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1
3 **A CROSS-CULTURAL PERSPECTIVE**
5 **ON LEADERSHIP ASSESSMENT:**
7 **COMPARING 360-DEGREE**
9 **FEEDBACK RESULTS FROM**
11 **AROUND THE WORLD**
13

15 Daniel R. Denison, Lindsey M. Kotrba and
17 Nathalie Castaño

19
21 **ABSTRACT**

23 *How generalizable are 360-degree feedback instruments in different*
25 *cultures? Research investigating the validity and utility of these instruments*
27 *across the globe is scarce, yet, extraordinarily important. This chapter*
investigates the utility of a 360-degree feedback instrument across the globe,
as well as how different raters from various cultures perceive leaders.

29 **A GLOBAL VIEW OF 360-DEGREE LEADERSHIP**
31 **ASSESSMENTS**

33 As organizations compete in a global market, they operate in multiple
35 cultures and with a diverse group of people who have different sets of values

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1 and preferences. In this dynamic environment, effective leadership becomes
2 a key piece of the puzzle. As businesses become more global and complex
3 organizational structures force leaders in one region of the world to report
4 to superiors in another region of the world, multinational organizations
5 are charged with managing and developing leaders across the globe and
6 understanding the development needs of leaders all over the world, which
7 presents a major challenge.

8 Over the past years, 360-degree leadership feedback has become an
9 important component of leadership development and has become widely
10 popular in organizations. And while a lot of research has been conducted in
11 this area, the validation of instruments used for multi-rater feedback has
12 received little attention (Church, 2000). Further, despite the advice of
13 several researchers (e.g., Hoppe, 2004; Leslie & Fleenor, 1998) who point
14 out the importance of investigating the international reliability and validity of
15 360-degree leadership assessments developed in the United States, even less
16 work has been done that evaluates the reliability and validity of 360-degree
17 instruments across cultures. Thus, many organizations nowadays are likely
18 using instruments with no known reliability or validity outside the United
19 States (Hoppe, 2004).

20 While complex, this issue is extraordinarily important. 360-Degree feed-
21 back processes require a great deal of resource investment. And while
22 organizations are willing to dedicate the time and money resources, it is
23 surprising how many are willing to do so without consideration of the
24 validity of the scale that they are using. Many organizations seem willing to
25 trust the information is valid (Church, 2000) and further assume that it will
26 apply equally across cultures (Shipper, Hoffman, & Rotondo, 2007).
27 However, without reliable and valid scales, it is hard to know whether
28 leaders around the globe are being assessed on relevant aspects in terms of
29 their effectiveness. Furthermore, with no information on the cross-cultural
30 validity and reliability of the scale, the developmental plans created for
31 leaders based on 360-degree tools may not be very informative and could
32 perhaps even be misleading. It is also important to note that if 360-degree
33 feedback data is being used for evaluative, rather than developmental
34 purposes, comparing data across leaders in different locations becomes even
35 more difficult given that the tool may not be measuring the same thing
36 across cultures. In sum, understanding the reliability and validity of the
37 instruments used is necessary to ensure that organizations and their leaders
38 are not investing in potentially erroneous information.

39 Given the importance of evaluating the validity and reliability of 360-degree
40 feedback tools across cultures, the present chapter seeks to investigate (a) the

1 utility of a 360-degree leadership feedback across the globe and (b) the
2 differences in perceptions across regions of the world. In the next pages, we
3 will give some background about 360-degree feedback and the importance of
4 studying these leadership tools in a multicultural setting. We will also describe
5 a study conducted in over 20 countries and will discuss what our results mean as
6 well as the implications they have for organizations and managers across
7 the globe.

9

Leadership Effectiveness and 360-Degree Feedback

11

12 Measuring leadership effectiveness has become increasingly more important
13 for organizations. Although leadership effectiveness is measured in many
14 ways, 360-degree feedback instruments have become commonplace. Fifteen
15 years ago, it was reported that 12–25% of organizations used some form of
16 360 (Antonioni, 1996). And in 1998, Atwater and Waldman estimated that
17 more than 90% of Fortune 1000 companies were using multi-rater
18 assessments, speaking to the value that high-performing organizations have
19 historically placed on 360 programs. Since then, the use of 360 instruments
20 has only gained in popularity; and the presence of 360 in the literature has
21 grown as well, with well over 100 scholarly and practitioner articles
22 dedicated to the topic since 1990 (Morgeson, Mumford, & Campion, 2005).

23 Why so much enthusiasm surrounding 360-degree feedback? It has been
24 suggested that the use of multi-rater feedback has increased partly because of
25 a general increase in the learning and development needs of leaders stemming
26 from factors such as globalization, mergers and acquisitions, growing virtual
27 work, and flattened organizational structures (Green, 2002). While these
28 workforce trends have likely contributed to an increased demand for
29 leadership development, as Hazucha, Hezlett, and Schneider (1993) point
30 out, the particular popularity of 360-degree feedback instruments is easily
31 understood given the multiple benefits that result from their use (e.g.,
32 providing co-workers with the opportunity to provide anonymous feedback).
33 In general, 360-degree feedback is viewed as one of the most useful
34 approaches for assessing the skill set of current and potential leaders and is
35 considered to be a central part of leadership development (Cacioppe &
36 Albrecht, 2000).

37 Fundamentally, 360-degree feedback instruments are thought to be useful
38 because of the assumption that different rater groups each offer unique and
39 meaningful perspectives on a target's performance (Borman, 1997; Murphy &
40 Cleveland, 1995; Tornow, 1993). In other words, the perceived practical value

AU:1

1 of 360-degree feedback processes follows from the idea that for various
2 reasons peers, bosses and direct reports have different things to say about a
3 target – which provides information beyond what can be obtained through
4 the use of single-source (e.g., supervisor) ratings. Past research has generally
5 supported this assumption by pointing to relatively low between-source
6 correlations (e.g., Borman, 1997; Conway & Huffcutt, 1997). In additional
7 support for this assumption, evidence suggests that direct report and peer
8 ratings both account for incremental variance in objective target performance
9 measures beyond that accounted for by supervisor ratings (Conway,
10 Lombardo, & Sanders, 2001).

