Original Article

An opportunity for east and west to share leadership: A multicultural analysis of shared leadership preferences in global teams

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Abstract This study investigates the relationship between cultural values and shared leadership preferences, using a sample of 357 potential globally dispersed team members. A significant positive relationship between both horizontal individualism and horizontal collectivism and shared leadership preferences is identified. We also find significant differences in individual-level cultural values between Asian and non-Asian respondents. Shared leadership preferences exhibited fewer differences, suggesting the possibility for sharing leadership in multicultural teams. Our findings add to the literature by detailing the relationship between cultural values and shared leadership preferences, and furthering our understanding of contemporary team leadership preferences among Asians and non-Asians.
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Introduction

Globalization, rapid technological change, knowledge growth and intense competition have led to the rise of a powerful work design: multicultural teams. These teams often entail members operating across boundaries of organization, time and space via technologies, from multiple nations and cultures to achieve common organizational objectives (Maznevski and Chudoba, 2000; Davis and Bryant, 2003). Although the virtual context has allowed organizations to collaborate with the best people around the world, enabling teams to operate more efficiently, there is ample evidence that physical dispersion and cultural diversity may create difficulties in the leadership process.

Zander *et al* (2012) have identified shared leadership as one of the key trends in multicultural team leadership. Shared leadership can be defined as an emergent team property where leadership influence is widespread, shared by multiple team members (Carson *et al*, 2007). Team members both lead and follow in such a way that different team members provide leadership and respond to others' leadership at different times in response to the changing situation. It has been suggested that shared leadership under certain conditions can be particularly successful in multicultural teams (Zander and Butler, 2010), yet research on shared leadership in multicultural teams is still in its infancy. We know that there is a relationship between globally dispersed team performance and shared leadership (Pearce *et al*, 2004; Muethel *et al*, 2012) similar to that between collocated team performance and shared leadership (Pearce and Sims, 2002; Sivasubramaniam *et al*, 2002; Ensley *et al*, 2006). However, research has yet to identify the conditions that influence and enable the emergence of shared leadership (Carson *et al*, 2007; Solansky, 2008; Fitzsimons *et al*, 2011) in multicultural teams.

Cross-cultural leadership research has long established that leadership ideals and employee preferences for leadership style vary across countries and cultural settings (Bochner and Hesketh, 1994; Zander, 1997; Den Hartog *et al*, 1999; Mockaitis, 2005). We observe that one of the most distinguishing dimensions of culture, the individualism-collectivism (I/C) dimension (Triandis, 1995; Paul *et al*, 2004), is empirically related to participative leadership preferences (see, for example, Zander, 1997, 2002; House *et al*, 2004). However, in a review of three decades of research on culture in teams, Zhou and Shi (2011) identified only a handful of studies considering the link between culture and team leadership; none considered shared leadership. This field of research remains largely untapped, lacking empirical evidence to draw significant conclusions about the effects of cultural values on shared leadership.

Given the narrowing gap between the East and West (Chen, 2010) and the growing capacity for global organizations to operate across borders, researchers have taken to investigating universal leadership practices that transcend cultural boundaries (Dickson *et al*, 2003). Yet Eastern culture has remained different from that of the West with respect to leadership preferences, and this not only makes comparison with other regions of the world interesting (Chen, 2010), but also important, as work is increasingly organized in multicultural teams. Asian countries have long clustered together in earlier studies (see, for example, Ronen and Shenkar, 1985; Zander, 1997; Hofstede *et al*, 2002) and more recently (House *et al*, 2004; Zander, 2005). Finding common leadership preferences across such distinct cultural clusters could increase the ease of multicultural business.

In this article, we examine an issue of interest to both scholars and practitioners – whether shared leadership is a preferred leadership option in multicultural globally dispersed teams, and whether cultural orientation determines shared leadership preferences. With a sample of 357 respondents, resident in 44 countries, we examine

the relationship between individual-level cultural value orientations and potential globally dispersed team members' preferences for shared leadership. Existing research has established a predominant collectivistic orientation among Asian countries and a more individualistic orientation among European and Anglo-American countries (see, for example, Oyserman *et al*, 2002). Although there is no doubt about the heterogeneity of cultural values within countries (Triandis, 1994; Martins and Schilpzand, 2011), Asian samples tend to be more collectivistic in comparison with the western world (Hofstede, 2001; House *et al*, 2004; Forsyth *et al*, 2008). We will assess whether the Asian cluster remains distinctive compared with other cultural clusters in today's globalized interdependent world, or whether there now exist some commonalities in cultural values and shared leadership preferences across regions. Our study contributes to our understanding about the opportunity for shared leadership in multicultural teams comprising members from east and west, adding to the emerging literature on shared leadership across cultures. Lastly, practitioner implications are geared to those who may be interested in adopting shared team leadership in multicultural teams with team members from Asia as well as other regions.

The rest of this article is organized as follows. We review the extant literature on shared leadership in multicultural teams and cultural values before developing our hypotheses. Next, we present our methods, followed by a presentation and discussion of the results. We conclude with the implications and limitations of our study and directions for future research.

Theoretical Background

The complexity of leading multicultural teams has accompanied their growing prevalence. Those working in this environment are often challenged by physical dispersion – the need to operate across time and space within multiple cultures, mostly without face-to-face interaction, leaving few opportunities to identify common values (Kauppila *et al*, 2011). Complexity grows with diversity, complicating and stretching the role of leadership possibly further than the skills of those who must lead multicultural teams (Davis and Bryant, 2003). Yet organizations must learn to overcome these complexities in a global economy where teams are essential for organizing work, and sustained competiveness relies on collaborating with the best people, wherever they might be.

Leadership is the process of influencing and facilitating individual and collective efforts to understand and achieve mutually accepted objectives (Yukl, 2002). Traditionally, leadership has been viewed as singular, a focal point where responsibility ultimately resides. This is reflected in team leadership research that focuses on vertical leadership (Avolio *et al*, 2009). Zander and Butler (2010) identify shared leadership as horizontal leadership in contrast to vertical modes of leadership. They

propose that shared leadership is particularly appropriate when multicultural teams are characterized by cultural heterogeneity, and not by a few cultural sub-groups susceptible to polarization and power-play. Carson *et al* (2007, p. 1218) define shared leadership as an 'emergent team property that results from the distribution of leadership influence across multiple team members'. This is the definition we adopt, where there is leadership influence from multiple team members, including both the provision of leadership by members and response to the leadership of others. This goes beyond collective decision making, as team members also initiate action, and are held accountable for the outcomes of their decisions (Hoch *et al*, 2010).

Shared leadership is argued in the literature to be superior to single leadership for several reasons. For example, when dealing with complexities, Day *et al* (2004) emphasize that a team's broader repertoire may lead to more effective leadership than that of a single leader. This is true also when work tasks are interrelated (Pearce *et al*, 2009). Pearce *et al* argue that evidence of successful performance is abundant in high-performing Fortune 500 companies organizing work in teams and practicing shared leadership.

Yet studies on shared leadership in teams are still scarce, although there is some evidence to suggest that shared leadership has advantages in teams. Solansky (2008) explored both shared leadership and single or vertical leadership within self-managed, collocated teams in the United States. Findings revealed that teams adopting shared leadership had motivational and cognitive advantages over teams adopting vertical leadership. Shared leadership was related to greater team efficacy. In addition, shared leadership generates a stronger transactive memory, where team members recognize each other's skills, talents and knowledge. Shared leadership increases team members' confidence, satisfaction, ownership and investment, because members are a part of and contribute to team processes and objectives.

