



# Leadership and team cohesiveness across cultures <sup>☆</sup>



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## ARTICLE INFO

### Keywords:

Leadership

Individualism–collectivism

Team cohesiveness

## ABSTRACT

This study examines the relation between leadership and team cohesiveness in different societal cultures. We expect direct effects of societal culture on leadership and team cohesiveness, as well as a moderating effect of culture on the relationship between leadership and cohesiveness. Data were collected from 29,868 managers and 138,270 corresponding team members in 80 countries. Multilevel analysis was used to test the hypotheses, relating societal individualism–collectivism (IC), with directive and supportive leadership, and with team cohesiveness. In individualistic societies managers use less directive and less supportive behavior, compared with collectivistic societies. Team cohesiveness is not directly related with IC. Directive leadership and supportive leadership are negatively and positively related with team cohesiveness respectively and these relations are stronger in individualistic societies. Implications for managerial education and practices are discussed.

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## 1. Introduction

The rise of team-based work structures is perhaps one of the most salient characteristics of contemporary work places and the shift from individualized work structures to teamwork has spread throughout the organization (NRC, 1999; West, 2004). This shift has implications for leadership, as modern management is primarily about managing groups, and leadership behavior should thus be evaluated in relation to team effectiveness (Burke et al., 2006; Day, Gronn, & Salas, 2006). An important correlate of effective teamwork is cohesiveness of the group. Therefore, development of cohesiveness among team members is an important part of team management (Druskat & Wheeler, 2003). Exploration of a leader's effect on group cohesiveness is necessary to understand how the latter can be managed and maintained. House (1966) summarized this theme over forty years ago by stating that the productive capacity of the group depends on its degree of cohesiveness, and cohesiveness demands effective leadership.

Theoretical work and empirical studies in this field draw heavily on western ideas and data and it is assumed that these ideas are relevant for western and non-western cultures alike. However, the last decade has shown a rapid increase on international comparative studies to gain a better understanding of effective leadership in different contexts and cultures (Dickson, Den Hartog, & Mitchelson, 2003; Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004).

The goal of the present study is to contribute further to this growing body of knowledge by examining the relations between societal culture, leadership behavior, and team cohesiveness. More specifically, we explore the direct effects of culture on directive and supportive leadership behavior, and on team cohesiveness, as well as the moderating influence of societal culture on the relation between leadership behavior and cohesiveness. We focus on “individualism/collectivism”, which is the cultural dimension that has received most attention and recognition in many domains and also is seen as highly relevant for organizational practices, leadership and team work (Gelfand, Bhawuk, Nishii, & Bechtold, 2004; Gelfand, Erez, & Aycan, 2007; Hofstede, 2001). We use a

<sup>☆</sup> We thank Nathalie van Meurs, and Evert van de Vliert for their helpful comments.

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large sample of managers and their direct reports from 80 countries, as this sample offers unique insights into managerial behavior as perceived by direct reports around the globe and the relation of these behaviors to cohesiveness of the work group.

We will begin by discussing the relevance of team cohesiveness and the relation with directive and supportive leadership, followed by an exploration of the possible direct and moderating effects of societal culture.

### 1.1. Team cohesiveness and leadership styles

Team or group cohesiveness is the degree to which members are attracted to a group and motivated to remain part of it (Schermerhorn, Hunt, & Osborn, 2002); it thereby refers to both “forces that attract members to the group,” as well as to “the incentives to remain within the group” (Man & Lam, 2003). Employees in cohesive groups value their membership and strive to maintain positive relationships with other group members (Schermerhorn et al., 2002). Team cohesiveness is strongly related with organizational citizenship at individual and team levels (Chen, Lam, Schaubroeck, & Naumann, 2002; Organ, Podsakoff, & MacKenzie, 2006; Paine & Organ, 2000; Podsakoff, MacKenzie, Paine, & Bachrach, 2000), reduction of destructive conflicts (Jehn & Mannix, 2001; Nibler & Harris, 2003), and improved performance at the individual level (Chang & Bordia, 2001; Langfred, 1998), and at the team level (Dion, 2000; Mullen & Copper, 1994; Shields & Gardner, 1997), as well as with innovation in teams and organizations (Mumford & Hunter, 2005).

Leadership styles refer to how leaders express specific behaviors (House & Aditya, 1997). Many leadership models differentiate two main types of leadership behaviors: task oriented and relationship oriented behavior, also referred to as initiating structure and consideration (Judge, Piccolo, & Ilies, 2004), concern for production vs. concern for people (Blake & McCauley, 1991), or as directive and supportive leadership (Northouse, 2004; Yukl, 2002). According to Marta, Leritz, and Mumford (2005) few scholars question the substantive meaningfulness of consideration and initiating structure as a basis for describing leadership behavior. These two leadership dimensions also have received considerable attention in team leadership (Burke et al., 2006) and cross-cultural leadership studies (Peterson & Hunt, 1997). Dorfman, Hanges, and Brodbeck (2004) conclude that the differentiation in task-oriented and relationship-oriented leadership is a relevant distinction for managerial research around the globe, not limited to the United States. We therefore believe that the concepts of directive and supportive behavior offer a good starting point in exploring the effects on group processes, and more specifically, team cohesiveness, across cultures. Before discussing the cultural influence, we begin by evaluating the relation between these two styles and team cohesiveness.

*Directive leadership.* This style is usually defined as task-oriented behavior, with a strong tendency to control discussions, dominate interactions and personally direct task completion (Cruz, Henningsen, & Smith, 1999). In addition, time management, pressure to realize targets and close supervision on details are seen as characteristic of this style (Schmidt & Yeh, 1992). Initiating structure and directive behavior can contribute to productivity both at the individual and team level, depending on several contingencies (Burke et al., 2006) and the skills of the leader (Mumford & Hunter, 2005). In this study, we define *directive leadership* as task-oriented behavior, with a strong focus on targets, close supervision and control of subordinate actions. Directive leader behavior puts employees in a dependent role, facilitating them to wait for the manager before acting, showing less initiative and fewer extra-role activities. In terms of process execution, a directive leader specifies how subordinates should accomplish their tasks and supervises them closely on all stages of the actual execution as well as the end results. Non-directive leaders hold subordinates responsible for the end results as well, however, they leave the subordinates free to execute their assignments in the way they choose to do it (Muczyk & Reimann, 1987).

Directive behavior, particularly autocratic behavior, includes close supervision of team actions and a dominating position of a leader in team discussions and decision making (Burke et al., 2006). The subordinates apparently are less united around common goals during task completion, have weaker self-perception of themselves as a group, and weaker mutually positive group members attitudes (Tjosvold & Tjosvold, 1991). In line with this, several studies report a negative relation between directive leadership and open communication, as well as with group organizational citizenship (Cruz et al., 1999; Paine & Organ, 2000). Most studies see reduced team cohesion and satisfaction as a function of directive leadership (Antonuccio, Davis, Lewinsohn, & Breckenridge, 1987; Mael & Alderks, 1993). Others, for example, Muczyk and Reimann (1987), argue that directive behavior is required when employees and teams are less mature in terms of their motivation and performance, when the team is not cohesive and not productive. In these cases, directive leadership is inevitable and might contribute to the development of employees (Hersey & Blanchard, 1993). This is also documented in starting teams, who often benefit from a directive leader. However, when the team leader continues this behavior, the team develops a strong dependency of the leader (Wheelan, 2005). Team development is not the focus of this paper but we can conclude that all previously mentioned theoretical notions observe a negative relation between directive leadership and team cohesiveness.

*Supportive leadership* is a leadership style that is directed toward the satisfaction of subordinates' needs and preferences, such as displaying concern for subordinates' welfare and creating a friendly and psychologically supportive work environment (House, 1996). It includes sensitivity to team member needs, expressed in a focus on harmonic working relations, sensitivity to individual and group needs, care for group tensions, and positive feedback, thus creating a friendly climate in the work unit.