11 There are numerous individual and organizational benefits that have been
12 suggested to result from the use of 360-degree feedback instruments. For
13 example, Antonioni (1996) suggests that multi-rater processes can benefit
14 rates by leading to increased self-awareness, increased informal commu-
15 nication and feedback, candid discussion of undesirable work behaviors,
16 and increased managerial learning. Other cited benefits include enhanced
17 two-way communication and better coordination within the organization,
18 increased employee involvement and felt respect, and change in corporate
19 culture (e.g., Garavan, Morley, & Flynn, 1997; Morgeson et al., 2005).
20 Aside from these purported benefits, the belief that ratings on these
21 instruments correlate positively with performance is a major contributing
22 factor to the wide spread use of these instruments (Church, 2000). In
23 general, the expected benefits of 360-degree feedback are many; and it is,
24 therefore, no surprise that 360-degree instruments are highly valued and
25 extremely popular both in the United States and internationally.

26 Many users of 360 assume that these ratings are more objective and
27 accurate than traditional boss-provided feedback because through these
28 assessments, multiple people provide insight from representative vantage
29 points; and ratings are further assumed to relate to performance. However,
30 as pointed out by Fletcher, Baldry, and Cunningham-Snell (1998) as with
31 any measure, it is necessary to establish that a 360 instrument has certain
32 properties before accepting the instrument and the assessments that it yields.
33 In addition, research on the utility of using 360-degree feedback across the
34 globe has lagged behind its global implementation (Shipper et al., 2007).

35

36

Looking Across Cultures

37
38
39 Time and time again, research findings support the idea that the culture
influences leadership. For instance, Dorfman (2004) found that leadership

1 styles emphasizing participation, which are commonly accepted in the
individualistic West, are of questionable effectiveness in the collectivistic East.
3 Asian managers have been found to place heavy emphasis on paternalistic
leadership (Redding, 1993) and group maintenance activities (Bass, Burger,
5 Doktor, & Barrett, 1979). In India, leaders who are proactive, morally
principled, ideological, bold, and assertive are preferred over leaders who are
7 reactive, pragmatic, instrumental, and nurturing (Chhokar, 2007). Team-
oriented leadership is valued to a great extent in Latin America, more so than
9 in other regions of the world (Javidan, House, & Dorfman, 2004).

Although cross-cultural leadership research has increased considerably in
11 the last few years, there is still a bias toward Western models in the
leadership theories and measures that are used and published (den Hartog &
13 Dickson, 2004). Over the years, several researchers have insisted that the
applicability of theories, concepts, and measures developed in one region of
15 the world do not necessarily apply to another region (Boyacigiller & Adler,
1991). Although little by little we observe researchers conducting sound
17 cross-cultural studies, researchers are only just starting to investigate
questions related to the use of 360-degree feedback across the globe.

19 Shipper and colleagues (2007) stress the importance of considering culture
when implementing 360-degree leadership feedback programs, as results
21 from their study suggest that these programs are most effective in low-power
distance cultures with individualistic values. In general, most of the studies
23 investigating 360-degree feedback across cultures have found that cultural
differences matter, particularly when looking at subordinate ratings. Results
25 from a study conducted by Eckert, Ekelund, Gentry, and Dawson (2010)
showed that cultural values have an effect on self-other rating discrepancies.
27 Particularly, they found that in high-power distance cultures, the discre-
pancy between self and subordinate ratings about a manager's decisiveness
29 and composure was higher than in low-power distance cultures; however, this
discrepancy was lower in high-power distance culture when rating manager's
31 skills in leading employees. Similarly, Varela and Premeaux (2008) investi-
gated how high-power distance and collectivism impact 360-degree feedback
33 measures. They found that subordinates were the most lenient source of
feedback and suggest that these results capture preconceived assumptions
35 pertaining to power inequalities and collective interests.

Cross-cultural comparisons of 360-degree feedback instruments have not
37 only been quantitative in nature. Some articles have been published detailing
issues practitioners deal with when administering 360-degree feedback
39 tools across cultures. Rowson (1998) notes several cultural differences that
emerge when giving feedback to participants. She points out, for instance,

1 that depending on the degree of familiarity with the 360-degree feedback
2 process, participants feel more at ease listening to assessment results. In
3 countries where this type of instrument is not used frequently, the participant
4 takes longer to buy into the results and to start discussing developmental
5 needs. Along these lines, in cultures high on power distance, leaders tend to
6 give greater value to boss' feedback than to subordinate; thus, coaches have to
7 work extra hard to demonstrate the value of taking into account ratings other
8 than bosses' ratings (Rowson, 1998). Other authors have focused on language
9 issues when using these tools. Craig and Hannum (2006), for instance, in their
10 article discuss the importance of ensuring item equivalence when adminis-
11 tering a 360-degree feedback tool across cultures.

12 While these studies provide useful insights regarding the utilization of
13 360-degree feedback across cultures, very few studies have been conducted
14 looking at the reliability and validity of instruments in cross-cultural
15 samples. We did find one study focused on the equivalence of 360-degree
16 feedback ratings across cultures (Gillespie, 2005). Results suggested that the
17 constructs underlying the survey and their relationship to the survey items
18 are likely to differ across cultures. However, this study looked only at
19 subordinate ratings on a custom 360, thus there remains a serious need for a
20 more in-depth understanding of the reliability and validity of 360 instru-
21 ments with more universal organizational applicability. In the words of
22 Leslie and Fleenor (1998) "much is unknown about the international
23 validity and reliability of instruments developed and used in the United
24 States and on no instrument so far has cross-cultural validity research done
25 more than scratch the surface" (p. 18). It is, therefore, the intent of the
26 current paper to present the development and psychometric properties of a
27 leadership 360-degree feedback instrument across cultures. Furthermore, we
28 will explore the role that culture plays in leadership perceptions.