Empirical studies have provided evidence of a relationship between shared leadership and team performance, where teams in which shared leadership is adopted are effective (Pearce and Sims, 2002; Sivasubramaniam *et al*, 2002; Ensley *et al*, 2006). Pearce and Sims investigated the relationship between vertical and shared leadership and team effectiveness in a study of 71 change-management teams. Their findings revealed that both vertical and shared leadership are predictors of team effectiveness; however, shared leadership proved to be a more useful predictor of team effectiveness. Hoch *et al* (2010) found that shared leadership enhances team performance in a study of 26 project teams from a German consulting company. In addition, Erkutlu (2012) found that shared leadership is positively related to proactive behaviour in a study of 105 work teams from 21 commercial banks in Turkey. Moreover, Hoch (2013) found that both vertical and shared leadership are related to innovative behaviour in a study of 43 face-to-face work teams.

The above studies indicate that shared leadership enhances team outcomes in collocated teams. In a multicultural team context, where greater cultural diversity is observed, it is expected that there will be more pronounced differences in attitudes,

perceptions and behaviours, adding further complexity to team leadership. These challenges, coupled with those of physical dispersion and time-zone differences, complicate the ability of one individual to perform all leadership functions (Day *et al*, 2004). Under these circumstances, where vertical leadership is insufficient (or ineffective), team members become potential sources of leadership, contributing to the emergence of shared leadership (Hoegl and Muethel, 2007). However, it must be acknowledged that shared leadership is not a replacement for vertical leadership, and should only be considered in interdependent situations (Pearce *et al*, 2009) where team members can work together in an additive or in compensatory way (Hoch, 2013).

A few studies have thus far addressed shared leadership in global teams. Davis and Bryant (2003) interviewed members and leaders of 68 virtual teams who were also all managers in MNEs in Europe and Asia, and found a relationship between self-leadership, or distributed leadership, and virtual team success. Specifically, virtual teams in which self-leadership was discouraged were less effective than those in which leadership changed depending on the situation. Pearce *et al* (2004) found a positive relationship between shared leadership and virtual team effectiveness. Shared leadership was significantly related to team potency, social integration, problem-solving quality and high levels of initiative and proactivity. Vertical leadership did not significantly predict any of these outcomes. Similarly, Muethel *et al* (2012) found a significant and positive relationship between shared leadership behaviours and team performance in their study of 96 geographically dispersed teams. Based on the extant literature, shared leadership should facilitate effective functioning of multicultural teams. However, the extent to which shared leadership is a preferred leadership style by team members will also determine whether it is employed as a leadership style in multicultural teams, as well as the extent to which it is seen as effective. Given the diversity of multicultural teams, the cultural backgrounds of team members will consequently also be of prime importance.

Developing Hypotheses

Horizontal and vertical dimensions of individualism and collectivism

Research suggests that the I/C dimension is the most important distinguishing dimension of culture (Triandis, 1995; Paul *et al*, 2004), particularly influential on perceptions of teamwork and leadership (Kirkman and Shapiro, 1997; Kirkman *et al*, 2001; Maznevski *et al*, 2002; Sosik and Jung, 2002). Hofstede (2001, p. 209) defines individualism as 'the relationship between the individual and the collectivity that prevails in a given society'. Individualists best identify with the self, whereas collectivists identify with the group, prioritizing collective goals (Hofstede, 2001). In individualistic societies, members are mostly independent and self-reliant, driven

by personal interests. Collectivists, on the other hand, are highly integrated into society and give priority to the group, finding motivation in group norms and obligations (Triandis, 1995). Collectivists also attribute individual behaviour to external factors, while individualists tend to orient causal inference toward the self (Triandis, 1994).

Hofstede's (1980) national individualism dimension suggests that individualism is to a large extent bipolar, and reflects general tendencies within societies; research at the individual level of analysis has shown that both individualism and collectivism are present in all cultures to varying degrees (Triandis, 1994). People may exhibit varying patterns of individualism and collectivism at different times, depending on the situation. This has been supported in studies proposing that, even in highly collectivist cultures such as Hong Kong, culture and business practices are Western-influenced, suggesting considerable between- and within-country variance of I/C (Liden, 2012).

Thus, while Hofstede's individualism dimension is very useful for comparing culture across nations, some important traits may be missed should each nationality be reduced to a single score. Also, given the diversity of cultures within a country, a national level of analysis may be inappropriate (Avolio *et al*, 2009; Sharma, 2010). Nonetheless, 'there has been a tendency within the empirical literature on global virtual teams to equate nationality with cultural orientation, by making implicit or explicit assumptions that individuals from a particular country are homogeneous in cultural values' (Martins and Schilpzand, 2011, p. 52). Consequently, Martins and Schilpzand argue that it is vital to measure the cultural values of global virtual team members, instead of making assumptions about people's cultural backgrounds based on nationality or country of origin. This involves measuring cultural values at the individual level.

Singelis *et al* (1995) argue that vertical and horizontal I/C provide greater theoretical distinction and empirical internal consistency at the individual level than the general I/C dichotomy. Further, Bhagat *et al* (2002, p. 209) believe that 'when the dimension of horizontalness-verticalness is superimposed upon the more fundamental dimension of individualism-collectivism, one gets a better sense of how information and knowledge may be selectively transferred and processed by members of societies that differ along these dimensions'. Triandis (1995) describes the horizontal and vertical I/C dimensions as distinguishing four types of self: independent, interdependent, same or different. The horizontal-vertical distinction at first glance resembles Hofstede's (1980) power distance dimension; however, they are conceptually and structurally different (Shavitt *et al*, 2006). Structurally, power distance is conceptualized as a single dimension (Hofstede, 1980), whereas for Triandis and Gelfand (1998) horizontal-vertical distinction is conceptualized as fitting with individualism and collectivism to form four cultural patterns. These cultural patterns are varying tendencies that individuals exhibit at different times and in different contexts (Singelis *et al*, 1995) and situations (Triandis, 1995).

Horizontal collectivism involves cohesion with and belonging to in-groups, whereas vertical collectivism involves sacrificing one's personal interests for the benefit of the in-group. Horizontal collectivists also emphasize consensual decision-making, facilitated by equality of self among others (Bhagat *et al*, 2002). This cultural pattern is found in countries such as Israel and Japan. Horizontal individualists, on the other hand, promote equality, yet still desire to be unique (Singelis *et al*, 1995). This pattern is found in countries such as Australia, Denmark and Sweden (Bhagat *et al*, 2002). In horizontal cultures communication is widespread, flowing from both top to bottom and bottom to top.

The vertical I/C aspect reflects acceptance of inequality and hierarchy, and being different. Vertical collectivists are more attentive to information received from authorities. Countries that are more typically vertically collectivistic are Brazil, China, Egypt, India, Nigeria, Venezuela and the Philippines (Bhagat *et al*, 2002). Vertical individualism emphasizes competition, found in countries where individuals are unique and inequality is expected (Singelis *et al*, 1995) (for example, France, Germany, United Kingdom and United States; Bhagat *et al*, 2002).