Showing support and care for employees as a leader facilitates a caring and open group climate and cohesive relations among team members (Chen et al., 2002; Hurst, Stein, Korchin, & Soskin, 1978; Wester & Weiss, 1991). Through facilitating discussions, stimulating subordinates to participate in the decision-making process, and caring for conflict resolution, a leader contributes into maintaining the favorable climate within a group and positive attitudes between its members (Tjosvold & Tjosvold, 1991). Under such conditions we expect that employees will reveal more cohesive behavior in task completion and interpersonal communication. Therefore, supportive leadership is expected to facilitate team cohesiveness.

Summarizing these studies, a negative relation between directive leadership and team cohesiveness and a positive relation between supportive leadership and cohesiveness is suggested.

**H1.** *Directive leadership* is negatively related to team cohesiveness.

**H2.** *Supportive leadership* is positively related to team cohesiveness.

### 1.2. Culture and leadership

Research on leadership in a cross-cultural context is expanding quickly worldwide, exploring and explaining differences in managerial behavior between countries and cultures. Different authors emphasize the strong connection between cultural values and concepts of (e.g., good and effective) leadership (House et al., 2004; Scandura, Von Glinow, & Lowe, 1999). House and Aditya (1997) conclude that the appropriateness, acceptance, and effectiveness of leadership behavior is primarily a function of congruence with the norms of the culture in which the leader functions. At the same time, knowledge of culture specific and universal cultural syndromes is useful in understanding the very nature of a culture (House & Aditya, 1997). As Hofstede (2001, p.388) argues, “ideas about leadership reflect the dominant culture of a country. Asking people to describe the qualities of a good leader is in fact another way of asking them to describe their culture”.

One of the most well-known and cited theories in cross-cultural research is Hofstede's (2001) model with five (originally four) cultural dimensions; individualism–collectivism (IC), power distance, uncertainty avoidance, masculinity, and long-term orientation. The model and its dimensions have been used in a large variety of studies, including different organizational behaviors and practices (e.g., Dickson et al., 2003; Hofstede, 2001; Smith et al., 2002). Different cultural dimensions might be related to the appreciation and prevalence of leadership behaviors and group processes (House et al., 2004).

In this paper, we focus on IC. IC is the most documented and recognized of the cultural dimensions and has been studied widely in organizational research (Dickson et al., 2003; Gelfand et al., 2007). It is defined by Hofstede (2001) as the degree to which people in a country prefer to act as individuals rather than as a group. Different definitions, operationalizations and measurements of IC exist; underscoring the relevance and importance of this cultural dimension (Gelfand et al., 2004; Oyserman, Coon, & Kimmelmeier, 2002). Oyserman et al. (2002, p 5) see a general pattern in the different definitions, as: “all conceptualize individualism as a worldview that centralizes the personal goals, personal uniqueness, and personal control, and peripheralizes the social. In collectivist cultures, individuals define their needs more in terms of relations within groups and sacrifice personal needs for the sake of the group”. Matsumoto (2000) emphasizes that individualistic cultures support values of the autonomous and unique self, as well as the importance of personal needs, goals, and development. This clearly has implications also for team processes (Gelfand et al., 2007).

In terms of leadership behaviors, according to Hofstede (2001) managers in collectivistic societies aspire for conformity and orderliness, and provide less support for employee initiative, compared with managers in individualistic societies. Respect and obedience to leaders are important in many collectivistic societies (Scandura et al., 1999). This clearly reflects both the deployment and acceptance of directive leadership in these societies.

In Western, individualistic societies, a directive style is less advocated as appropriate leader behavior. In the last 25 years, leadership theories in Western, individualistic societies, have emphasized participative leadership, delegation of responsibilities, and charismatic and transformational leadership (Dickson et al., 2003; Hofstede, 2001; Judge et al., 2004). In a recent study, Van de Vliert and Smith (2004) found indeed that leaders in individualistic societies rely more on subordinates for information and use them as targets of delegation, than leaders in collectivistic societies. Furthermore, in individualistic cultures directive leadership will be less demonstrated by managers as this behavior contradicts the values shared in such societies. In collectivistic societies directive behavior towards a group is expected to be more frequent and also better accepted by employees due to the collectivistic values of compromising one's own desires and needs for the sake of the group (Hofstede, 2001).

Supportive leadership behavior also seems to be appreciated more in collectivist cultures, compared with individualistic cultures. As mentioned before, in collectivist cultures, there is a strong emphasis on group relations, reduction of group tensions, and care for personal well being of employees. Collectivists maintain longer-term relations with their organizations and value interpersonal skills and relations more than individualists, who are more motivated by self-interests and personal goals (Jung & Avolio, 1999). It is likely, that in collectivist cultures supportive leadership is more common indeed, as this is a core value of the cultural orientation. We therefore expect *directive and supportive leadership* to be more present in collectivistic cultures.

**H3.** Cultural individualism is negatively related to *directive leadership*.

**H4.** Cultural individualism is negatively related to *supportive leadership*.

### 1.3. Culture and team cohesiveness

Team cohesiveness is related to a wide variety of factors at different levels. For example, at the individual level, cohesiveness is related to the personalities of team members (Van Vianen & De Dreu, 2001) and, at the team level, it is related to goal clarity, task structure, and coordination mechanisms (Braaten, 1991; Terborg, Castore, & DeNinno, 1976; West, 2004), whereas at the organizational level it is related to structure and climate (Cummings & Worley, 2001). Among these, societal culture might also contribute to cohesiveness, either directly or mediated by the above-mentioned aspects of organizations.

Given the central place of group values, IC seems particularly relevant to relate to team cohesiveness. A number of studies have shown that collectivists tend to have a stronger attachment to their organizations and tend to subordinate their individual goals to group goals, compared with employees in individualistic cultures (Jung & Avolio, 1999; Triandis, 1995).

The relevance of IC at the team member level is demonstrated in several studies. Eby and Dobbins (1997) report that a team collectivistic orientation is related to cooperative team behaviors. This corresponds with conclusions by Oetzel (1998), comparing Japanese and European Americans in culturally homogeneous and heterogeneous groups. Homogeneous Japanese groups, with a collectivist orientation, have fewer conflicts and use more cooperative behaviors, compared with groups with an individualistic orientation. Kirkman and Shapiro (2001a,b) also found positive relations between collectivist orientation, cooperative team behaviors and team productivity. They demonstrate this effect is mediated by resistance to team work, which is stronger among individualistic oriented employees. These orientations at the employee levels, might reflect the dominant societal cultural orientations. Gelfand et al. (2004, p 456) conclude, based on their literature review, that 'all in all, these findings illustrate that there is an emphasis on cooperative team processes in collectivistic cultures.' Based on these theoretical and empirical arguments, we expect a negative relation between individualism at a national level and team cohesiveness in organizations within these countries.

**H5.** Cultural individualism is negatively related to team cohesiveness.

#### 1.4. Culture, leadership and cohesiveness

We have argued that leadership behavior is important for team cohesiveness, and that leadership and cohesiveness might be influenced by societal culture. We now focus on the possible moderating effect of culture on the relation between leadership and cohesiveness. There are no studies known to us exploring this moderating influence of societal culture. Too easily, the assumptions about the relationships between leadership and team processes are generalized to other cultures, both in management literature and management training programs.

The moderating role of culture can work through different processes. First, some cultures might perceive and evaluate leadership and its effects as more important than other cultures. Second, the leadership might be perceived as more appropriate, and therefore motivating. The impact and role of leadership is, according to Dorfman et al. (2004), over-attributed in the USA, and most likely is seen as less important in other societies. This might imply that in these societies the effect of leader behavior on team processes is also stronger; both in the case of a negative appreciation (e.g., for directive leadership), as well as in the case of positive appreciation (e.g., for supportive behavior). When employees are strongly oriented towards leader behavior, the evaluation of a manager's behavior will influence employees' attitudes and behaviors more than employees who are not as focused on their leader. If a manager's behavior is evaluated negatively, this will have stronger detrimental effects on group behaviors in societies where the leader is seen as very important, and may increase resistance to team work further (Kirkman & Shapiro, 2001a).

