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Transformational Leadership and Moral Reasoning

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Terms such as *moral* and *ethical* leadership are used widely in theory, yet little systematic research has related a sociomoral dimension to leadership in organizations. This study investigated whether managers' moral reasoning ($n = 132$) was associated with the transformational and transactional leadership behaviors they exhibited as perceived by their subordinates ($n = 407$). Managers completed the Defining Issues Test (J. R. Rest, 1990), whereas their subordinates completed the Multifactor Leadership Questionnaire (B. M. Bass & B. J. Avolio, 1995). Analysis of covariance indicated that managers scoring in the highest group of the moral-reasoning distribution exhibited more transformational leadership behaviors than leaders scoring in the lowest group. As expected, there was no relationship between moral-reasoning group and transactional leadership behaviors. Implications for leadership development are discussed.

There has been growing interest in the development and promotion of moral or ethical leadership in organizations. Recent attention to this somewhat ethereal notion has created inspiring profiles (e.g., Coles, 2000; H. E. Gardner, 1996; J. W. Gardner, 1990) of leaders celebrated for their actions in commerce and history; however, few systematic attempts have been made to operationalize this dimension in relation to everyday leadership in organizations. To date, organizational researchers interested in the moral potential of leadership (e.g., Bass & Steidlmeier, 1999; Ciulla, 1998; Conger & Kanungo, 1988; Howell & Avolio, 1992; Kanungo & Mendonça, 1998) have portrayed it as a basic tension between altruism and egoism. That is, some leaders balance the development of themselves and their subordinates, raising the aspirations of both the leaders and the led in the process (Burns, 1978; Kanungo & Mendonça, 1996). Other leaders wield power to satisfy their own needs and have little regard for either helping the development of their subordinates or behaving in socially constructive ways (J. W. Gardner, 1990; Howell & Avolio, 1992).

With this distinction as a foundation, we believe that one approach to conceptualizing and testing a moral dimension to leadership is to relate leaders' levels of cognitive moral development to the leadership behaviors they exhibit. That is, given that leadership behavior is multidimensional (Bass, 1998; Yukl, 1998), are qualitatively different leadership behaviors related to different levels of cognitive moral development? A growing body of research shows that transformational leadership has benefits for organizational functioning, and we argue that transformational leadership (Bass, 1985, 1998) could be related to high levels of moral development. To be more specific, this article contributes to the literature by investigating how leaders' moral reasoning (as an indicator of moral development) is related to subordinates' perceptions of their leaders' transformational and transactional leadership behaviors. To do this, we first reviewed existing research on cognitive moral development as it relates to leadership and propose specific relationships between leaders' moral reasoning and transformational and transactional leadership behaviors. We tested these propositions by using a two-country sample of managers and subordinates and then discuss the implications of the findings for the development of moral leadership in organizations.

Cognitive Moral Development and Leadership

Kohlberg (1969, 1976) initially proposed a stage theory of cognitive moral development to explain how people think (or

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reason) about interacting with their social environment. He argued that people's present moral capacity incorporates problem-solving strategies learned at earlier stages and that a gradually larger repertoire of perspectives and social options is available to people as they develop. As people age, become educated, and gain life experience, their principles are shaped by the communities in which they live and work, such that they progress through these reasoning stages at different rates and to different degrees (Kohlberg, 1976; Treviño, 1986). Each level describes a qualitative progression in this capability and represents a particular approach to thinking about human interaction. To be more specific, people with "preconventional" moral reasoning emphasize obedience, strive to escape from punishment, and are generally self-interested. "Conventional" moral reasoners use laws and rules as a way of guiding their behavior and see interaction with others in a fundamentally instrumental way. "Postconventionalists" think less instrumentally than conventionalists and use more universal principles of reasoning in making life's decisions. Since Kohlberg's groundwork, extensive research support exists for a cognitive base to moral judgment, diverse modes of reasoning between levels, progression over the life span, and people's preference for using the highest stage available to them (see Treviño, 1992). Rest (1979, 1994) later interpreted Kohlberg's model as a sequence ranging from simpler to more complex moral reasoning, focusing on the progressively greater degrees of voluntary interpersonal cooperation inherent in each of the stages.