29 What happens when assessment instruments that have not been validated
30 in different regions of the world are implemented in other cultures?
31 Measures that are developed with a North American framework are
32 reasonably applicable in some countries (e.g., other Anglo-Saxon countries),
33 but more selectively applicable in others (e.g., China, Japan, the Arab
34 countries; Hoppe, 2004). Different cultures tend to have different expres-
35 sions of their culture, which in turn influence what people value and
36 how people behave. For example, when investigating leadership in a culture
37 that is high on power distance (i.e., low tolerance for the unequal distribu-
38 tion of power in institutions and organizations), it is likely that leader
39 behaviors based on respect for authority and position and indirectness in

1 communication with others are considered effective; whereas, these same
2 behaviors may not be considered as effective in low-power distance societies
3 (Hoppe, 2004).

4 Although instruments created to assess leadership effectiveness in one
5 culture may not be generalizable to other cultures, this issue may be
6 somewhat tempered by the effects of globalization, technological advances,
7 and industrialization around the world (Hoppe, 2004). As a global market
8 has emerged, transnational organizations with similar organizational and
9 managerial functions have risen. Given the similar challenges that these
10 organizations are likely to face no matter where they are located, they will
11 require largely similar leader competencies. Indeed, in his discussion of the
12 concept of globalization, Campbell (2006) suggests “most organizations
13 come to essentially the same conclusions about the basic fundamentals of
14 good leadership” (p. 152). Campbell goes on to outline nine leadership
15 competencies that he argues are necessary and universal, regardless of
16 overlying culture.

17

19

Research Questions

21 *Research Question 1: Are 360-Degree Feedback Models Valid
22 Across Cultures?*

23 As discussed in previous paragraphs, there is a lack of research in the
24 360-degree feedback literature that tests the psychometric properties of these
25 instruments with cross-cultural samples. Thus, looking into the validity and
26 reliability of a 360-degree feedback instrument seems timely. To answer this
27 question, not only the usual psychometric analyses will be conducted, but
28 we will also look at whether culture impacts the criterion-related validity of
29 the tool. This latter analysis will allow us to observe whether the magnitude
30 of the relationship between leadership perceptions and outcomes is the same
31 across cultures.

33 *Research Question 2: Are There Any Cross-Cultural Differences
34 in Leadership Perceptions Among Peers, Direct Reports, and Bosses?*

35 Another way to investigate the usefulness of 360-degree feedback in
36 different cultures is by looking at whether different raters perceive leaders
37 differently and the impact that culture has on these perceptions. Answering
38 this question will give us a sense of the inherent differences or similarities by
39 rater and by region that may exist when rating leaders.

1 *A 360 Leadership Model*

3 The presented instrument was developed to provide feedback on the
4 leadership skills and competencies that are important to developing effective
5 organizational cultures. Leadership and organizational culture are related
6 organizational processes. Leaders are often suggested to be the most
7 important factor in the development of an organization's culture (e.g.,
8 Bennis & Nanus, 1985; Kotter & Heskett, 1992). Given the link between
9 organizational culture and bottom-line business performance, one of the
10 most important contributions a manager or executive can make is the
11 culture they create (Denison, 1990). The 360-degree feedback instrument
12 used in the current study focuses on the skills and capabilities that are
13 important to developing effective organizational cultures. While a multitude
14 of leadership 360 instruments exist, none of them is specific to the skills of
15 organizational culture builders.

16 Leadership skills and competencies for the current scale were developed
17 from a model of organizational culture that was developed from a stream of
18 research linking organizational culture to effectiveness (Denison, 1984,
19 1990, 1996, 2000; Denison, Haaland, & Goelzer, 2004; Denison & Mishra,
20 1995; Denison & Neale, 1996; Fey & Denison, 2003). This approach has
21 focused directly on those aspects of organizational culture that have been
22 shown to influence organizational effectiveness, concentrating on four key
23 traits: involvement, consistency, adaptability, and mission. The focus on
24 these four traits has also been supported by other researchers interested
25 in organizational culture and effectiveness (Gordon & DiTomaso, 1992;
26 Kotter & Heskett, 1992). As stated by Leslie and Fleenor (1998), an
27 instrument grounded in previous theory is preferred if one desires to assess
28 qualities described in a particular model. Following the theory of the
29 Denison Organizational Culture Model, the 360-degree feedback instrument
30 developed identifies four broad leadership traits: involvement, consistency,
31 adaptability, and mission. By developing a leadership 360 instrument
32 around the Denison model of organizational culture and effectiveness,
33 leaders and managers are provided with valuable feedback on the skills and
34 practices that are important to building organizational cultures that impact
35 bottom-line business performance.

36 Although a more detailed description of the traits can be found in Table 1,
37 below is a brief description for each. The *involvement* trait is concerned with
38 building human capability, ownership and responsibility. Leaders who know
39 how to create "high-involvement" rely on informal and implicit leadership
skills to strongly encourage others to be involved and create an environment

Table 1. Denison Leadership Development Survey.