A second mechanism through which societal norms may moderate the relation between leadership and team cohesiveness, is through their effect on the degree to which a leader's behavior is perceived as rewarding. Directive leadership styles are not only more prevalent, but also seem to be perceived as more appropriate and effective in collectivistic cultures, compared with individualistic cultures (Dickson et al., 2003). We argue that in individualist countries employees focus more on personal needs and rewards and tend to look out for themselves. The natural tendency of employees in individualistic countries is less focused on harmonic (harmonious?) relations within the group (Matsumoto, 2000). Work groups with an individualistic orientation clearly show less cooperative behaviors (Kirkman & Shapiro, 2001a,b; Oetzel, 1998). Directive leadership in such a context may inhibit group-oriented behaviors further, and promote self-oriented approaches. The feeling of being part of a great team and the desire to stay in such a team will be promoted less when team members are managed in a (not appreciated) directive way. Therefore, we expect that directive leadership does have a stronger negative impact on cohesiveness in more individualistic countries.

When employees are strongly oriented towards leader behavior, the evaluation of this behavior will influence employees' attitudes and behaviors more than employees who are not as focused on their leader. This holds also for the development of group norms, and group behaviors. In general one might expect that cultural norms in collectivistic societies, emphasizing team efforts, might moderate the influence of leadership behaviors. If the societal norm is more in favor of teamwork, one might expect that the specific leadership behaviors are relatively less important in facilitating team cohesiveness. Employees act according to the norm,

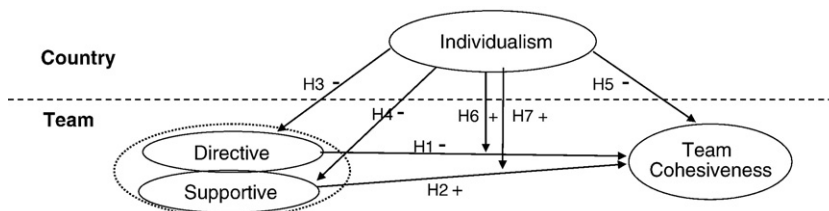


Fig. 1. Theoretical model and hypotheses.

even when the manager is not facilitating this behavior. We therefore expect that supportive leadership has a positive effect on cohesiveness, particularly in more individualistic cultures.

**H6.** The negative relation between directive leadership and team cohesion is moderated by culture; this relation will be stronger in individualistic societies, compared with collectivistic societies.

**H7.** The positive relation between supportive leadership and team cohesion is moderated by culture; this relation will be stronger in individualistic societies, compared with collectivistic societies.

Fig. 1 summarizes the theoretical model and hypotheses.

## 2. Method

### 2.1. Population and sample

This study used data from a database of a worldwide operating consultancy firm (Hay Group). The instruments were developed as assessment instruments by the consultancy company. The origins go back to the work of Litwin and Stringer (1968), Tagiuri and Litwin (1968) and were later updated. The instrument did not change during the data gathering period.

The dataset contains multi-assessment data of managers rated by their employees within 615 organizations from a wide range of industries and services, both public and private. In addition, managers rated their own behavior and processes in the team they supervise. Data were collected during the period 1996–2006, as part of a management training program within each of the organizations, and this guaranteed a response rate of approximately 100%; providing feedback was a precondition of participating in this program. Managers invited their subordinates to give anonymous feedback for development purposes only.

The final dataset included 80 countries. The number of managers in each country varies largely (see Table 2). In this study, we used multilevel analyses to control for these large differences in sample size at country level (Hox, 2002). Given the small number of participants in some countries, we will check if the results are the same if we exclude countries where we have less than 100 questionnaires. For the present study, we used the information from 29,868 self-assessment questionnaires by managers and 138,270 questionnaires of corresponding employees. This implies an average of almost five employees directly supervised by each manager in this study. 75% of these managers were male and 25% female. Average age of the participating managers was 41.5 years. Only limited demographics, including characteristics about the organizations, were available. We do not have any demographic information about the employees.

### 2.2. Measurement

#### 2.2.1. Team cohesiveness

Team cohesiveness was measured with nine items, covering all three components of team cohesiveness; interpersonal attraction, commitment to the task and group pride (Dion, 2000). Each item consists of a 6-point scale, ranging from A to F, with contrasting statements on the poles of the scale. The first item is shown with both alternatives: for example “The people are proud to belong to my workgroup” (A) versus, “The people are proud to belong to my workgroup” (F). Cronbach's alpha of the scale was .91, and the interrater agreement  $r_{wg}$  was .72. For the complete scale, please refer to the Appendix A.

**Table 1**

Results of exploratory factor analysis of leadership items.

	Factor 1	Factor 2
<i>Directive leadership</i> ( $\alpha = .81$ )		
– Expects his/her employees to follow my instructions precisely	–0.23	<b>0.68</b>
– Motivates employees by letting them know what will happen to them if their work is unsatisfactory.	–0.03	<b>0.57</b>
– Requires employees to submit detailed reports of their activities	0.11	<b>0.70</b>
– Makes most decisions for employees	–0.25	<b>0.67</b>
– Supervises employees very closely	0.13	<b>0.75</b>
– Supervisor have to lay out goals and guidelines, otherwise subordinates will be passive and get nothing accomplished.	–0.09	<b>0.68</b>
– Expects to carry out instructions immediately	–0.13	<b>0.69</b>
<i>Supportive leadership</i> ( $\alpha = .87$ )		
– Works hard to ease tensions whenever they arise in work group	<b>0.71</b>	0.03
– Encourages employees to talk to him/her about personal problems	<b>0.71</b>	–0.11
– Devotes a great deal of time to employees' job security and fringe benefits.	<b>0.69</b>	0.08
– Works to develop close personal relationships with employees	<b>0.77</b>	–0.07
– Relies on what he/she learns through personal contact with employees to use each person's talent most effectively.	<b>0.78</b>	–0.05
– Frequently demonstrates concern for employees	<b>0.81</b>	–0.16
– Believes subordinates' feelings are as important as the task at hand.	<b>0.74</b>	–0.23
Eigenvalue	4.08	3.34
% Variance explained	29.11	23.86



**Table 2**

Sample size and mean scores on the main variables per country.

