “My subordinate leader makes an effort at work”, “My subordinate leader gives it everything at work”, and, “My subordinate leader is valuable to the department’s overall performance”.

### **Discriminant Validity**

CFA was conducted to examine the distinctiveness of the three subordinate self-reported variables (i.e., EL, job satisfaction, and turnover intention). Prior to these analyses, we removed three multivariate outliers that exceeded the critical value of  $\chi^2 = 32.91$ ,  $df = 11$ ,  $p < .001$  on the Mahalanobis distance scores, leaving 165 cases for further analysis. This procedure reduced the Mardia’s multivariate kurtosis coefficient (Mardia, 1970) from 21.23 to 17.32. The univariate skewness and kurtosis of the 27 indicators were moderately non-normal and in the range -1.16 to 1.54 for skewness and -.77 to 2.33 for kurtosis. Due to the relatively small sample size, we reduced the number of indicators by using item parcels for EL (West, Finch, & Curran, 1995). We created two parcels for the autonomy support subscale by randomly assigning six items to each, followed by the creation of one parcel for the

development support subscale. The CFA of the hypothesized three-factor model provided a much better fit, [ $\chi^2(51, N = 165) = 105.76, p < .001$ ; RMSEA = .081; SRMR = .070; CFI = .96] compared with a two-factor model that combined EL and job satisfaction into one factor, [ $\chi^2(53, N = 165) = 320.86, p < .001$ ; RMSEA = .176; SRMR = .116; CFI = .81], a two-factor model that combined EL and turnover intention into one factor, [ $\chi^2(53, N = 165) = 371.40, p < .001$ ; RMSEA = .191; SRMR = .146; CFI = .77], and a two-factor model that combined job satisfaction and turnover intention into one factor, [ $\chi^2(53, N = 165) = 337.14, p < .001$ ; RMSEA = .181; SRMR = .105; CFI = .80]. A one-factor model in which all indicators were constrained to load on a single factor also revealed poor model fit, [ $\chi^2(55, N = 165) = 549.91, p < .001$ ; RMSEA = .237; SRMR = .139; CFI = .64]. Taken together, these results supported discriminant validity among the three subordinate variables and the assertion that we could examine them as distinct constructs.

### **Data Aggregation**

To justify the aggregating of subordinates' scores of EL, job satisfaction, and turnover intention for leaders that had more than one rater, we calculated within-group agreement indexes ( $r_{wg}$ ; James, Demaree, & Wolf, 1984) and intraclass correlations coefficients (ICC; Bliese, 2000). The results demonstrated satisfying within-group agreement, in that the following percentage of leaders had  $r_{wg}$  index scores greater than .7: 93 percent for EL (mean  $r_{wg} = .86$ ); 91 percent for job satisfaction (mean  $r_{wg} = .87$ ); and 75 percent for turnover intention (mean  $r_{wg} = .76$ ). The ICC values were calculated using one-way analysis of variance and the results showed significant ICC(1)s for all variables of interest: for EL [ $F(43, 118) = 3.37, p < .001$ ; ICC(1) = .39, ICC(2) = .70]; for job satisfaction [ $F(43, 118) = 1.63, p < .05$ ; ICC(1) = .15, ICC(2) = .38], and for turnover intention [ $F(43, 118) = 1.48, p < .05$ ; ICC(1) = .12, ICC(2) = .32]. Significant ICC(1) values indicated that there were greater differences in subordinates' scores for the actual variable between leaders than within the set

of survey responses for a given leader. However, the ICC(2) values were in the low range. This may partly be due to the relatively small group size (3.4 on average) in our sample and the fact that the magnitude of ICC(2) increases with increasing group size (Bliese, Halverson, & Schriesheim, 2002). Therefore, we followed previous research (e.g., Schippers, Den Hartog, Koopman, & van Knippenberg, 2008; Williams, Parker, & Turner, 2010) and relied on estimates of  $r_{wg}$  and ICC(1), which in our case exhibited statistical properties that were acceptable in order to justify the aggregation of subordinates' measures to the leader level.

### Data Analysis

Previously reported empirical findings (e.g., Atwater et al., 1998; Ostroff et al., 2004) have indicated that the relationship between SOA of leadership and outcomes is more complex than a simple linear association, which has led to a recommendation that researchers use polynomial regression analyses and plots of three-dimensional response surface graphs (e.g., Edwards, 1994; Fleenor et al., 2010). We followed this recommendation in our analyses. Specifically, we regressed the outcome variables of interest on self-ratings (beta value  $b_1$ ), others' ratings ( $b_2$ ), self-ratings squared ( $b_3$ ), self-ratings times others' ratings ( $b_4$ ), and others' ratings squared ( $b_5$ ).

In examining the polynomial regression results, less emphasis has been placed on the specific beta coefficients (Edwards, 2002; Harris, Anseel, & Lievens, 2008). If the variance explained by the regression equation is significantly different from zero, the beta coefficients can be used to graph the response surface pattern and to calculate four values to test specific aspects of the surface (Edwards, 2001; Shanock, Baran, Gentry, Pattison, & Heggstad, 2010). The four surface coefficients are: the slope ( $a_1 = b_1 + b_2$ ) and curvature ( $a_2 = b_3 + b_4 + b_5$ ) of the response surface along the congruence line  $S = O$  (self- equals others' ratings), and the slope ( $a_3 = b_1 - b_2$ ) and curvature ( $a_4 = b_3 - b_4 + b_5$ ) along the incongruence line  $S = -O$  (self- differs from others' ratings).

To reduce the potential for multicollinearity between lower-order and higher-order terms, we mean centered our variables prior to conducting the analyses (Aiken & West, 1991). We argue that centering to the mean is an applicable approach because the group mean of the self-ratings has generally been found to be greater than the group mean of the others' ratings (e.g., Atwater et al., 1998; Sosik, 2001; Tekleab et al., 2008). This difference in mean values may be interpreted as a normal and expected average self-enhancement bias rather than a measure of overestimation (Harris & Schaubroeck, 1988; Mabe & West, 1982). In previous studies that have used categories in the exploration of SOA, this issue has been addressed by the use of deviation from the mean difference in the creation of categories (e.g., Church, 1997; Krishnan, 2003; Sosik, 2001), which is one form of mean centering. This was underscored by Atwater and Yammarino (1992), who pointed out that "given the differences in the group means (3.2 self; 2.6 subordinate), in reality, a self-rating of 2.0 was equivalent to a subordinate rating of 1.4 or 1.5" (p. 151). We believe this statement is equally valid regarding SOA studies of leadership that use polynomial regression analysis. Accordingly, centering to the mean will give estimates of the slopes at a point on the congruence and incongruence line that take into account this general self-enhancement bias. Regardless of the centering method used, this will not impact higher-order terms but only the beta coefficient of the main effects (Aiken & West, 1991). This means that when self and others' ratings are centered at their means, the beta coefficients  $b_1$  and  $b_2$  represent the slope of the surface at the mean of both self and other, whereas  $b_3$ ,  $b_4$ , and  $b_5$  are the same regardless of centering method. Moreover, mean centering ensured that the congruence and incongruence lines passed through the bulk of our data, which enhanced the statistical power of tests along these lines (Lambert, Edwards, & Cable, 2003).