Trait	Description	Index
Involvement	<ul style="list-style-type: none"> • “High-involvement” managers: <ul style="list-style-type: none"> ◦ Encourage others to be involved and create an environment of experimentation and exploration, as well as a sense of ownership and responsibility ◦ Generate greater commitment to the organization, an increasing capacity for leadership, and a sense of autonomy. • Receptivity to the ideas of others increases leadership quality and improves implementation of new ideas. 	Empowers people Builds team orientation Develops organizational capability
Consistency	<ul style="list-style-type: none"> • Consistent managers have key central values, a distinct method of doing business, a tendency to promote from within, and a clear set of “do’s and don’ts.” • The power of leadership consistency is apparent when organizational members encounter unfamiliar situations and leadership reacts in a predictable way to an unpredictable environment 	Defines core values Works to reach agreement Manages coordination and integration
Adaptability	<ul style="list-style-type: none"> • Managers who are able to adapt: <ul style="list-style-type: none"> ◦ Have the ability to perceive and respond to the external environment. They have the ability to respond not only to customers and competitors, but also to internal customers ◦ Are capable of restructuring and institutionalizing a set of behaviors and processes that allow the organization and employees to adapt • Implementing adaptive responses allows the leader to impact organizational effectiveness 	Creates change Promotes organizational learning Emphasizes customer focus
Mission	<ul style="list-style-type: none"> • Manager’s with a mission: <ul style="list-style-type: none"> ◦ Provide a purpose and meaning by defining goals and a purpose for his/her unit ◦ Provides a clear direction that defines an appropriate course of action for employees ◦ Aligns the mission and goals for his/her functional area or unit to the mission and goals of the organization • Having a mission and translating it into action contributes to both short- and long-term commitment to the organization 	Creates shared vision Defines strategic direction and intent Defines goals and objectives

1 of teamwork, as well as a sense of ownership and responsibility. The
2 *consistency* trait is concerned with defining the values and systems that are the
3 basis of strong leadership. Consistent leaders develop a mindset and a set of
4 operations that create an internal system of governance based on consensus.
5 The *adaptability* trait is concerned with translating the demands of the
6 environment into action. Successful individual managers hold a system of
7 norms and beliefs that support his or her capacity to receive and interpret
8 signals from the environment and translate them into internal changes that
9 increase the organization's chances for survival, growth, and development.
10 Finally, the trait is concerned with defining a meaningful, long-term direction
11 and being able to translate mission into action. A sense of mission allows an
12 individual leader to inspire, direct *mission* activities, and to formulate strategy
13 by envisioning a desired future state.

15

METHOD

17

18 Participants in this sample were leaders who completed the *Denison*
19 *Leadership Development Survey* (DLDS; described above) between 2001
20 and 2010. This sample of leaders came from a collection of companies in a
21 broad range of industries that included both private and public sector
22 managers in a wide number of countries. A total of 8,158 leaders provided
23 self-ratings and were additionally rated by a cumulative 10,788 bosses;
24 29,822 peers; and 33,872 direct reports. Of the leaders in the sample, 20%
25 were female, 60% had at least a bachelor's degree, 60% were between the
26 ages of 30–49, 33% had been at least 2 years with their company, and 60%
27 were Caucasian.

28 Some respondents completed paper forms of the survey, while most
29 completed the survey electronically. All respondents were informed that the
30 intention of the survey was to provide feedback on various aspects of
31 leadership that impact organizational performance and were ensured that
32 responses would remain confidential. After providing feedback using the
33 DLDS, bosses, peers, and direct reports completed seven additional questions
34 that asked about the effectiveness of the feedback recipient as a leader.
35 Leader's effectiveness ratings were made on a 7-point scale ranging from 1 –
36 strongly disagree to 7 – strongly agree. Example items include “Overall, this
37 individual is a highly effective leader” and “Overall, this individual is one of
38 the most capable leaders in our organization.” The coefficient alpha for this
39 leadership effectiveness scale for peers was .95, for direct reports was .95, and
for bosses was .93.

1 Societal culture was determined based on empirical research conducted
 3 across countries. As reported by the GLOBE project (a multinational
 5 project conducted in over 60 countries that studied cross-cultural leader-
 7 ship), countries can be grouped into several clusters given their cultural
 9 similarities. GLOBE researchers used empirical studies, along with factors
 11 such as common language, geography, religion, and historical accounts
 13 when constructing the clusters. For the present study, we followed this same
 15 framework (see Table 2 for a description of clusters).

11 **RESULTS**

13 Means, standard deviations, and internal consistency estimates of reliability
 15 for each of the 12 indices and 4 traits of the DLDS are presented by rater
 17 group in Table 3. Cronbach’s alpha for the traits for each rater were greater
 19 than .90. For the indices, with the exception of a few estimates calculated
 21 using self scores, alpha coefficients all generally exceeded recommended
 23 standards for scales utilized in applied settings (i.e., estimates upwards
 of .80, Nunnally, 1978). However, our findings of slightly lower internal
 consistency reliabilities for self-ratings are consistent with other multi-rater
 instruments (e.g., Kets de Vries, Vrienaud, & Florent-Treacy, 2004;
 Posner & Kouzes, 1993).

25 To explore our first research question, we first conducted confirmatory
 27 factor analyses (CFAs) to investigate whether the appropriate items fit into
 29 each of the 12 latent indices and whether the appropriate 12 indices fit into
 the 4 basic latent traits as defined by the model. These analyses were
 conducted using second-order factor models with four latent variables
 for each rater group (see Fig. 1). The 96 scale items were indicators, the

31 **Table 2.** Leaders by Clusters.

Cluster	<i>N</i>	Country
Anglo	6,595	Australia, Canada, New Zealand, United Kingdom, United States
Latin Europe	192	Belgium, France, Spain
Nordic Europe	94	Denmark, Finland, Norway
Germanic Europe	1,085	Germany, Netherlands, Switzerland
Latin America	125	Brazil, Chile, Colombia, Costa Rica, Mexico, Venezuela
Confucian Asia	67	China, Japan

39 *Note:* *N* = total number of leaders for each cluster.