Although significant economic development has narrowed the gap between the East and West, there remain similarities across the Asian region, such as the endeavour for social harmony and face-saving, that are 'largely different from the guilt culture of the West' (Chen, 2010, p. 283). Asian cultures are generally characterized as collectivistic (Hofstede, 2001; House *et al*, 2004), where group objectives are prioritized over individual preferences (Triandis and Gelfand, 1998). Asia is also considered to be higher on the dimension of power distance (Hofstede, 2001). In contrast, it is well documented that western society is highly individualistic, compared with the east (Oyserman *et al*, 2002; Forsyth *et al*, 2008). In a meta-analysis of 50 cross-cultural studies measuring individualism and collectivism, Oyserman *et al* found that, overall, Americans scored higher on individualism than East Asians, but it depended on scale content. For example, when scales did not include personal uniqueness, Americans scored lower in individualism than the Japanese. When items related to competition were included in scales, the differences between Americans and Japanese on individualism disappeared. Unexpectedly, their results also revealed that Americans scored significantly higher in collectivism than the Japanese, and were not significantly different from the Koreans.

Nonetheless, we expect to find differences in the vertical and horizontal I/C dimensions. In the GLOBE study of more than 17 000 managers, from 951 organizations, representing 62 cultures, it was found that across all four scales of collectivism (institutional and in-group collectivism values and practices) there were significant differences between culture clusters (House *et al*, 2004).

Hypothesis 1: There will be significant differences between Asian and non-Asian respondents on horizontal and vertical dimensions of individualism and collectivism.

Individualism, collectivism and shared leadership

Sosik and Jung (2002) explored the effects of I/C on group characteristics and performance in work groups in a cross-cultural longitudinal study. Individualists reported higher levels of functional heterogeneity, group potency and group performance than collectivists. Paul *et al* (2004) investigated the influence of collaborative conflict management style, degree of I/C and group diversity on group performance in culturally homogeneous and heterogeneous virtual teams. Collectivism was positively associated with team levels of collaborative conflict management style. Mockaitis *et al* (2012) found that collectivists in globally dispersed teams had a greater propensity to trust their team members than individualists and overall more positive perceptions about the team process.

Both horizontal and vertical collectivists value teamwork and relationship-building (Kirkman and Shapiro, 1997; Kirkman *et al*, 2001; Sosik and Jung, 2002). Consequently, information is freely discussed and shared to achieve collective group goals. In addition, these individuals strive for in-group harmony, allowing mutually agreeable outcomes (Muethel and Hoegl, 2010).

Hypothesis 2a: There will be a positive relationship between horizontal collectivism and perceptions of shared leadership.

Hypothesis 2b: There will be a positive relationship between vertical collectivism and perceptions of shared leadership.

In vertical cultures, the diffusion of information and knowledge is hierarchical, where superiors have first access to information before deciding how and what is disseminated to lower levels of the organization (Bhagat *et al*, 2002). Research purports that individualists have lower preferences for teamwork (Kirkman and Shapiro, 1997; Kirkman *et al*, 2001; Sosik and Jung, 2002). Sosik and Jung investigated the effects of culture on other group characteristics, finding higher levels of functional heterogeneity in individualists than in collectivists. Individualists were likely to interpret group diversity as a way of combining unique qualities to arrive at better outcomes. This suggests that horizontal individualists who promote equality may have positive perceptions of shared leadership, where each individual has the right to lead rather than just one designated individual. Vertical individualists, on the other hand, emphasize competition and personal goals and are less likely to view shared leadership positively.

Hypothesis 3a: There will be a positive relationship between horizontal individualism and perceptions of shared leadership.

Hypothesis 3b: There will be a negative relationship between vertical individualism and perceptions of shared leadership.

As we predicted differences between Asian and non-Asian respondents with respect to cultural values, we also expect to find these differences reflected in perceptions about shared leadership. Carson (2005) suggests that collectivism and low power distance might encourage the development of shared leadership. This suggestion was later tested in a study of collective leadership within 52 collocated teams by Hiller *et al* (2006). They found a positive relationship between shared leadership and collectivism, but not power distance. These findings suggest that Asians characterized as collectivists will have positive perceptions about shared leadership. However, 'what we may take as "Asian Leadership" can vary across and even within Asia' (Rowley and Ulrich, 2012, p. 454), especially when we consider the horizontal and vertical I/C distinction (Singelis *et al*, 1995). Bearing this in mind, we hypothesize that:

Hypothesis 4: There will be significant differences between Asian and non-Asian respondents with respect to perceptions of shared leadership.

Method

Data collection

Data were collected in 2008 from participants in a three-week-long virtual project initiated in 2006 as part of a New Zealand undergraduate course, and involved university students worldwide. The project required globally dispersed teams to develop a six-page business proposal. Because of team members' geographic dispersion, no face-to-face contact was possible during the course of the project, and teams had to rely on virtual means of communication.

As this study concerns perceptions about working in globally dispersed teams, the questionnaire was distributed four days prior to the start of the project via email to all registered team members ($N = 476$) and measured cultural values and preferences for teamwork and leadership. A total of 357 responses were received, a response rate of 75.96 per cent. The questionnaire was administered in English, the working language of all teams.

Questionnaire and sample

The questionnaire was designed to assess participants' personal opinions and beliefs about working in global business teams before the project commenced. The survey consisted of four parts. Section A contained demographic questions. Section B assessed personal views of group work, including cultural values such as vertical and

horizontal I/C, power distance and hierarchical values. Lastly, Sections C and D assessed preferred leadership styles and attitudes toward leadership and teamwork.

Participants were mainly undergraduate or graduate students, but a minor part of the sample consisted of working adults. The respondents were aged 18–52 ($M = 22.67$, $SD = 4.01$); 57.4 per cent were male and 42.6 per cent female. Participants were from 44 different countries, as depicted in Table 1.

Measures

Independent variables

All four independent variables were measured using a scale adapted from Singelis *et al* (1995). The original eight items for each of the variables were included in the questionnaire, but as a part of the discriminant analytical procedure (see below) items were deleted, so that four items remain for each of the measures. Using a 7-point Likert scale, responses ranged from 'strongly disagree' (1) to 'strongly agree' (7). A sample item for *Horizontal individualism* is 'I enjoy being unique and different from others in many ways'. A sample item for *Vertical Individualism* is 'I enjoy working in situations involving competition with others'. A sample item for *Horizontal Collectivism* is 'I feel good when I cooperate with others'. A sample item for *Vertical Collectivism* is 'I usually sacrifice my self-interest for the benefit of my group'. All items are listed in Appendix.

Dependent variable

Shared Leadership Perceptions were measured with four items asking respondents the extent to which they agree (on a 7-point Likert scale) with statements about sharing decision making and engaging in reciprocal communication to share task accomplishments. A sample item was 'The leader should share decision-making with team members' (see Appendix for the exact phrasing).

Control variables

Age (in years) and *gender* (1 = female, 0 = male) were employed as control variables, as demographics influence perceptions of teamwork in virtual teams (Baugh and Graen, 1997; Krebs *et al*, 2006).