Apart from one exception, none of the demographic variables (i.e., gender, age, education, and municipality affiliation) were significant in the prediction of our three

dependent variables. The one exception was municipality affiliation in the prediction of leader effectiveness. However, the inclusion of this variable neither changed the significance and direction of the beta values nor the surface test values and interpretation of the three-dimensional surface pattern. Due to the relatively low sample size we therefore decided to omit the demographic variables to increase the statistical power in our analyses (Cohen, 1988).

## **Results**

### **Descriptive Statistics**

Means, standard deviations, reliabilities, and correlations among the study variables are presented in Table 1. As expected, self-ratings of EL were higher than others' ratings,  $t(49) = 3.24, p < .01$ . We also followed the recommendations of Shanock et al. (2010) and calculated descriptive information about the occurrence of congruence and incongruence between self and others' ratings to arrive at a clearer initial understanding of our data. We did this by standardizing the score for self and other, and any leader with a standardized score on the self-rating half a standard deviation above others' score was categorized as an over-estimator, whereas any leader with a standardized score for self half a standard deviation below others' score was categorized as an under-estimator. Leaders within these limits were categorized as in agreement with others (Fleenor, McCauley, & Brutus, 1996). All three of the categories were well represented in the sample, which, according to Shanock et al. (2010), constituted a good basis for our subsequent SOA analyses (Table 2).

### **Common Method Variance**

Although we employed a variety of sources to measure our variables (i.e., superiors, leaders, and subordinates), the subordinate ratings of EL, job satisfaction, and turnover intention may suffer from common source-method bias. To investigate this issue in more detail we used the unmeasured-latent-method-construct procedure outlined by Richardson,

Simmering, and Sturman (2009) and compared four structural models (see Richardson et al.'s article for details about this procedure). We were, however, unable to estimate a full model including all three substantial constructs and the method factor. When both job satisfaction and the method factor were included simultaneously in the model it collapsed and produced negative error variances. We therefore decided to use the procedure on the relationship between EL and turnover intention with the assumption that the results of this analysis could serve as a guideline for potential common method variance (CMV) between job satisfaction and the other two variables. As in the discriminant analysis we used three parcels as indicators for EL. The first estimated model was a trait-only model with no method factor added, which provided excellent fit to the data [ $\chi^2(19, N = 165) = 32.55, p < .01$ ; RMSEA = .066; SRMR = .050; CFI = .98]. In the second method-only model, all indicators of the substantive variables were constrained to load on one common method factor. This model fitted the data significantly worse than the first model [ $\chi^2_{\text{diff}}(2) = 334.95, p < .001$ ], indicating that observed variance in the substantive variables was not due to the method alone. The third trait/method model was identical to the first model except that paths were added from the method factor to all indicators of the substantive variables. Because this model fitted significantly better than the first model [ $\chi^2_{\text{diff}}(8) = 20.66, p < .01$ ], both trait-based and method variance were present in the data. We partitioned the variance accounted for by the substantive variables and the method factor by averaging both the squared trait factor loadings and the squared method factor loadings (Williams, Cote, & Buckley, 1989). Variation not accounted for by these two sources represented unique variance. The results indicated that the total variation in data could be partitioned into 59.8 percent trait variance, 8.5 percent method variance, and 31.7 percent unique variance. Accordingly, CMV accounted for a minor part of the total variance and was lower than in the study by Williams et al. (1989), which found CMV to be 27 percent on average across 11 data sets. The final trait/method-R model was identical to the third model

except that the structural path coefficient between EL and turnover intention was constrained to the unstandardized values obtained from the trait-only model. The final model did not have a significantly worse fit than the third model [ $\chi^2_{\text{diff}}(1) = 0.12, ns$ ], suggesting that the path coefficient was not biased, although CMV was present in the data.

### Test of Hypotheses

To test our hypotheses we performed polynomial regression analyses (Edwards, 1994), and the results are presented in Table 3. The regression equations, which consist of first-order and second-order terms, explained a significant amount of the variance in all three outcome variables, which in turn justified our interpretation of the test values and of the response surface graphs. In order to avoid problems that may occur when extrapolating graphs beyond the actual cases represented in the data, we restricted the range of the mean centered self and other axes to  $\pm 1.25$  (Atkins & Wood, 2002).

-----  
Insert Table 1 about here  
-----

-----  
Insert Table 2 about here  
-----

-----  
Insert Table 3 about here  
-----

Hypothesis 1 postulated that leader effectiveness would be highest for in-agreement/good leaders of EL, second highest for under-estimators, third highest for over-estimators, and lowest for in-agreement/poor leaders. Examination of the response surface graph in Figure 1a revealed that the slope along the congruence line was not significantly

different from zero ( $a_1 = .35$ ,  $t = 1.27$ ,  $ns$ ) at the point where mean centered self = other = 0. However, the congruence line was concave ( $a_2 = -1.84$ ,  $t = -3.22$ ,  $p < .01$ ), and we examined this issue more closely by calculating the slope at different points along this line. The results indicated that the slope was significant and positive up to and including the point at which the mean centered self = other  $\approx -.07$  ( $a_1 = .61$ ,  $t = 2.04$ ,  $p = .047$ ); the slope was zero when self = other  $\approx .10$ , whereas it was significant and negative from and including the point at which self = other  $\approx .35$  ( $a_1 = -.94$ ,  $t = -2.07$ ,  $p = .045$ ). Thus, for lower to moderate agreement levels of EL, leader effectiveness increased when both self and others' ratings of EL increased, whereas for higher agreement levels of EL our analyses indicated the presence of an unexpected and negative effect. However, the fact that rated EL on the congruence line's vertex exceeded zero indicated that leader effectiveness was somewhat higher for higher agreement levels of rated EL than for lower levels. Furthermore, inspection of the surface graph in Figure 1a suggests that over-estimators were more effective than both in-agreement/good leaders and in-agreement/poor leaders. This pattern was supported by the magnitude and direction of the surface coefficients; that is, the combination of the non-significant slope ( $a_1$ ) and significant downward curvature ( $a_2$ ) along the congruence line with a non-significant slope ( $a_3 = -.42$ ,  $t = -1.25$ ,  $ns$ ) and curvature ( $a_4 = .47$ ,  $t = .73$ ,  $ns$ ) along the incongruence line.

Due to the flat surface (i.e., non-significant  $a_3$  and  $a_4$ ) along the incongruence line, we were not able to identify any differences in effectiveness between under-estimators and over-estimators. Inspection of the surface graph in Figure 1a shows, however, that both underestimation and overestimation were associated with higher leader effectiveness. This discrepancy was also suggested by the significant interaction term reported in Table 3 (Atwater et al., 1998; Brett & Atwater, 2001). To examine this issue in more detail, we conducted supplementary moderation analyses (Aiken & West, 1991). Prior to doing so, we

mean-centered the predictor variables. The results indicated that the interaction term explained significant additional variance in leader effectiveness after controlling for the two main effects [ $\Delta R^2 = .13$ ,  $\Delta F(42) = 8.05$ ,  $p < .01$ ]. We plotted the relationship between others' ratings and leader effectiveness for high and low levels of self-rating ( $\pm 1$  standard deviation from the mean) and then tested whether each slope was significant (Aiken & West, 1991). As indicated in Figure 1b, others' ratings had a strong and positive relationship with leader effectiveness when self-rating was low (*simple slope* = 1.03,  $t = 4.32$ ,  $p < .001$ ), whereas the relationship was non-significant and negative when self-rating was high (*simple slope* = -.20,  $t = -.66$ , *ns*). In other words, underestimation (i.e., low self-rating coupled with high others' ratings) was significant, whereas overestimation (i.e., high self-rating coupled with low others' ratings) was not. As a whole, the results provide mixed support for Hypothesis 1. As shown in Figure 1a, in-agreement/poor leaders were suggested to be the least effective leaders. The most effective leaders appeared to be under-estimators, whereas overestimation and agreement at moderate levels of rated EL were also associated with relatively high leader effectiveness.