The possibility of an empirical link between moral development and leadership was first suggested by Harkness, Edwards, and Super (1981), who assessed the moral reasoning of elders in a small Kipsigis community in Kenya. The researchers found that community-nominated leaders displayed more complex moral reasoning than nonleaders by exhibiting greater interpersonal consideration for stakeholders in hypothetical dilemmas. A comparable study by Tietjen and Walker (1985) produced similar results with a group of Maisin men in Papua New Guinea.

Unlike the developmental literature, the organizational literature has dealt with the relationship between moral reasoning and leadership in a largely typological way. For example, Kuhnert and Lewis's (1987) constructive–developmental theory relates stages of adult development to the purpose and content of leader–subordinate relationships. They argued that there is a three-stage mapping between leaders' developmental levels and their propensity to use transforming behaviors. Other theorists (e.g., Graham, 1995; Lichtenstein, Smith, & Torbert, 1995; Petrick & Quinn, 1997) have subsequently elaborated on this relationship by creating similar typologies that relate cognitive moral development to Bass's (1985) theory of transformational leadership.

However, several empirical studies stand out from these typologies. Dukerich, Nichols, Elm, and Vollrath (1990) found that the moral-reasoning level of the chief task leader in a small group setting was positively associated with both group performance and the average posttask moral-reasoning level of the group. These researchers reported that leaders high in moral reasoning were more likely to assume a coaching or teaching role than were leaders with less sophisticated moral reasoning. More recently, Atwater, Dionne, Camobreco, Avolio, and Lau (1998) related moral reasoning of U.S. military cadets to their development as leaders and their resulting effectiveness as leaders as ranked by peers. These researchers found that higher levels of moral reasoning were related to the use of contingent punishment, which in turn was positively related to leader effectiveness. In contrast, the study found that leaders' moral reasoning did not distinguish leaders' use of noncontingent punishment, with noncontingent punishment being negatively related to leader effectiveness ratings. A follow-up study by the same research team predicted that cadets who reported higher moral reasoning in the 1st year of military training would emerge and be rated as more effective leaders in subsequent years (Atwater, Dionne, Avolio, Camobreco, & Lau, 1999). The study found that moral reasoning predicted neither leader emergence nor effectiveness across time, results that the researchers attributed to the strong conforming nature of the military culture.[1]

Transformational Leadership Theory and Moral Reasoning

Burns (1978) and Bass (1985, 1998) distinguished between transactional and transformational leadership. Within the former, leadership is viewed primarily as a means of controlling followers' behaviors and eliminating problems by using corrective transactions between leader and subordinate. In contrast, transformational leaders communicate a collective vision and inspire followers to look beyond their self-interests for the good of the group. Burns's ideas on transactional and transforming leadership in politics were later taken up by Bass (1985) and applied to the study of leadership behaviors in organizations. Bass (1985) operationalized the essence of Burns's model into four transformational dimensions (i.e., charisma, inspirational motivation, intellectual stimulation, and individualized consideration) and three transactional dimensions (i.e., contingent reward, management-by-exception, and laissez-faire). Subsequent research has found substantial empirical support for the transformational and transactional dimensions in organizations (Avolio, 1999; Bass, 1998), although studies using a range of samples and contexts have produced a number of different factor structures (e.g., Avolio, Bass, & Jung, 1999; Carless, 1998; Hater & Bass, 1988).

With transactions at the root of leadership (e.g., exchange, reciprocity, expectancy), a leader exhibiting high levels of transformational leadership behaviors does not forego transactional leadership behaviors but rather augments or builds on these transactions with transformational behaviors (i.e., "augmentation hypothesis"; Avolio & Bass, 1995). In this sense, transformational leadership and transactional leadership do not form a single behavioral continuum but rather represent different types of leadership behaviors (Yukl, 1998).

In line with moral development theory described earlier, leaders with more complex moral reasoning will be able to draw on more sophisticated conceptualizations of interpersonal situations, are more likely to think about problems in different ways, and are cognizant of a larger number of behavioral options. As such, we argue that leaders with more complex moral reasoning are more

[1] This finding is consistent with that of Treviño (1986), who argued that in contexts (e.g., the military) in which roles are tightly defined and particular behaviors prescribed, opportunities for resolving conflict with autonomous moral capacity may be reduced.

likely to value goals that go beyond immediate self-interest and to foresee the benefits of actions that serve the collective good. In contrast, we believe that leaders who see interactions with subordinates as having primarily instrumental ends are less likely to exhibit such transformational leadership behaviors.

Hypothesis 1: Leaders with higher moral reasoning are perceived by their subordinates as more transformational.

Every leader–subordinate relationship involves transactions based on exchange and reciprocity to some degree. That is, a leader–subordinate relationship that engenders a high degree of transformational leadership behaviors will also involve some transactional behaviors. However, whereas a leader with lower moral reasoning is restricted to a range of leadership behaviors that are concordant with his or her current sociomoral capacity, a leader with higher moral reasoning can conceive and enact a wider range of behaviors that can go beyond self-interest. Thus, we argue that a leader's moral-reasoning level does not distinguish the degree of transactional leadership behaviors that he or she will exhibit. Rather, his or her transformational leadership behaviors are the discriminating factor.

Hypothesis 2: There is no relationship between leaders' moral-reasoning level and the transactional leadership behaviors that they exhibit as perceived by their subordinates.

Method

Procedure and Participants

We tested the relationship between leaders' moral reasoning and subordinates' perceptions of leadership behaviors in three organizational samples drawn from two countries. The data used in this study were collected by questionnaire from one organization in Canada (Sample 1) and two organizations in the United Kingdom (Samples 2 and 3). In total, 132 leaders and 407 subordinates participated in this study. Sample 1 was drawn from a mid-sized Canadian university and consisted of middle-level managers ($n = 64$) and subordinates ($n = 185$) in clerical and administrative posts who rated these managers. Data for Sample 2 were collected at a large telecommunications company in the United Kingdom. Raters in this sample were subordinates working in technical support and customer service ($n = 136$) who described their middle-level managers ($n = 43$). Sample 3 consisted of hospital ward managers ($n = 25$) and their subordinate nurses ($n = 86$) working in a mid-sized hospital in the United Kingdom. Table 1 summarizes the sample sizes, the response rates, and demographic information for each sample. We included samples from two countries and three organizations to provide a diverse basis from which to examine the relationship between moral reasoning and leadership behaviors.

We asked managers in the three organizations to distribute questionnaires to as many subordinates as possible with whom they interacted frequently and to complete a separate questionnaire themselves. The questionnaire completed by managers contained the short form of the Defining Issues Test (DIT), which measures moral reasoning by asking respondents to make judgments on three sociomoral dilemmas (Rest, 1990). Subordinates' questionnaires contained items from the Multifactor Leadership Questionnaire (MLQ) Form 5x—Short (Bass & Avolio, 1995). Nick Turner and Caroline Milner made reminder calls to managers in Samples 1 and 2, respectively, 2 weeks and 4 weeks after initial survey distribution. Vicky Butcher visited ward managers in Sample 3 at similar time intervals after initial survey distribution. For all three samples, both managers and subordinates mailed back their questionnaires directly to the researchers for processing.

Measures

DIT. The DIT is a reliable paper-and-pencil test measuring moral reasoning (Rest, 1990, 1994). We used the shortened form of Rest's (1990) instrument. After reading each of three short stories containing a hypothetical moral dilemma, respondents are asked to answer a yes–no question about how the central character of the story should respond to the dilemma. For example, one of the three stories describes a man who escapes from prison. He moves to a new area, takes on the surname Thompson, and becomes an eminent member of the local community. He is noted for treating his customers well and his employees fairly and for donating profits to charity. A former neighbor discovers his identity, and the respondents are asked whether the neighbor should report Thompson to the police. Respondents are then asked to rate on a scale from 1 (*least important*) to 5 (*most important*) the importance of 12 statements representing specific issues related to the corresponding story. Each of these statements reflects issues distinct to stages of cognitive moral development. For example, in the story described above, 4 of the 12 arguments listed reflect statements indicative of advanced levels of moral reasoning. Finally, respondents rank the 4 most important arguments that influenced their initial yes–no decision.

The resulting principled score (P score) is a specific assessment of the proportion of ranked issues that are characteristic of postconventional reasoning. To be more specific, the P score is computed by giving 4 points

Table 1
Demographic Information by Sample

Variable	Sample 1	Sample 2	Sample 3
Organization	Canadian university	UK telecommunications company	UK hospital
% response rate from managers with at least 1 rater	69	36	31
Type of leader	Middle-level manager	Middle-level manager	Ward manager
n	64	43	25
% of women	51	27	95
Mean age (in years)	46.34 (7.44)	40.08 (7.33)	41.90 (7.51)
% with degree or diploma	47	—	38
Mean number of raters	2.89 (1.38)	3.16 (2.11)	3.44 (1.71)
Total number of raters	185	136	86

Note. Standard deviation are in parentheses. The dash indicates that data on leaders' education were not collected. UK = United Kingdom.

to issues of a postconventional order that the respondent ranked first. Three points are given to each postconventional issue ranked second, 2 points to postconventional issues ranked third, and 1 point to postconventional issues ranked fourth. Because P scores are proportional, they can range from 0 (indicating simple moral reasoning) to 100 (indicating highly complex moral reasoning).

Rest (1990) provided recommended cutoff points (thirds) with which to divide a distribution of respondents into principled-reasoning groups for comparison purposes. Rest assigned P scores from 0 to 27 to the lowest third, from 28 to 41 to the middle third, and 42 and above to the highest third. To label clearly the different moral-reasoning groups used in this study, we used the Kohlbergian terms *preconventional*, *conventional*, and *postconventional* to distinguish the lowest, middle, and highest thirds of the moral-reasoning distribution, respectively. Although there is some controversy over the validity of the definitive moral-reasoning stages traditionally classified by this terminology (Gilligan, 1982; Jaffee & Hyde, 2000), these terms were used in this study to make discussion of membership in three moral-reasoning groups more comprehensible and generalizable across samples.

MLQ. We used 36 items from the MLQ Form 5x—Short instrument (Bass & Avolio, 1995).[2] A 5-point Likert scale (0 = *not at all,* 4 = *always*) was used by subordinates to rate the frequency with which their managers displayed specific leadership behaviors. The five scales used to measure transformational leadership were (a) Attributed Idealized Influence (sample item: "Goes beyond his/her own self-interest for the good of the group"), (b) Behavioral Idealized Influence (sample item: "Specifies the importance of having a strong sense of purpose"), (c) Inspirational Motivation (sample item: "Articulates a compelling vision of the future"), (d) Intellectual Stimulation (sample item: "Seeks differing perspectives when solving problems"), and (e) Individualized Consideration (sample item: "Treats each of us as individuals with different needs, abilities, and aspirations"). Three scales measuring transactional leadership were (a) Contingent Reward (sample item: "Makes clear what I can expect to receive, if my performance meets designated standards"), (b) Management-by-Exception Active (sample item: "Keeps track of my mistakes"), and (c) Management-by-Exception Passive (sample item: "Things have to go wrong for him/her to take action").