Statistical analysis

First, principal components analysis (PCA) was conducted on the shared leadership measure using SPSS. Preliminary analyses were conducted to ensure the data were suitable for factor analysis. Further, parallel analysis was performed. Based on these

Table 1: Sample breakdown by region

Region	*Country*	*n*	*%*
Anglo	Canada	8	2.2
	United States	56	15.7
	United Kingdom	2	0.6
	Australia	8	2.2
	New Zealand	30	8.4
Africa	Kenya	10	2.8
	Nigeria	31	8.7
	Rwanda	9	2.5
	Uganda	6	1.7
	Zimbabwe	2	0.6
	One each from: Sierra Leone, Burundi	2	0.6
Asia	Bangladesh	2	0.6
	China	20	5.6
	India	7	2
	Iran	6	1.7
	Japan	2	0.6
	Malaysia	7	2
	Nepal	7	2
	Singapore	2	0.6
	Vietnam	2	0.6
	One each from: Thailand, Philippines, Macao, South Korea, Sri Lanka	5	1.5
Europe	Bulgaria	3	0.8
	Estonia	2	0.6
	Finland	3	0.8
	French Polynesia	3	0.8
	Germany	4	1.1
	Italy	9	2.5
	Latvia	8	2.2
	Lithuania	9	2.5
	Netherlands	2	0.6
	Poland	1	0.3
	Russia	6	1.7
	Sweden	2	0.6
Latin America	Mexico	2	0.6
	Colombia	70	19.6
	One each from: Nicaragua, Argentina	2	0.6
Other	One each from: Persia, Tonga	2	0.6
Total	44 countries	357	100

procedures and theoretical conceptualization, a single-factor solution was retained, comprising four items, explaining a total of 54.05 per cent of the variance.

The second analytical step was to use structural equation modelling to test discriminant validity, model fit, and variable reliability of independent and dependent variables used in our study. Confirmatory factor analysis is the measurement model of structural equation modelling (Schreibera *et al*, 2006; Blunch, 2013). We entered the original 24 items measuring the independent variables (derived from the extant literature) together with the four items measuring the dependent variable (generated in the first step above). The structural equation modelling procedure resulted in discriminant validity and model fit for the final model, consisting of the independent variables as measured by four out of their original eight items, and the dependent variable measured by the four items generated in the first step above.

A series of tests were carried out to check the discriminant validity. All variables passed the first test of estimating a confidence interval (+/− two standard errors) around the standardized correlations between latent constructs (Anderson and Gerbing, 1988). This was followed by the stronger chi-square difference test of discriminant validity (Bagozzi and Phillips, 1982). All constructs easily passed this test too. We have also used structural equation modelling to examine convergent validity, that is, that the model fits the data well (Fornell and Larcker, 1981). Although the chi-square measure did not demonstrate a strong model fit, this was expected due to the large sample size, which has nothing to do with appropriateness of the model. Further statistics (RMSEA = 0.06, NFI = 0.93, and CFI = 0.91) indicated a very good fit, and therefore the distinctiveness of the variables in this study. All *t*-values associated with the individual items were significant, indicating very good construct validity. Vertical individualism and horizontal collectivism displayed strong reliability with 0.80 and 0.78 respectively, while horizontal individualism and vertical collectivism had weaker reliabilities (to be expected with only four of eight items remaining) of 0.65 and 0.58. The reliability of the dependent variable is 0.81.

The third step in the analysis was a one-way multivariate analysis (MANOVA). The analysis had six levels: Anglo, Africa, Asia, Europe, Latin America and Other. The dependent variables for the ANOVAs were the scores for each of the I/C dimensions (horizontal and vertical I/C) as well as perceptions about shared leadership. To ensure that the inclusion of the Anglo culture cluster and 'Other' regional groupings did not distort the results, the analyses were rerun excluding these groupings. As the test for significance of regional differences for the four values dimensions remained the same, these regional groupings were retained.

The fourth step in the analysis employed ordinary least squares (OLS) regression to assess the influence of horizontal and vertical I/C and geographic regions on shared leadership perceptions, after entering the control variables into the model. Preliminary residual analyses were conducted to ensure no violation of the

assumptions of normality, linearity and homoscedasticity. No multicollinearity was found, as evidenced by variance inflation factors all below 1.81.

Results

Table 2 contains the means, standard deviations and sample sizes for horizontal and vertical I/C and shared leadership perceptions by region.

A MANOVA was performed to test Hypothesis 1 regarding differences between Asian and non-Asian respondents with respect to the individualism and collectivism measures. The analysis indicated a significant effect for differences between regions (*lambda* = 0.546, DF = 5351, $P<0.001$). Univariate ANOVAs were then conducted to test for significance of regional differences for the four values dimensions. The main effect was significant for all of the four dimensions – vertical individualism [$F(5, 342) = 9.07$, $P<0.001$], horizontal individualism [$F(5, 349) = 5.58$, $P<0.001$], vertical collectivism [$F(5, 345) = 23.08$, $P<0.001$] and horizontal collectivism [$F(5, 421) = 14.77$, $P<0.001$]. The next step was to conduct pair-wise *t*-tests to examine regional differences on the four values dimensions. As our focus is on Asian and non-Asian differences, we compared the mean differences of the Anglo, European, African and Latin American regions with Asian. The *t*-tests indicated significant differences between the Asian and Anglo regional groups on the horizontal individualism ($t = -4.70$, DF = 163, $P<0.001$), vertical individualism ($t = 2.06$, DF = 160, $P<0.05$) and vertical collectivism ($t = 2.87$, DF = 160, $P<0.01$) dimensions. Significant differences between groups were also found for vertical individualism for the Asian-African groups ($t = -4.29$, DF = 116, $P<0.001$). On the horizontal and vertical collectivism dimensions, there were also significant differences in mean scores between the Asian and African, Asian and European, and Asian and Latin American groups (see Table 3 for results). Hypothesis 1 is thus partially supported by our results.

Table 2: Means and standard deviations (in parentheses) of each region for the values dimensions and shared leadership perceptions

Region	*N*	*HI*	*VI*	*HC*	*VC*	*Shared leadership*
Anglo	109	5.83 (0.82)	5.37 (0.97)	5.71 (0.73)	4.82 (0.89)	5.78 (0.81)
African	60	5.41 (1.11)	5.89 (0.97)	6.47 (0.53)	6.06 (0.76)	6.35 (0.75)
Asian	60	5.14 (1.04)	5.00 (1.28)	5.89 (0.87)	5.23 (0.86)	5.70 (0.92)
European	52	5.22 (1.06)	5.00 (1.23)	5.58 (0.71)	4.62 (0.99)	5.89 (0.66)
Latin American	74	5.26 (1.07)	4.81 (0.97)	6.31 (0.68)	4.74 (0.82)	6.07 (0.76)

Abbreviations: HC, horizontal collectivism; HI, horizontal individualism; VC, vertical collectivism; VI, vertical individualism.

Before testing Hypotheses 2a, 2b, 3a and 3b on the relationship between individualistic and collectivistic values and shared leadership preferences, we computed the means, standard deviations and Pearson correlations for all the variables in the study (see Table 4).

We carried out four OLS regression models to test Hypotheses 2 and 3, related to cultural values and shared leadership perceptions. Model 1 represents the base model and depicts only the control variables, age and gender. Model 2 includes Horizontal and Vertical Collectivism as explanatory variables. Model 3 includes only Horizontal and Vertical Individualism as explanatory variables. Model 4 is the full model including all variables. The results are depicted in Table 5.

In Table 6, shared leadership perceptions are regressed on the four I/C dimensions within regions. Model 5 includes all variables in the Asian regional group, Model 6 – Anglo, Model 7 – European, Model 8 – African and Model 9 – Latin American.

