

## **Leadership, Individual Differences, and Work-related Attitudes: A Cross-Culture Investigation**

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This study builds on previous exploratory research (Walumbwa & Lawler, 2003) that examined allocentrism as a moderator of transformational leadership—work-related attitudes and behaviors. Based on survey data collected from 825 employees from China ( $n = 213$ ), India ( $n = 210$ ), Kenya ( $n = 159$ ), and the US ( $n = 243$ ), we found that individual differences moderated the relationships between leadership and followers' work-related attitudes. Specifically, allocentrics reacted more positively when they viewed their managers as being more transformational. Idiocentrics reacted more positively when they rated their managers as displaying more transactional contingent reward leadership. The pattern of results was stronger for transformational leadership in more collectivistic cultures among allocentrics and stronger among idiocentrics in individualistic cultures for transactional contingent reward leadership. Implications of these findings for practice and research are discussed.

Cette recherche se situe dans le prolongement de travaux exploratoires antérieurs (Walumbwa & Lawler, 2003) qui ont étudié l'allocentrisme comme régulateur de la relation entre le leadership transformationnel et les conduites et attitudes relevant du travail. Nous avons constaté, à partir de données d'enquête recueillies auprès de 825 salariés chinois ( $n = 213$ ), indiens ( $n = 210$ ) kényens ( $n = 159$ ) et américains ( $n = 243$ ), que les différences individuelles régulaient les relations entre le leader et les attitudes des suiveurs liées au travail. Plus particulièrement,

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les allocentriques réagissaient plus positivement quand ils percevaient leurs managers comme étant plutôt transformationnel. Les égocentriques réagissaient plus positivement quand ils trouvaient que leurs managers présentaient plutôt un leadership transactionnel offrant des récompenses appropriées. La configuration des résultats parle en faveur du leadership transformationnel pour les allocentriques dans les cultures à tendance communautaire et en faveur du leadership transactionnel pour les égocentriques dans les cultures individualistes. On réfléchit aux implications de ces résultats pour la recherche et la pratique.

## INTRODUCTION

Recent cross-cultural leadership research has focused on examining contextual factors that influence the effectiveness of transformational and transactional leadership. The underlying premise for this research is that the relationship between transformational (transactional) leadership and followers' attitudes will be moderated by the cultural context (Gelfand, Bhawuk, Nishi, & Bechtold, 2004).

A key cultural moderator that has received considerable attention in the leadership literature has been what Hofstede (1980) called the individualism–collectivism dimension. Jung and Avolio (1999) examined the moderating effects of individualism and collectivism on responses to transformational and transactional leadership in a laboratory experiment. Their results showed that collectivists working with a transformational leader generated more ideas as opposed to individualists, who generated more ideas with a transactional leader. Jung and Avolio (1999) concluded that individual differences may have affected the different levels of motivation and performance observed in their study.

Pillai and Meindl (1998) examined the extent to which the emergence of charismatic leadership was a function of contextual factors such as work unit, collectivism, and crisis. Their results showed that organic structure and collectivistic orientation were positively associated with the emergence of charismatic leadership. More recently, in a 62-country study referred to as the GLOBE project researchers reported that ratings of transformational leadership were associated with organisational-level collectivism (Gelfand et al., 2004).

Yukl (1999) has suggested that to improve our understanding of normative models of leadership such as transformational and transactional, future research would need to focus on potential moderators, including follower characteristics. For example, Bono and Judge (2004) have shown that extraversion is the most consistent correlate of ratings of leadership across settings and leadership criteria (i.e. leader emergence and leadership effectiveness). Lim and Ployart (2004) reported that neuroticism and agreeableness were negatively related to ratings of transformational leadership. Without taking into consideration individual differences among followers, research on transactional and transformational leadership, especially across

cultures, will likely fall short of fully explaining the linkages between leadership, followers, and performance outcomes.

Among followers' individual differences, allocentrism (i.e. viewing oneself in terms of the in-groups to which one belongs) and idiocentrism (i.e. viewing oneself as the basic social unit where individual goals have primacy over in-group goals) may play an important role in predicting how followers respond to different leadership styles/orientations (Triandis, Chan, Bhawuk, Iwao, & Sinha, 1995). Yet, despite their potential relevance to explaining follower behavior (Triandis et al., 1995), there is only one study that has directly linked these orientations to transformational leadership and work-related outcomes. Walumbwa and Lawler (2003), using data collected from China, India, and Kenya, examined the moderating effect of allocentrism (referred to as collectivism at the group level). Walumbwa and Lawler reported that transformational leadership explained a greater proportion of variance in organisational commitment, satisfaction, and withdrawal behaviors for those scoring higher on allocentrism.

One drawback to the Walumbwa and Lawler (2003) study was that it focused on one individual difference—allocentrism, one style of leadership—transformational, and was restricted to participants coming from predominantly collectivistic cultures. Walumbwa and Lawler (2003) acknowledged that, “one reason that we did not show a strong moderating effect by culture might be that the range of cultural values could have been restricted since our sample was drawn from inherently collectivistic cultures” (p. 1098). Lam, Chen, and Schaubroeck (2002) argued that allocentrism and idiocentrism may have meaningful effects on individual behavior/reactions/performance irrespective of societal boundaries.

This study was designed to extend previous work reported by Walumbwa and Lawler (2003). Specifically, we examined the extent to which allocentrism and idiocentrism moderated the relationships between transformational and transactional contingent reward leadership with organisational commitment and satisfaction with one's supervisor, and explored the extent to which those relationships vary as a function of societal culture.

Our rationale for including both transformational and transactional contingent reward leadership goes back to Bass's (1985) original position on his theory, where he suggested that individuals who are more concerned for rules, who are independent, high in status, and rational may be less likely to respond positively to transformational versus transactional leadership style. Following his arguments, individual differences may augment or weaken the receptivity an individual has to transformational and transactional leadership style.

Compared with the strong and still growing research base on transformational leadership (see Judge & Piccolo, 2004), there has been surprisingly little empirical research on potential moderators of transactional contingent

reward leadership as it relates to work-related attitudes, behaviours, and outcomes (see Howell & Hall-Merenda, 1999, for an exception). This has prompted researchers to call for more research identifying the potential moderators of transactional contingent reward leadership (Howell & Hall-Merenda, 1999; Yukl, 1999).

In addition to focusing on transactional contingent reward leadership and idiocentrism, we also included US participants in our data collection scheme. The inclusion of the US participants provided for a more individualistic culture, while also allowing us to extend the external validity of our study to a broader array of countries based on level of economic development. Finally, and perhaps the most important extension and contribution over previous work by Walumbwa and Lawler (2003) was our focus on exploring the extent to which societal values or norms influence the way transformational and transactional leadership are moderated by individual differences. We set out here to examine both the main and interactive effects of societal culture and individual differences in terms of important organisational outcomes.

## THEORETICAL BACKGROUND AND HYPOTHESES

Although Hofstede (1980) conceptualised individualism–collectivism as a cultural continuum, recent work suggests that these two constructs are independent and can both coexist in individuals in varying degrees as well as in all societies (Schwartz, 1994). These constructs can therefore be measured in terms of representing individual differences (Schwartz, 1994; Triandis, 1995). Specifically, Triandis and Gelfand (1998) suggested that the crossing of individualism and collectivism with power distance produces four distinct dimensions of individuals, namely: horizontal collectivism, vertical collectivism, horizontal individualism, and vertical individualism. At the individual level, these variables are called allocentrism and idiocentrism (Triandis, Leung, Villareal, & Clack, 1985).

Triandis (1995) has argued that individual values specify modes of behavior that are socially acceptable, serve as normative regulatory guides for individuals, and prescribe the guiding principles and values in one's life. Triandis (1995) further suggests that values influence the domain of what constitutes normative behavior, defines acceptable roles for individuals within social structures, and prescribes guiding principles and values in one's life. As a result, individual values specify how one is influenced and influences including how leadership may be perceived and evaluated. Extending earlier work, we suggest that how the leader's style is perceived and how it affects followers depends in part on how much the style is linked to the follower's individual value orientation.

We expect individual differences to play a critical role in the way individuals respond to different leadership styles. Implicit leadership theory

suggests that perceptions of leadership are based on hierarchically organised cognitive prototypes that help individuals interpret leadership styles that are compatible with their own cultural values/orientations (Lord, Foti, & De Vader, 1984). For example, people process information based on their prototypes of leadership; that is, the more a person perceives a leadership style as being similar to his or her prototype of an effective leader, the more he or she should respond more positively and in a more accepting manner to that leader's style.

Prior literature suggests that people's implicit theories are to some degree individually based. For example, cultural congruence theory (House, Wright, & Aditya, 1997) suggests that behaviors consistent with particular values will be viewed as more acceptable and effective than behaviors representing conflicting values. House et al. (1997) argued that a violation of individual norms by leaders will result in dissatisfaction on the part of followers, and at times lower performance. Thus, because individual predispositions such as one's values are thought to signal individuals' preferences for certain things such as leadership style, it seems likely that these individual differences could influence individuals' ratings of transformational and transactional contingent reward leadership and their relationship to outcomes/attitudes.

## Transformational and Transactional Contingent Reward Leadership

Here we focus on transformational and transactional contingent reward leadership because previous empirical studies have demonstrated that both leadership styles have a positive relationship with follower performance across a broad range of settings (Judge & Piccolo, 2004). By transactional contingent reward leadership we refer to "leader behaviors focused on clarifying role and task requirements and providing followers with material or psychological rewards contingent on the fulfillment of contractual obligations" (Antonakis, Avolio, & Sivasubramaniam, 2003, p. 265), which would be more congruent with individuals having an idiocentric orientation.

Allocentrics are said to value and nurture group relationships and define themselves on the basis of in-group membership, striving to maintain a harmonious interdependence with their in-group members (Chen, Chen, & Meindl, 1998). Such individuals see the individual self as being an integral part of the group they belong to, and therefore are more likely to transcend their self-interests and work towards common goals (Triandis, 1995). For allocentrics, equality, serving, and sacrificing for the good of the group are considered some of the most important aspects of life and satisfaction.

It seems likely that individuals who score higher on allocentrism may be more receptive to transformational leadership because such leaders

emphasise the importance of each individual's contribution to the good of the group and its accomplishments by raising their awareness of the importance and value of group outcomes (Bass, 1998). Such leaders work to transform the needs and values of followers from self to collective interests, causing followers to be more committed to the overall mission. As a result, allocentrics are expected to embrace transformational leadership more readily. Recent findings provide some support for this assertion, in that allocentrism was found to moderate the relationship between participative decision-making and performance (Lam et al., 2002). Thus, we hypothesise:

*Hypothesis 1:* Individuals who are more (less) allocentric will respond more (less) favorably to transformational leadership, such that the relationship between transformational leadership and (a) organisational commitment and (b) satisfaction with supervisor will be more (less) positive.

Since transactional contingent reward leadership emphasises exchanges between the leader and follower that encourage individual competition, autonomy, and personal achievement being tied to extrinsic rewards based on performance (Bass, 1985), we expect this leadership orientation to be inconsistent with the individual values of allocentrics. Thus, we hypothesise:

*Hypothesis 2:* Individuals who are more (less) allocentric will respond more (less) favorably to transactional contingent reward leadership, such that the relationship between contingent reward leadership and (a) organisational commitment and (b) satisfaction with one's supervisor will be less (more) positive.

## Leadership, Idiocentrism, and Work Attitudes

Idiocentrics view the individual as the most basic unit of social perception and give priority to individual over in-group goals (Triandis, 1995). Idiocentrics value independence, autonomy, and personal achievement, and place less emphasis on the importance of their roles in groups (Markus & Kitayama, 1991). This leads idiocentrics to be motivated to satisfy their self-interests and personal goals oftentimes at the expense of group interests and goals (Triandis, 1995). Thus, we expect individuals who are more idiocentric will be less receptive to a leadership style that emphasises the importance of the group's collective identity. Thus, because such leaders strive to foster a group-based focus, it may be viewed as a less satisfying and less effective style by idiocentrics. Thus,

*Hypothesis 3:* Individuals who are more (less) idiocentric will respond less (more) favorably to transformational leadership, such that the relationship between transformational leadership and (a) organisational commitment and (b) satisfaction with supervisor will be less (more) positive.

Because idiocentrism tends to promote their own welfare over the interests of their group (Triandis, 1995), such individuals are likely to be more motivated to satisfy their own self-interests and personal goals. Transactional contingent reward leadership is based on satisfying followers by offering individual rewards commensurate with their effort and performance (Bass, 1998). Specifically, Bass (1998) described motivation to work in a contingent reward culture as “a matter of trade-offs of worker effort in exchange for rewards” (p. 65). We therefore suggest that idiocentrism will be more receptive to contingent reward leadership, because such leader behaviors emphasise clarity of goals and rewards associated with successful completion of tasks (Bass, 1985). Thus,

*Hypothesis 4:* Individuals who are more (less) idiocentric will respond more (less) favorably to contingent reward leadership, such that the relationship between contingent reward leadership and (a) organisational commitment and (b) satisfaction with supervisor will be more (less) positive.

## Leadership, Individual Differences, and Country Values

Robert and Wasti (2002) described the rationale for measuring organisational culture along the dimensions of individualism and collectivism, and evaluated the construct validity of a scale based on factor analysis as well as observed relationships at the individual level (in terms of person–organisation fit), and at the organisational level of analysis. The authors found that idiocentrism and allocentrism interacted with organisational-level individualism and collectivism to predict work-related attitudes such as satisfaction with promotion, with work itself, with co-workers, and with supervisors. Similarly, Chatman and Barsade (1995) randomly assigned participants who were either allocentrists or idiocentrists to simulated cultures that were collectivistic or individualistic. They found that allocentrists had a tendency to adjust, whereas idiocentrists showed less variance across contexts. However, the extent to which these societal norms interacted with individual differences (i.e. allocentrism and idiocentrism) and leadership style has not been explored.

We have argued earlier that the extent to which leadership style affects follower work-related attitudes may vary depending upon follower individual differences. We further explored the extent to which the relationships examined in our proposed hypotheses may vary depending upon the dominant societal culture (e.g. collectivism vs. individualism). Specifically, does the societal context interact with individual differences and leadership to predict individual attitudes? According to culture-fit theory (e.g. Kanungo & Jaeger, 1990; Kanungo, Aycan, & Sinha, 1999), the socio-cultural environment such as societal culture can influence individual behavior to the extent



that internal individual values are shaped by the larger societal values in which individuals are embedded, which in turn would affect individual perceptions, attitudes, and behaviors. In line with arguments made by Jung, Bass, and Sosik (1995) we expect the effects of transactional and transformational leadership to be enhanced by cultural orientation. In view of existing research, we expect that transformational leadership will have a more positive effect in collectivistic cultures among allocentrics and that transactional contingent reward will have a more positive effect in individualistic cultures among idiocentrics.

## METHODS

### Research Setting, Sample, and Procedure

Data were collected in 38 bank branches in China ( $n = 213$ ), India ( $n = 210$ ), Kenya ( $n = 159$ ), and the US ( $n = 243$ ). Respondents were mostly tellers and clerks. Surveys were administered on-site individually in China, India, and Kenya (86% response rate). In each country, a senior manager was asked to assist in the initial distribution of the questionnaires; however, the completed questionnaire was collected by one of the research team members.

In the US, the survey was sent to potential participants in 10 branches in the Midwest through the bank's internal mailing systems. Respondents were provided with confidential envelopes and were asked to return completed surveys directly to the first author (91% response rate). An English-language version of the survey was used in India, Kenya, and the US. For China, the survey, which was developed in English, was translated into Chinese (Brislin, 1980). A bilingual speaker performed the initial translation. After this step was completed, the questionnaire was given to another bilingual translator, who then back-translated it into English. All participants were informed that completion of the survey was voluntary. The average age of participants was 33.93 years (China = 32.32, India = 34.12, Kenya = 31.65, US = 37.81) and 49 per cent were women (China = 39%, India = 52%, Kenya = 41%, US = 62%). The average organisational tenure was 8.20 years (China = 7.56, India = 9.35, Kenya = 7.22, US = 8.07), with more than 95 per cent having completed some college or university degree.

### Measures

*Leadership Measures.* We used 24 items from the Multifactor Leadership Questionnaire Form 5x to measure transformational ( $\alpha = .92$ ) and transactional contingent reward ( $\alpha = .76$ ) leadership (Bass & Avolio, 1995). Note, because our hypotheses made no distinction between the component factors of transformational leadership, we combined the four dimensions of



transformational leadership to form a single transformational leadership scale. Ratings were completed on a 0 to 4 scale (0 = "Not at all", 4 = "Frequently, if not always"). Sample item: "Articulates a compelling vision of the future" (transformational leadership) and "Makes clear what one can expect to receive when performance goals are achieved" (contingent reward).

*Individual Differences.* Individual difference was measured using 22 items used by Robert, Probst, Martocchio, Drasgow, and Lawler (2000) to measure allocentrism and idiocentrism. These items were adopted from the INDCOL scale (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis & Gelfand, 1998). Based on an assessment of whether these items were invariant across the four countries, two items (allocentrism) and three items (idiocentrism), respectively, were eliminated from further consideration. In all subsequent analyses described below, nine items were used to measure allocentrism ( $\alpha = .68$ ) and eight items measured idiocentrism ( $\alpha = .67$ ). Sample items: "My happiness depends very much on the happiness of those around me" (allocentrism) and "My personal identity is very important to me" (idiocentrism). Ratings were on a 5-point scale (1 = "Strongly disagree", 5 = "Strongly agree").

*Organisational Commitment.* Organisational commitment ( $\alpha = .89$ ) was measured using 10 items from Mowday, Steers, and Porter (1979). Sample item: "This organisation has a great deal of personal meaning for me". Responses were made on a 5-point scale, with 1 representing "Strongly disagree" and 5 representing "Strongly agree".

*Satisfaction with Supervisor.* We used nine items from Smith, Kendall, and Hulin's (1969) Job Descriptive Index (JDI) to measure satisfaction with supervisor ( $\alpha = .87$ ). Respondents were asked to circle "yes" (3) if the item described their supervisor or their work, "no" (1) if the item did not, and "?" (2) if they could not decide. Sample item: "My supervisor praises good work".

## Measurement Issues

Before conducting our primary tests of our hypotheses, we assessed the extent to which individual items were invariant across the four countries using AMOS maximum likelihood estimation (Arbuckle & Wothke, 1999).<sup>1</sup> We then tested for invariant factorial structure of the theoretical model to

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<sup>1</sup> Note that consistent with Lam et al. (2002), we first assessed each scale separately and then tested the factor structure with all scales included in the same model. The indices are reported for the overall model.

test the assumption that factor loadings were equivalent across samples. In model A (unrestricted), each indicator was allowed to load only on its factor, but the factor loadings and covariances were allowed to vary across country. In model B (restricted), factor loadings were restricted to be invariant across the four samples, but the covariances were free to vary across countries. The fit indices indicate a satisfactory fit of the data for Model A (unrestricted) model ( $\chi^2/df = 2.29$ , GFI = .90, CFI = .92, RMSEA = .08). Fit indices marginally improved for the more constrained Model B ( $\chi^2/df = 2.17$ , GFI = .91, CFI = .93, RMSEA = .06), suggesting that the indicators measured their latent traits well, even though the loadings were constrained to be invariant across samples. All the estimated factor loadings were significant and closer to 1.00, suggesting that the indicators measured the latent traits well even under constraint. Thus, given that model B provided an adequate fit to the data after we set constraints on parameters across samples, we concluded that the assumption of measurement equivalence was acceptable.

## RESULTS

Table 1 shows the descriptive statistics among the study variables. Means across the four countries were generally similar, except for transformational leadership, which was relatively low in China. We also examined if there were any significant differences between the banks in terms of the relationships between leadership style and individual differences with respect to the various outcome variables, and found no significant differences.

### Tests of Hypotheses

We tested our hypotheses using moderated multiple regression. Note that although leadership has been recently conceptualised and analysed as a group-level construct (Bono & Judge, 2003), in this study we treated leadership as an individual-level variable because we recognised that leaders may be perceived as behaving differently across situations and individuals. This is consistent with Avolio and Yammarino's (1990) assertion that individual differences in perceptions may account for variation in ratings of leadership.

Age, country (dummy-coded), gender (dummy-coded), and organisation tenure were used as controls in all analyses. Any variable used as a component of an interaction term was mean-centered (Aiken & West, 1991), and tests for normality demonstrated no violations of assumptions underlying the regressions. A national culture variable was created by coding the US as 0 and the other remaining countries 1 in each separate analysis.

Table 2 presents the results of these regression analyses. In the first step, the controls, leadership, and individual differences accounted for 22 per cent

TABLE 1  
Means, Standard Deviations, and Inter-correlations by Country

	M	SD	$\alpha$	1	2	3	4	5
<i>China</i>								
1. Transformational leadership	1.91	.63	.91					
2. Contingent reward	1.79	.75	.62	.44**				
3. Allocentrism	3.72	.27	.69	.22**	.09			
4. Idiocentrism	3.49	.33	.64	.09	.16*	.31**		
5. Satisfaction with supervisor	1.57	.45	.84	.58**	.37**	.21**	.12	
6. Organisational commitment	3.35	.65	.88	.41**	.35**	.16*	-.08	.42**
<i>India</i>								
1. Transformational leadership	2.19	.65	.88					
2. Contingent reward	2.36	.78	.63	.41**				
3. Allocentrism	3.76	.46	.80	.25**	.02			
4. Idiocentrism	3.53	.58	.75	.12	.23**	.39**		
5. Satisfaction with supervisor	1.50	.43	.81	.51**	.44**	.30**	.11	
6. Organisational commitment	3.82	.64	.85	.34**	.31**	.48**	.14*	.34**
<i>Kenya</i>								
1. Transformational leadership	2.20	.70	.90					
2. Contingent reward	2.29	.78	.77	.46**				
3. Allocentrism	3.95	.35	.65	-.08	.07			
4. Idiocentrism	3.64	.53	.69	.09	.07	.04		
5. Satisfaction with supervisor	1.54	.51	.84	.40**	.36**	.14*	-.05	
6. Organisational commitment	3.60	.82	.90	.33**	.35**	.15*	-.11	.25**
<i>US</i>								
1. Transformational leadership	2.35	.83	.94					
2. Contingent reward	2.65	.93	.83	.49**				
3. Allocentrism	3.75	.39	.65	.14*	.08			
4. Idiocentrism	3.48	.43	.69	.21**	.12	.39**		
5. Satisfaction with supervisor	1.98	.51	.93	.50**	.27**	.09	.17**	
6. Organisational commitment	3.66	.80	.92	.37**	.15*	.21**	.19**	.28**

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed).

and 24 per cent of the variance in organisational commitment and satisfaction with supervisor, respectively. In the second step, adding two-way interaction terms resulted in .05 increases in  $R^2$  for organisational commitment and .06 in  $R^2$  for satisfaction with supervisor, predicting a total of 27 per cent and 30 per cent of the variance in organisational commitment and satisfaction with supervisor, respectively. In support of Hypotheses 1, 3, and 4, our findings indicated that allocentrism and idiocentrism moderated the relationship between leadership style (i.e. transformational and transactional contingent reward) and work-related attitudes (i.e. organisational commitment and satisfaction with one's supervisor). We did not find any support for Hypothesis 2, concerning the interaction of transactional contingent reward leadership and allocentrism in predicting work-related attitudes.

TABLE 2  
Results for Two-way and Three-way Regression Analyses

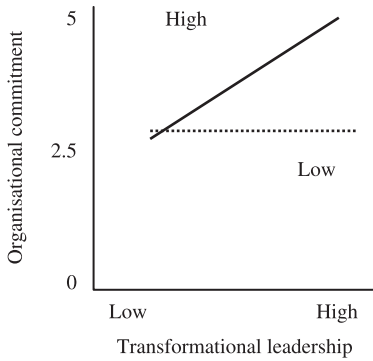
<i>Variable</i>	<i>Organisational commitment</i>		<i>Satisfaction with supervisor</i>	
	$\beta$	t	$\beta$	t
Step 1				
Control				
China	.08	2.29*	.09	2.42*
India	.06	1.92†	.07	1.89†
Kenya	.08	2.03*	.10	2.62*
Age	.06	1.79†	.09	2.56**
Gender	.04	1.23	.01	.17
Organisation tenure	.01	.09	-.04	-1.10
Transformational leadership	.37	6.64***	.38	7.38***
Transactional contingent reward leadership	.15	3.23**	.17	3.69**
Allocentrism	.23	5.25***	.31	5.87***
Idiocentrism	.13	3.05**	.09	2.72**
$R^2$		.22		.24
Step 2				
Transformational leadership * allocentrism	.14	3.79***	.12	3.17**
Transformational leadership * idiocentrism	-.08	-2.35*	-.11	-3.03**
Contingent reward leadership * allocentrism	.05	1.13	.06	.16
Contingent reward leadership * idiocentrism	.10	2.84**	.13	4.58***
$\Delta R^2$		.05**		.06**
Transformational * allocentrism * country dummy	.38	3.08**	.49	4.29***
Transformational * idiocentrism * country dummy	.29	2.41*	.25	2.02*
Contingent reward * allocentrism * country dummy	.15	1.11	-.19	-1.69†
Contingent reward * idiocentrism * country dummy	-.25	-3.30**	-.35	-3.35***
$R^2$ for total equation ( $F$ for total equation)		.28 (15.80***)		.39 (26.64***)

Note: Dummy code (US = 0; other countries = 1); coefficients (standardised) are reported only for the three-way interactions ( $n = 825$ ).

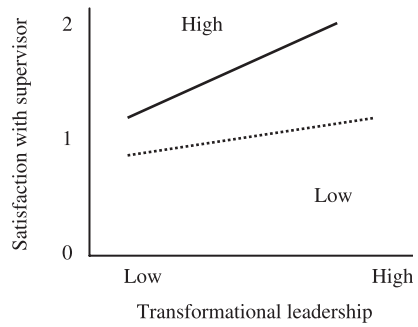
†  $p < .10$  (marginally significant); \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

To take a closer look at the nature and form of the significant two-way interactions, we plotted these interactions with results shown in Figure 1a–1f. As shown in Figure 1a–1f, the relationship between transformational leadership and work attitudes was more positive as the level of allocentrism increased. Similarly, Figure 1e and 1f showed that the relationship between contingent reward leadership and work attitudes was more positive as the level of idiocentrism increased, providing support for predictions concerning the two-way interactions.

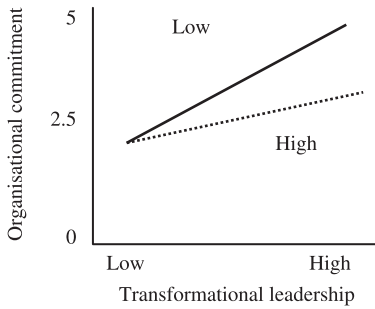
(a) Transformational and Allocentrism (H1a)



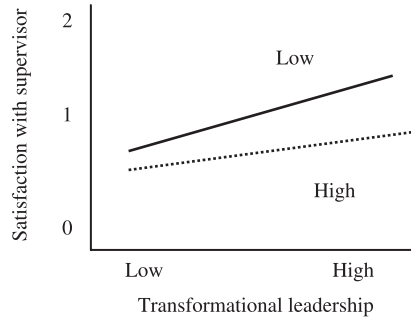
(b) Transformational and Allocentrism (H1b)



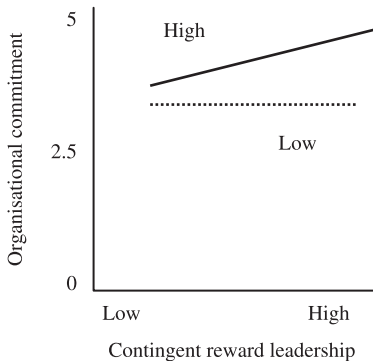
(c) Transformational and Idiocentrism (H3a)



(d) Transformational and Idiocentrism (H3b)



(e) Contingent reward and Idiocentrism (H4a)



(f) Contingent reward and Idiocentrism (H4b)

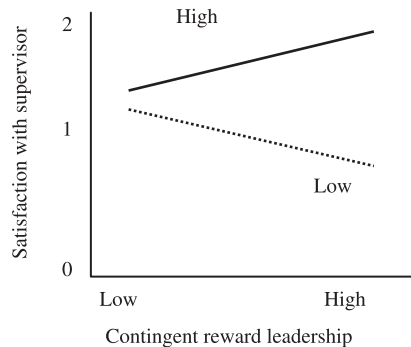


FIGURE 1. Effects of the interaction between leadership and individual differences.

To explore if the relationships reported above varied as a function of societal culture (i.e. collectivism vs. individualism), we created a three-way interaction term. To do this, we grouped China, India, and Kenya as our collectivist countries and dummy coded them 1, to compare them collectively to the US individualistic culture dummy coded 0. Note that because any variable used as a component of an interaction term was mean-centered, all linear terms and possible two-way interactions were included in the equation when testing the three-way interactions. These linear terms and extra two-way effects, however, have no substantive interpretation other than to provide mathematical corrections for the three-way interaction terms (Aiken & West, 1991).

Results of the three-way interactions are presented in the lower part of Table 2. Specifically, one can see that transformational leadership was most positively related to organisational commitment ( $\beta = .38$ ,  $t = 3.08$ ,  $p < .01$ ) and satisfaction with supervisor ( $\beta = .49$ ,  $t = 4.29$ ,  $p < .001$ ) for allocentrics in collectivistic cultures. Conversely, a negative three-way interaction involving contingent reward leadership  $\times$  idiocentrism  $\times$  country code for organisational commitment ( $\beta = -.25$ ,  $t = -3.30$ ,  $p < .001$ ) and satisfaction with supervisor ( $\beta = -.35$ ,  $t = -3.35$ ,  $p < .001$ ) indicates that transactional contingent reward leadership had a more positive effect for idiocentrics coming from an individualistic culture.

## DISCUSSION

Our primary goal was to examine the moderating effects of allocentrism and idiocentrism on relationships between leadership style and work-related attitudes, and to assess the extent to which these relationships varied as a function of larger societal context/country. To our knowledge, this is the first examination of how individual values and the larger societal context affect the relationship of transformational and transactional contingent reward leadership with relevant organisational outcomes.

Results of this study extend work by Walumbwa and Lawler (2003) by showing the moderating effects of allocentrism and idiocentrism with respect to the relationships between leadership style and follower work-related attitudes/outcomes. Specifically, for those individuals who were more allocentric, transformational leadership was more positively associated with work-related attitudes/outcomes; for those individuals who were more idiocentric, transactional contingent reward leadership was more positively associated with work-related attitudes/outcomes. These findings are consistent with the underlying assumption that individual differences may account for differences in how various leadership styles are perceived by followers (Chan & Drasgow, 2001).

We also found that transformational leadership had a more positive effect among allocentrics from collectivist cultures and transactional contingent

reward leadership had a more positive effect among idiocentrics from an individualistic culture. Our results imply that individual dispositions and societal norms may be contingently related to one another. For example, a young Chinese worker who is more idiocentric might functionally behave more as an individualist if this worker lives in an individualistic culture. However, if this same Chinese worker lives in a society that is more collectivist, he/she might abide by the dominant cultural norms related to family life since he/she might be sanctioned for doing otherwise. Future research examining how cultural differences and leadership styles interact with one another must now take into consideration both the culture in which leader and follower interactions occur as well as individual differences regarding culture values.

## Limitations and Implications for Future Research and Practice

The findings of this study are limited by its cross-sectional design and by use of a single source method of data collection. However, a review of the correlations does not point to consistently high coefficients as would be expected if such a bias was having a strong impact on the pattern of our results. In addition, the effects of common method bias are primarily evidenced when one is examining the magnitude of associations between variables and/or main effects. The primary focus of our study was on the interactions between variables, while we controlled for the main effects of the variables that comprised the interaction terms in our regression models. Nonetheless, our study's findings must be viewed as preliminary until further replications and extensions are undertaken.

An additional potential limitation is the range of country cultures included here as well as the specific banking context in which this study was conducted. Future research needs to include a broader sampling of organisations across different industries and countries that vary with respect to the cultural values of interest tested in this study. Finally, we chose to combine the four dimensions of transformational leadership to form a single scale of transformational leadership. Since transformational leadership can be viewed as a multi-faceted construct, it is possible that different facets of transformational leadership may interact differently with individual differences and societal values to produce different results. Future studies might consider investigating whether the current findings vary as a consequence of testing the individual facets of transformational leadership.

Despite these limitations, this study has made several contributions to the cross-cultural leadership literature. First, the results of this study provide fairly strong support for the independent and interactive effects of individual differences in addition to societal context in terms of explaining the relation-



ship of transformational and transactional contingent reward leadership to follower outcomes. The preliminary evidence provided here regarding how societal and individual value differences predicted work-related outcomes offers a very exciting avenue for future research to pursue. For example, the current findings suggest that greater attention now needs to be paid to assessing what constitutes more or less effective ways of developing leadership within and between cultural settings (Ayman, 2004; Gelfand et al., 2004; Kanungo et al., 1999; Aycan, Kanungo, Mendonca, Yu, Deller, Stahl, & Kurshid, 2000; Walumbwa & Lawler, 2003).

From a practical point of view, our results may also provide some insights into how transformational and transactional contingent reward leadership can be used in motivating diverse work groups. For instance, being aware of the moderators identified here may help managers to identify individual and organisational contexts where transformational or transactional contingent reward leadership is more or less likely to enhance organisational commitment and satisfaction with supervisor. Helping leaders to be more aware of their impact on individuals with different orientations and backgrounds would help them to best adjust their leadership style to the individual values of their followers, organisations, and societies in which they are leading. Finally, although not the main focus of this study, the idea that transformational and transactional contingent reward leadership were both positively related to work-related outcomes suggests that the same type of leadership may be more or less effective in part, depending on the orientation of the individual.

In sum, our results show that we need to consider individual differences in helping to explain how leaders operating across different cultural settings are viewed by their followers. We also need to consider the role of societal values if we are to optimise the highest level of organisational commitment and satisfaction with leaders. This level of sensitivity to individual and societal cultural differences may be particularly relevant when examining leadership in global virtual teams, whose interactions may be even more affected by differences between leaders and followers in terms of cultural values.

## REFERENCES

- Aiken, L.S., & West, S.G. (1991). *Multiple regression testing and interpreting interactions*. Newbury Park, CA: Sage.
- Antonakis, J., Avolio, B.J., & Sivasubramaniam, N. (2003). Context and leadership: An examination of the nine-factor full-range leadership theory using the Multifactor Leadership Questionnaire. *Leadership Quarterly*, 14, 261–295.
- Arbuckle, J.L., & Wothke, W. (1999). *AMOS 4.0 user's guide*. Chicago, IL: Smallwaters.

- Avolio, B.J. (1999). *Full leadership development: Building the vital forces in organizations*. Newbury Park, CA: Sage.
- Avolio, B.J., & Yammarino, F.J. (1990). Operationalizing charismatic leadership using a levels-of-analysis framework. *Leadership Quarterly*, 1, 193–208.
- Aycan, Z., Kanungo, R.N., Mendonca, M., Yu, K., Deller, J., Stahl, G., & Kurshid, A. (2000). Impact of culture on human resource management practices: A 10 country comparison. *Applied Psychology: An International Review*, 49, 192–221.
- Ayman, R. (2004). Situationist/interactionist approaches to leadership. In J. Antonakis, A.T. Cianciolo, & R.J. Sternberg (Eds.), *The nature of leadership* (pp. 148–171). Thousand Oaks, CA: Sage.
- Bass, B.M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B.M. (1998). *Transformational leadership: Industry, military, and educational impact*. Mahwah, NJ: Lawrence Erlbaum.
- Bass, B.M., & Avolio, B.J. (1995). *Multifactor leadership questionnaire: Manual leader form, rater, and scoring key for MLQ, Form 5x-short*. Redwood City, CA: Mind Garden.
- Bono, J.E., & Judge, T.A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*, 46, 554–571.
- Bono, J.E., & Judge, T.A. (2004). Personality and transformational and transactional leadership: A meta-analysis. *Journal of Applied Psychology*, 89, 901–910.
- Brislin, R.W. (1980). Translation and content analysis of oral and written materials. In H.C. Triandis & J.W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Boston, MA: Allyn and Bacon.
- Chan, K., & Drasgow, F. (2001). Toward a theory of individual differences and leadership: Understanding the motivation to lead. *Journal of Applied Psychology*, 86, 481–498.
- Chatman, J.A., & Barsade, S.G. (1995). Personality, organizational culture, and cooperation: Evidence from a business simulation. *Administrative Science Quarterly*, 40, 423–443.
- Chen, C.C., Chen, X.P., & Meindl, J.R. (1998). How can cooperation be fostered? The cultural effects of individualism–collectivism. *Academy of Management Review*, 23, 285–304.
- Gelfand, M.J., Bhawuk, D.P.S., Nishi, L.H., & Bechtold, D. (2004). Individualism and collectivism: Multilevel perspectives and implications for leadership. In R.J. House, P.J. Hanges, M. Javidan, P.W. Dorfman, & V. Gupta (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 cultures* (pp. 437–512). Thousand Oaks, CA: Sage.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Thousand Oaks, CA: Sage.
- House, R.J., Wright, N.S., & Aditya, R.N. (1997). Cross-cultural research on organizational leadership: A critical analysis and a proposed theory. In P.C. Earley & M. Erez (Eds.), *New perspectives on international industrial and organizational psychology* (pp. 535–625). San Francisco, CA: Lexington Press.
- Howell, J.N., & Hall-Merenda, K.E. (1999). The ties that bind: The impact of leader–member exchange, transformational and transactional leadership, and

- distance on predicting follower performance. *Journal of Applied Psychology*, 84, 680–694.
- Judge, T.A., & Piccolo, J.E. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, 89, 755–768.
- Jung, D.I., & Avolio, B.J. (1999). Effects of leadership style and followers' cultural orientation on performance in group versus individual task conditions. *Academy of Management Journal*, 42, 208–218.
- Jung, D.I., Bass, B.M., & Sosik, J.J. (1995). Bridging leadership and culture: A theoretical consideration of transformational leadership and collectivist cultures. *Journal of Leadership Studies*, 2, 3–18.
- Kanungo, R.N., Aycan, Z., & Sinha, J.B.P. (1999). Organizational culture and human resource management practices: The model of culture fit. *Journal of Cross-Cultural Psychology*, 30(4), 501–526.
- Kanungo, R.N., & Jaeger, A.M. (1990). Introduction: The need for indigenous management in developing countries. In A.M. Jaeger & R.N. Kanungo (Eds.), *Management in developing countries* (pp. 1–23). London: Routledge.
- Lam, S.S.K., Chen, X., & Schaubroeck, J. (2002). Participation decision making and employee performance in different cultures: The moderating effects of allocentrism/idiocentrism and efficacy. *Academy of Management Journal*, 45, 905–914.
- Lim, B., & Ployhart, R.E. (2004). Transformational leadership: Relations to the five-factor model and team performance. *Journal of Applied Psychology*, 89, 610–621.
- Lord, R.G., Foti, R.J., & De Vader, C.L. (1984). A test of leadership categorization theory: Internal structure, informational processing, and leadership perceptions. *Organizational Behavior and Human Performance*, 34, 343–378.
- Markus, H.R., & Kitayama, S. (1991). Culture and self: Implications for cognition, emotion and motivation. *Psychological Review*, 98, 224–253.
- Mowday, R.T., Steers, R.M., & Porter, L.W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224–247.
- Pillai, R., & Meindl, J.R. (1998). Context and charisma: A “meso” level examination of the relationship of organic structure, collectivism, and crisis to charismatic leadership. *Journal of Management*, 24, 643–671.
- Robert, C., Probst, T.M., Martocchio, J.J., Drasgow, F., & Lawler, J.J. (2000). Empowerment and continuous improvement in the United States, Mexico, Poland, and India: Predicting fit on the basis of dimensions of power distance and individualism. *Journal of Applied Psychology*, 85, 643–658.
- Robert, C., & Wasti, S.A. (2002). Organizational individualism and collectivism: Theoretical development and an empirical test of a measure. *Journal of Management*, 28, 544–566.
- Schwartz, S.H. (1994). Beyond individualism and collectivism: New cultural dimensions of values. In U. Kim, H.C. Triandis, C. Kagitcibasi, S.-C. Choi, & G. Yoon (Eds.), *Individualism and collectivism: Theory, method, and applications* (pp. 85–122). Newbury Park, CA: Sage.
- Singelis, T.M., Triandis, H.C., Bhawuk, D.P.S., & Gelfand, M.J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29, 240–275.

- Smith, P.C., Kendall, L.M., & Hulin, C.L. (1969). *The measurement of satisfaction in work and retirement*. Chicago, IL: Rand-McNally.
- Triandis, H.C. (1995). *Individualism and collectivism*. Boulder, CO: Westview Press.
- Triandis, H.C., Chan, D.K., Bhawuk, D.P.S., Iwao, S., & Sinha, J.B.P. (1995). Multimethod probes of allocentrism and idiocentrism. *International Journal of Psychology*, 74, 118–128.
- Triandis, H.C., & Gelfand, M. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 117–128.
- Triandis, H.C., Leung, K., Villareal, M., & Clack, F.L. (1985). Allocentrism vs. idiocentrism tendencies: Convergent and discriminant validation. *Journal of Research in Personality*, 30, 395–415.
- Walumbwa, F.O., & Lawler, J.J. (2003). Building effective organizations: Transformational leadership, collectivist orientation, work-related attitudes, and withdrawal behaviors in three emerging economies. *International Journal of Human Resource Management*, 14, 1083–1101.
- Yukl, G. (1999). Evaluation of the conceptual weaknesses in transformational and charismatic leadership. *Leadership Quarterly*, 10, 285–303.

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