	N managers	N team members	Directive leadership	Supportive leadership	Team cohesion	Indiv. Hofstede	In-group GLOBE
Argentina	169	701	3.19	4.29	4.78	46	5.51
Australia	1,502	6,928	2.88	4.11	4.75	90	4.14
Austria	64	327	3.00	4.00	4.85	55	4.89
Bahrain	1	2	2.36	5.50	4.85	38	5.07
Bangladesh	9	30	3.25	4.39	5.02	20	
Belgium	194	923	2.99	3.97	4.66	75	
Brazil	2,337	9,613	3.53	4.20	4.76	38	5.16
Canada	379	1,785	2.83	4.08	4.82	80	4.22
Chile	495	1,928	3.35	4.29	4.76	23	
China	649	3,108	3.28	4.01	4.65	15	5.86
Columbia	97	456	3.29	4.20	4.75	13	5.59
Costa Rica	9	59	3.24	4.40	4.75	15	5.32
Croatia	11	40	3.65	3.87	4.79	33	
Czech Republic	98	381	2.98	3.96	4.86	58	
Denmark	68	290	2.92	3.74	4.71	74	3.63
Ecuador	12	57	3.35	4.02	4.89	8	5.81
Egypt	91	301	3.54	4.25	4.74	38	5.07
El Salvador	23	90	3.61	4.17	4.84	19	5.35
Ethiopia	7	37	3.60	4.22	4.56	27	5.34
Finland	27	135	2.85	3.83	4.47	63	4.23
France	846	4,347	3.14	3.85	4.52	71	4.66
Germany	667	3,358	2.83	3.92	4.75	67	4.16
Ghana	18	86	3.30	4.15	4.50	20	5.34
Greece	56	251	3.12	4.22	4.82	35	5.28
Guatemala	40	181	3.59	4.16	4.77	6	5.63
Hong Kong	71	317	3.18	3.84	4.43	25	5.33
Hungary	24	107	3.22	4.20	4.71	80	5.31
India	520	2,595	3.34	4.09	4.64	48	5.81
Indonesia	189	715	3.56	3.84	4.56	14	5.50
Iran	32	144	3.13	4.22	4.78	41	6.03
Ireland	373	1,380	2.96	4.10	4.78	70	5.12
Israel	61	254	3.06	4.16	4.66	54	4.63
Italy	195	894	3.11	4.05	4.58	76	4.99
Jamaica	26	123	3.12	4.32	4.66	39	
Japan	292	1,359	3.08	3.97	4.49	46	4.72
Kenya	101	495	3.53	4.20	4.70	27	5.34
Kuwait	8	20	3.13	4.60	4.75	38	5.07
Lebanon	35	157	3.33	4.11	4.58	38	5.07
Libya	3	16	2.79	4.36	4.75	38	5.07
Malaysia	918	3,379	3.55	4.10	4.63	26	5.47
Malta	10	43	3.06	3.88	4.36	59	
Mexico	701	2,292	3.53	3.95	4.57	30	5.62
Netherlands	1,803	9,394	2.89	3.86	4.63	80	3.79
New Zealand	440	2,002	2.84	4.02	4.75	79	3.58
Nigeria	39	163	3.43	4.48	4.69	20	5.34
Norway	19	72	2.79	3.97	4.76	69	
Pakistan	59	260	3.20	4.05	4.53	14	
Panama	10	52	3.79	4.03	4.64	11	
Peru	39	171	3.54	4.02	4.74	16	
Philippines	60	246	3.38	4.10	4.73	32	6.14
Poland	70	321	2.95	3.85	4.82	60	5.55
Portugal	174	816	3.40	4.01	4.70	27	5.64
Qatar	19	65	3.09	4.37	4.73	38	5.07
Romania	21	124	3.32	4.02	4.81	30	
Russia	71	278	3.03	4.22	4.74	39	5.63
Saudi Arabia	45	186	3.55	4.02	4.56	38	5.07
Sierra Leone	5	17	3.51	4.77	4.75	20	5.34
Singapore	392	1,363	3.26	4.06	4.55	20	5.66
Slovakia	22	87	3.14	4.07	4.84	52	
South Africa	515	2,055	3.14	4.12	4.59	65	4.42
South Korea	137	619	3.62	4.19	4.37	18	5.71
Spain	127	603	3.13	4.01	4.61	51	5.53
Suriname	4	20	3.43	3.93	4.74	47	
Sweden	136	642	2.62	4.17	4.73	71	3.46
Switzerland	110	590	2.91	3.99	4.71	68	4.04
Taiwan	80	371	3.26	4.15	4.68	17	5.45
Tanzania	27	123	3.81	4.02	4.75	27	5.34
Thailand	150	655	3.37	4.36	4.63	20	5.72

(continued on next page)

Table 2 (continued)

	N managers	N team members	Directive leadership	Supportive leadership	Team cohesion	Indiv. Hofstede	In-group GLOBE
Trinidad and Tobago	8	30	2.85	4.52	4.62	16	
Turkey	155	636	3.54	4.00	4.66	37	5.79
U.S.A.	9,034	45,859	2.92	4.12	4.82	91	4.22
United Arab Emirates	1	3	2.57	3.29	3.31	38	5.07
United Kingdom	3,998	18,273	2.78	4.08	4.72	89	4.08
Uruguay	28	115	3.29	4.34	5.00	36	
Venezuela	507	1,783	3.55	4.26	4.97	12	5.41
Vietnam	25	101	3.23	4.11	4.68	20	
Yugoslavia	21	87	3.10	4.62	5.13	27	
Zambia	19	91	3.05	4.36	4.78	27	5.34
Zimbabwe	63	268	3.05	4.08	4.61	27	5.34
Total	29,868	138,270					

As mentioned before, the questionnaires were filled out by the manager him/herself and his/her subordinates. On average 4.6 subordinates supplied cohesiveness scores ( $SD = 2.5$ ). We checked if there were any differences in the scores from subordinates and managers, using a Confirmatory Factor Analysis (CFA) in a multi-group design (Group 1 contained the subordinates data and Group 2 the managers) (Byrne, 2001; Jöreskog & Sörbom, 2001). We did not find significant differences, and a model where we constrained all parameters to be equal across the 2 groups fitted well (RMSEA = .044; CFI = .970); we therefore aggregated the data on managers-level.

### 2.2.2. Directive and supportive leadership

The two leadership styles were measured with the original scales of Litwin and Stringer (1968) that were adapted by HayGroup and documented later (Hay/McBer, 2000; Houldsworth & Jirasinghe, 2006). Exploratory factor analysis of these items resulted in two factors (see Table 1).

Directive leadership and supportive leadership were each measured with 7 items ( $\alpha = .81$  and  $\alpha = .87$ , respectively). The items of both scales were measured using bi-polar (6-point) scales, with opposing responses similar in format to the scale used to measure team cohesion (see Table 1 for the items). The measurement of a manager's leadership style was calculated by aggregating the (minimal 3) subordinate scores. We omitted the scores from the managers themselves to avoid self-serving biases. The interrater agreement  $r_{wg}$  for directive leadership was .77, and for supportive leadership .68, both acceptable scores.

### 2.2.3. Individualistic–collectivistic (IC) national cultures

Two types of operationalization of IC were used: Hofstede's (2001) and GLOBE (House et al., 2004). We used the original country means for all countries available. In addition Hofstede has estimated scores on IC for 12 countries, such as Malta and Bangladesh, in which he did not originally collect (IBM) data. Because the reliability of this method can be questioned, we also ran analyses without these estimates. These analyses showed comparable results. We further used the original country means of the GLOBE in-group collectivism measure. GLOBE offers dimension scores for values and practices. In this study the practices are used, as these more closely reflect the theoretical approach of Hofstede (2001), aiming to describe actual differences.

## 2.3. Data analyses

To test our hypotheses, multilevel analysis is most appropriate, given the different levels (team level and country level) in this study (Bliese & Jex, 1999). At the team level (level 1), leadership styles (aggregated scores from the employees) and Team Cohesion (aggregated scores from manager and his/her employees) were measured. At the country level (level 2), Hofstede's individualism (IC) and GLOBE's scores were used. Hierarchical Linear Modelling was performed using MLwiN 2.02 (Rasbach, Steele, Browne, & Prosser, 2005). The independent variables were standardized to be able to handle the cross-level interaction (Miles & Shevlin, 2001), using the grand mean centering method (Raudenbush & Bryk, 2002).

Language issues are always a major concern in cross-cultural studies (Van de Vijver & Tanzer, 1997). Accordingly, the items were all translated from English into the languages of the participating countries by native speakers, using the so-called application mode of translation (Van de Vijver & Tanzer, 1997). With this method, it is implicitly assumed that the underlying construct is appropriate for each cultural group and that a simple, straightforward translation will suffice to derive an instrument that measures the same construct in the target group. The translators (consultants) were trained in the concepts and were familiar with the societies' cultures, therefore their translations represent the concepts adequately.