Hypothesis 2 postulated that (a) job satisfaction was highest and (b) turnover intention lowest among subordinates of under-estimators, second highest/lowest for subordinates of in-agreement/good leaders, third highest/lowest for subordinates of in-agreement/poor leaders, and lowest/highest for subordinates of over-estimators. As indicated in Table 3 and shown in Figure 2a, Hypothesis 2a was partially supported because the slope along the incongruence line was significant and negative ( $a_3 = -.64$ ,  $t = -3.37$ ,  $p < .01$ ), which indicated that underestimation was related to higher job satisfaction among subordinates than overestimation. However, due to the flat surface along the congruence line we failed to detect any differences in job satisfaction among subordinates of in-agreement/good leaders and in-agreement/poor leaders. Inspection of the surface graph in Figure 2a suggests that agreement

was associated with higher job satisfaction than overestimation. This pattern was supported by the magnitude and direction of the surface coefficients; that is, the combination of a flat surface along the congruence line ( $a_1 = .15, t = .89, ns$ ;  $a_2 = .71, t = 1.96, ns$ ) and the significantly negative slope ( $a_3$ ) and non-significant curvature ( $a_4 = -.38, t = -1.05, ns$ ) along the incongruence line.

Table 3 and Figure 3a suggest that Hypothesis 2b also was partially supported. The significant and positive slope ( $a_3 = .83, t = 3.04, p < .01$ ) along the incongruence line indicated that turnover intention among subordinates was lower at underestimation than overestimation. However, the flat surface along the congruence line indicated that we failed to detect any differences in turnover intention between the two agreement categories. Inspection of the surface graph in Figure 3a suggests that agreement was associated with lower turnover intention than overestimation. This pattern was supported by the magnitude and direction of the surface coefficients; that is, the combination of a flat surface along the congruence line ( $a_1 = -.03, t = -.11, ns$ ;  $a_2 = -.73, t = -1.41, ns$ ) and the positive slope ( $a_3$ ) and non-significant curvature ( $a_4 = .95, t = 1.89, ns$ ) along the incongruence line. Due to the significant interaction terms for both job satisfaction and turnover intention, we examined these self-other discrepancy issues in more detail by performing supplementary moderator analyses in the same way as described above, for Hypothesis 1. Regarding job satisfaction, the interaction term significantly explained additional variance after controlling for the main effects [ $\Delta R^2 = .07, \Delta F(46) = 4.48, p < .05$ ]. The relationship between others' ratings and job satisfaction was plotted at one standard deviation under and above the mean for self-rating (Figure 2b). Effect tests of the slopes (Aiken & West, 1991) revealed that others' ratings had a significant and positive relationship with job satisfaction when self-rating was high (*simple slope* =  $.65, t = 3.94, p < .001$ ), whereas the relationship was non-significant when self-rating was low (*simple slope* =  $.11, t = .78, ns$ ). This means that overestimation was the main reason for the

interaction, and was associated with lower job satisfaction among subordinates (Figure 2b). For turnover intention, the interaction term explained significant variance after controlling for the main effects [ $\Delta R^2 = .07$ ,  $\Delta F(46) = 4.55$ ,  $p < .05$ ]. Figure 3b shows the relationship between others' ratings of EL and turnover intention for low and high levels of self-rating, respectively. Effect tests (Aiken & West, 1991) of the slopes indicated that high self-rating contributed to a significant and negative relationship between others' ratings and turnover intention (*simple slope* =  $-.76$ ,  $t = -3.21$ ,  $p < .01$ ), whereas low self-rating contributed to a non-significant relationship (*simple slope* =  $.02$ ,  $t = .09$ , *ns*). Overestimation was therefore suggested as the main reason for the interaction, and, as shown in Figure 3b, to be related to higher turnover intention among subordinates.

-----

Insert Figure 1 about here

-----

-----

Insert Figure 2 about here

-----

-----

Insert Figure 3 about here

-----

### **Discussion**

As stated in the introduction, the majority of extant SOA studies of leadership have analyzed U.S.-based samples. The current study's analysis of the municipal sector in Norway therefore represents an important contribution to investigations into whether the effect of SOA in such a culture has implications for leader effectiveness and subordinates' work attitudes beyond what has emerged as common to their relationships in previous research. The

current study also represents one of the first attempts to investigate the implications of SOA in EL ratings. A number of previous SOA studies have concentrated on transformational leadership but Tekleab et al. (2008) suggested that findings regarding this type of leadership ought not to be generalized to SOA in EL ratings. For example, they found that SOA of transformational leadership was significantly related to leader effectiveness as rated by subordinates, whereas SOA of EL was not.

In line with findings reported from European countries (Atwater et al., 2005), our results suggested that only others' ratings (i.e., the ratings of subordinates) were significantly related to superiors' ratings of leader effectiveness; that is, self-rating played an insignificant role as main effect. However, in contrast to Atwater et al. (2005), we found a significant interaction effect of self and others' ratings, which indicated that SOA was a relevant concept in our sample. This interaction effect was identified for each of our three outcome variables (i.e., leader effectiveness, job satisfaction, and turnover intention).

Regarding the influence of SOA on leader effectiveness our results indicated, as expected, that in-agreement/poor leaders were the least effective leaders. This describes leaders that often are unwilling or unable to change behavior due to low self-esteem (Atwater & Yammarino, 1997) and/or self-efficacy (Tekleab et al., 2008). However, our findings were unexpected as compared with previous studies regarding in-agreement/good leaders, which have indicated that these leaders are associated with higher effectiveness (e.g., Atwater et al., 1998; Ostroff et al., 2004, Tekleab et al., 2008). Contrary to our expectation, we found a negative effect of agreement on leader effectiveness at higher levels of rated EL. In other words, in order to be perceived as more effective it was not beneficial for the leaders in our sample to be in-agreement with subordinates about their empowering behavior at higher levels of EL. One possible explanation for this finding may be that leader effectiveness was rated by superiors and that they may have based their evaluation on the leader's ability to

work hard and to achieve their goals, whereas EL more broadly is focused on achieving results through others, in particular by supporting subordinates in working autonomously (Amundsen & Martinsen, in press; Manz & Sims, 2001). The leaders who agreed with subordinates about their higher level of empowering leader behavior may have been comfortable fulfilling this role without feeling compelled to push tasks that could have “impressed” their superior. They instead may have largely focused on the practice of EL and seem to genuinely believe in the appropriateness of this approach as a way to lead, which was strengthened by subordinates’ positive feedback and confirmations. However, seen from the superiors’ perspective, this may be perceived as “too much of a good thing” with respect to these leaders’ efforts in promoting subordinates’ autonomy through power sharing and support of their motivation and development. Thus, it is possible that superiors may have perceived in-agreement/good leaders as less effective.