Hypothesis 2a predicts that horizontal collectivism will have a positive relationship with perceptions of shared leadership, and Hypothesis 2b predicts a positive

Table 3: *T*-test comparisons of regional differences for the vertical and horizontal individualism and collectivism dimensions and shared leadership perceptions

	Group comparisons			
	Asian-Anglo	*Asian-African*	*Asian-European*	*Asian-Latin American*
Horizontal individualism	–4.70***	–1.34	–0.39	–0.67
Vertical individualism	2.06*	–4.29***	0.02	0.93
Horizontal collectivism	1.42	–4.28***	2.05*	–3.00**
Vertical collectivism	2.87**	–5.50***	3.49***	3.37***
Shared leadership perceptions	–0.58	–4.17***	–1.19	–2.51*

***$P<0.001$, **$P<0.01$, *$P<0.05$.

Table 4: Means, standard deviations and pearson correlations

	Mean	*SD*	*1.*	*2.*	*3.*	*4.*	*5.*	*6.*
1. Vertical individualism	5.22	1.13						
2. Vertical collectivism	5.06	1.00	0.35***					
3. Horizontal individualism	5.44	1.03	0.37***	0.06				
4. Horizontal collectivism	5.98	0.78	0.15**	0.46***	0.06			
5. Shared leadership perceptions	5.94	0.82	0.12*	0.31***	0.17**	0.54***		
6. Age	22.67	4.01	–0.16**	–0.07	–0.21***	0.08	0.03	
7. Gender	0.43	0.50	–0.26***	–0.10	0.09	0.05	0.11*	–0.09

***$P<0.001$, **$P<0.01$, *$P<0.05$ (all two-tailed).

Table 5: Regressing shared leadership perceptions on horizontal and vertical individualism and collectivism (standard errors in parentheses)

	Model 1	*Model 2*	*Model 3*	*Model 4*
Constant	5.88***	4.65***	4.65***	1.87***
	(0.27)	(0.43)	(0.43)	(0.42)
Horizontal collectivism	—	0.59***	—	0.56***
		(0.06)		(0.05)
Vertical collectivism	—	0.04	—	0.06
		(0.04)		(0.04)
Horizontal individualism	—	—	0.10*	0.10*
			(0.05)	(0.04)
Vertical individualism	—	—	0.09	–0.01
			(0.05)	(0.04)
Age	–0.00	–0.01	0.01	–0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Gender	0.19*	0.09	0.23*	0.13
	(0.09)	(0.08)	(0.10)	(0.08)
n	331	333	331	331
F-value	2.10	42.54***	4.37**	29.76***
R^2	0.01	0.34	0.05	0.36
R^2_{adj}	0.01	0.33	0.04	0.34
Max VIF	1.01	1.32	1.30	1.47

***$P<0.001$, **$P<0.01$, *$P<0.05$.
Abbreviation: VIF, variance inflation factor.

relationship between vertical collectivism and perceptions of shared leadership. The results are depicted in Models 2 and 4. After entering vertical and horizontal collectivism at step 2 of the regression, the total variance explained by the model (model 2) was 34 per cent, $F(4, 333) = 42.54$, $P<0.001$. In both Models 2 and 4, the coefficient for horizontal collectivism is positive and significant ($P<0.001$). No significant coefficient was found for vertical collectivism. Thus, Hypothesis 2a is fully supported; however, Hypothesis 2b is not supported.

Hypothesis 3a predicts a positive relationship between horizontal individualism and perceptions of shared leadership. Hypothesis 3b predicts a negative relationship between vertical individualism and perceptions of shared leadership. The results are depicted in Models 3 and 4. After entering horizontal and vertical individualism at step 3, the total variance explained by the model as a whole was 5 per cent, $F(4, 331) = 4.37$, $P<0.01$. In both Models 3 and 4 there is a positive and significant ($P<0.05$) coefficient for horizontal individualism. No significant coefficient was found for vertical individualism. Thus, Hypothesis 3a receives full support, but Hypothesis 3b is not supported.

Table 6: Regressing shared leadership perceptions on horizontal and vertical individualism and collectivism (standard errors in parentheses) in five regions

	Model 5 Asian	*Model 6 Anglo*	*Model 7 European*	*Model 8 African*	*Model 9 Latin American*
Constant	−0.05	2.1*	3.79**	0.90	3.27
	(0.99)	(0.80)	(1.33)	(1.45)	(1.70)
Horizontal collectivism	0.57***	0.52***	0.55***	0.77***	0.41**
	(0.14)	(0.11)	(0.15)	(0.17)	(0.14)
Vertical collectivism	0.08	0.06	−0.02	0.23	−0.07
	(0.14)	(0.09)	(0.10)	(0.09)	(0.12)
Horizontal individualism	0.24*	0.13	0.03	0.02	0.12
	(0.10)	(0.10)	(0.09)	(0.09)	(0.10)
Vertical individualism	−0.08	−0.00	0.04	−0.11	−0.01
	(0.08)	(0.09)	(0.07)	(0.10)	(0.12)
Age	0.04*	−0.02	−0.06	−0.02	−0.00
	(0.02)	(0.01)	(0.04)	(0.03)	(0.05)
Gender	0.19	0.13	0.15	0.05	0.15
	(0.20)	(0.15)	(0.18)	(0.23)	(0.21)
n	54	99	48	55	64
F-value	8.83***	8.05***	4.37**	6.48***	2.19
R^2	0.52	.034	0.38	0.44	0.19
R^2_{adj}	0.47	0.30	0.30	0.37	0.10
Max VIF	1.81	1.52	1.67	1.56	1.51

***$P<0.001$, **$P<0.01$, *$P<0.05$.

Abbreviation: VIF, variance inflation factor.

In the final model (Model 4), horizontal individualism and horizontal collectivism were statistically significant as hypothesized, with horizontal collectivism recording a higher beta value (beta $= 0.53$, $P<0.001$) than horizontal individualism (beta $= 0.12$, $P<0.05$). Vertical I/C explained little of the variance in shared leadership in comparison with horizontal I/C.

The control variables are included in Model 1, and explain 1 per cent of the variance in shared leadership perceptions, $F(2, 331) = 2.10$, $P>0.05$. Of the control variables, a significant positive gender coefficient was found in Models 1, 2 and 3 ($P<0.05$).

An ANOVA was performed to test Hypothesis 4 regarding regional differences with respect to shared leadership perceptions. The main effect was significant [$F(5, 345) = 5.54$, $P<0.001$], indicating significant differences between regions. We conducted pair-wise *t*-tests to compare regional differences on shared leadership perceptions, once again comparing the mean differences of the Anglo, European, African and Latin American regions to Asian. The *t*-tests (Table 3) indicated significant differences between the Asian and African regional groups ($t = -4.17$, $DF = 115$, $P<0.001$) and the Asian and Latin American groups ($t = -2.51$, $DF = 128$,

$P<0.05$), but not between the Asian and Anglo or European regional groups. Hypothesis 4 is thus partially supported.

Following from these differences, we also found some similarities between Asians and non-Asians on individual-level cultural values and perceptions about shared leadership. The results for our OLS regression within regional groups are depicted in Table 6. There is a positive and significant ($P<0.01$) relationship between horizontal collectivism and perceptions of shared leadership across all regions.

Discussion

Taking a closer look at our results, we note some interesting patterns, furthering the cross-cultural and shared leadership literature. First, we find significant differences between all regional groups on the cultural values dimensions. Significant differences are found for vertical collectivism between Asians and all other regional groups. Asian respondents scored significantly higher on vertical collectivism than the Anglo, European and Latin-American groups, and lower than African respondents. With respect to vertical individualism, Asians scored significantly higher than the Anglo respondents, and lower than Africans. With respect to horizontal collectivism, Asians scored significantly higher than the European respondents, and lower than African and Latin American respondents. Interestingly, on the horizontal individualism dimension, the Asian respondents differed significantly only from the Anglo group, where they scored lower.