Demographic information. Moral development research argues that an individual's age, education, and gender are related to moral-reasoning levels. In particular, studies have found moral reasoning to be positively correlated with age (Rest, 1994) and education (Treviño, 1986). Some research (e.g., Gilligan, 1982) has claimed that gender is differentially related to the Kohlbergian interpretation of moral reasoning; however, more recent research offers weak support for this claim (Jaffee & Hyde, 2000). Separate research has found that gender is also related to transformational leadership (e.g., Bass, Avolio, & Atwater, 1996). Thus, leaders' age, gender (0 = female, 1 = male), and level of education (1 = junior school education/"O" levels/GCSE [General Certificate in Secondary Education], 2 = high school/"A" levels, 3 = university degree/college diploma, 4 = postgraduate degree) were examined. We collected leaders' education levels in Samples 1 and 3 only. In addition, country context (0 = Canada, 1 = United Kingdom) and one of three organizational contexts (i.e., two dummy-coded variables) were used to determine whether these variables affected the results.

Results

Results from previous empirical studies have not been consistent with regard to the optimal factor structure of the MLQ. Consequently, before analyzing the hypothesized relationships, we conducted a series of confirmatory factor analyses on the total subordinate sample (n = 407) using EQS (Bentler, 1995) to establish the most appropriate model of transformational leadership to use in our study. In doing so, we contrasted several factor models that have received some support in the literature.

First, the nine-correlated-factor model originally suggested for the MLQ Form 5x (Bass & Avolio, 1997) was tested. This model includes five transformational factors (i.e., Attributed Idealized Influence, Behavioral Idealized Influence, Inspirational Motivation, Individualized Consideration, and Intellectual Stimulation), three transactional factors (i.e., Management-by-Exception Active, Management-by-Exception Passive, and Contingent Reward), and one nonleadership factor (i.e., Laissez-Faire). This nine-factor model had a good fit with the data, $\chi^2(521, N = 367) = 1{,}068.11$, $p < .001$; $\chi^2/df = 2.0$; confirmatory fit index (CFI) = .97; nonnormed fit index (NNFI) = .96; and root-mean-squared error of approximation (RMSEA) = .06. We further tested a higher order model of three higher order factors (Transformational, Transactional, and Passive). This model had a good fit with the data, $\chi^2(546, N = 367) = 1{,}273.24$, $p < .001$; $\chi^2/df = 2.3$; CFI = .96; NNFI = .95; and RMSEA = .07. However, inspection of the factor loadings and the higher order correlations revealed that this solution was problematic. Specifically, the Management-by-Exception Active subscale had a nonsignificant loading on the Transactional factor but loaded negatively on the Transactional higher order factor. In addition, the Transactional higher order factor had a latent correlation of .97 with the Transformational factor, suggesting a problem with discriminant validity.

We then tested the six-correlated-factor model recently proposed by Avolio et al. (1999). This model includes two transformational factors (i.e., Charisma–Inspirational and Intellectual Stimulation), two transactional–developmental factors (i.e., Contingent Reward and Individualized Consideration), and two corrective–avoidant factors (i.e., Management-by-Exception Active and Passive Leadership, which encompasses Passive and Laissez-Faire). This model again had a good fit to the data, $\chi^2(545, N = 367) = 1{,}312.43$, $p < .001$; $\chi^2/df = 2.4$; CFI = .96; NNFI = .95; and RMSEA = .07. Also, the higher order confirmatory factor analysis of three factors yielded a reasonably good fit to the data, $\chi^2(551, N = 367) = 1{,}367.75$, $p < .001$; $\chi^2/df = 2.4$; CFI = .95; NNFI = .95; and RMSEA = .07, but once again, inspection of the standardized loadings and factor correlations suggested that this solution was problematic in our sample. Management-by-Exception did not load significantly on the corrective–avoidant factor, and the transformational factor had a correlation of .97 with the transactional–developmental factor.

On the basis of these findings, we then tested a new higher order confirmatory factor analysis solution with three factors: one transformational–constructive (i.e., Charisma–Inspirational, Individualized Consideration, Intellectual Stimulation, and Contingent Reward), one corrective (i.e., Management-by-Exception Active), and one avoidant (Passive). This solution had a good fit with the

[2] The 8 MLQ items presented in this paragraph are reproduced by special permission of the Distributor, Mind Garden, Inc., 1690 Woodside Road #202, Redwood City, CA 94061 USA www.mindgarden.com from the *Multifactor Leadership Questionnaire* by Bernard M. Bass and Bruce J. Avolio. Copyright 1995 by Bernard M. Bass and Bruce J. Avolio. All rights reserved. Further reproduction is prohibited without the Distributor's written consent.

data, $\chi^2(551, N = 367) = 1{,}362.44$, $p < .001$; $\chi^2/df = 2.4$; CFI = .95; NNFI = .95; and RMSEA = .07. The factor loadings and factor correlations indicated no problems. Finally, the derived model was tested in the manager sample ($n = 132$) and yielded an acceptable fit, $\chi^2(551, N = 367) = 779.48$, $p < .001$; $\chi^2/df = 1.4$; CFI = .88; NNFI = .87; and RMSEA = .05. Because of the above findings, the leadership variables explored in this study reflect this factor structure. A number of researchers (e.g., Bycio, Hackett, & Allen, 1995; Den Hartog, vanMuijen, & Koopman, 1997; Hater & Bass, 1988) have also found that Contingent Reward loads more frequently with transformational rather than transactional behaviors, further justifying our choice of this particular factor structure.

Of the 132 managers who completed and returned their own questionnaires, an average of 3 subordinates had rated each of these managers' leadership behaviors. When necessary, we aggregated the subordinates' ratings for each supervisor to produce a single score for each supervisor on each of the three leadership scales and discarded the 15 instances when the within-group agreement (r_{wg}; James, Demaree, & Wolf, 1984, 1993) was below the acceptable median standard of .70. In a similar manner, we eliminated 6 instances that had incomplete data. The total usable sample therefore contained 111 managers and their 337 subordinate raters.

Next, using Rest's (1990) P-score cutoff points, we classified the 111 managers into three moral-reasoning groups and tested for group differences. There were no significant differences ($p > .05$) between leaders in the preconventional ($n = 33$), conventional ($n = 34$), and postconventional ($n = 44$) groups with regard to gender, $\chi^2(1, N = 111) = 0.01$, *ns*; age, $F(2, 108) = 2.18$, *ns*; or country membership, $\chi^2(1, N = 111) = 0.23$, *ns*. However, there were significant differences with regard to level of education, $\chi^2(3, N = 111) = 24.05$, $p < .05$, and organizational membership, $\chi^2(2, N = 111) = 13.83$, $p < .05$.

Table 2 presents the descriptive statistics and zero-order correlations for the measures included in this study. Transformational leadership was significantly related to leaders' gender ($r = -.19$, $p < .05$). Transactional–corrective leadership was significantly related to leaders' age ($r = -.19$, $p < .05$), leaders' education ($r = -.36$, $p < .01$), country membership ($r = .61$, $p < .01$), and the two organizational membership dummy variables (*r*s = .23 and −.49, *p*s < .05 and < .01, respectively). Transactional–passive leadership was associated with leaders' gender ($r = .28$, $p < .01$), country membership ($r = .26$, $p < .01$), and the first organizational membership dummy variable ($r = .24$, $p < .05$).

Accordingly, we conducted analyses of covariance using leaders' gender, leaders' age, country membership, and organizational membership as the covariates. Despite its moderate association, we did not include leaders' education as a covariate between groups because of the forced reduction in sample size.[3] In total, we conducted three separate analyses. Moral-reasoning level (i.e., preconventional, conventional, and postconventional) was the independent variable, and the aggregated transformational, transactional–corrective, and transactional–passive leadership scores were the dependent variables. After we controlled for covariates (all of which had nonsignificant effects; $p > .05$), the analysis of covariance revealed a significant main effect for moral-reasoning groups, $F(2, 104) = 3.74$, $p < .05$, on transformational leadership scores. Thus, the hypothesis (Hypothesis 1) that leaders with higher moral reasoning would be perceived as exhibiting more transformational leadership behaviors was supported. Post hoc Bonferroni multiple comparisons (see Table 3) showed a significant difference ($p < .05$) between transformational leadership behaviors of leaders in the preconventional and postconventional groups but a nonsignificant difference between the preconventional and conventional groups and between the conventional and postconventional groups.

After we controlled for the effects of covariates, the results of the analyses testing Hypothesis 2 revealed a nonsignificant effect for level of moral reasoning on transactional–corrective leadership, $F(2, 104) = 0.61$, *ns*, as well as transactional–passive leadership, $F(2, 104) = 0.11$, *ns*. The hypothesis that leaders with differing levels of moral reasoning would be perceived no differently in terms of transactional leadership behaviors was supported.

Discussion

The purpose of this study was to investigate whether managers with different moral-reasoning levels exhibited different levels of transformational and transactional leadership behaviors. Our first hypothesis, which was partially supported, was that leaders exhibiting higher moral-reasoning levels would display greater transformational leadership behaviors than leaders with lower moral-reasoning levels. In particular, leaders who had preconventional levels of moral reasoning exhibited less transformational leadership than those leaders who had postconventional levels of moral reasoning. Leaders with conventional moral reasoning did not differ significantly from leaders using either preconventional or postconventional moral reasoning. This set of findings provides initial empirical evidence for the theorists (e.g., Bass & Steidlmeier, 1999; Kuhnert & Lewis, 1987; Lichtenstein et al., 1995) who have argued that higher moral development is related to greater use of transformational leadership behaviors. Our second hypothesis, which was supported, was that transactional leadership behaviors would not differ across levels of leaders' moral reasoning, in line with the argument that perceptions of transactional leadership behaviors exist to a greater or lesser degree in every leader–subordinate relationship.

Limitations

Having tested our propositions across three organizations in two countries, this study has strong external validity. However, a limitation of the resulting model is its internal sensitivity. The present findings suggest that there are clear differences between the levels of transformational leadership behaviors exhibited by leaders in the preconventional and postconventional groups. Yet, it appears that levels of transformational leadership behaviors exhibited by leaders in the conventional group did not differ significantly from those of either the preconventional or postconventional groups. A replication of this study will help confirm whether the gross differences we found are a function of the normative cutoff points we used for comparing DIT P scores or establish

[3] We analyzed the results including leaders' education as a covariate and found that the pattern of results remained the same.

Table 2
Intercorrelations Among Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	*M*	*SD*
1. DIT P score	(.70)	.26**	−.06	−.02	−.12	−.13	.31**	−.14	−.06	.11	36.99	16.42
2. Transformational leadership		(.95)	−.02	−.57**	−.19*	−.12	−.01	.02	−.15	−.09	2.40	0.64
3. Transactional–corrective leadership			(.75)	.25**	−.01	−.19*	−.36**	.61**	.23*	−.49**	1.76	0.81
4. Transactional–passive leadership				(.76)	.28**	.03	−.16	.26**	.24*	−.14	0.87	0.63
5. Leaders' gender					—	.17	.34**	−.03	.46**	.24*	0.50	0.50
6. Leaders' age						—	.04	−.36**	−.15	.28**	43.42	7.90
7. Leaders' education[a]							—	−.52**	.52**	.52**	3.00	0.92
8. Country membership (dummy)								—	.20*	−.89**	0.52	0.50
9. Organization membership (Dummy 1)									—	.27**	0.14	0.72
10. Organization membership (Dummy 2)										—	0.29	0.77

Note. All correlations were calculated as Pearson product–moment correlations. Alpha coefficients appear in parentheses along the diagonal. DIT = Defining Issues Test.
[a] $n = 74$, from Samples 1 and 3.
* $p < .05$. ** $p < .01$.

whether this insensitivity is an artifact of the present sample. In addition, it will be important to assess whether the statements that reflect conventional moral reasoning on the DIT can adequately differentiate between leaders that fall within the conventional cutoff points. That is, does the content of the relevant statements provide sufficient discrimination? Finally, although we tested a range of managers and their subordinates, there is the possibility that samples of managers reflect a restricted moral-reasoning range. These are certainly important considerations for further research.

Implicit in our results and discussion is a unidirectional causality, suggesting that moral reasoning influences transformational leadership. It is paradoxical, however, that being a leader might serve as a training ground for moral reasoning. Functioning as a transformational leader might affect moral reasoning, and issues of causality should be addressed empirically in future research. Finally, a point about the interpretability of our results is in order, particularly in light of multiple usages of the word *moral*. Our findings only relate the complexity of cognitive developmental skills to leadership behaviors and do not make value judgments about people's integrity on the basis of their moral-reasoning scores.

Future Research and Conclusion

By demonstrating an association between cognitive moral development and transformational leadership, this study opens the door to further exploration in a number of areas. First, although moral-reasoning level is not related to a person's likelihood of assuming a task-related leadership role (Dukerich et al., 1990) or emerging as a leader in a military context (Atwater et al., 1999), it is possible that manifesting postconventional moral reasoning might predispose individuals to choose to use transformational leadership behaviors in the absence of any training. Indeed, a number of writers (e.g., Maclagan, 1998; Treviño, 1986) have argued that cognitive moral development needs to be examined in conjunction with other personal qualities (e.g., emotional self-regulation, capacity to act against pressure from others) and environmental characteristics to understand how moral reasoning translates into action. For instance, future research should assess further factors (e.g., emotional intelligence) that might predispose leaders to use transformational leadership behaviors (Barling, Slater, & Kelloway, 2000).

The possibility that moral reasoning is associated with transformational leadership also raises issues about appropriate leadership training and ethics education. For example, can training in transformational leadership (e.g., Barling, Weber, & Kelloway, 1996) be enhanced by focusing simultaneously on moral development? Can training in complex moral reasoning prepare individuals for leadership roles? Snell (1993) argued that one of the goals of ethics education is social transformation, an objective seemingly not incompatible with goals of effective leadership in general and transformational leadership training in particular. In addition, in line with Kuhnert and Lewis's (1987) constructive–developmental analysis of leadership, it might be interesting to examine how followers' moral development relates to leadership. For example, followers' capacity for moral reasoning might influence their perceptions of what constitutes valued leadership behavior.

Table 3
Scores of the Three Groups on Dependent Variables and F Ratios

	Moral-reasoning group						
	Preconventional (n = 33)		Conventional (n = 34)		Postconventional (n = 44)		
Dependent variable	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*(2, 104)
Transformational leadership[a]	2.16	0.60	2.38	0.61	2.60	0.63	3.74*
Transactional–corrective leadership	1.73	0.70	1.91	0.78	1.66	0.90	0.61
Transactional–passive leadership	0.92	0.71	0.83	0.52	0.87	0.64	0.11

Note. Error variance of the dependent variables was homogeneous across the three groups, *F*s(2, 108) = 0.11, 2.11, 0.67, 2.28, 2.24, and 0.01 (*p*s > .10).
[a] A post hoc Bonferroni comparison between the preconventional and postconventional groups found the difference significant at the 95% confidence level.
*$p < .05$.

Finally, the use of moral reasoning as the exclusive proxy for moral development deserves some mention. Several authors (e.g., Butterfield, Treviño, & Weaver, 2000; Rest, 1994; Thomas, 1997) have proposed models of moral action that associate moral reasoning with other developmental constructs, such as moral awareness, moral sensitivity, moral motivation, moral character, and moral intent, all of which may serve as intervening variables between moral reasoning and leadership behaviors. Understanding these mechanisms will be important for future research.

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