Another factor that might have impacted the effects of agreement on leader effectiveness at moderate to higher levels of rated EL is the leveling or avoidance of competition among those leaders perceived as more successful (Atwater et al., 2005). Hofstede (1983) suggested that, in countries that rate masculinity in the lower range (e.g., Norway), leveling is the norm and individuals do not try to be better than others. This issue may have contributed to the flattening out of the relationship between EL ratings and leader effectiveness when EL ratings in our sample went from moderate to high. That our study involved the public sector may also have influenced this finding. However, it is less likely that the leveling effect explains the negative relationship between rated EL and leader effectiveness at the highest levels of EL.

As expected, we found under-estimators to be perceived as more effective leaders by their superiors. These leaders tend to compensate for their low perceived self-efficacy through working hard. This extra effort was perhaps channeled not only into more empowering

behavior relative to subordinates, but also into more visible activities that were easier for superiors to observe as effective. However, contrary to our expectation, we failed to detect whether under-estimators were more effective than over-estimators. The surface graph in Figure 1a indicated that superiors also perceived over-estimators as relatively effective. A partial explanation for this finding may be that over-estimators in our sample possessed high public self-consciousness, which implies “worrying about others’ opinions and the impression they are making on others” (Atwater & Yammarino, 1997, p. 137). Sosik and Megerian (1999) proposed that individuals possessing a high degree of public self-consciousness may behave in ways that are designed to impress superiors rather than subordinates. This tendency on the part of over-estimators may be perceived favorably by their superiors who, in turn, evaluate these leaders as more effective.

Another partial explanation may be that over-estimators tend to possess a degree of narcissism (Judge, LePine, & Rich, 2006; John & Robins, 1994), which, among other things, involves an inflated sense of self-importance (Fleenor et al., 2010), a need for power and admiration (Rosenthal & Pittinsky, 2006), and displays of self-confidence, dominance, and authority (Nevicka, Ten Velden, De Hoogh, & van Vianen, 2011). Accordingly, Kernberg (1979) noted that the characteristics of narcissistic individuals drive them to seek positions of power, which implies that they are often found in positions of leadership. Several of these characteristics (e.g., self-confidence, dominance, and authority) also match the prototypical attributes generally associated with effective leaders (Hogan, Curphy, & Hogan, 1994; Judge, Ilies, Bono, & Gerhardt, 2002; Kirkpatrick & Locke, 1991), which may have caused superiors to perceive narcissistic over-estimators as more effective. Some support for this view is indicated by Nevicka et al. (2011), who reported that a leader’s authority in student groups mediated the positive effect of a leader’s narcissism on perceived leadership effectiveness. Goncalo, Flynn, and Kim (2010) found that narcissistic individuals were perceived as creative

and Deluga (1997) found that higher narcissism in U.S. presidents was associated with more positive perceptions of their effectiveness.

As regards the effects of SOA on subordinates' job satisfaction and turnover intentions, our results are consistent with findings in previous studies which have suggested that under-estimators and self-aware leaders affect subordinates' attitudes in more favorable ways than do over-estimators (e.g., Krishnan, 2003; Moshavi et al., 2003; Sosik, 2001). Potential explanations for these findings include the notions that under-estimators are able to effectively operate at an interpersonal level (Sosik & Godshalk, 2004) and that they are likeable individuals who maintain pleasant relationships with others (Yammarino & Atwater, 1997). Self-aware leaders may also be able to contribute to positive affective outcomes by virtue of their accurate self-insight and ability to promote trust (Sosik, 2001) and satisfaction (Szell & Henderson, 1997) among employees. In contrast, over-estimators tend to have more negative attitudes (Atwater & Yammarino, 1997), be more self-centered (Sosik, 2001), and less sensitive to the concerns of others (Moshavi et al., 2003).

Contrary to our expectation, we did not find any differences in job satisfaction and turnover intention among subordinates of in-agreement/good leaders and in-agreement/poor leaders; that is, the level of agreement had no particular impact on our two subordinate attitudinal variables. This finding, however, is partially in line with Sosik (2001), who, in a post hoc analysis, divided the in-agreement group of charismatic leadership into high and low-scoring categories and compared them with both the under-estimator and over-estimator categories in terms of their subordinates' trust in them as managers. The trust subordinates had for leaders was found to be significantly higher for under-estimators and significantly lower for over-estimators compared with both of the in-agreement categories. This supported the idea that agreement in itself was the important factor – and not the level of rated agreement.

As indicated, cultural factors may have impacted the effects of SOA in our study. For example, in countries characterized as more feminine and less individualistic (e.g., Norway; Hofstede, 1983), humility and modesty are valued and underestimation may be viewed as consistent with leader effectiveness (Atwater et al., 2005; Kopperud et al., 2014). Moreover, the tendency to be less assertive in a culture such as that of Norway may result in leaders receiving less information about how others see them, and therefore may lead them to remain either an under or over-estimator to a greater degree than in the U.S. The descriptive statistics displayed in Table 2 reveal incongruence among 58 percent of the leaders in our sample. It is reasonable to argue that some of these leaders, through more direct feedback beyond that provided as part of the leadership program, could have amended their self-rating and/or their empowering leader behavior such that they gradually came to exhibit a greater congruence with the way their subordinates perceived them. This could, in turn, impact the relationship between SOA and leader effectiveness and also the two subordinate outcomes in our study. Accordingly, a possible partial explanation of the different findings between our study and the study by Tekleab et al. (2008) may be that the two studies were conducted in different national and organizational cultures. However, as Fleenor et al. (2010) stated, “although culture may be important, there is a risk of taking such generalizations too far due to the wide range of behavior that can often be observed within any one culture” (p. 1015).

Another point worth mentioning is the predominance of both female leaders (60 percent) and subordinates (71 percent) in our sample. Previous studies have shown that males have a tendency to overestimate themselves to a greater degree than females (e.g., Brutus, Fleenor, & McCauley, 1999; Moshavi et al., 2003; Vecchio & Anderson, 2009). Moreover, similarity in demographic characteristics between rated and rater has been found to positively influence a rater’s evaluation of the rated (e.g., Pulakos & Wexley, 1983; Tsui & O’Reilly, 1989). These factors could have contributed to fewer over-estimators in our sample relative to

a sample that was more demographically balanced. However, a comparison of self and others' ratings for male and female leaders did not support this idea since there were a similar proportion of over-estimators among each gender (i.e., 30 percent).

### **Practical Implications**

We found that leaders who overestimated their EL had subordinates who reported lower job satisfaction and higher turnover intention compared with subordinates of under-estimators and in-agreement leaders. This may, in turn, cause decreased job performance (Judge et al., 2001) and increased actual turnover (Griffeth et al., 2000) among subordinates of such leaders. Due to possible arrogance and narcissistic tendencies, over-estimators may perceive that no changes are necessary and continue to influence subordinates' attitudes in a negative direction. It would therefore be useful to bring over-estimators into a more reality-oriented position regarding their empowering leader behavior. One possibility is to provide feedback to these leaders, and previous studies (e.g., Atwater et al., 1995; Johnson & Ferstl, 1999) have indicated that over-estimators may improve the accuracy of their self-perception after receiving feedback. However, other studies have shown that negative upward feedback (i.e., high self relative to subordinates' ratings) may reduce a leader's commitment to their subordinates (Atwater et al., 2000), and over-estimators may react to lower ratings from others with anger and discouragement (Brett & Atwater, 2001). It is therefore important to be aware of these possible negative reactions on the parts of leaders and others who provide upward feedback to over-estimators.