What is interesting is that despite these differences on the cultural value orientations, the differences with respect to perceptions about shared leadership were not that large. The Asian respondents did not significantly differ in their preferences for shared leadership from Anglo and European respondents; they differed significantly from the African and Latin American groups, preferring shared leadership less than either of these groups. Our findings suggest that Asians prefer shared leadership as much as Anglo and European team members do, but not to the extent that African and Latin American team members said they do. We must bear in mind, however, that these are team members' preferences gauged prior to engaging in the project, not their actual experiences with shared leadership during the project.

But shared leadership is associated with cultural values and beliefs. We find that horizontal collectivism and horizontal individualism are both strongly related to shared leadership perceptions. When broken down by region, horizontal individualism is most strongly related to shared leadership perceptions for Asian respondents – much more so than for Anglo, European, Latin American and African respondents. Importantly, differentiating between vertical and horizontal I/C allows for a more fine-grained analysis, specifically with respect to the Asian respondents, who in the extant literature are often somewhat simplistically solely seen as collectivists. Our

findings offer both theoretical implications and practical guidance in the formation and utilization of shared leadership in multicultural teams.

Theoretical Implications

Singelis *et al* (1995) argue that vertical and horizontal I/C constructs provide greater theoretical distinction and empirical internal consistency than the general I/C dichotomy at the individual level of analysis. This research builds on studies (Maznevski *et al*, 2002; Sharma, 2010) utilizing cultural value measures appropriate to an individual level of analysis, providing a more fine-grained evaluation, given the diversity of cultures within a country. As an example, while we would have attributed Anglos as highly individualistic and Asians as collectivistic, based on national cultural dimensions (see, for example, Hofstede, 2001), we found as expected that Asians were lower on the vertical and horizontal individualism dimensions, and higher on vertical collectivism. However, there were no significant differences between the Anglo and Asian groups with respect to horizontal collectivism. Such a distinction would otherwise be missed, as would the empirical evidence that individualistic and collectivistic values paint a more complex picture in the Asian samples than what can commonly be learnt in the cross-cultural management literature.

In accordance with previous research (for example, Ronen and Shenkar, 1985 and Liden, 2012), we found cultural similarities across regions; correspondingly, we found both similar and dissimilar attitudes toward shared leadership between Asians and non-Asians. These findings support Den Hartog *et al* (1999), Dickson *et al* (2003), Smith *et al* (1989, 1992), Suutari (2002) and others, who find culture-specific elements of leadership as well as universal leadership attributes which are widely valued. However, the aforementioned studies considered national cultural values. Our study extends this research by demonstrating that attitudes toward shared leadership are also influenced by culture at the individual level in a cross-cultural sample.

Further, our findings satisfy calls to confirm prior conjectures of a relationship between horizontal and vertical I/C values and leadership (Dickson *et al*, 2003), providing empirical evidence of the significance of horizontal I/C to positive shared leadership perceptions as hypothesized. Horizontal individualists and collectivists emphasize equality, where each individual has the right to lead, and accordingly have more positive perceptions of shared leadership than vertical individualists and collectivists, who prefer more clearly defined roles and hierarchical leadership styles. It appears that despite the cultural differences across regions, the similar worth placed on equality across regions led to positive perceptions of shared leadership across the sample.

Practical Implications

In addition to advancing theory, the study of shared leadership in multicultural teams can considerably benefit practice as well. Given the prevalence of multicultural teams and their importance in modern-day business, it is important to understand how best to configure and lead this team-form to aid strategic flexibility in capturing a global economy. Thus, our research offers several practical contributions to overcome the complexities of a global economy where multicultural teams are essential for organizing work, and sustained competitiveness relies on collaborating with the best people around the world.

Although it has been recognized that shared leadership is crucial for team performance in globally dispersed teams (Muethel *et al*, 2012), this research identifies the conditions that influence the emergence of shared leadership to achieve organizational objectives. We suggest that organizations utilizing multicultural teams compose them of team members with congruent and positive perceptions of shared leadership, to increase the enactment of shared leadership to improve team performance. Members must be willing to both lead and follow to engage in shared leadership behaviours.

Earlier research has found collectivism to be related to preferences for, and the effectiveness of, teamwork in general, compared with individualism, where teams are not a preferred form of organizing work. However, the picture with respect to shared leadership becomes more complicated in that preferences for sharing decision making (and other elements of shared leadership) have been found to be negatively related to hierarchical cultural dimensions such as power distance (Zander, 1997, 2002). In many countries, for example, in Asia, collectivism and power distance are correlated, suggesting a preference for teamwork, but not for shared leadership in teams. However, this is not what we found in our study when allowing for a more fine-grained analysis by using horizontal and vertical dimensions of individualism and collectivism.

Our results reveal that horizontal collectivism and individualism were both associated with positive preferences for shared leadership. This means that collectivistic and individualistic values, when horizontal and not hierarchically vertical (which emphasizes acceptance of inequality and hierarchy), are associated with shared leadership preferences. As earlier mentioned, horizontal collectivists are typically found in Japan and Israel, while horizontal individualists are typically found in Australia, Denmark and Sweden. Yet when we measured cultural values at the individual level, our results revealed that Asians and non-Asians, with the exception of Anglos, scored similarly high on horizontal individualism. For horizontal collectivism, significant differences were found between Asians and non-Asians, with the exception of Anglos. This has two important implications.

Firstly, as the horizontal I/C dimensions were found to be significantly related to shared leadership preferences across all regions, individuals holding horizontal

collectivistic and horizontal individualistic values will have shared leadership preferences in common. Secondly, this suggests that Asians who hold either horizontal individualism or horizontal collectivism in common across all regional groupings can play a critical role in multicultural teams spanning cultural values, and become instrumental in shared team leadership. These findings take a critical step towards demonstrating the importance of recognizing within-country cultural variance.

Overall, the findings from our study suggest that if horizontal I/C is emphasized and supported by organizations, Asians and non-Asians should be willing to engage in shared leadership behaviours, allowing shared leadership to emerge, improving multicultural team performance.

Limitations and Directions for Future Research

Although our study provides insights on team configuration to enhance the opportunity for shared leadership emergence to improve strategic flexibility in capturing a global economy, we note a few limitations. First, our sample consisted mostly of students rather than full-time employees. Full-time employees may have deviating perceptions of shared leadership due to experience of working within an organizational setting. although we do not assume that these results are specific to this sample, future research could incorporate other samples to improve the transferability of results. Secondly, measures of both the independent and dependent variables were obtained from the same source, creating possible common method variance (CMV). Harman's single-factor test indicated that CMV does not pose a problem in our study; however, the usefulness of this test has been questioned (Podsakoff *et al*, 2003). Thirdly, the reliability of horizontal individualism and vertical collectivism measures were lower than ideal, although they demonstrated discriminant validity. Our findings suggest that more research is needed for a fuller understanding and better measurement of horizontal individualism and vertical collectivism.

Further, a partially cross-sectional design was used, demonstrating relationships among variables; however, a longitudinal design could establish causality (Scandura and Williams, 2000). Future research would greatly benefit from longitudinally testing the relationship between variables thought to facilitate shared leadership and the emergence of shared leadership in working organizational teams, particularly in working within globally dispersed teams, where shared leadership has been found to be especially effective (Muethel *et al*, 2012). This would provide valuable insight into building the appropriate context for shared leadership to emerge and enhance team performance. As the results of our study indicate similarly positive perceptions of shared leadership in East and West, testing the effects of globally dispersed team cultural diversity on shared leadership and performance is an opportunity for future

research to better understand whether in action teams comprised of members from both East and West can in fact function effectively.

Finally, it should be noted that the study was conducted in English. Although the working language of the project and all communication was English, research has shown that participants whose native language is not English may accommodate their responses to reflect the culture represented by the working language (Harzing and country collaborators, 2005).

Conclusion

Despite the difficulties that physical dispersion and cultural diversity may create in the leadership process, organizations continue to employ multicultural teams to tap expertise and skill, nationally and culturally dispersed, in the effort to achieve global success. In this environment, the challenges can be simply too complex for any one individual to possess all the skills and expertise required to generate solutions. Instead, team performance will be more effective if all members are able to influence direction (Muethel *et al*, 2012). Shared leadership creates more efficient use of expertise and skills, increasing the effectiveness of leadership within the team by distributing leadership roles to members most capable.

Here we demonstrate the conditions that enable the opportunity for shared leadership to emerge in multicultural teams. Considering the growing prevalence of multicultural teams and the practice of shared leadership in modern business, our findings provide important theoretical advancements and practical guidance in the formation and utilization of shared leadership in multicultural teams to achieve organizational objectives.

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References

Anderson, J.C. and Gerbing, D.W. (1988) Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin* 103(3): 411–423.

Avolio, B.J., Walumbwa, F.O. and Weber, T.J. (2009) Leadership: Current theories, research and future directions. *Annual Review of Psychology* 60: 421–449.

Bagozzi, R.P. and Phillips, L.W. (1982) Representing and testing organizational theories: A holistic construal. *Administrative Science Quarterly* 27(3): 459–490.

Baugh, S.G. and Graen, G.B. (1997) Effects of team gender and racial composition on perceptions of team performance in cross-functional teams. *Group and Organization Management* 22(3): 366–383.

Bhagat, R.S., Kedia, B.L., Harveston, P.D. and Triandis, H.C. (2002) Cultural variations in the cross-border transfer of organizational knowledge: An integrative framework. *Academy of Management Review* 27(2): 204–221.

Blunch, N. (2013) *Introduction to Structural Equation Modeling Using IBM SPSS Statistics and Amos*, 2nd edn. London: Sage.

Bochner, S. and Hesketh, B. (1994) Power distance, individualism/collectivism and job-related attitudes in a culturally diverse work group. *Journal of Cross-Cultural Psychology* 25(2): 233–257.

Carson, J.B. (2005) Shared leadership and culture: Potential emergence and global application. In: M.C.W.N.S. Huber (ed.) *Emergent Models of Global Leadership: A Volume in Building Leadership Bridges*. College Park, MD: James MacGregor Burns Academy of Leadership, pp. 1–16.

Carson, J.B., Tesluk, P.E. and Marrone, J.A. (2007) Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal* 50(5): 1217–1234.

Chen, M. (2010) Culture and business in Asia. *Asian Business & Management* 9(2): 281–284.

Davis, D.D. and Bryant, J.L. (2003) Influence at a distance: Leadership in global virtual teams. In: W.H. Mobley and P.W. Dorfman (eds.) *Advances in Global Leadership*. Elsevier Science Ltd, Vol. 3, pp. 303–340.

Day, D.V., Gronn, P. and Salas, E. (2004) Leadership capacity in teams. *Leadership Quarterly* 15(6): 857–880.

Den Hartog, D.N., House, R.J., Hanges, P.J., Ruiz-Quintanilla, S.A. and Dorfman, P.W. (1999) Culture-specific and cross-culturally generalizable implicit leadership theories: Are attributes of charismatic/transformational leadership universally endorsed? *Leadership Quarterly* 10(2): 219–256.

Dickson, M.W., Den Hartog, D.N. and Mitchelson, J.K. (2003) Research on leadership in a cross-cultural context: Making progress and raising new questions. *Leadership Quarterly* 14(6): 729–768.

Ensley, M.D., Hmieleski, K.M. and Pearce, C.L. (2006) The importance of vertical and shared leadership within new venture top management teams: Implications for the performance of startups. *Leadership Quarterly* 17(3): 217–231.

Erkutlu, H. (2012) The impact of organizational culture on the relationship between shared leadership and team proactivity. *Team Performance Management* 18(1/2): 102–119.

Fitzsimons, D., James, K.T. and Denyer, D. (2011) Alternative approaches for studying shared and distributed leadership. *International Journal of Management Reviews* 13(3): 313–328.

Fornell, C. and Larcker, D.F. (1981) Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* 18(1): 39–50.

Forsyth, D., O'Boyle, E. and McDaniel, M. (2008) East meets west: A meta-analytic investigation of cultural variations in idealism and relativism. *Journal of Business Ethics* 83(4): 813–833.

Harzing, A.W. country collaborators (2005) The use of English questionnaires in cross-national research: Does cultural accommodation obscure national differences? *International Journal of Cross-Cultural Management* 5(2): 213–244.

Hiller, N.J., Day, D.V. and Vance, R.J. (2006) Collective enactment of leadership roles and team effectiveness: A field study. *Leadership Quarterly* 17(4): 387–397.

Hoch, J. (2013) Shared leadership and innovation: The role of vertical leadership and employee integrity. *Journal of Business and Psychology* 28(2): 159–174.

Hoch, J.E., Pearce, C.L. and Welzel, L. (2010) Is the most effective team leadership shared? The impact of shared leadership, age diversity and coordination on team performance. *Journal of Personnel Psychology* 9(3): 105–116.

Hoegl, M. and Muethel, M. (2007) Shared leadership in dispersed innovation teams: Mutual influence and proactive followership. *Academy of Management Proceedings*: 1–6.

Hofstede, G. (1980) *Culture's Consequences*. Beverly Hills, CA: Sage.

Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*, 2nd edn. Thousand Oaks, CA: Sage.

Hofstede, G., Van Deusen, C.A., Mueller, C.B., Charles, T.A. and The Business Goals Network (2002) What goals do business leaders pursue? A study in fifteen countries. *Journal of International Business Studies* 33(4): 785–803.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (eds.) (2004) *Culture, Leadership and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage.

Kauppila, O.P., Rajala, R. and Jyrämä, A. (2011) Knowledge sharing through virtual teams across borders and boundaries. *Management Learning* 42(4): 395–418.

Kirkman, B.L., Gibson, C.B. and Shapiro, D.L. (2001) 'Exporting' teams: Enhancing the implementation and effectiveness of work teams in global affiliates. *Organizational Dynamics* 30(1): 12–29.

Kirkman, B.L. and Shapiro, D.L. (1997) The impact of cultural values on employee resistance to teams: Toward a model of globalized self-managing work team effectiveness. *Academy of Management Review* 22(3): 730–757.

Krebs, S.A., Hobman, E.V. and Bordia, P. (2006) Virtual teams and group member dissimilarity. *Small Group Research* 37(6): 721–741.

Liden, R. (2012) Leadership research in Asia: A brief assessment and suggestions for the future. *Asia Pacific Journal of Management* 29(2): 205–212.

Martins, L.L. and Schilpzand, M.C. (2011) Global virtual teams: Key developments, research gaps, and future directions. In: A. Joshi, H. Liao and J.J. Martocchio (eds.) *Research in Personnel and Human Resources Management*. Emerald Group Publishing Limited, Vol. 30, pp. 1–72.

Maznevski, M., DiStefano, J.J., Gomez, C.B., Noorderhaven, N.G. and Wu, P.C. (2002) Cultural dimensions at the individual level of analysis. *International Journal of Cross-Cultural Management* 2(3): 275–295.

Maznevski, M.L. and Chudoba, K.M. (2000) Bridging space over time: Global virtual team dynamics and effectiveness. *Organization Science* 11(5): 473–492.

Mockaitis, A. (2005) A cross-cultural study of leadership attitudes in three Baltic Sea region countries. *International Journal of Leadership Studies* 1(1): 44–63.

Mockaitis, A.I., Rose, E.L. and Zetting, P. (2012) The power of individual cultural values in global virtual teams. *International Journal of Cross-Cultural Management* 12(2): 193–210.

Muethel, M., Gehrlein, S. and Hoegl, M. (2012) Socio-demographic factors and shared leadership behaviors in dispersed teams: Implications for human resource management. *Human Resource Management* 51(4): 525–548.

Muethel, M. and Hoegl, M. (2010) Cultural and societal influences on shared leadership in globally dispersed teams. *Journal of International Management* 16(3): 234–246.

Oyserman, D., Coon, H.M. and Kemmelmeier, M. (2002) Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin* 128(1): 3–72.

Paul, S., Samarah, I.M., Seetharaman, P. and Mykytyn, Jr P.P. (2004) An empirical investigation of collaborative conflict management style in group support system-based global virtual teams. *Journal of Management Information Systems* 21(3): 185–222.

Pearce, C.L., Manz, C.C. and Sims, Jr H.P. (2009) Where do we go from here? Is shared leadership the key to team success? *Organizational Dynamic* 38(3): 234–238.

Pearce, C.L. and Sims, Jr H.P. (2002) Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice* 6(2): 172–197.

Pearce, C.L., Yoo, Y. and Alavi, M. (2004) Leadership, social work and virtual teams: The relative influence of vertical versus shared leadership in the nonprofit sector. In: R.E. Riggio and S.S. Orr (eds.) *Improving Leadership in Nonprofit Organizations*. San Francisco, CA: Jossey-Bass, pp. 180–203.

Podsakoff, P.M., MacKenzie, S.B., Jeong-Yeon, L. and 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.

Ronen, S. and Shenkar, O. (1985) Clustering countries on attitudinal dimensions: A review and synthesis. *Academy of Management Review* 10(3): 435–454.

Rowley, C. and Ulrich, D. (2012) Introduction: Setting the scene for leadership in Asia. *Asia Pacific Business Review* 18(4): 451–463.

Scandura, T.A. and Williams, E.A. (2000) Research methodology in management: Current practices, trends, and implications for future research. *Academy of Management Journal* 43(6): 1248–1264.

Schreiber, J.B., Nora, A., Stage, F.K., Barlow, E.A. and King, J. (2006) Reporting structural equation modelling and confirmatory factor analysis results: A review. *Journal of Educational Research* 99(6): 323–337.

Sharma, P. (2010) Measuring personal cultural orientations: Scale development and validation. *Journal of the Academy of Marketing Science* 38(6): 787–806.

Shavitt, S., Lalwani, A.K., Zhang, J. and Torelli, C.J. (2006) The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology* 16(4): 325–356.

Singelis, T.M., Triandis, H.C., Bhawuk, D.P.S. and Gelfand, M.J. (1995) Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research* 29(3): 240–275.

Sivasubramaniam, N., Murry, W.D., Avolio, B.J. and Jung, D.I. (2002) A longitudinal model of the effects of team leadership and group potency on group performance. *Group and Organization Management* 27(1): 66–96.

Smith, P.B., Misumi, J., Tayeb, M., Peterson, M. and Bond, M.H. (1989) On the generality of leadership style measures across cultures. *Journal of Occupational Psychology* 62(1): 97–109.

Smith, P.B., Peterson, M.F., Misumi, J. and Bond, M.H. (1992) A cross-cultural test of the Japanese PM leadership theory. *Applied Psychology: An International Review* 4(1): 5–19.

Solansky, S.T. (2008) Leadership style and team processes in self-managed teams. *Journal of Leadership and Organizational Studies* 14(4): 332–341.

Sosik, J.J. and Jung, D.I. (2002) Work-group characteristics and performance in collectivistic and individualistic cultures. *Journal of Social Psychology* 142(1): 5–23.

Suutari, V. (2002) Global leader development: An emerging research agenda. *Career Development International* 7(4): 218–233.

Triandis, H.C. (1994) *Culture and Social Behavior*. New York: McGraw-Hill.

Triandis, H.C. (1995) *Individualism and Collectivism*. Boulder, CO: Westview.

Triandis, H.C. and Gelfand, M.J. (1998) Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology* 74(1): 118–128.

Yukl, G. (2002) *Leadership in Organizations*. Upper Saddle River, NJ: Prentice-Hall.

Zander, L. (1997) *The Licence to Lead: An 18-Country Study of the Relationship Between Employees' Preferences Regarding Interpersonal Leadership and National Culture*. Stockholm, Sweden: Institute of International Business, Stockholm School of Economics.

Zander, L. (2002) Empowering Europe: A study of empowering, national culture and cultural congruence. In: P. Joynt and M. Warner (eds.) *Managing Across Cultures: Issues And Perspectives*. London: Thomson Business, pp. 103–123.

Zander, L. (2005) Communication and country clusters: A study of language and leadership preferences. *International Studies of Management and Organisation* 35(1): 84–104.

Zander, L. and Butler, C.L. (2010) Leadership modes: Success strategies for multicultural teams. *Scandinavian Journal of Management* 26(3): 258–267.

Zander, L., Mockaitis, A.I. and Butler, C.L. (2012) Leading global teams. *Journal of World Business* 47(4): 592–603.

Zhou, W. and Shi, X. (2011) Culture in groups and teams: A review of three decades of research. *International Journal of Cross-Cultural Management* 11(1): 5–34.

Appendix

Table A1: *Variables and items*

HORIZONTAL INDIVIDUALISM
I am a unique individual.
What happens to me is my own doing.
When I succeed, it is usually because of my abilities.
I enjoy being unique and different from others in many ways.
VERTICAL INDIVIDUALISM
Competition is the law of nature.
Without competition, it is not possible to have a good society.
It is important that I do my job better than others.
I enjoy working in situations involving competition with others.
HORIZONTAL COLLECTIVISM
The well-being of my co-workers is important to me.
If a co-worker got a prize, I would feel proud.
It is important to maintain harmony within my group.
I feel good when I cooperate with others.
VERTICAL COLLECTIVISM
Before taking a major trip, I consult with most members of my family and many friends.
I usually sacrifice my self-interest for the benefit of my group.
Children should be taught to place duty before pleasure.
Children should feel honoured if their parents receive a distinguished award.
SHARED LEADERSHIP
In any team, it is important that all decisions are made by consensus.
It is important that all team members freely communicate with all others in order to get things done.
Everyone in the team should actively participate in decision-making.
To what extent should a leader share decision-making with team members?