### 2.3.1. Measurement equivalence

In cross national studies, measurement equivalence is both important and difficult to achieve. There are different techniques to check for measurement equivalence (Peterson et al., 1995; Scandura, Williams, & Hamilton, 2001; Van de Vijver & Leung, 1997). For this study, a structure analysis was conducted to prove that the instruments have a stable structure across cultures. This procedure is recommended by several authors (Peterson et al., 1995; Reise, Widaman, & Pugh, 1993; Scandura et al., 2001). The leadership-instrument was designed in the USA, and therefore we contrasted the American data with the other countries one by one using AMOS 7 (Arbuckle, 2006). We performed a multi-group CFA where we contrasted the USA-sample with each country (if we had enough cases to perform this analysis; our threshold was 100 cases). This resulted in 30 separate analyses. The goal of this test is to check if the same factor model holds for both populations, by constraining the item-parameters and item-variance to be equal across the two groups

(called the “measurement intercepts” model in AMOS 7.0) (Arbuckle, 2006; Byrne, 2001) If a model, where the structure was constrained to be equal, could meet the threshold, we found evidence for equivalence, indicating that the construct has the same meaning in both countries (Browne & Cudeck, 1993). For the leadership model the average RMSEA was .053, CFI = .913 and TLI = .909 which is acceptable. Arbuckle (2006) states that an RMSEA lower than .08 is acceptable, and Browne and Cudeck (1993) use as a rule of thumb an RMSEA lower than .1. The weakest RMSEA was in a multi-group analysis with USA and Brazil: .069 (CFI = .850; TLI = .843).

The multi-group factor analysis for Cohesion also gave evidence that we can use and can compare results from this instrument across cultures. The average RMSEA was .042, CFI = .978 and TLI = .977. Comparing Mexico and the USA gave the lowest fit (RMSEA = .057; CFI = .959; TLI = .958), which is still strong enough to accept the results. Overall, we conclude that all countries meet the criteria for measurement equivalence. Brazil has the weakest score in this respect, however it is still acceptable for the current research purposes, as we analyze cultural dimensions, and not individual countries. It is unnecessary to check for measurement invariance using item response theory techniques (Scandura et al., 2001) because the scales of our instruments are 6 point-scales, and in this case item response theory and structural equation modeling are equivalent (Glöckner-Rist & Hoijtjing, 2003).

As an extra check we computed the reliability coefficients for each country where we had more than 100 cases. The average reliability is already reported in Table 1, but the lowest reliability coefficient for Directive leadership was .683 and Supportive .823 (both Venezuela), for cohesion it was .881 (Spain), hence we were confident in using this instrument across the various countries in this database.

### 3. Results

For each country in our sample the means for key variables are presented in Table 2.

Table 3 provides an overview of the statistics and correlations between key variables, leadership and cohesiveness, at individual level and IC at country-level.

#### 3.1. Descriptive results

A few interesting observations may be noticed from Table 3. First, the mean scores on managerial behavior show that, world-wide, supportive behavior is used more than directive behavior, and that these two styles correlate slightly negatively ( $-.19$ ). Second, the countries in this study do represent both strongly individualistic countries as well as collectivistic countries. Third, cohesiveness is, as expected, positively related with supportive managerial behavior ( $r = .44$ ), and negatively with directive leadership ( $-.19$ ).

#### 3.2. Test of hypotheses

To test our hypotheses, multilevel analysis is most appropriate, given the different levels (team level and country level) in this study (Bliese, 2000; Kozlowski & Klein, 2000). Analysis of variance for the leadership styles indicated that 15% of the variance of directive leadership can be explained at country-level. For supportive leadership the variance at the country level was 4%. For cohesiveness also 4% of the variance is at the country level ( $p < .001$ ); that is, 4% of the variance is explained by the grouping structure in the population, and therefore, multilevel analysis is required.

##### 3.2.1. Culture and leadership

At the managerial or team level (i.e., level 1), the supportive and directive leadership styles and cohesiveness were used. At the country level (i.e., level 2), the measures of Hofstede and GLOBE were used. To test the hypotheses, first we centered the level 2 variables (Hofmann & Gavin, 1998) and built interaction terms (see Aiken & West, 1991). The predicted two-way interaction effects were then tested in a series of separate hierarchical regression analyses for each of the cultural dimensions with the supportive and directive leadership styles. That is, in each hierarchical regression with the interaction terms, the leadership styles, the specific cultural dimension and the interactions of the leadership styles with this specific cultural dimension were entered. We performed separate multilevel analyses for Hofstede's IC and GLOBE's in-group collectivism. The results of the separate analyses are presented in Table 4a and b.

##### 3.2.2. Leadership and cohesiveness

We expected a negative relationship between directive leadership and team cohesiveness (TC) (H1), and a positive relationship for supportive leadership and TC (H2). Model 1 in Table 4a shows the end results of the analyses. Directive leadership has a

**Table 3**  
Descriptive statistics and Pearson correlations.

	Mean	SD	1	2	3	4
1. Directive	3.06	.65				
2. Supportive	4.08	.68	-.19			
3. Team cohesion	4.73	.55	-.19	.44		
4. Individualism (Hofstede)	68.1	27.3	-.37	-.03	.07	
5. In-group collectivism (GLOBE)	4.55	.64	.36	.04	-.06	-.89

$N = 29,868$ , in the GLOBE database  $N = 28,769$ .

All correlations significant  $p < .01$ .



**Table 4a**

Multilevel analysis of team cohesiveness as a function of cultural individualism, using Hofstede (2001) and directive and supportive leadership.

	Model 1		Model 2		Model 3	
	Manager as context		Culture as context		Full model	
	$\gamma$ coefficients	SE	$\gamma$ coefficients	SE	$\gamma$ coefficients	SE
Manager effects (Level 1)						
Directive	-.058 *	.003	-.058 *	.003	-.040 *	.006
Supportive	.226 *	.003	.226 *	.003	.209 *	.005
Culture effect (Level 2)						
Individualism (IC)			.011	.013	.000	.018
Manager * culture (cross-level)						
Directive * IC					-.020 *	.004
Supportive * IC					.009 *	.004
-2*Loglikelihood	41,618.380		41,617.720		41,585.880	
Diff -2*Loglikelihood			.660 (df = 1) ns.		31.840 * (df = 2)	

Note: N (managers) = 29,868; N (cultures) = 80.

\*  $p < .05$ .

negative relationship with TC ( $\gamma = -.058$ ,  $SE = .003$ ;  $p < .001$ ), and supportive leadership has a positive relationship with TC ( $\gamma = .226$ ,  $SE = .003$ ;  $p < .001$ ), offering support for both hypotheses.

### 3.2.3. Culture and leadership

Hypotheses 3 and 4 predicted a negative relation between individualism and the use of directive and supportive leadership. For both styles a multilevel analysis was conducted. Compared with the null-model, adding the cultural parameter individualism improves the model significantly (Diff -2 Loglikelihood = 58.660,  $df = 1$ ;  $p < .01$ ). As expected, directive leadership is used more in collectivist cultures ( $\gamma = -.202$  ( $SE = .020$ ;  $p < .001$ )). The intraclass correlation is .15. Adding the cultural parameter individualism improves the model (Diff -2 Loglikelihood = 9.790,  $df = 1$ ;  $p < .01$ ). As expected, supportive leadership is used (slightly) more in collectivist cultures ( $\gamma = -.056$ ,  $SE = .017$ ;  $p < .01$ ). For supportive leadership the intraclass correlation coefficient is only .04.

We repeated these analyses with the GLOBE database and found similar results. Hypothesis 3 is confirmed; the  $\gamma = .206$  ( $SE = .026$ ;  $p < .001$ ) for directive leadership, and for supportive leadership  $\gamma = .047$  ( $SE = .020$ ;  $p < .001$ ); also a confirmation of Hypothesis 4.

### 3.2.4. Culture and cohesiveness

Hypothesis 5 predicted a positive relationship between collectivism and team cohesiveness. Neither at simple correlational level (Table 3), nor the multilevel analysis using Hofstede (Table 4a model 2) or GLOBE (Table 4b model 2) was this relationship found. Therefore, there is no support for H5.