Another practical issue concerns our finding with respect to under-estimators. These leaders were perceived as more effective by their superiors and their subordinates reported relatively higher rates of job satisfaction and lower turnover intention. Atwater et al. (1998) noted that under-estimators' favorable effectiveness "may represent an interest in continually striving to improve and not becoming overconfident or complacent" (p.594). Under-

estimators willingness for self-improvement and desire to meet the behavioral expectations of their subordinates make them to especially valuable leaders. Feedback to under-estimators should therefore help them to build self-confidence and lead them to understand that they play an important role in the organization (cf., Sosik, 2001). They are often hard-working individuals who maintain pleasant relationships with their subordinates and it is important that they be made more aware of their qualities as leaders.

### **Limitations and Suggestions for Future Research**

This study should be considered in light of some limitations. First, we used a single sample from the public municipal sector in Norway, and generalization of our results requires cross-validation using samples from other countries, organizations and work settings. It would also be useful to replicate the study in countries with work values comparable to Norway in order to further investigate how such values may impact the effect of SOA. Additionally, due to the relatively high number of females in the sample, future research should investigate whether our findings can be replicated in Norwegian samples involving more males.

Second, estimates of the correlations between subordinate ratings of EL, job satisfaction, and turnover intention may have been inflated due to common method variance (CMV). Even though our use of the unmeasured-latent-method-construct approach (Richardson et al., 2009) did not indicate any biasing effect of CMV on the correlations, the incompleteness of this statistical technique means that we could not conclude with certainty on this issue. Therefore, there is a need for future studies that have further controls for CMV. We also suggest that future research expand the sample of others' ratings of EL to include peers and superiors of the leaders. This will facilitate efforts to investigate whether these sources reveal patterns of SOA results that differ from those reported here for subordinates.

Third, the relatively small sample size ( $N = 50$  for job satisfaction and turnover intention, and  $N = 46$  for leader effectiveness) contributed to low statistical power in our

analyses and therefore the results should be interpreted in light of the possibility of a Type-II error. A power analysis indicated that, with our sample size and five predictors, it would require a power of .80 (Cohen, 1988) to detect a significant semipartial correlation  $sr_i$  ( $p < .05$ , two-tailed,  $t$ -test) with a magnitude of .37 (Faul, Erdfelder, Albert-Georg, & Buchner, 2007). Possible measurement errors along with the relatively small sample size may also have affected our findings. Future studies should therefore seek to use larger sample sizes to obtain greater statistical power in the analyses.

Fourth, although we restricted the range of the self and other axes in the surface graphs relative to the actual cases in our data, the graphs contain all possible combinations of self and others' ratings within this range. Thus, it is possible that the surface plots included combinations that were not present in our data, which implies that the graphs should be interpreted with caution on the outer edge of the self and other axes. Fifth, because data were gathered at one point in time, the correlations between the variables did not represent causal relationships. To assess causal directions, the findings should be replicated in future experimental and/or longitudinal studies. Sixth, we included only SOA of empowering leadership in our study, which has prevented us from analyzing whether SOA of different leadership approaches can lead to different results on our outcome variables. A final limitation may be that our measure of leader effectiveness consisted of items that tapped into only limited aspects of effectiveness, although the measure was considered sufficient in the present leadership development program. Future studies should therefore consider applying broader measures of leader effectiveness that include more facets of the construct.

## **Conclusion**

This study contributes to findings supporting the importance of self-other agreement in understanding individual and organizational outcomes, as well as understanding of SOA in cultures outside the U.S. In particular, we found incongruence in ratings of empowering

leadership to be relevant because overestimation was related to subordinates' job satisfaction and turnover intention, whereas underestimation was related to leader effectiveness. This may be helpful information for organizations using 360-degree and upward feedback programs or companies planning to make use of such development tools. Because this is one of the first SOA studies of empowering leadership, there remains a need to cross-validate our findings in future research.

### 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*(5), 945–955.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Amundsen, S., & Martinsen, Ø. L. (in press). Empowering leadership: Construct clarification, conceptualization, and validation of a new scale, *The Leadership Quarterly*. Available online <http://dx.doi.org/10.1016/j.leaqua.2013.11.009>.
- Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21*(3), 249–269.
- Atkins, P. W. B., & Wood, R. E. (2002). Self- versus others' ratings as predictors of assessment center ratings: Validation evidence for 360-degree feedback programs. *Personnel Psychology, 55*(4), 871–904.
- Atwater, L. E., Ostroff, C., Yammarino, F. J., & Fleenor, J. W. (1998). Self–other agreement: Does it really matter? *Personnel Psychology, 51*(3), 577–598.
- Atwater, L. E., Roush, P., & Fischthal, A. (1995). The influence of upward feedback on self- and follower ratings of leadership. *Personnel Psychology, 48*(1), 35–59.
- Atwater, L. E., Waldman, D. A., Atwater, D., & Cartier, P. (2000). An upward feedback field experiment: Supervisors' cynicism, reactions, and commitment to subordinates. *Personnel Psychology, 53*(2), 275–297.

- 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 & Assessment, 13*(1), 25–40.
- Atwater, L. E., Wang, M., Smither, J. W., & Fleenor, J. W. (2009). Are cultural characteristics associated with the relationship between self and others' ratings of leadership? *Journal of Applied Psychology, 94*(4), 876–886.
- Atwater, L. E., & Yammarino, F. J. (1992). Does self-other agreement on leadership perceptions moderate the validity of leadership and performance predictions? *Personnel Psychology, 45*(1), 141–164.
- Atwater, L. E., & Yammarino, F. J. (1997). Self-other rating agreement: A review and model. *Research in Personnel and Human Resources Management, 15*, 121–174.
- Bass, B. M., & Yammarino, F. J. (1991). Congruence of self and others' leadership ratings of naval officers for understanding successful performance. *Applied Psychology: An International Review, 40*(4), 437–454.
- Berson, Y., & Sosik, J. J. (2007). The relationship between self-other rating agreement and influence tactics and organizational processes. *Group & Organization Management, 32*(6), 675–698.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349–381). San Francisco, CA: Jossey-Bass.
- Bliese, P. D., Halverson, R. R., & Schriesheim, C. A. (2002). Benchmarking multilevel methods in leadership: The articles, the model, and the data set. *The Leadership Quarterly, 13*(1), 3–14.

- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology, 86*(5), 930–942.
- Brutus, S., Fleenor, J. W., & McCauley, C. D. (1999). Demographic and personality predictors of congruence in multi-source ratings. *Journal of Management Development, 18*(5), 417–435.
- Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. *Structural Equation Modeling, 11*(2), 272–300.
- Cammann, C., Fichman, M., Jenkins, G. D., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E. E. Lawler, P. H. Mirvis & C. Cammann (Eds.), *Assessing organizational change: A guide to methods, measures and practices* (pp. 71–138). New York: John Wiley & Sons.
- Church, A. H. (1997). Managerial self-awareness in high-performing individuals in organizations. *Journal of Applied Psychology, 82*(2), 281–292.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13*(3), 471–482.
- Conway, J. M., & Huffcutt, A. I. (1997). Psychometric properties of multisource performance ratings: A meta-analysis of subordinate, supervisor, peer, and self-ratings. *Human Performance, 10*(4), 331–360.
- Deluga, R. J. (1997). Relationship among American presidential charismatic leadership, narcissism, and rated performance. *The Leadership Quarterly, 8*(1), 49–65.
- Dewettinck, K., & van Amejide, M. (2011). Linking leadership empowerment behaviour to employee attitudes and behavioural intentions: Testing the mediating role of psychological empowerment. *Personnel Review, 40*(3), 284–305.