Table 3. Coefficient Alpha by Trait, Index, and Rater Group.

Trait	Index	Self	Boss	Direct Report	Peer
Involvement		0.91	0.96	0.98	0.97
	Empowers people	0.73	0.88	0.92	0.91
	Builds team orientation	0.84	0.91	0.95	0.94
	Develops organizational capability	0.83	0.90	0.94	0.92
Consistency		0.91	0.95	0.97	0.96
	Defines core values	0.86	0.90	0.94	0.93
	Works to reach agreement	0.86	0.93	0.96	0.95
	Manages coordination and integration	0.84	0.91	0.93	0.93
Adaptability		0.91	0.94	0.96	0.97
	Creates change	0.86	0.92	0.94	0.93
	Promotes organizational learning	0.78	0.85	0.91	0.89
	Emphasizes customer focus	0.88	0.93	0.94	0.95
Mission		0.95	0.97	0.98	0.98
	Creates shared vision	0.91	0.94	0.96	0.95
	Defines strategic direction and intent	0.87	0.92	0.95	0.94
	Defines goals and objectives	0.88	0.92	0.94	0.93

Note: N (self) = 8,158; N (peer) = 29,822; N (direct report) = 33,872; N (boss) = 10,788.

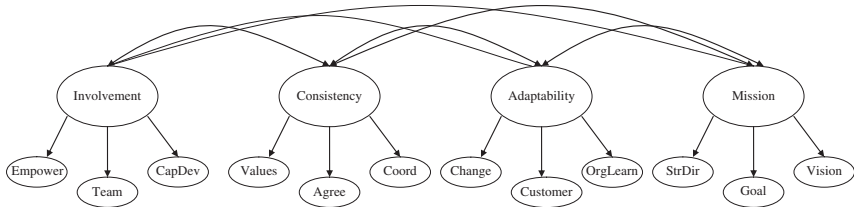


Fig. 1. Second-Order Factor Model Used for Each Rater (Self, Peer, Direct Report, and Boss).

Notes: There are 8 indicators (scale items) corresponding to each of the 12 first-order latent factors. Each indicator has an error term. First-order latent factors include Empower, empowers people; Team, builds team orientation; CapDev, develops organizational capability; Values, defines core values; Agree, works to reach agreement; Coord, manages coordination and integration; Change, creates change; Customer, emphasizes customer focus; OrgLearn, promotes organizational learning; StrDir, defines strategic direction and intent; Goal, defines goals and objectives; Vision, creates shared vision. Second-order latent factors include involvement, consistency, adaptability, and mission.

1 12 indices (e.g., empowerment, vision) were the first-order latent factors,
 3 and the 4 traits (e.g., mission, adaptability) were the second-order latent
 5 factors. We first conducted the CFA using a diverse sample comprised of
 7 leaders from several regions of the world as indicated in Table 2.

9 Table 4 presents the fit statistics of the CFAs of the models tested for each
 11 rater group. All the fit statistics for the second-order factor models show
 13 good fit, indicating that for each rater group, the four leadership traits
 15 represent the data adequately. Factor loadings of the second-order factors
 17 (i.e., traits) and the first-order factors (i.e., indices) were all significant.
 19 Moreover, the second-order factor models for each rater group were compared
 21 to a one latent factor model – a model in which the 96 scale items were
 23 indicators of an overall leadership factor. The CFA results (see Table 4) show
 25 that the second-order factor model for each rater group fits the data
 27 significantly better than a one-factor model, as indicated by a significant $\Delta\chi^2$.
 29 In sum, the CFAs support the use of the Denison Leadership Model
 31 composed of 12 indices and 4 overall traits across a diverse sample.

33 To further investigate whether the DLDS is applicable in the major
 35 regions of the world, we ran CFAs separately for each rater and each
 37
 39

Table 4. Confirmatory Factor Analysis Results.

Model	χ^2	df	CFI	NNFI	RMSEA	GFI	$\Delta\chi^2$ (df)
Self							
Second-order factor model	91570.86	4446	0.98	0.98	0.05	0.81	
First-order factor model	237304.42	4464	0.96	0.96	0.08	0.62	145733.60*
Peer							
Second-order factor model	773603.73	4446	0.99	0.99	0.07	0.65	
First-order factor model	2184078.37	4464	0.97	0.97	0.13	0.40	1410474.64*
Direct report							
Second-order factor model	757178.54	4446	0.99	0.99	0.07	0.68	
First-order factor model	1935105.36	4464	0.98	0.98	0.11	0.46	1177926.82*
Boss							
Second-order factor model	209902.16	4446	0.99	0.99	0.07	0.71	
First-order factor model	606799.11	4464	0.97	0.97	0.11	0.46	396896.95*

35 *Note:* Second-order factor model, model with 96 items clustered in 12 indices, clustered in
 37 4 traits; First-order factor model, model with 96 items clustered into one higher-order factor;
 39 N (self) = 8,158; N (peer) = 29,822; N (direct report) = 33,872; N (boss) = 10,788; χ^2 , chi-square
 35 statistic; df, degrees of freedom for chi-square statistic; RMSEA, root mean square error
 37 approximation; NNFI, Non-Normed Fit Index; CFI, Comparative Fit Index; GFI, Goodness
 39 of Fit Index; * $p < .001$.

1 cluster – Anglo, Latin Europe, Nordic Europe, etc. (see the appendix).
 2 Although some of the sample sizes for the clusters are somewhat low for the
 3 CFAs, we believe it is still interesting to check out how well the DLDS
 4 model fits for each cluster separately. The Anglo and Germanic Europe
 5 clusters, those with the biggest sample sizes, show adequate fit across raters,
 6 except for the self-ratings in Germanic Europe. The fit indices for this model
 7 are below the recommended cut-offs. Although the rest of the clusters have a
 8 low sample size, the fit indices across raters are adequate in general.

9 Next, as evidence of criterion-related validity, we conducted hierarchical
 10 linear modeling (HLM) analyses which investigated (a) whether the traits
 11 measured in the DLDS were related to assessments of leader effectiveness
 12 and (b) whether these relationships were moderated by cluster. For these
 13 analyses, we predicted combined other perceptions of effectiveness (i.e.,
 14 effectiveness as rated by the effectiveness scale) from self-perceptions of
 15 leadership behaviors (i.e., traits – Consistency, Involvement, Adaptability,
 16 and Mission). Combined other ratings of effectiveness were calculated by
 17 averaging peer, direct reports, and boss effectiveness scores. A three-level
 18 HLM model was conducted given that leaders are clustered within
 19 organizations and organizations are clustered in clusters.

20 As shown in Tables 5–8 and as indicated by γ_{100} , there was a significant
 21 positive relationship between self-perceptions of leadership behaviors and
 22 others' perceptions of leadership effectiveness for the Involvement, Con-
 23 sistency, Adaptability, and Mission traits. Although a significant relation-
 24 ship was found for all traits, as shown by u_{10k} , there is no evidence that
 25 these relationships vary across clusters. AU :2

27 **Table 5.** Three-Level HLM Analysis for Perceptions of Leadership
 28 Effectiveness-Involvement Trait.

Fixed Effect		Coefficient	SE	<i>t</i> -Ratio	<i>p</i> -Value
Average leader effectiveness mean	γ_{000}	4.67	0.11	39.86	0.00
Involvement-effectiveness relationship	γ_{100}	0.16	0.01	22.39	0.00
Random Effect		Variance	<i>df</i>	χ^2	<i>p</i> -Value
Leaders (Level 1)	<i>e</i> _{ijk}	0.40			
Organizations-intercept (Level 2)	<i>r</i> _{0jk}	0.38	206	308.60	0.00
Organizations-slope (Level 2)	<i>r</i> _{1jk}	0.00	206	298.16	0.00
Clusters-intercept (Level 3)	<i>u</i> _{00k}	0.00	5	5.58	0.35
Clusters-slope (Level 3)	<i>u</i> _{10k}	0.00	5	5.49	0.36

Table 6. Three-Level HLM Analysis for Perceptions of Leadership Effectiveness – Consistency Trait.

Fixed Effect		Coefficient	SE	t-Ratio	p-Value
Average leader effectiveness mean	<i>G000</i>	5.57	0.02	242.80	0.00
Involvement-effectiveness relationship	<i>G100</i>	0.13	0.02	6.63	0.00
Random Effect		Variance Component	df	χ^2	p-Value
Leaders (Level 1)	<i>eijk</i>	0.40			
Organizations-intercept (Level 2)	<i>r0jk</i>	0.07	206	889.10	0.00
Organizations-slope (Level 2)	<i>r1jk</i>	0.00	206	274.69	0.00
Clusters-intercept (Level 3)	<i>u00k</i>	0.00	5	1.50	> .50
Clusters-slope (Level 3)	<i>u10k</i>	0.00	5	6.36	0.27

Table 7. Three-Level HLM Analysis for Perceptions of Leadership Effectiveness – Adaptability Trait.

Fixed Effect		Coefficient	SE	t-Ratio	p-Value
Average leader effectiveness mean	<i>G000</i>	5.57	0.02	239.72	0.00
Involvement-effectiveness relationship	<i>G100</i>	0.08	0.02	4.57	0.00
Random Effect		Variance Component	df	χ^2	p-Value
Leaders (Level 1)	<i>eijk</i>	0.66			
Organizations-intercept (Level 2)	<i>r0jk</i>	0.27	205	907.69	0.00
Organizations-slope (Level 2)	<i>r1jk</i>	0.00	205	330.16	0.00
Clusters-intercept (Level 3)	<i>u00k</i>	0.00	5	1.72	> .50
Clusters-slope (Level 3)	<i>u10k</i>	0.00	5	2.66	> .50

Finally, to investigate the second research question, one-way analyses of variance (ANOVAs) were performed to assess mean differences in leadership ratings across clusters. As Table 9 shows, there were differences across clusters for all raters and traits. Although differences were significant, it is worth noting that the effect sizes for all of the differences in leadership ratings were less than 1%. Nevertheless, post hoc analyses were conducted to investigate where the differences were. Differences of .20 or more are reported in Table 10. Focusing on the more notable patterns from this table,

Table 8. Three-Level HLM Analysis for Perceptions of Leadership Effectiveness-Mission Trait.

Fixed Effect		Coefficient	SE	<i>t</i> -Ratio	<i>p</i> -Value
Average leader effectiveness mean	<i>G000</i>	5.57	0.02	243.13	0.00
Involvement-effectiveness relationship	<i>G100</i>	0.10	0.01	8.11	0.00
Random Effect		Variance Component	df	χ^2	<i>p</i> -Value
Leaders (Level 1)	<i>eijk</i>	0.63			
Organizations-intercept (Level 2)	<i>r0jk</i>	0.07	206	852.05	0.00
Organizations-slope (Level 2)	<i>r1jk</i>	0.00	206	322.89	0.00
Clusters-intercept (Level 3)	<i>u00k</i>	0.00	5	2.33	> .50
Clusters-slope (Level 3)	<i>u10k</i>	0.00	5	6.11	0.30

Table 9. One-Way ANOVA Results by Rater and Trait.

Dependent Variable		df	<i>MS</i>	<i>F</i>	<i>P</i>	η^2
Rater	Trait					
Self	Involvement	5.00	0.97	3.54	0.00	0.002
	Consistency	5.00	3.07	11.67	0.00	0.007
	Adaptability	5.00	4.59	14.12	0.00	0.009
Peer	Mission	5.00	2.45	5.45	0.00	0.003
	Involvement	5.00	2.32	6.20	0.00	0.004
	Consistency	5.00	3.03	9.02	0.00	0.006
Direct Report	Adaptability	5.00	5.64	17.98	0.00	0.011
	Mission	5.00	1.99	5.30	0.00	0.003
	Involvement	5.00	2.59	5.49	0.00	0.003
Boss	Consistency	5.00	2.83	7.31	0.00	0.004
	Adaptability	5.00	6.29	17.65	0.00	0.011
	Mission	5.00	2.88	5.99	0.00	0.004
Boss	Involvement	5.00	1.39	2.94	0.01	0.002
	Consistency	5.00	2.23	5.02	0.00	0.003
	Adaptability	5.00	2.95	6.86	0.00	0.004
	Mission	5.00	1.56	3.00	0.01	0.002

most of the larger differences were seen between leaders from Latin America and other clusters and between leaders from Latin Europe and other clusters. Looking first at leaders from Latin America, these leaders were generally rated higher than those from Germanic and Nordic Europe, particularly from

Table 10. Post Hoc Test.

Referent Cluster	Self			Peer			Direct Report			Boss		
	Involv	Consist	Adapt	Miss	Involv	Consist	Adapt	Miss	Involv	Consist	Adapt	Miss
Anglo					CA (.22)					CA (.22)		
Latin America (LA)			LE (.35) GE (.28) ANGLO (.24)						NE (.22) GE (.21)	NE (.21) GE (.20)	GE (.24) NE (.23)	GE (.21)
Latin Europe (LE)					CA (.25)	CA (.33)	CA (.23)		CA (.25)	GE (.27) LA (.20)	CA (.20) CA (.23)	GE (.20) CA (.25)
Germanic Europe (GE)												
Nordic Europe (NE)												
Confucian Asia (CA)												

Note: Data in the table reflects differences between the referent cluster and the other clusters. Data are ranked from largest to smallest difference; Involv, involvement; Consist, consistency; Adapt, adaptability; Miss, mission; bold entries indicate a percentile shift greater than 10-percentile points.

1 the direct report perspective. Other differences between these leaders and
those from Germanic Europe can be seen in boss and self-ratings of the
3 Mission trait. Turning now to leaders from Latin Europe, these leaders also
received higher ratings than leaders from Germanic Europe in some instances;
5 but the majority of differences for this group of leaders indicate that they
receive higher ratings than leaders from Confucian Asia, particularly from the
7 peer and boss perspectives. Leaders from Anglo and Nordic Europe also
received higher ratings than leaders from Confucian Asia, though these
9 differences are seen only with particular traits (i.e., Adaptability or Con-
sistency) and with particular rater groups (peer or boss).

11 Given that the mean differences across clusters were low, we conducted an
exploratory analysis that looked at whether the mean differences observed
13 were greater than a 10-percentile shift in the benchmark database available
for the DLDS. This benchmark database provides information about how
15 leaders score on the DLDS relative to other leaders, indicating the percent
of leaders in the database that scored the same or lower than the target
17 leader. This external benchmark is useful because it provides context to the
mean differences observed in the one-way ANOVAs.

19 The average mean change was calculated for a 10-percentile point shift on
the traits. Results indicate that to obtain a 10-percentile shift in scores, there
21 has to be a .28 difference in mean scores, on average. This indicates that all
the differences mentioned above and presented in Table 10 do not represent
23 more than a 10-percentile shift, except for self-ratings for Latin America as
compared to Latin Europe and Germanic Europe, and for peer ratings for
25 Latin Europe as compared to Confucian Asia. In sum, although there were
differences, only a few of them were meaningful.

DISCUSSION

31 360-Degree feedback processes are widely utilized across the globe. They are
generally recognized to be useful and important components of leadership
33 development and organizations invest substantial time and money resources
into providing their leaders and potential leaders with this type of multi-
35 rater feedback. In this chapter, we sought to examine the validity and utility
of these instruments across cultures, an often neglected but extremely
37 important issue. Overall, results are encouraging and suggest that there are
360-degree assessments that can be used with confidence with a diverse
39 group of leaders from different parts of the world. Our results indicate that

1 the leader competencies tested in this study may not be culturally biased and
2 may fit leadership schemas all over the globe.

3 The 360-degree feedback tool investigated in the current study was designed
4 to be applicable across many organizations, and evidence supports its
5 reliability and validity in a large multicultural sample. CFA analyses showed
6 reasonable fit to the theorized model. Given that these analyses were
7 conducted using a diverse sample of leaders from over 20 countries, we can
8 suggest that the instrument is useful with leaders from several regions of the
9 world. Separate CFAs were also conducted for each culture cluster. Though
10 sample sizes were small for several of the culture clusters investigated, results
11 are promising and suggest that the same leadership model fit the data well in
12 different cultures. Providing evidence of the criterion-related validity of the
13 scale, this chapter also demonstrates that perceptions of leadership behaviors
14 significantly predicted perceptions of effectiveness; and this relationship did
15 not vary by culture. These results provide good support for the usefulness of
16 these leadership behaviors for predicting leader effectiveness in different
17 cultural contexts.

18 As more data becomes available, future studies should conduct multigroup
19 analysis where culture is the grouping variable and model invariance is tested
20 across the clusters. In addition, stronger evidence for criterion-related validity
21 could be derived using objective outcomes, though these data were not
22 available for this study. Still, these initial results have important implications.
23 As pointed out by Leslie and Fleenor (1998), it is important to ensure that
24 reliable and valid measures are being used for leadership evaluation and
25 development in any culture where these tools are implemented. The model
26 used in this study has been shown to be useful for leaders from diverse
27 samples. For organizations hoping to utilize a common model to aid in the
28 development of their leaders across the globe, these results are encouraging.
29 They suggest that the same underlying leadership model may be represented
30 across cultures and that the link to effectiveness is predictable and consistent.

31 In addition, there are only small differences in people's perceptions of
32 leaders' skills and behaviors across cultures, at least for those leadership
33 characteristics assessed in this study. While there are more similarities than
34 there are differences, there were also some more notable trends. Specifically,
35 leaders in Latin America perceive themselves as being more mission-oriented
36 (i.e., having a strategy, setting goals and objectives for others, and having a
37 mission) as compared to those in Latin Europe and Germanic Europe. Also,
38 peers in Latin Europe perceived leaders as being more adaptable (i.e., having a
39 high focus on the customer, promoting organizational learning, and creating
change) than peers in Confucian Asia perceived leaders in that region.

1 When working with leaders across the globe, these differences can provide
important context to aid in the interpretation of feedback results.

3 Even though there were not many meaningful differences observed, we
would *not* argue that this means that these traits are expressed in the same
5 way in each of the cultural contexts. The way behaviors are enacted may
vary depending on the context or situation that the leader is in (Bass, 1997).
7 For instance, a leader that is perceived as being adaptable may deal with the
external environment very differently in a culture that values ambiguity (low
9 uncertainty avoidance) versus one that values rules and procedures (high
uncertainty avoidance). Actions or development plans that are enacted based
11 on the results of these types of assessments most definitely need to take the
cultural context into account.

13 Utilizing a cross-culturally valid instrument is necessary and important,
but it is not the only consideration in the investigation of the usefulness of
15 360-degree feedback programs across the globe. Findings from this study
should be incorporated with prior findings related to the cross-cultural
17 utility of 360-degree feedback programs (e.g., Eckert et al., 2010; Rowson,
1998; Shipper et al., 2007). While the current study suggests that a common
19 leadership perspective may indeed be possible across cultures, past research
provides useful insights pertaining to the utilization of leadership 360-degree
21 feedback programs and how culture may impact how this type of feedback
is received, interpreted, and ultimately how successful these programs are.

25 CONCLUSIONS

27 This chapter reported the validation of a 360-degree feedback tool across
different cultures and showed its potential use with leaders from several
29 regions of the world. First, one of the main contributions of this chapter is
that it provides initial evidence about a 360-degree feedback tool that is
31 generalizable across cultures. Second, it shows that in terms of the leadership
behaviors measured by the tool, there is no significant variability in terms of
33 rater perceptions across cultures. Finally, although cross-cultural leadership
research is important, the topics that are most commonly investigated,
35 such as leadership styles, tend to be more descriptive than practical for
organizations. Focusing on ways to measure leadership effectiveness with
37 sound instruments that have strong cross-cultural psychometric properties
can prove to be invaluable for organizations that are developing global
39 leaders.

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APPENDIX

Confirmatory Factory Analysis Results for Self

Model	<i>N</i>	χ^2	df	RMSEA	NNFI	CFI
Anglo	6595.00	77469.82	4446.00	0.05	0.98	0.98
LA	125.00	5511.83	4446.00	0.04	0.98	0.97
LE	192.00	8167.64	4446.00	0.07	0.93	0.93
GE	1085.00	62807.92	4446.00	0.11	0.85	0.86
NE	94.00	4924.98	4446.00	0.04	0.99	0.99
CA	67.00	5399.92	4446.00	0.06	1.00	1.00

Confirmatory Factory Analysis Results for Boss

Model	<i>N</i>	χ^2	df	RMSEA	NNFI	CFI
Anglo	8519.00	170467.04	4446.00	0.07	0.99	0.99
LA	167.00	8421.25	4446.00	0.07	0.96	0.96
LE	266.00	13798.46	4446.00	0.09	0.94	0.94
GE	1600.00	42934.88	4446.00	0.07	0.97	0.97
NE	142.00	8946.53	4446.00	0.08	0.94	0.94
CA	94.00	823.51	4446.00	0.00	1.13	1.00

Confirmatory Factory Analysis Results for Peer


Model	<i>N</i>	χ^2	df	RMSEA	NNFI	CFI
Anglo	23262.00	636162.81	4446.00	0.08	0.99	0.99
LA	418.00	21352.69	4446.00	0.10	0.96	0.96
LE	573.00	30286.65	4446.00	0.10	0.93	0.90
GE	2988.00	92296.34	4446.00	0.08	0.98	0.98
NE	357.00	20829.00	4446.00	0.10	0.95	0.95
CA	224.00	16095.66	4446.00	0.11	0.97	0.97

Confirmatory Factory Analysis Results for Direct Report

Model	<i>N</i>	χ^2	df	RMSEA	NNFI	CFI
Anglo	27749.00	644317.53	4446.00	0.07	0.99	0.99
LA	511.00	42673.38	4446.00	0.13	0.94	0.94
LE	825.00	47296.44	4446.00	0.11	0.94	0.94
GE	4114.00	105189.86	4446.00	0.07	0.98	0.98
NE	399.00	3466.17	4446.00	0.00	1.02	1.00
CA	274.00	34307.28	4446.00	0.16	0.94	0.94

Note: LA, Latin America; LE, Latin Europe; GE, Germanic Europe; NE, Nordic Europe; CA, Confucian Asia; χ^2 , chi-square statistic; df, degrees of freedom for chi-square statistic; RMSEA, root mean square error approximation; NNFI, Non-Normed Fit Index; CFI, Comparative Fit Index; GFI, Goodness of Fit Index; * $p < .001$.

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