### 3.2.5. Culture, leadership and team cohesion

Our final hypotheses predicted a moderating effect of culture on the relationship between leadership behavior and team cohesion (Fig. 1). We expected that in individualistic cultures the effects of directive leadership on team cohesion are more negative, than in collectivistic cultures, whereas the effect of supportive leadership is not moderated by culture. Results are presented in model 3, Table 4a. We entered both interactions simultaneously, and the model improved significantly (Diff -2 Loglikelihood = 41.840,  $df = 2$ ). This was mainly due to the interaction of the directive style with culture; the interaction of culture with the supportive style was significant, but very small ( $\gamma = .009$ ,  $SE = .004$ ).

**Table 4b**

Multilevel analysis of team cohesiveness as a function of in-group collectivism, using GLOBE (2004) and directive and supportive leadership.

	Model 1		Model 2		Model 3	
	Manager as context		Culture as context		Full model	
	$\gamma$ coefficients	SE	$\gamma$ coefficients	SE	$\gamma$ coefficients	SE
Manager effects (Level 1)						
Directive	-.059 *	.003	-.059 *	.003	-.046 *	.004
Supportive	.225 *	.003	.225 *	.003	.232 *	.004
Culture effect (Level 2)						
In-group collectivism			-.010	.015	-.012	.015
Manager * culture (cross-level)						
Directive * in-group C					.019 *	.004
Supportive * in-group C					.011 *	.003
-2*Loglikelihood	40,044.310		40,043.860		40,009.680	
Diff -2*Loglikelihood			.450 (df = 1) ns.		34.180 * (df = 2)	

Note: N (managers) = 28,769; N (cultures) = 62.

\*  $p < .05$ .

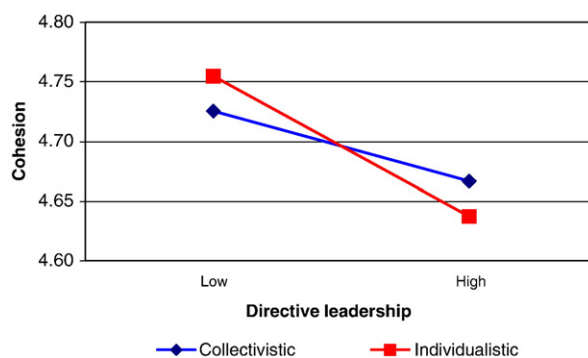


Fig. 2. Team cohesion as a function of directive leadership in collectivistic and individualistic cultures.

Results offer support for both [Hypotheses 6](#) and [7](#). The plot of the moderating effect of IC, presented in [Fig. 2](#), shows that in individualistic countries particularly the directive style has a stronger (negative) impact on team cohesion compared to collectivistic countries.

### 3.2.6. Additional analyses

We replicated the analyses using a smaller database, with GLOBE's cultural dimension in-group collectivism. In this database we had 28,769 cases in 62 countries. The results are similar. [Hypothesis 5](#) is rejected ( $\gamma = -.012$ ,  $SE = .015$ ), all others are confirmed. The cross-level interaction tested in [Hypothesis 7](#) is also in this model significant, however, again, small.<sup>3</sup>

An analysis which included only countries where we had more than 100 cases (28,205 cases and 31 countries), gave the same results as the full dataset. Also introducing gender or level within the organization as a control variable did not change the results.

### 3.2.7. Additional controls

We also have to reject [Hypotheses 6](#) and [7](#) if leadership mediates the relation of culture and cohesion. We therefore performed a multilevel SEM analysis, where we included the mediating and moderating effect of culture on leadership. We performed this test with the latest version of Mplus 4 ([Muthén & Muthén \(2007\)](#)), which could handle indirect effects in a multilevel setting. The analysis confirmed that the direct effect of collectivism on team cohesiveness was not significant, and the indirect effect (collectivism via directive leadership on cohesion) was marginal. These results are in line with our previous findings.

## 4. Discussion

This study explores the relations between managerial behavior and team cohesiveness in different cultures. The observations of almost 140,000 employees from 615 companies give a clear impression of managerial behavior worldwide. Globally, leaders use supportive leadership considerably more than directive leadership. Although our data showed that there were cultural differences, the similarities in behavior should be highlighted as there are many stereotypes of managerial differences around the world. These impressions might be true in the eyes of visitors, however according to managers and employees, managerial behavior shows remarkable similarities with respect to supportive and directive leadership.

Nonetheless, culture does have an impact on leadership behavior. [Dorfman et al. \(1997\)](#) present a theoretical model with both a direct effect of culture on leadership behaviors and a moderating effect of culture on the effects of leadership behaviors. Our study demonstrates the validity of this model. Moreover, this study specifies the moderating effect, as this was found stronger for directive leadership behavior than for supportive leadership.

The present findings offer interesting insights and support the idea that indeed in collectivistic cultures, compared with individualistic cultures, leaders do behave more directive and more supportive at the same time. This reflects a typical paternalistic way of managing, in which the leader takes care of his employees, and in return demands obedience, which can be seen as representative for many collectivistic cultures ([Chen & Van Velsor, 1996](#); [Dickson et al., 2003](#)).

It was no surprise that the effects of directive behavior on team cohesiveness were more negative in individualistic cultures. Only a small moderating effect was found for culture on the positive relation between supportive leadership and cohesiveness. This suggests that supportive leadership is important, regardless of the cultural context. These results are in line with findings from the GLOBE project ([Den Hartog, House, & Hanges, 1999](#); [House et al., 2004](#)), in which inspirational and team-oriented attributes are seen worldwide as important for effective leaders, while domineering, formal and willful characteristics vary widely in their relevance across cultures. Our results are also in line with and largely extend the findings by [Dorfman et al. \(1997\)](#) from their five-country study. They conclude that “three behaviors (leader supportiveness, contingent reward, and being charismatic) showed universally positive effects in all five cultures; and three leader behaviors (participativeness, directiveness, and contingent

<sup>3</sup> Please note that the original cultural dimensions of IC (Hofstede) and in-group collectivism (GLOBE) have opposite directions, therefore we find opposite values for the gamma parameters in [Table 4a](#) and [b](#).

punishment) had positive effects in only two cultures (p.262)". The present study offers further support for the idea that some leadership behaviors are mainly universal in their effects, while the effects of other styles are moderated by culture. Furthermore, it is important to realize that the negative effects of directive behavior found in this study are only related to cohesiveness. Most likely, directive behavior contributes in positive ways to individual and team performance, such as by increasing/motivating/enhancing productivity.

A surprising outcome is that the national culture does not have an effect on cohesiveness, as experienced by managers and team members. Though we expected to find more cohesive relations in collectivist cultures, we did not. A possible explanation for this finding may be related to the identity of the group. Initially, the work group in collectivist cultures may be perceived by its members as a weak social identity, for example given the group composition of people with different societal background and status, education, and age. In this group, traditional values of sacrificing for the sake of a group are less applicable compared to other types of referent groups. Thus high cohesiveness is not inherent to the group in the collectivist societies until necessary conditions for its development are satisfied. In turn, in individualistic cultures group cohesiveness might be high, due to the comparatively high importance of work for the individuals as the job can satisfy a wide set of needs, including affiliation, acknowledgment, etc. In such cases employees in Western societies might develop positive attitudes towards teamwork and self management, and move toward a collectivist orientation (Kirkman & Shapiro, 2001a,b). In any case, results showed that high or low team cohesiveness of work groups should not be considered as an inherent part of a national culture, thus its development demands additional attention of management. Given previous reported findings, development of group cohesiveness in different cultures deserves attention in future research.

One of the strengths but also one of the limitations of this study is the sample. Due to the fact that the participating organizations and respondents are clients of the consultancy that collected the data, they tend to have either an international or Western orientation. This might cause a response bias, in the sense that these companies might under-represent the actual national culture of which they are a part. Even with this sample, however, we find main effects of culture on leaders' behavior, as well as on the relation between directive behavior and team cohesiveness.

A second limitation is that this study lacks individual IC data to distinguish between horizontal and vertical individualism and collectivism (Schwartz, 1999; Triandis, 1995, 2001). As vertical individualism is associated with competition and stress, we could expect a positive relation with the directive leadership style. Managers scoring higher on the horizontal individualism dimension (associated with loneliness, freedom to pursue one's interests) will show the supportive style less often. We did not have these individual IC data in our database, and to our knowledge these data are also not available at the country level.

Another limitation of this sample is the lack of employees' demographic data, which makes it impossible to control for important variables such as gender, age, and education. There is an under representation of Eastern European and African countries in this sample, as has been the case in most cross-cultural databases (Den Hartog et al., 1999; Hofstede, 2001).

Finally, we used a limited set of measures at group and individual levels. Particularly performance measures would have enhanced the richness of the data. Further studies need to investigate these to avoid a biased message concerning the effects of directive behavior. In addition to this, further studies might focus on the skills related to the effective use of directive and supportive behaviors in different cultures (Mumford & Hunter, 2005). Though many questions still are open, this study highlights the importance of supportive leadership behavior. This showed to be a universal, highly valued way of leading people, regardless of the cultural environment. In this respect, people around the globe do have the same values and needs.

#### 4.1. Practical implications

The results of this study might be useful for managerial training programs focused on team development and leadership. Leadership behaviors have a considerable effect on team cohesion and these effects are universal. Leaders should learn how to support employees and meet their needs as well as the needs of the team. This is more easily said than done. The good news from our study is that managers worldwide do use supportive behavior relatively more than directive behavior, and thereby foster team cohesion. Directive behavior usually is a necessary part of managerial actions. However, managers should be aware of its effects on teams. Particularly, when managers limit their behavioral repertoire to only this style, team cohesiveness may be negatively affected.

More specific, the results of this study are relevant for management education to help students gain a better understanding of cultural differences in management behavior and in the effects of behavior on team processes.

Finally, managers in individualistic countries use less directive and (marginally) less supportive behavior, compared with collectivist countries. This raises questions such as, what do Western managers do more of, if anything? This discussion might be relevant also for Western management practices, as both directive and supportive behaviors should be considered as core activities of managers and they are not easily replaced by other behavior. Employees in complex and dynamic organizations often complain about a lack of leadership, or even the actual presence of managers, given all kinds of external and extra-curricular activities. This might be reflected by the outcomes of this study, in that less supportive and directive behaviors were observed in Western organizations.

## Appendix A

Team cohesion instrument used in this study ( $\alpha = .91$ )

- There is a friendly atmosphere among people.
- People in my work group trust each other.

- People are warm and friendly.
- People treat each other with respect.
- People work well together as a team.
- People cooperate with each other.
- People are willing to share resources.
- People almost always speak well of it.
- People are proud to belong to the group.

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## References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks: Sage.
- Antonuccio, D. O., Davis, C., Lewinsohn, P. M., & Breckenridge, J. S. (1987). Therapist variables related to cohesiveness in a group treatment for depression. *Small Group Behavior, 18*(4), 557–564.
- Arbuckle, J. L. (2006). *AMOS 7.0 User's guide*. Chicago: SPSS Inc.
- Blake, R. R., & McCanse, A. A. (1991). *Leadership dilemmas – Grid solutions*. Houston: Gulf Publishing.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations. Foundations, extensions, and new directions* (pp. 349–381). San Francisco: Jossey-Bass.
- Bliese, P. D., & Jex, S. M. (1999). Incorporating multiple levels of analysis into occupational stress research. *Work and Stress, 13*, 1–6.
- Braaten, L. J. (1991). Group cohesion: A new multidimensional model. *Group and Organization Management, 15*, 39–55.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage Publications.
- Burke, C. S., Stagl, K. C., Klein, C., Goodwin, G. F., Salas, E., & Halpin, S. M. (2006). What type of leadership behaviors are functional in teams? A meta-analysis. *Leadership Quarterly, 17*, 288–307.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: basic concepts, applications, and programming*. New Jersey: Lawrence Erlbaum Associates Mahwah.
- Chang, A., & Bordia, P. (2001). A multidimensional approach to the group cohesion-group performance relationship. *Small Group Research, 32*(4), 379–405.
- Chen, X. P., Lam, S. S. K., Schaubroeck, J., & Naumann, S. (2002). Group organizational behavior: A conceptualization and preliminary test of its antecedents and consequences. *Academy of Management Proceedings*.
- Chen, C. C., & Van Velsor, E. (1996). New directions for research and practice in diversity leadership. *Leadership Quarterly, 7*, 285–302.
- Cruz, M. A., Henningsen, D. D., & Smith, B. A. (1999). The impact of directive leadership on group information sampling, decisions, perceptions of the leader. *Communication Research, 26*, 349–370.
- Cummings, T. G., & Worley, C. G. (2001). *Organization development and change*. Cincinnati: Southwestern College.
- Day, D. V., Gronn, P., & Salas, E. (2006). Leadership in team-based organizations: On the threshold of a new era. *Leadership Quarterly, 17*, 211–216.
- Den Hartog, D. N., House, R. J., & Hanges, P. J. (1999). Culture specific and crossculturally generalizable implicit leadership theories: Are the attributes of charismatic/transformational leadership universally endorsed? *Leadership Quarterly, 10*, 219–256.
- Dickson, M. W., Den Hartog, D. N., & Mitchelson, J. K. (2003). Research on leadership in a cross-cultural context: Making progress, raising new questions. *Leadership Quarterly, 14*, 729–768.
- Dion, K. L. (2000). Group cohesion: From field of forces to multidimensional construct. *Group dynamics: Theory, Research and Practice, 4*, 7–26.
- Dorfman, P. W., Hanges, P. J., & Brodbeck, F. C. (2004). Leadership and cultural variation: The identification of culturally endorsed leadership profiles. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman, & V. Gupta (Eds.), *Culture, leadership, and organizations* (pp. 437–512). Thousand Oaks, CA: Sage.
- Dorfman, P. W., Howell, J. P., Hibino, S., Lee, J. K., Tate, U., & Bautista, A. (1997). Leadership in Western and Asian countries: Commonalities and differences in effective leadership processes across cultures. *Leadership Quarterly, 8*, 233–274.
- Druskat, V. U., & Wheeler, J. V. (2003). Managing from the boundary: The effective leadership of self-managing work teams. *Academy of Management Journal, 46*(4), 435–457.
- Eby, L. T., & Dobbins, G. H. (1997). Collectivistic orientation in teams: An individual and group-level analysis. *Journal of Organizational Behavior, 18*, 275–295.
- Gelfand, M. J., Bhawuk, D. P. S., Nishii, L. H., & Bechtold, D. J. (2004). Individualism and collectivism. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman, & V. Gupta (Eds.), *Culture, leadership, and organizations* (pp. 437–512). Thousand Oaks, CA: Sage.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural organizational behavior. *Annual Review of Psychology, 58*, 479–514.
- Glöckner-Rist, A. H., & Hoijtting, H. (2003). The best of both worlds: Factor analysis of dichotomous data using item response theory and structural equation modeling. *Structural Equation Modeling, 10*(4), 544–565.
- Hay/McBer (2000). *The organization climate dimensions, Hay/McBer white paper*, Boston, MA.
- Hersey, P., & Blanchard, K. H. (1993). *Management of organizational behavior: Utilizing human resources*. Canada: Prentice Hall.
- Hofmann, D. A., & Gavin, M. B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management, 24*(5), 623–641.
- Hofstede, G. (2001). *Culture's consequences. Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks: Sage.
- Howdsworth, E., & Jirasinghe, D. (2006). *Managing & measuring employee performance*. London: Kogan Page.
- House, W. C. (1966). Effects of group cohesiveness on organization performance. *Personnel Journal, 45*, 28–33.
- House, R. J. (1996). Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *Leadership Quarterly, 7*, 323–352.
- House, R. J., & Aditya, R. N. (1997). The social scientific study of leadership: Quo Vadis? *Journal of Management, 23*, 409–474.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, organizations*. Thousand Oaks: Sage.
- Hox, J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Hurst, A. G., Stein, K. B., Korchin, S. J., & Soskin, W. F. (1978). Leadership style determinants of cohesiveness in adolescent groups. *International Journal of Group Psychotherapy, 28*, 263–277.
- Jehn, K. E., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal, 44*, 238–251.
- Jöreskog, K. G., & Sörbom, D. (2001). *Lisrel 8: User's reference guide*. Lincolnwood IL: Scientific Software International.
- Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology, 89*, 36–51.
- Jung, D. I., & Avolio, B. J. (1999). Effects of leadership style and followers' cultural orientation on performance in group individual task conditions. *Academy of Management Journal, 42*, 208–219.
- Kirkman, B. L., & Shapiro, D. L. (2001). The impact of cultural values on job satisfaction and organizational commitment in self-managing work teams: The mediating role of employee resistance. *Academy of Management Journal, 44*, 557–569.
- Kirkman, B. L., & Shapiro, D. L. (2001). The impact of team members' cultural values on productivity, cooperation, and empowerment in self-managing work teams. *Journal of Cross-Cultural Psychology, 32*, 597–617.

- Kozlowski, & Klein (2000). A multilevel approach to theory and research in organizations: contextual, temporal, and emergent processes. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations. Foundations, extensions, and new directions* (pp. 3–90). San Francisco: Jossey-Bass.
- Langfred, C. W. (1998). Is group cohesiveness a double-edged sword? *Small Group Research*, 29(1), 124–143.
- Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Boston: Harvard University Press.
- Mael, F. A., & Alderks, C. E. (1993). Leadership team cohesion and subordinate work unit morale and performance. *Military Psychology*, 5(3), 141–158.
- Man, D. C., & Lam, S. K. (2003). The effects of job complexity and autonomy on cohesiveness in collectivistic and individualistic work groups: A cross-cultural analysis. *Journal of Organizational Behavior*, 24, 979–1001.
- Marta, S., Leritz, L. E., & Mumford, M. D. (2005). Leadership skills and the group performance: Situational demands, behavioral requirements, and planning. *Leadership Quarterly*, 16, 97–120.
- Matsumoto, D. (2000). *Culture psychology: People around the world* (2nd ed.). Australia: Wadsworth Publishing.
- Miles, J., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage.
- Muczyk, J. P., & Reimann, B. C. (1987). The case for directive leadership. *Academy of Management Executive*, 1, 301–311.
- Mullen, B., & Copper, C. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, 115(2), 210–227.
- Mumford, M. D., & Hunter, S. T. (2005). Innovation in organizations: A multi-level perspective on creativity. In F. Dansereau & F. J. Yammarino (Eds.), *Multi-level issues in strategy and methods* (pp. 11–174). Amsterdam: Elsevier.
- Muthén, L. K., & Muthén, B. O. (2007). *Mplus users guide*, 4th edition Los Angeles, CA: Muthén & Muthén Retrieved from <http://www.statmodel.com/download/usersguide/Mplus%20Users%20Guide%20v41.pdf>
- Nibler, R., & Harris, K. L. (2003). The effects of culture cohesiveness on intragroup conflict effectiveness. *Journal of Social Psychology*, 143, 613–631.
- Northouse, P. G. (2004). *Leadership*. Thousand Oaks, CA: Sage.
- NRC (1999). *The changing nature of work: Implications for occupational analysis*. Washington: National Academy Press.
- Oetzel, J. G. (1998). Culturally homogeneous and heterogeneous groups: Explaining communication processes through individualism–collectivism and self-construal. *International Journal of Intercultural Relations*, 22, 135–161.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior. Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Oyserman, D., Coon, H., & Klemmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3–73.
- Paine, J. B., & Organ, D. W. (2000). The cultural matrix of organizational citizenship behavior: Some preliminary conceptual and empirical observations. *Human Resource Management Review*, 10, 45–59.
- Peterson, M. F., & Hunt, J. G. (1997). International perspectives on international leadership. *Leadership Quarterly*, 8, 203–231.
- Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callan, V., et al. (1995). Role conflict, ambiguity, and overload: A 21-nation study. *Academy of Management Journal*, 38, 429–452.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513–563.
- Rasbach, J., Steele, F., Browne, W., & Prosser, B. (2005). *A user's guide to MLwiN Version 2.0*. Centre for Multilevel Modelling University of Bristol. Retrieved from [http://www.cmm.bristol.ac.uk/MLwiN/download/userman\\_2005.pdf](http://www.cmm.bristol.ac.uk/MLwiN/download/userman_2005.pdf)
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage.
- Reise, S. P., Widaman, K. F., & Pugh, R. H. (1993). Confirmatory factor analysis and item response theory: Two approaches for exploring measurement invariance. *Psychological Bulletin*, 114(3), 552–566.
- Scandura, T. A., Von Glinow, M. A., & Lowe, K. B. (1999). When East meets West: Leadership “best practices” in the United States and the Middle East. In W. H. Mobley (Ed.), *Advances in global leadership* (pp. 235–248). Stamford, CT: JAI.
- Scandura, T. A., Williams, E. A., & Hamilton, B. A. (2001). Measuring invariance using confirmatory factor analysis and item response theory: Perceptions of organizational politics in the United States and the Middle East. In C. A. Schriesheim & L. L. Neider (Eds.), *Equivalence in measurement* (pp. 99–130). Greenwich: Information Age Publishing.
- Schermerhorn, J. R., Hunt, J. G., & Osborn, R. N. (2002). *Organizational behavior*. New York: Wiley.
- Schmidt, S. M., & Yeh, R. S. (1992). The structure of leader influence, a cross-national comparison. *Journal of Cross-Cultural Psychology*, 23, 251–264.
- Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology*, 48(1), 23–47.
- Shields, D. L. L., & Gardner, D. E. (1997). The relationship between leadership behaviors and group cohesion in team sports. *Journal of Psychology*, 131(2), 196–210.
- Smith, P. B., Peterson, F., Schwartz, S. H., Ahmad, A. H., Akande, D., Andersen, J. A., et al. (2002). Cultural values, sources of guidance and their relevance to managerial behavior: A 47 nation study. *Journal of Cross-Cultural Psychology*, 33, 188–208.
- Tagiuri, R., & Litwin, G. H. (1968). *Organizational climate: Explorations of a concept*. Boston, MA: Harvard Business School Press.
- Terborg, J. R., Castore, C., & DeNinno, J. A. (1976). A longitudinal field investigation of the impact of group composition on group performance cohesion. *Journal of Personality and Social Psychology*, 34, 782–790.
- Tjosvold, D. W., & Tjosvold, M. M. (1991). *Leading the team organization*. New York: Lexington Books.
- Triandis, C. H. (1995). *Individualism and collectivism*. Boulder, CO: Westview.
- Triandis, H. C. (2001). Individualism–collectivism and personality. *Journal of Personality*, 96, 907–924.
- Van de Vijver, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousand Oaks: Sage.
- Van de Vijver, F., & Tanzer, N. K. (1997). Bias and equivalent in cross-cultural assessment: An overview. *European Review of Applied Psychology*, 47(4), 263–279.
- Van de Vliert, E., & Smith, P. B. (2004). Leader reliance on subordinates across nations that differ in development and climate. *Leadership Quarterly*, 15, 381–403.
- Van Vianen, A. E. M., & De Dreu, C. K. W. (2001). Personality in teams: Its relationship to social cohesion, task cohesion, and team performance. *European Journal of Work and Organizational Psychology*, 10, 97–120.
- West, M. A. (2004). *Effective teamwork* (2nd edition). Oxford: Blackwell.
- Wester, K. R., & Weiss, M. R. (1991). The relationship between perceived coaching behaviors and group cohesion in high school football teams. *Sport Psychologist*, 5(1), 41–54.
- Wheelan, S. A. (2005). *Group processes. A developmental perspective*. Boston, MA: Allyn and Bacon.
- Yukl, G. (2002). *Leadership in organizations* (5th edition). Upper Saddle River, NJ: Prentice Hall.