- Druskat, V. U., & Wheeler, J. V. (2003). Managing from the boundary: The effective leadership of self-managing work teams. *Academy of Management Journal*, 46(4), 435–457.
- Edwards, J. R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58(1), 51–100.
- Edwards, J. R. (2001). Ten difference score myths. *Organizational Research Methods*, 4(3), 265–287.
- 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.
- Faul, F., Erdfelder, E., Albert-Georg, L., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191.
- Fleenor, J. W., McCauley, C. D., & Brutus, S. (1996). Self–other rating agreement and leader effectiveness. *The Leadership Quarterly*, 7(4), 487–506.
- 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.
- Godshalk, V. M., & Sosik, J. J. (2000). Does mentor–protégé agreement on mentor leadership behavior influence the quality of a mentoring relationship? *Group & Organization Management*, 25(3), 291–317.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam.

- Goncalo, J. A., Flynn, F. J., & Kim, S. H. (2010). Are two narcissists better than one? The link between narcissism, perceived creativity, and creative performance. *Personality and Social Psychology Bulletin*, 36(11), 1484–1495.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463–488.
- Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2009). Leader–member exchange and empowerment: Direct and interactive effects on job satisfaction, turnover intentions, and performance. *The Leadership Quarterly*, 20(3), 371–382.
- Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2011). The mediating role of organizational job embeddedness in the LMX–outcomes relationships. *The Leadership Quarterly*, 22(2), 271–281.
- Harris, M. M., Anseel, F., & Lievens, F. (2008). Keeping up with the Joneses: A field study of the relationships among upward, lateral, and downward comparisons and pay level satisfaction. *Journal of Applied Psychology*, 93(3), 665–673.
- Harris, M. M., & Schaubroeck, J. (1988). A meta-analysis of self–supervisor, self–peer, and peer–supervisor ratings. *Personnel Psychology*, 41(1), 43–62.
- Hechanova, M. R. M., Alampay, R. B. A., & Franco, E. P. (2006). Psychological empowerment, job satisfaction and performance among Filipino service workers. *Asian Journal of Social Psychology*, 9(1), 72–78.
- Hofstede, G. (1983). National cultures in four dimensions. *International Studies of Management & Organization*, 13(1/2), 46–74.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist*, 49(6), 493–504.

- Houghton, J. D., & Yoho, S. K. (2005). Toward a contingency model of leadership and psychological empowerment: When should self-leadership be encouraged? *Journal of Leadership & Organizational Studies*, *11*(4), 65–83.
- James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, *69*(1), 85–98.
- John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology*, *66*(1), 206–219.
- Johnson, J. W., & Ferstl, K. L. (1999). The effects of interrater and self–other agreement on performance improvement following upward feedback. *Personnel Psychology*, *52*(2), 271–303.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, *87*(4), 765–780.
- Judge, T. A., LePine, J. A., & Rich, B. L. (2006). Loving yourself abundantly: Relationship of the narcissistic personality to self- and other perceptions of workplace deviance, leadership, and task and contextual performance. *Journal of Applied Psychology*, *91*(4), 762–776.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, *127*(3), 376–407.
- Kanter, R. M. (1977). *Men and women of the corporation*. New York: Basic Books.
- Kanungo, R. N., & Mendonca, M. (1996). *Ethical dimensions of leadership*. Thousand Oaks, CA: Sage.

- Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology, 88*(2), 246–255.
- Kernberg, O. (1979). Regression in organizational leadership. *Psychiatry, 42*, 29–39.
- Khatri, N., Fern, C T., & Budhwar, P. (2001). Explaining employee turnover in an Asian context. *Human Resource Management Journal, 11*(1), 54–74.
- Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership: do traits matter? *Academy of Management Executive, 5*(2), 48–60.
- Konczak, L. J., Stelly, D. J., & Trusty, M. L. (2000). Defining and measuring empowering leader behaviors: Development of an upward feedback instrument. *Educational and Psychological Measurement, 60*(2), 301–313.
- Kopperud, K. H., Martinsen, Ø., & Humborstad, S. I. W. (2014). Engaging leaders in the eyes of the beholder: On the relationship between transformational leadership, work engagement, service climate, and self–other agreement. *Journal of Leadership & Organizational Studies, 21*(1), 29–42.
- Krishnan, V. R. (2003). Power and moral leadership: Role of self–other agreement. *Leadership & Organization Development Journal, 24*(6), 345–351.
- Kuvaas, B. (2006). Performance appraisal satisfaction and employee outcomes: Mediating and moderating roles of work motivation. *International Journal of Human Resource Management, 17*(3), 504–522.
- 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*(4), 895–934.
- Lawler, E. E. (1986). *High-involvement management*. San Francisco: Jossey-Bass.
- Lee, M., & Koh, J. (2001). Is empowerment really a new concept? *International Journal of Human Resource Management, 12*(4), 684–695.

- Lei, M., & Lomax, R. G. (2005). The effect of varying degrees of nonnormality in structural equation modeling. *Structural Equation Modeling, 12*(1), 1–27.
- Liu, W., Lepak, D. P., Takeuchi, R., & Sims Jr., H. P. (2003). Matching leadership styles with employment modes: Strategic human resource management perspective. *Human Resource Management Review, 13*(1), 127–152.
- Mabe, P. A., & West, S. G. (1982). Validity of self-evaluation of ability: A review and meta-analysis. *Journal of Applied Psychology, 67*(3), 280–296.
- Manz, C. C., & Sims Jr., H. P. (2001). *The new superleadership: Leading others to lead themselves*. San Francisco, CA: Berrett-Koehler Publishers.
- Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika, 57*(3), 519–530.
- Menon, S. T. (2001). Employee empowerment: An integrative psychological approach. *Applied Psychology: An International Review, 50*(1), 153–180.
- Moshavi, D., Brown, F. W., & Dodd, N. G. (2003). Leader self-awareness and its relationship to subordinate attitudes and performance. *Leadership & Organization Development Journal, 24*(7), 407–418.
- Ostroff, C., Atwater, L. E., & Feinberg, B. J. (2004). Understanding self–other agreement. *Personnel Psychology, 57*(2), 333–375.
- Nevicka, B., Ten Velden, F. S., De Hoogh, A. H. B., & van Vianen, A. E. M. (2011). Reality at odds with perceptions: Narcissistic leaders and group performance. *Psychological Science, 22*(10), 1259–1264.
- Parker, S. K., Wall, T. D., & Cordery, J. L. (2001). Future work design research and practice: Towards an elaborated model of work design. *Journal of Occupational & Organizational Psychology, 74*(4), 413–440.

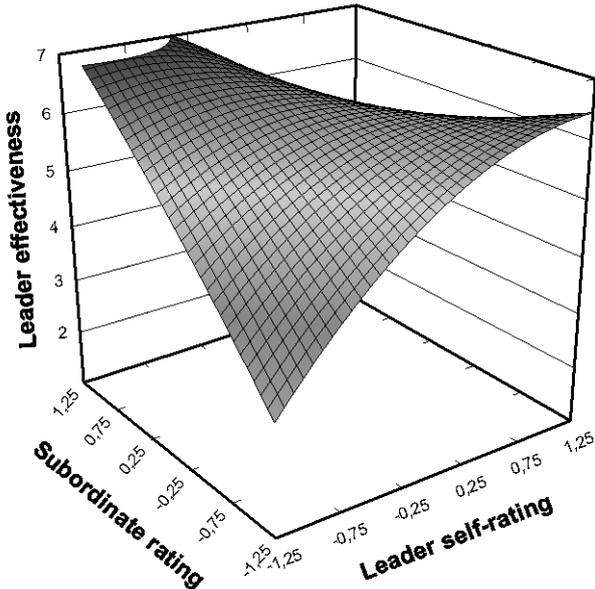
- Pearce, C. L., Sims Jr., H. P., Cox, J. F., Ball, G., Schnell, E., Smith, K. A., & Trevino, L. (2003). Transactors, transformers and beyond: A multi-method development of a theoretical typology of leadership. *The Journal of Management Development*, 22(4), 273–307.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Pulakos, E. D., & Wexley, K. N. (1983). The relationship among perceptual similarity, sex, and performance ratings in manager–subordinate dyads. *Academy of Management Journal*, 26(1), 129–139.
- Randolph, W. A., & Kemery, E. R. (2011). Managerial use of power bases in a model of managerial empowerment practices and employee psychological empowerment. *Journal of Leadership & Organizational Studies*, 18(1), 95–106.
- Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A tale of three perspectives. *Organizational Research Methods*, 12(4), 762–800.
- Rosenthal, S. A., & Pittinsky, T. L. (2006). Narcissistic leadership. *The Leadership Quarterly*, 17(6), 617–633.
- Schippers, M. C., Den Hartog, D. N., Koopman, P. L., & van Knippenberg, D. (2008). The role of transformational leadership in enhancing team reflexivity. *Human Relations*, 61(11), 1593–1616.
- 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(4), 543–554.

- Sims Jr., H. P., & Manz, C. C. (1996). *Company of heroes: Unleashing the power of self-leadership*. New York: Wiley.
- Sosik, J. J. (2001). Self-other agreement on charismatic leadership. *Group & Organization Management, 26*(4), 484–511.
- Sosik, J. J., & Godshalk, V. M. (2004). Self-other rating agreement in mentoring: Meeting protégé expectations for development and career advancement. *Group & Organization Management, 29*(4), 442–469.
- Sosik, J. J., & Megerian, L. E. (1999). Understanding leader emotional intelligence and performance: The role of self-other agreement on transformational leadership perceptions. *Group & Organization Management, 24*(3), 367–390.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442–1465.
- Spreitzer, G. M. (2008). Taking stock: A review of more than twenty years of research on empowerment. In C. Copper & J. Barling (Eds.), *Handbook of organizational behavior* (pp. 54–72). Thousand Oaks, CA: Sage.
- Szell, S., & Henderson, R. (1997). The impact of self-supervisor/subordinate performance rating agreement on subordinates' job satisfaction and organisational commitment. *Journal of Applied Social Behaviour, 3*(2), 25–37.
- Tekleab, A. G., Sims Jr., H. P., Yun, S., Tesluk, P. E., & Cox, J. (2008). Are we on the same page? Effects of self-awareness of empowering and transformational leadership. *Journal of Leadership & Organizational Studies, 14*(3), 185–201.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology, 46*(2), 259–293.

- 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.
- Tsui, A. S., & O'Reilly Iii, C. A. (1989). Beyond simple demographic effects: The importance of relational demography in superior–subordinate dyads. *Academy of Management Journal*, *32*(2), 402–423.
- van Dick, R., Christ, O., Stellmacher, J., Wagner, U., Ahlswede, O., Grubba, C., . . . Tissington, P. A. (2004). Should I stay or should I go? Explaining turnover intentions with organizational identification and job satisfaction. *British Journal of Management*, *15*(4), 351–360.
- Vecchio, R. P., & Anderson, R. J. (2009). Agreement in self–other ratings of leader effectiveness: The role of demographics and personality. *International Journal of Selection & Assessment*, *17*(2), 165–179.
- 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*(3), 530–542.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, CA: Sage.
- Wilkinson, A. (1998). Empowerment: Theory and practice. *Personnel Review*, *27*(1), 40–56.
- Williams, H. M., Parker, S. K., & Turner, N. (2010). Proactively performing teams: The role of work design, transformational leadership, and team composition. *Journal of Occupational & Organizational Psychology*, *83*(2), 301–324.

- Williams, L. J., Cote, J. A., & Buckley, M. R. (1989). Lack of method variance in self-reported affect and perceptions at work: Reality or artifact? *Journal of Applied Psychology, 74*(3), 462–468.
- Wohlers, A. J., & London, M. (1989). Ratings of managerial characteristics: Evaluation difficulty, co-worker agreement, and self-awareness. *Personnel Psychology, 42*(2), 235–261.
- Yammarino, F. J., & Atwater, L. E. (1993). Understanding self-perception accuracy: Implications for human resource management. *Human Resource Management, 32*(2/3), 231–247.
- Yammarino, F. J., & Atwater, L. E. (1997). Do managers see themselves as others see them? Implications of self-other rating agreement for human resources management. *Organizational Dynamics, 25*(4), 35–44.
- 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.

a. Three-dimensional response surface graph



b. Simple slope lines

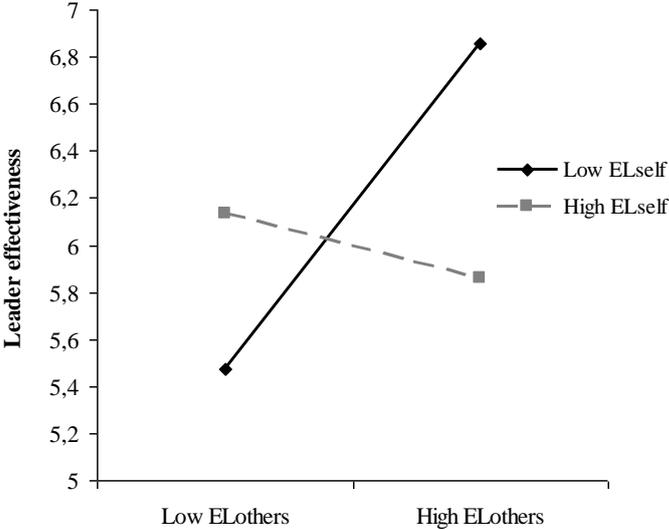
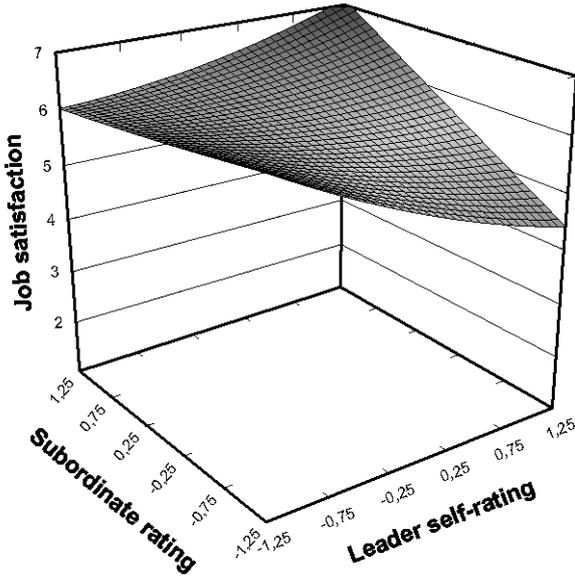


Figure 1. The relationship between self- and subordinate (others) ratings of empowering leadership (EL)

a. Three-dimensional response surface graph



b. Simple slope lines

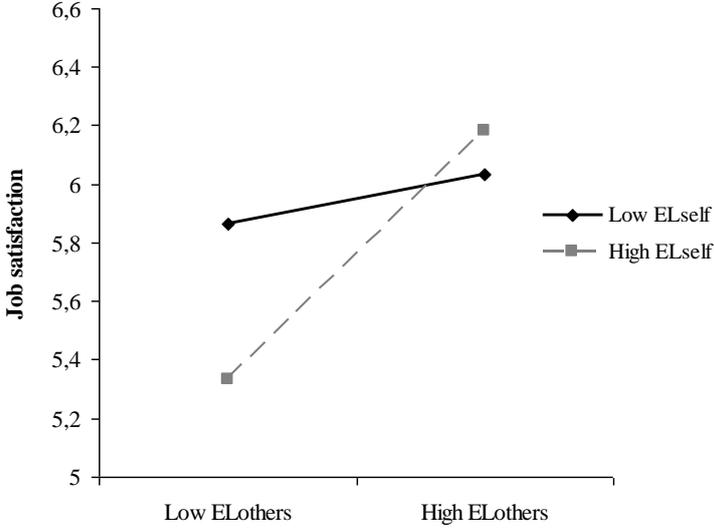
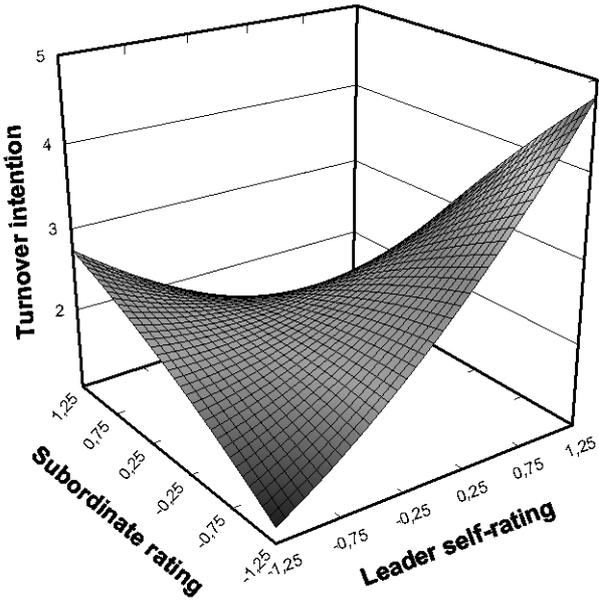


Figure 2. The relationship between self- and subordinate (others) ratings of empowering leadership (EL) and subordinates' job satisfaction.

a. Three-dimensional response surface graph



b. Simple slope lines

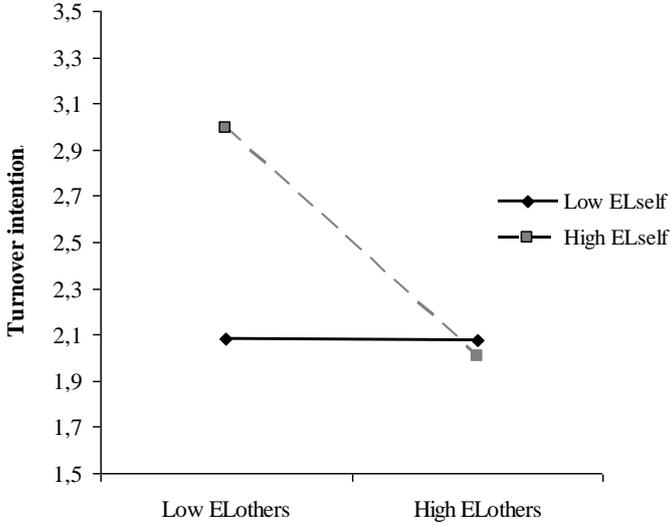


Figure 3. The relationship between self- and subordinate (others) ratings of empowering leadership (EL) and subordinates' turnover intention.

Table 1

*Descriptive Statistics, Correlations, and Reliabilities*

Variable	Min	Max	M	SD	1.	2.	3.	4.	5.
1. Empowering leadership (leader self-rating) <sup>a</sup>	4.06	6.22	5.05	.49	(.90)				
2. Empowering leadership (subordinate rating) <sup>a</sup>	2.29	6.06	4.66	.73	.09	(.94)			
3. Job satisfaction (subordinate rating) <sup>a</sup>	4.25	7.00	5.87	.53	-.13	.47**	(.91)		
4. Turnover intention (subordinate rating) <sup>a</sup>	1.00	4.40	2.26	.73	.27	-.31*	-.64***	(.87)	
5. Leader effectiveness (superior rating) <sup>b</sup>	4.25	7.00	6.00	.81	-.07	.40**	-.13	-.06	(.92)

*Note.* Cronbach's alphas are in parentheses on the diagonal.

a.  $N = 50$

b.  $N = 46$

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 2

*Descriptive Statistics for Rating Categories*

Rating category	Percentage	Mean EL (leader self-rating)	Mean EL (subordinate rating)
Over-estimators	30	5.54	4.18
In-agreement	42	4.92	4.58
Under-estimators	28	4.73	5.32

*Note.*  $N = 50$ . EL = empowering leadership.

Table 3

*Polynomial Regressions of Outcome Variables on Self-Ratings and Subordinate Ratings*

Variable	Leader effectiveness <sup>a</sup>		Job satisfaction <sup>b</sup>		Turnover intention <sup>b</sup>	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	6.24***	.16	5.81***	.10	2.29***	.14
Leader self-rating of EL ( $b_1$ )	-.03	.26	-.25	.15	.40	.21
Subordinate rating of EL ( $b_2$ )	.38*	.17	.40***	.10	-.43**	.15
Leader self squared ( $b_3$ )	-.55	.36	.14	.22	.21	.32
Leader self x subordinate ( $b_4$ )	-1.15*	.49	.54*	.27	-.84*	.38
Subordinate squared ( $b_5$ )	-.14	.20	.03	.08	-.10	.12
$R^2$	.35**		.33**		.28**	
Surface tests						
$a_1 = b_1 + b_2$	.35	.28	.15	.17	-.03	.24
$a_2 = b_3 + b_4 + b_5$	-1.84**	.57	.71	.36	-.73	.52
$a_3 = b_1 - b_2$	-.42	.33	-.64**	.19	.83**	.27
$a_4 = b_3 - b_4 + b_5$	.47	.64	-.38	.36	.95	.51

*Note.* EL = empowering leadership. Unstandardized beta coefficients are reported, where  $b_1$  is beta coefficient for leader self-rating of EL;  $b_2$  is beta coefficient for subordinate rating of EL;  $b_3$  is beta coefficient for leader self-rating squared;  $b_4$  is beta coefficient for the cross-product of leader self-rating and subordinate rating; and  $b_5$  is beta coefficient for subordinate rating squared.

a.  $N = 46$

b.  $N = 50$

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .