### COMMENTARY

# An overview of Hofstede-inspired country-level culture research in international business since 2006

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Data: The Mahalanobis composite cultural distance data used in this article are publicly available on the JIBS website.

Received: 20 July 2016 Accepted: 22 August 2016

#### Abstract

Kirkman, Lowe, & Gibson's (2006) JIBS article summarized and critiqued international business research inspired by the most cited book in the field Hofstede's 1980 Culture's Consequences: International differences in work-related values (Hofstede [1980]2001). They identified a number of issues in this research and offered several recommendations for improving it in the future, thus laying a strong foundation for Hofstede-related work since 2006. In this commentary, we assess Kirkman et al.'s (2006) impact on the field. Our review shows that their ideas have informed and inspired their own and other scholars' work and have led to significant progress in the way in which Hofstede's framework has been used in international business in the last decade. Here, we specifically focus on the country-level culture studies and assess how research has implemented Kirkman et al.'s three main recommendations - to explore cultural dimensions beyond those introduced by Hofstede, to distinguish between country effects and cultural effects, and to show not only if culture matters but also how much it matters. In addition to the overview, we provide a comprehensive test of these recommendations showing how they can be put into research practice underscoring the theoretical and empirical relevance of the original 2006 article. Our commentary concludes with additional ideas on further strengthening Hofstede-inspired research at the country level of analysis.

Journal of International Business Studies (2016). doi:10.1057/s41267-016-0038-8

**Keywords:** national culture; cultural distance; cultural profile; Hofstede; Decade Award; intra-country cultural diversity; supra-national regions; cultural clusters

#### INTRODUCTION

With over 40,000 citations, Hofstede's ([1980]2001) seminal contribution *Culture's Consequences: International differences in workrelated values* is among the 25 most cited books in social sciences (Green, 2016). Assessing the use and impact of Hofstede's work in the field of international business and management is a daunting task. Kirkman, Lowe and Gibson (hereafter KLG) did this very effectively. They summarized and made sense of the voluminous literature employing Hofstede's framework across topical areas and levels of analysis (e.g., individual and country) and provided valuable guidance on more rigorous future applications. We believe that the combination of a comprehensive review and critical assessment of the extant research and the series of insightful recommendations for improving future research made this paper path-breaking. Its relevance and contribution is reflected in the many KLG inspired follow-up studies published in the last decade. As we will argue and illustrate below, KLG's ideas have served as a solid foundation that has inspired others to take this research further, improving its rigor and usefulness.

Our approach is the following. We first summarize the main contributions of KLG's 2006 paper focusing in particular on the country level of analysis. Our interest in the country level is twofold. We believe that Hofstede's national culture framework is best applied at the aggregate level. Furthermore, the country is a critical unit of analysis in IB. In essence, IB is about understanding how countrylevel context relates to individual and firm behavior and how crossing national borders creates specific challenges and opportunities for global business. Accordingly, we review country-level Hofstedebased research since 2006, which has built on KLG's article. In addition, in order to provide even further evidence of the validity and usefulness of their recommendations, we present an empirical test rerunning an already published study but this time following KLG's guidelines. We believe this effort is consistent with KLG's original goal to "empirically assess Hofstede-inspired cultural values research" (KLG, 2006, p. 287) and it also illustrates clearly the significant push forward that KLG's article provided. We conclude with several suggestions of our own, which reflect both important gaps and issues still remaining in Hofstede-based international business research and advancements in related academic areas that can inform our work. The work of KLG and those inspired by them is part of a long and important tradition of studying 'culture's consequences' in our field.

#### KIRKMAN, LOWE AND GIBSON'S 2006 CONTRIBUTION IN A NUTSHELL

Culture has been defined in hundreds of ways depending on the dominant theoretical perspective and methodological approach taken (Adler, 1983). The notion of countries having a specific culture – or *Völkergeist* – can be traced back to the emergence of nation states in Europe at the end of the nineteenth century (Beugelsdijk & Maseland, 2011). However, the understanding of culture has evolved significantly over time. Contemporary research has conceptualized culture as values,

stories, frames, toolkits or categories (Giorgi, Lockwood & Glynn, 2015). For the purposes of this article, we adopt the view of culture as a set of values that are shared in a given social group and distinguish this group from others (Schwartz, 2014). Referred to as "the collective programing of the mind" (Hofstede, [1980]2001; KLG, 2006, p. 286), culture provides a basis for interaction and shared understandings among group members (Kroeber & Kluckhohn, 1963; Wallerstein, 1990) and determines social norms and expectations, ultimately shaping the behavior of individuals and organizations (Hofstede, [1980]2001). As eloquently summarized by KLG (2006, p. 286), Hofstede's work has come to dominate the literature, partly because he was the first to develop a parsimonious national culture framework consisting of multiple cultural dimensions (Individualism-Collectivism, Power distance, Uncertainty avoidance, Masculinity-Femininity, and Long term-orientation) and also because he provided country measures (indexes) on these dimensions.

KLG focus on Hofstede-based work and review "empirical research that assessed these five cultural values (or a subset of those) published in top tier management and applied psychology journals" (KLG, 2006, p. 287), including "articles only if the authors empirically assessed the cultural values using either primary or secondary data" (KLG, 2006, p. 287). KLG combine both research relying on Hofstede's data (referred to by KLG as secondary research), and primary data that assessed values through value surveys, experiments or other indirect methods. They also classify studies as type I or type II where type I studies use culture as a direct main effect and type II use culture as a moderator effect. A key distinction made by KLG is whether Hofstede-related research is performed at the individual or country level.

Their review is extensive and well-informed showing a deep knowledge of Hofstede's work and a thorough examination of the then current literature applying his framework. They establish that most studies use culture as a main effect (148 out of the 180) and the majority of these 148 studies concerns country-level studies (78 out of 148). Of the 64 studies at the individual level, 58 focus on only one of Hofstede's dimensions: Individualism– Collectivism. At the country level, "most research examined the impact of cultural distance on organizational and country level outcomes" (KLG, 2006, p. 299). Whereas individual-level studies use a variety of instruments to measure Hofstede's cultural dimensions, country-level studies, use Hofstede's data. Furthermore, most country-level studies, they find, focus on cultural distance measured by the Kogut and Singh's (1988) cultural distance metric which collapses all cultural dimensions into one index.

KLG's paper is impressively comprehensive including a wide range of both Hofstede-based and Hofstede-inspired research. In the year before KLG published their article in JIBS, Tihanyi, Griffith, & Russel (2005) published a meta-analysis of Hofstede-based cultural distance research. It is clear from their references, that at the time of paper's acceptance (May 2005), KLG were not aware of Tihanyi et al.'s (2005) article. The meta-analysis by Tihanyi et al. (2005) based on 66 articles using the Hofstede-based cultural distance index is already impressive. But KLG is even more so - reviewing almost three times this number - 180 papers in total. Almost all of the 78 country-level studies included in KLG are cultural distance studies. implying that KLG and Tihanyi et al. both analyzed approximately the same number of cultural distance studies (66 and 54 respectively). KLG's inclusion of an additional 100+ articles relying on Hofstede's framework makes their analysis extremely comprehensive. To more correctly assess the positioning and overall contribution of KLG's paper, let us also explain the boundaries of their analysis. The authors did not test theory by developing and testing a set of hypotheses, nor did they develop a new theory or extend an existing theoretical model. They summarized a significant portion of the literature shaping international business research. However, they limited their inquiry to quantitative multidimensional cross-cultural research leaving out emic qualitative empirical research. This approach is justified given that Hofstede-related research is by definition of an etic nature. It also reflects the common methodologies of culture studies in international business. While acknowledging the value of emic qualitative approaches that aim to go 'beyond Hofstede' (Nakata, 2009), the reality is that most extant work in this area is etic in nature. Moreover, 'thick descriptions' of local cultures - even if they are inspired by Hofstede, remain country-specific and present validity problems as "locally valid instruments would prohibit researchers from making direct comparisons between countries" (KLG, 2006, pp. 312–313). This exemplifies the classic tension in cross-cultural research between

universality and particularity (Adler, 1983; Beugelsdijk & Maseland, 2011).

Building on their comprehensive review, KLG analyze the main issues and shortcomings of past research and identify several directions which could inform future Hofstede-inspired research (KLG, 2006, p. 286). They conclude that "the most glaring need in type I studies at the country level (where culture is used as an independent variable) is to explain the conflicting findings regarding the effects of cultural distance on various organizational decisions such as entry mode choice" (KLG, 2006, p. 302). Meta-analyses on cultural distance analyzing several of these 'organizational decisions' that appeared since KLG's article was published show inconclusive results (Tihanvi et al., 2005; Magnusson, Baack, Zdravkovic, Staub, & Amine, 2008; Reus & Rottig, 2009; Zhao, Luo & Suh, 2004; Morschett, Schramm-Klein, & Swoboda, 2010). One possible reason for these inconsistencies regarding the effect of cultural distance, for example on modes, is that these organizational decisions have been studied separately, whereas location choice, governance mode, entry mode, and performance outcomes are interrelated as part of important strategic decisions. Another reason might be the conceptualization of cultural distance, which goes back to suggestions made by KLG. At the country level, KLG provide the following recommendations for future research:

- (i) Do not equate country with culture. Practically, they suggest that this can be done by testing for culture effects while controlling for country effects. They consider studies that distinguish between country and culture analytically superior to those that test for either country or culture (KLG, 2006, p. 312).
- (ii) Explore additional cultural values beyond the ones proposed by Hofstede (KLG, 2006, p. 313). In this context, KLG also mention the need to think through if the cultural distance construct needs to be based on a combination of multiple cultural dimensions (as in the Kogut & Singh index), or should be calculated for separate value dimensions (KLG, 2006, p. 302).
- (iii) Calculate effect size in country-level culture and cultural distance studies so as to find out not whether culture matters, but also how much it matters (KLG, 2006, p. 313).

KLG also give several warnings to temper the enthusiasm that may be triggered by their overall

conclusion that "Hofstede's values are clearly relevant for additional cross-cultural research" (KLG, 2006, p. 308). One particular warning highlighted in italics in their article is the remark that it may be better to "avoid further use of the overall cultural distance construct" (KLG, 2006, p. 303). They base this suggestion on earlier criticism on the cultural distance index (Shenkar, 2001). Specifically, they mention the potentially problematic issue of Hofstede's data collected in 1968–1973 thus possibly being outdated, and the need to further explore perceptive measures of distance. As suggested below, many of these issues have been addressed in recent years, partly in response to KLG's article and their recommendations.

#### **KEY DEVELOPMENTS SINCE 2006**

In their retrospective included in this issue, KLG identify significant developments inspired by their 2006 recommendations. For example, KLG (2016) establish that the (mal)practice of simply assigning country-level scores to individuals when examining the effects of culture at the individual level of analysis has steadily declined. In addition to such positive developments, KLG point to several issues that still require follow-up and need to be addressed in future research. Without repeating all their discussions here, one of their main concerns remains the need for more robust and rigorous methodological reflections on how to incorporate culture (KLG, 2016). This relates to both method (e.g., construct, measure, sample equivalence) and methodology (e.g., emic vs. etic). Their research agenda is clear as they suggest to move beyond cultural values, explore other 'containers' of culture besides country, explore multiculturalism, and address culture dynamics. Finally, they recommend culture (values) research at the group/organizational level in addition to on the individual and country level.

Similar to 2006, the authors warn against overreliance on multidimensional value-based research as in Hofstede ([1980]2001) and GLOBE (House et al., 2004), and to some extent Schwartz (1999). They now make an even stronger point to complement value-based with non-value based approaches. Their second 'cris-de-coeur' is to explore culture at levels other than the country level: "cultures exist among many different social groups, including regions, generations, and socioeconomic groups" (KLG, 2016). They claim that a relatively limited part of the overall variation in

cultural values resides between countries, and over than 80% resides within countries. KLG (2016) refer to Taras, Steel, & Kirkman (2016) to make the argument that cultures group in a smaller number of entities, fewer than there are countries. This leads them to "urge future researchers to move beyond national geographic boundaries in the search for cultural entities" (KLG, 2016). Since KLG's article was published in this journal in 2006, Hofstede-inspired research has continued to blossom (Caprar, Devinney, Kirkman & Caliguri, 2015). The cultural distance literature in particular has grown at a remarkable speed (Beugelsdijk & Mudambi, 2013). KLG did not perform a count in their retrospective like they did in the 2006 article, but it seems that most country-level Hofstede-based research is still cultural distance research. Despite its continued use in management studies, the cultural distance construct has been subject to serious criticism (Shenkar, 2001) around three main issues: (a) the use of the cultural distance construct in theory building, like assuming similar relationships between cultural distance and different organizational outcomes (performance, entry modes, location choice); (b) the statistical properties of the index itself, specifically assuming uncorrelated cultural dimensions and national cultural homogeneity, and (c) the data on the basis of which the index is calculated, specifically the possible outdatedness of Hofstede's measures.

While recognizing that many of these issues are valid and should be of concern, and despite the occasional pessimism that more of the same cultural distance research will not lead us to important novel insights (Caprar et al., 2015; KLG, 2016), we think that overall this literature has made some important steps forward over the last decade, facilitated to a large extent by KLG's practical recommendations. Given the volume of cultural distance papers since 2006, our review of this work is not meant to be exhaustive or complete. Instead, we seek to append their own review of the literature in the retrospective (KLG, 2016) and more importantly to identify research developments, which serve to highlight how their ideas have impacted the field. We organize these contributions according to their main 2006 recommendations.

Our baseline is the following. Although we agree with KLG's statement that culture resides at different levels (e.g., teams, organizations, professional associations, and nation states), their conclusion and rather radical suggestion to abandon the country as the unit of analysis may be too far-

Sjoerd Beugelsdijk et al

fetched. In our field, the nation state is pivotal because of international business' defining condition of crossing borders (Ricks, 1985; Nehrt, Truitt, & Wright, 1970). We agree that equating country with culture is not ideal and can be too simplistic. However, to substitute international business research with intercultural business research with culture defined at various levels, may be a case of throwing out the baby with the bathwater. Despite globalization, national borders continue to have important meaning, though perhaps not in the way we have traditionally conceived them in crossnational culture research, and perhaps even less so in the value-based tradition criticized by KLG (2006, 2016). As we will describe below, the field has progressed in ways that allow a way forward that builds on Hofstede-inspired tradition of national value-based research while at the same time recognizing its limitations. Let us discuss their recommendations.

## Suggestion I: Distinguish Between Country Effects and Culture Effects

This recommendation has received significant follow-up in the last decade. We identified at least three ways in which different scholars have responded to this suggestion.

#### Intra-country Cultural Diversity

First, following earlier publications on the issue (Au, 1999; Lenartowicz & Roth, 2001), the notion of intra-country cultural diversity has been reintroduced into the literature in the last decade, (Dheer, Lenartowicz & Peterson, 2015; Tung, 2008). In 2011, Gelfand together with 44 co-authors published a seminal paper introducing the concept of tight-loose cultures. They showed that some countries have 'tight' cultures in that they have strong social norms and enforcement and low tolerance for deviant behavior, while other countries have 'loose' cultures characterized by less restrictive and more heterogeneous values and norms, weaker enforcement of norms, and higher levels of individual discretion and deviation with regard to social behavior (Gelfand et al., 2011). Gelfand et al.'s study is relevant to cross-cultural research in IB because it shows a country-level factor (degree of tightness) that could affect the strength of country level cultural value effects (Taras et al., 2016). Based on a similar argument, it has recently been shown that the cultural distance effect is contingent on the degree of intra-country cultural diversity (Beugelsdijk et al.,

2014; Chua et al., 2015; Dow et al., 2016; Shin, Hasse, & Schotter, 2016). Given the prominence of Gelfand et al.'s study, KLG (2016) strongly encourage future researchers to integrate the notion of tightness-looseness in culture studies.

One key factor explaining the emergent literature on intra-country cultural value diversity is the availability of data. For the Hofstede cultural framework only the country-level scores are available. For GLOBE, the underlying individual-level data are not publicly available. For Schwartz however, a small fee to the Israeli Science Foundation suffices to get access to the approximately 70.000 individuals interviewed. This creates novel possibilities for empirical research linking the individual to the aggregate country level. Cross-cultural psychologists have explored the extent of sharedness of values within and between countries (Fischer & Schwartz, 2011; van Herk & Poortinga, 2012). By having access to individual-level data on cultural value orientations, we can assess the degree to which such values are shared in a country, allowing for a more fine-grained analysis of the extent to which country equates culture. In our view, Gelfand et al.'s (2011) study is not a reason to abandon country-level cultural values research, but to re-think it, and find ways to incorporate it for more fine-grained culture studies.

For example, the availability of the individual scores on Schwartz's cultural orientation allows calculating the standard deviation of a country cultural profile, which captures the degree of national cultural value consensus (Schwartz & Sagie, 2000), and can be related to Gelfand et al.'s degree of cultural tightness. Figure 1 plots the degree of cultural tightness taken from Gelfand et al. (2011) and the average standard deviation of the Schwartz cultural value orientations. As expected, countries with tight cultures and strict norms have a higher degree of value consensus reflected in a lower standard deviation. The bivariate correlation between cultural tightness and the standard deviation of the Schwartz cultural value orientations is -.58, and the explained variance in a regression analysis controlling for Gelfand's sample characteristics is 54% (Gelfand et al., 2011; Table 1, p. 1103).

Figure 1 is merely an illustration, and more rigorous work is required to derive robust implications, but this example shows how value-based research can possibly be enriched such that we improve our understanding of the degree to which country can be equated with culture. One

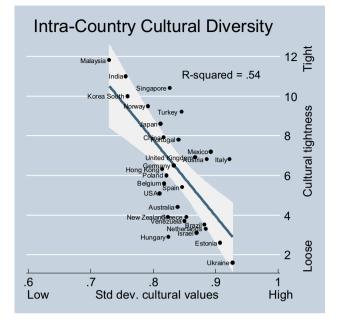


Figure 1 Scatter plot cultural tightness (Gelfand et al., 2011) and SD cultural value orientations (Schwartz, 1999). Note The vertical axis represents the country scores on Gelfand et al.'s (2011) index of cultural looseness-tightness, with higher scores reflecting tighter cultures. The horizontal axis is the average of the standard deviation on all seven national level cultural value orientations as developed by Schwartz and made available by the Israeli Science Foundation. A factor analysis of these seven standard deviations confirms they can be combined in one overall standard deviation score (1 eigenvalue larger than 1, Cronbach's alpha is 0.80, first factor explains 94% of the variation). The  $R^2$  mentioned in Figure 1 is based on a regression with Gelfand et al.'s (2011) cultural looseness-tightness as a dependent variable, the average standard deviation of the Schwartz cultural values as independent variable, and the sample characteristics of the Gelfand et al's. (2011) study as control variables (i.e., average age, language in which survey was administered, number of participants, fraction of female participants, and fraction of student participants).

implication of the strong relation between cultural tightness and national cultural value consensus is that studies using country mean cultural dimensions (e.g., Hofstede's Individualism–Collectivism) may want to correct for the degree of cultural tightness/value consensus in a country by interacting these mean scores with their variance.<sup>1</sup> The significance of the interaction term would indicate the degree to which it is safe to use the mean value scores as a reliable measure of a country culture.

Our view is that Gelfand et al.'s work on cultural tightness is not a reason to stop using country-level value-based research. Country is not the same as culture, but instead of abandoning value-based research completely the real challenge is how we integrate intra-country cultural diversity empirically, and even more importantly, in our theorizing on culture effects. So far, the literature has not provided an overall theoretical framework reconciling intra-country cultural diversity with the notion of national cultures (Peterson, 2016), although significant steps forward are made.

#### Supra-national Cultural Clusters

Second, and in addition to exploring intra-country cultural diversity, a parallel development has emerged that focuses on the distinction between country and culture by emphasizing the supranational level. KLG do not discuss supranational cultural zones in their original article. They implicitly mention supra-national regions in the 2016 retrospective as another possible culture 'container' besides country, that warrants further investigation (KLG, 2016). There is abundant empirical evidence that cultural differences may be more region- than country-specific, in that countries cluster at the supra-national level in well-known cultural zones. This means that cultural values exhibit marked discrete jumps at the boundaries of these supra-national cultural zones, which are more pronounced than the differences at the country levels. The United States belongs to the Anglo-Saxon cluster that also includes New Zealand, United Kingdom and Australia. Similarly, scholars have identified the Nordics and Latin-America cultural zones. The existence of such cultural zones was already included in Hofstede's original work (Hofstede, 1980, Chap. 7), and further confirmed in a recent meta-analysis by Ronen and Shenkar (2013).

The presence of supra-national cultural zones resonates well with the work on country institutional profiles (Kostova, 1997), as well as the literatures on varieties of capitalism (Hall & Soskice, 2001) and comparative corporate governance (Aguilera & Jackson, 2003; Jackson & Deeg, 2008), which explore typologies of countries based on their institutional similarity. The Anglo-Saxon cultural zone from culture research (Ronen & Shenkar, 2013), for example is very consistent with the free or liberal market model from varieties of capitalism (Hall & Soskice, 2001). Exploring supra-national cultural zones as a level of analysis can be equally useful as the above cited work on institutional typologies. As shown, institutional environments shape organizational practices and structures and explain their diffusion and spread within and across countries. Organizations adopt certain ways

of organizing in response to coercive (e.g., regulation), mimetic (e.g., social knowledge), and normative institutional pressures (social values and norms) (DiMaggio & Powell, 1983; Scott, 1995). We can expect similar dynamics to occur as a result of cultural value similarity between countries. Furthermore, institutional similarity between countries can lead to value similarity among them. As Peterson and Barreto suggest, "Countries having a history of close ties because of proximity, trade, conquest or religion show more similar cultural values due to institutional transmission than do countries lacking such ties" (Peterson & Barreto, 2015, p. 26). Although this is a literature in and of itself (see Peterson & Barreto, 2015 for an overview) and beyond the scope of our commentary, we believe that exploring the adoption and diffusion of similar practices at the supra-national cultural region level is a promising area of research.

Furthermore, the institutional literature on varieties of capitalism (Hall & Soskice, 2001) and institutional logics (Thornton, Ocasio, & Lounsbury, 2012) can also inform the work at the supranational culture zones with regard to its conceptualization of entities. Specifically, these institutional literatures conceive of institutional environments more as 'profiles' or sets of characteristics that have 'complementarities' as they 'hang together' as a system, rather than viewing them as separate dimensions (Fainschmidt, Judge, Aguilera, & Smith, 2016). The same approach in culture studies could shift the attention to cultural profiles instead of separate value dimensions. The notion of discrete distance effects occurring at the boundaries of these cultural clusters and the associated conceptualization of cultural differences in terms of cultural profiles is also consistent with Hofstede's remark that national cultural dimensions should be seen in combination (Hofstede, 2011).

If cultural profiles are supra-national, then cultural context mostly changes between regions and less between countries, a conjecture supported by Taras et al. (2016). This may have important theoretical implications for IB, specifically for liability of foreignness research (Zaheer, Schomaker, & Nachum, 2012; Zaheer, 1995). The liability of foreignness argument on the costs of doing business abroad is often applied in a country by country setting, and embedded in cognitive decision-making theory in which change of context plays a key role (DiMaggio, 1997). If the change in cultural context occurs at the supranational level, the liability of foreignness effect

associated with cultural differences is more likely to occur at the supra-national rather than the national level. This is consistent with observations of similar regional effects in other areas. Rugman and Verbeke (2004) have shown that MNEs tend to internationalize within their home region, and only very few firms venture beyond the regional boundaries. A similar supra-national but regional focus has been proposed in recent discussions on firm internationalization (Arregle, Miller, Hitt, & Beamish, 2016), regionalization of global value chains (e.g., Sturgeon, Van Biesebroeck, & Gereffi, 2008) and re-shoring (e.g., DeBacker, Menon, Desnoyers-James, & Moussiegt, 2016). Although we have focused on the level of the nation state, we see the potential of the regional perspective in exploring cultural boundaries and effects. Moving forward along these lines would require culture theory in IB to develop a more precise conceptualization and operationalization of the appropriate level of analysis, the relevant boundaries, and cultural effects. This is important, because as Flores, Aguilera, Mahdian, and Vaaler (2013) show, the choice of the parameters on which to group countries in specific regions impacts the empirical findings obtained.

#### Distance versus Level Effects

Third, KLG's recommendation to distinguish between country and national culture has been addressed through methodological approaches, mainly by better specifying the empirical models used for estimating cultural distance effects. As several scholars have pointed out, under certain conditions, sample structure may lead to a conflation of distance with level effects (Brouthers et al., 2016; van Hoorn & Maseland, 2016, but see also Edwards, 2001, 2002 for a more general discussion on difference scores). When estimating distance effects empirically, it is critical to include multiple home and multiple host countries and control for level effects. As Brouthers et al. (2016) mathematically prove, two well-chosen home or host countries are sufficient to avoid the problem of confounding distance with level effects. Only in this way we can be sure that the estimated distance effect does not simply capture a generic countryspecific or supra-national effect (Harzing & Pudelko, 2016). Studies controlling for distance and level effects are superior to studies doing only one of these (KLG, 2006, p. 312). Together with the previous observation on the relevance of cultural profiles at the supra-national level, this implies that that one would need to control for cultural profile similarity when assessing the effects of cultural distance on a specific outcome.

### Suggestion II: Integrate Additional Cultural Dimensions

Adding new cultural dimensions to the existing ones requires both identification of such relevant new cultural dimensions but also integration of these additional dimensions into existing frameworks which is theoretically and statistically sound.

There are several notable research efforts in the last decade to introduce additional cultural value dimensions. Hofstede himself has extended his original four-dimensional framework to a six-dimensional framework. In 2010, Hofstede extended the Long-term orientation dimension originally developed in 1987 for 23 countries (The Chinese Culture Connection, 1987) with data on 93 countries from the World and European Values Survey (WVS-EVS) (Hofstede et al., 2010). In addition Hofstede (together with Minkov) added a sixth dimension, labeled Indulgence versus restraint, which captures the degree to which societies have strong norms regulating and suppressing the instant gratification of human needs. This value dimension is also measured by questions taken from the WVS-EVS database. In addition to Hofstede's two dimensions complementing his original framework. House and his team introduced the GLOBE framework in 2004 (House et al., 2004). At the time of KLG's writing the added value and relevance of the GLOBE framework had not yet fully materialized; in fact KLG do not cite the 2004 GLOBE book. although later work suggests a rather critical position of one of the members of the KLG team with respect to the GLOBE study (see Taras, Steel, & Kirkman, 2010). Though not without criticism (Hofstede, 2006), GLOBE is a useful addition to the existing cross-cultural frameworks (Smith, 2006). By now, the cross-cultural frameworks of Hofstede, Schwartz and GLOBE jointly shape contemporary international business and management research on cultural value differences (Stahl & Tung, 2015). Both Schwartz' and GLOBE's dimensions are increasingly used in cultural distance research as alternatives to Hofstede-based cultural distance measures (Drogendijk & Slangen, 2006; Siegel et al., 2012; Koch et al., 2016; Shin et al., 2016).

Although WVS-EVS is the only database on values that is longitudinal and covers many more countries than Hofstede or GLOBE, one problem when applying WVS-EVS data in culture research in

international business is that it does not present readily available cultural dimensions such as the ones developed by Hofstede and GLOBE, thus reducing 'recognizability' in management (not in political science and comparative sociology where WVS-EVS has a long tradition). On the other hand, unlike Hofstede and GLOBE, the raw WVS-EVS data are publicly available, which create research opportunities that were not available until recently, such as replication efforts and multilevel analyses. The longitudinal study by Beugelsdijk et al. (2015) is an example of how the WVS-EVS data can be leveraged to address concerns related to Hofstede-based research. In addition to replicating Hofstede's framework with the WVS-EVS new data, the authors take advantage of the longitudinal sample to test the temporal stability of cultural values and cultural distance scores over time, a key concern expressed by KLG. Similar to Inglehart's (1997) work on value change, Beugelsdijk et al.'s (2015) study finds that Hofstede's cultural values do change but in parallel, implying that national cultural distances scores are relatively stable over time (see also Inglehart & Baker, 2000). In general, countries may have become more individualistic, less hierarchical, and more indulgent (cf. Inglehart & Welzel, 2005), but if the majority of the countries tend to move in the same direction, the relative country ranking and the cultural distance between them remains stable. Note that relatively stable cultural differences do not necessarily imply that the effect of cultural distance on international business phenomena remains stable too. The stability of cultural difference and their impact on international business phenomena are two different things. Learning how to deal with 'stable' cultural distances may still lead to a reduced salience of cultural distance, a conjecture that has not (yet) been tested, but one that is in line with the professional intuition of many observers that globalization is associated with a decreasing relevance of cultural differences.

The second challenge related to the addition of new cultural value dimensions concerns their integration into existing frameworks. A fundamental question here is whether these additional dimensions should be seen as substitutes, complements, or a combination of both. From the empirical perspective taken in KLG we think the frameworks developed by Hofstede, GLOBE and Schwartz are not substitutes or complements, but that each of these frameworks partly captures the same variation in cross-cultural values and partly some unique variation not picked by any of the other frameworks (Steenkamp, 2001). This is also supported by the correlation between the cultural dimensions from these different frameworks. Empirically, the integration of multiple frameworks requires a statistical procedure that takes this correlation into account. This is the key contribution of Berry et al. (2010) who showed that for multidimensional distance frameworks with correlated dimensions a so-called Mahalanobis correction is required. Although the Mahalanobis technique is not new (Mahalanobis, 1936), Berry et al.'s (2010) application to distance in the IB context is novel.

KLG's suggestion to explore additional cultural dimensions underscores the question of whether distance measures should be constructed by dimension or as a composite of all dimensions. In our view, the approach should be matched to the particular research question and theoretical argument used. If the theory is around general cultural differences between two countries. we see no reason to study the distance by separate dimension. If, however, the theoretical argument builds on the substance of particular dimensions (e.g., individualism-collectivism), then dimension-specific distance measures should be used. Otherwise, there will be a mismatch between level of theory and level of analysis, which leads to all types of errors. Since most country-level culture research in international business has interpreted cultural differences in terms of cultural distance (KLG, 2006), and most cultural distance research is concerned with general effects of cultural differences (Tihanyi et al., 2005; Magnusson et al., 2008), composite measures integrating all relevant cultural dimensions would continue to dominate this work.

#### Suggestion III: Assess Effect Size

KLG's recommendation to estimate effect sizes of cultural effects in addition to significance levels is also empirical in nature. Their remark is not unique to management or international business (Ziliak & McCloskey, 2008). Scholars across disciplines are slowly shifting from discussing only significance to also estimating the size of the effect under study. This allows a more in-depth analysis of cultural effects. For example, Dow et al. (2016) and Håkanson & Ambos (2010) explicitly compare the marginal effects of various types of distance on entry mode choices and perceived (psychic) distance, which wouldn't be possible if size is not considered.

This trend towards explicitly discussing effect sizes is facilitated by new statistical techniques

available to scholars. To illustrate, cultural distance is often used as an interaction variable in regression models, because exploring the contingency effects of contextual differences on specific relations is central to the field of IB. The interpretation of marginal effects in (multilevel) interaction models however can be challenging. Only recently has the literature provided accessible articles and analytical techniques for an easier statistical assessment and conceptual explanation of how to estimate marginal effects in interaction models (Aguinis, Gottfredson, & Culpepper, 2013; Bowen, 2012: Brambor. Clark. & Golder. 2006: Cortina. Köhler, & Nielsen, 2015). In addition, software packages on how to estimate and present effect sizes have become publicly available, which too has facilitated the examination of effects sizes. This is not a development that can be solely attributed to KLG's seminal article, but the fact is that KLG clearly sensed where the literature in this respect would be going in the years to follow, and they actively pushed this practice (see e.g., Taras, Kirkman, & Steel, 2010).

To conclude, in our review of the literature in the last decade we have found a series of examples which illustrate how different scholars have put into practice KLG's 2006 recommendations. In their totality that has improved the usefulness and rigor of country-level value-based culture research. In the next section we present an empirical test of KLG's recommendations.

#### **PUTTING KLG'S RECOMMENDATIONS TO TEST**

The goal of KLG'S 2006 paper was to improve empirical studies using Hofstede's framework. Here we put this claim to test - do their recommendations indeed increase the rigor of country-based culture research? Specifically, we replicate a published study: Håkanson & Ambos' (2010) analysis of psychic distance. Psychic distance is referred to as factors preventing or disturbing the flow of information between potential and actual suppliers and customers (Johanson & Vahlne, 1977, p. 24), and is frequently used to explain expansion patterns of internationalizing firms. Psychic distance is generally understood to be determined by both individual level and country-level characteristics, including differences in language, political regimes, geographic distance and also cultural distance (Dow & Karunaratna, 2006; O'Grady & Lane, 1996). Unlike cultural distance which is based on a comparison of 'objective' sets of values that

people in different countries hold, psychic distance is in essence perceptual. Håkanson & Ambos (2010) empirically tested the relationship between cultural distance and psychic distance (average countrylevel perception of distance), while controlling for geographic and economic distance. They found that cultural distance is positively related to psychic distance, but the effect of cultural distance is relatively smaller than that of geographic distance. We retested the same relationship but following KLG's three recommendations. That is, (a) we compute a Mahalanobis-based composite measure for cultural distance integrating the six-dimensional Hofstede framework with Schwartz's sevendimensional values framework and GLOBE's ninedimensional system of national cultural values (recommendation II), (b) we test the impact of cultural distance while controlling for cultural profiles effects (recommendation I) and (c) we assess the effect size of cultural distance, in addition to its significance (recommendation III).

We chose Håkanson & Ambos' (2010) paper because it fits the scope and focus of KLG's discussion – it tests the relation between cultural and psychic distance, which KLG suggest; it uses the Hofstede-based cultural distance index which is central to the country level discussion in KLG; it compares the cultural distance effect with other distance effects, thus explicitly addressing the effects size discussion; its uses a sample with multiple home and host countries, allowing us to explicitly address the distance versus profile question. Furthermore, all required data for the retest are publicly available.

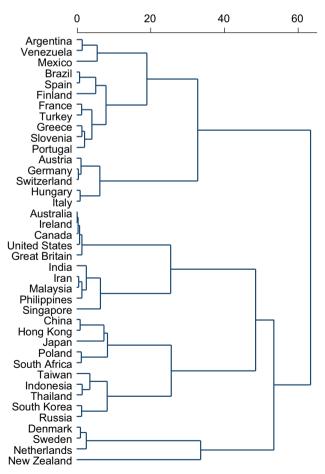
## Integrating Multiple Frameworks in a Composite Distance Index

We first calculate the Mahalanobis-based cultural distance integrating the dimensions of the three culture frameworks Hofstede, Schwartz and GLOBE. The resulting cultural dimensions do not correspond to any of the original dimensions in the three frameworks. They are statistical combinations derived from maximization of the variance explained and minimization of correlations between the resulting dimensions. Our interest here is not to interpret these new dimensions, but to calculate cultural distances between country pairs, and explore the presence of supra-national cultural zones based on a minimization of these distances. Given the availability of data on these three frameworks for 40 countries, we obtain N = 40\*39 = 1560 country pair scores.<sup>2</sup> The correlation between the traditional Hofstede's

based index criticized by KLG and the new threeframework based composite index is .6 suggesting that the composite index measures something different than the traditional index.

We use this Mahalanobis composite distance index to further explore the presence of cultural zones at the supra-national level. We apply Ward's hierarchical clustering method based on minimizing within group variance and maximizing betweengroup variance. Figure 2 shows the dendrogram (tree diagram) of the 40 countries and their cultural clustering in supranational regions. The length of the horizontal lines indicates the degree of fit. The longer the line, the smaller the fit. The left nodes representing the individual countries are all plotted at zero distance.

To corroborate the results obtained, we compare these supra-national cultural zones with Ronen and Shenkar's (2013) meta-analysis of cultural zones. We perform a linear discriminant analysis which attributes these 40 countries to Ronen and Shenkar's cultural zones based on minimization of the



**Figure 2** Dendrogram of the cultural profile clusters integrating Hofstede, Schwartz and GLOBE (Mahalanobis corrected).

Sjoerd Beugelsdijk et al

Mahalanobis distances. Of the 40 countries in our analysis, only three are misclassified yielding a correct classification rate of 93%.<sup>3</sup> This gives us confidence to conclude that the addition of Hofst-ede's fifth and sixth dimension and the subsequent integration of Hofstede, Schwartz, and GLOBE in a Mahalanobis based distance index yields country-level cultural profiles that can be considered valid. This is important because it shows support for KLG's recommendations and also illustrates a way to incorporate them into empirical practice.

## Re-estimating the Cultural Distance – Psychic Distance Relation

We re-estimate Håkanson & Ambos (2010) using the Mahalanobis based distance index that integrates Hofstede, Schwartz and GLOBE, as well as the supranational cultural profiles obtained in our analysis. The online appendix provides a summary of the variables used. For measurement of psychic distance we refer to Håkanson & Ambos (2010). Here we only discuss the main results. Just like in Håkanson & Ambos (2010), all our continuous variables are standardized for an easier interpretation and comparison of the size of the estimated coefficients. Model 1 in Table 1 presents the regression model relating the traditional Hofstede based distance index to psychic distance. Similar to the original test, we find that cultural distance is significant, but its effect size is smaller compared to geographic distance, especially longitudinal (time zone) distance.

We now implement the above recommendations in three steps. First, we substitute the original Hofstede-based cultural distance index by the newly developed Mahalanobis composite cultural distance index (Model 2). Cultural distance continues to be significant and its effect size is even larger than that of the original index. Second, we add dummies for supra-national cultural regions to control for cultural profile effects while estimating the cultural distance effect (Model 3). We find that the explained variance increases, and country pair cultural distance remains significant. Cultural profiles (cultural regional clusters) also significantly impact psychic distance and the effect varies across cultural zones. Interestingly, all else equal, individuals generally perceive the Anglo-Saxon cultural zone to be the closest regardless of their own cultural zone. Third, to explore whether the cultural distance effect is a continuous country-bycountry distance effect or a discrete cultural profile effect we add a dummy taking the value 1 if the home and host countries belong to different supranational cultural zones (Model 4). This dummy is highly significant and the effect of country pair cultural distance becomes negligible both in size and significance (it is significant only at p < .10). The other finding in Håkanson & Ambos' (2010) study that geographic distance has a larger impact on psychic distance stands.

We can conclude therefore that psychic distance in this model is mostly driven by the supra-national cultural zone rather than the country-level cultural distance. These results provide evidence for the validity of KLG's recommendations underscoring the relevance of supra-national cultural profiles or zones as an alternative and rather relevant level of analysis in culture studies. This is an important and interesting finding worth further exploration – where, when and how, under what circumstances, and for what research questions do countries versus cultural zones/clusters become more prominent and relevant as level for theorizing and analysis.

Our multi-prong approach of using a combination of a (modified) national cultural distance index and a supra-national cultural profile measure is an example of poly-contextualization discussed by several international business scholars (Von Glinow, Shapiro, & Brett, 2004; Tsui, Nifadkar, & Ou, 2007). It is also consistent with KLG's implicit idea that the condition of complex multiplicity and multi-layeredness of cultural contexts requires an equally complex approach to conceptualizing and operationalizing cultural effects. While appropriate in the early stages of this line of work, the use of Hofstede-based national cultural distance indexes should be revisited. In many instances, such measures should be complemented by composite national cultural distance indexes which integrate multiple cultural frameworks, or measures at alternative levels of analysis such as supra-national cultural clusters. Cultural effects would be the strongest at the level at which values are most distinctively shared within and differing between. In the appropriate theoretical context and with the right methodological approach, international business scholars could derive useful results on cultural effects at these alternative levels. All in all, our stepwise re-test of Håkanson & Ambos (2010) shows the relevance and importance of KLG's work.

#### **GOING FORWARD**

Reflecting on the trajectory of country-level culture research in the context of KLG's 2006 paper and the results of our empirical test of their ideas,

	Model 1	Model 2	Model 3	Model 4	
		Step 1	Step 2	Step 3	
Dependent variable					
Psychic distance to a country ( <i>source:</i> Håkanson & Ambos, 2010)	Standard model	Integrating recommendation to explore and integrate additional dimensions by including Hofstede, Schwartz, and GLOBE	Integrating recommendation to distinguish between cultural profile and cultural distance by including supra-national cultural profiles	Integrating recommendation to distinguish between cultural profile and cultural distance by including discrete difference between cultural profiles	
Variables of interest Cultural distance (Traditional Hofstede- based index)	1.73 (2.14)**		·		
Composite Mahalanobis-based cultural distance index (integrating Hofstede's additional dimensions,		3.14 (3.89)**	3.38 (5.39)**	1.25 (1.80)	
Schwartz and GLOBE)	ilo (Analo Savon is defau	(+)			
Host country cultural profi Latin Europe Nordic Germanic Latin America Eastern Europe Confucian Asia Near East Far East Different cultural profile (dummy takes 1 if home	le (Anglo-Saxon is defaui	<i>t</i> )	7.7 (4.83)** 10.1 (5.93)** 10.8 (6.57)** 14.2 (8.81)** 22.9 (12.47)** 26.3 (15.51)** 29.4 (12.57)** 31.4 (13.27)**	6.3 (4.05)** 10.6 (6.5)** 9.7 (6.06)** 14.9 (9.58)** 21.6 (12.14)** 27.5 (16.7)** 27.5 (12.12)** 29.5 (12.88)** 11.28 (6.05)**	
and host belong to different cultural zone) Control variables					
Longitudinal distance	7.28 (10.2)**	6.9 (9.5)**	8.8 (15.3)**	8.6 (15.33)**	
Latitude distance Economic distance Country size	3.33 (5.16)** 2.13 (3.1)** 2.03 (3.26)*	3.5 (5.4)** 1.9 (2.8)* 2.1 (3.44)**	4.9 (9.29)** 1.8 (3.8)** 1.9 (3.8)**	4.6 (8.85)** 1.73 (3.78)** 1.99 (4.23)**	
difference Language overlap Former colonial relation	-6.9 (9.9)** -19.3 (6.3)**	-7.2 (10.5)** 19.1 (6.3)**	-3.6 (6.05)** -9.9 (4.55)**	-3.6 (6.19)** -7.7 (3.63)**	
Shared border Number of country pairs R <sup>2</sup>	–13.4 (5.2)** 506 .58	12.3 (4.84)** 506 .59	–10.9 (5.96)** 506 .81	-8.1 (4.44)** 506 .82	

 Table 1
 Comprehensive test of recommendations made in response to Kirkman et al. (2006) using the psychic distance data by

 Håkanson & Ambos (2010)

*Note*: All continuous variables are standardized facilitating the interpretation and comparison of the estimated coefficients. For details regarding sample and data we refer to the original article by Håkanson & Ambos (2010).

\*\*p < .01, \*p < .05. t values between parentheses. Regressions are estimated using OLS.

we would suggest two directions for future research – one related to the level of analysis and in particular the supra-national cultural region, and the other – to the mechanisms which explain the link between country and individual in addition to, or instead of cultural values. While recognizing that developing these ideas is challenging, we view them as rather promising ways forward for enriching culture research in international business.

First, despite their broad coverage of the literature at the individual and country levels, KLG do not discuss in the 2006 paper the supra-national regions and the clustering of countries based on cultural profiles. Even in the 2016 retrospective, the authors only indirectly mention supra-national regions as potentially relevant. As we argued conceptually and showed empirically, the supra-national cultural level is worth investigating in studies of culture and cultural distance effects. It might be that KLG did not consider this given the small number of empirical papers at this level of analysis. Data on regional/cluster cultural indicators are also limited. However, the notion of supranational regions with similar cultural profiles logically emerges from KLG's paper and our test illustrates its empirical relevance for perceptions of distance. Thus we expect future country-level Hofstede-inspired research to explicitly include this level of analysis as well. We conjecture that in many cases, the continuous national cultural distance effects might be trumped by the discrete cultural profile/region effect.

One possible counterargument against the use of cultural profiles is the potential loss of information: variation on individual cultural dimensions is reconceptualized in information based on country clusters. This need not be a problem however. Theoretically, the notion of cultural profiles is closer to an understanding of culture as a set of interrelated dimensions. Hofstede himself has frequently mentioned that cultural dimensions only exist in our imagination, and should be seen in combination (Hofstede, 2011). And as Tsui et al. (2007, p. 462) argue most eloquently: "culture is a latent, a hypothetical construct, and most definitions refer to culture as a pattern". It is not a list of independent dimensions but an "integrated, complex set of interrelated and potentially interactive patterns characteristic of a group of people" (Lytle et al., 1995, p. 170; Tsui et al., 2007). Empirically, the use of cultural profiles instead of cultural dimensions can be dealt with using methods such as fuzzy set analysis or QCA (Fiss, 2011; Ragin, 2008), which allow assessing the effects of different configurations of the cultural profile rather than the set of individual dimensions or the aggregated number (Hotho, 2014).

Second, we agree with KLG's suggestion to consider alternative (to values) conceptualizations in exploring cultural effects in international business. Theoretically, for example, the situated dynamics framework developed by Leung & Morris (2015) and included in KLG's roadmap for future culture research holds great promise by relating culturally embedded mechanisms to individual outcomes. Fundamentally, this approach evolves around values held by individuals, who in their interaction with others develop norms and cognitive schema on how to behave in groups. What complicates the relation between cultural and individual level is that the sum of individually held values does not necessarily equal the country-level cultural values, even though we often assume so empirically.

The value-based approach and the associated (mal)practice of equating country with culture assumes full consensus on cultural values, i.e., all inhabitants in a country agree on the same values resulting in strong norms and a tight culture. Gelfand et al. (2011) clearly showed this need not be the case, and countries vary in their degree of value consensus. We showed that countries that score high on the degree of consensus resulting in tight norms also have relatively homogeneous values. A more fundamental question here is if not shared values, what creates a shared sense of affiliation with a particular country, which is important in international business? The unraveling of the different paths in which individuals come to identify with a certain country (beyond, or despite the lack of, shared cultural values) is an exciting opportunity for enriching our understanding of the interplay between culture, nation states, and individual behavior. Work in sociology, social psychology, and political economy might be useful in tackling the questions of how the concept of self emerges as related to country and culture, how people conceive of the boundaries of their cultural groups ('me' vs. 'the other'), how the notion of a nation state becomes socially constructed and sustained. Work in cognitive psychology on schema and norms can also be useful here, especially when the schema and norms have a countrylevel dimension. Cultural schema are shared by cultural groups and thus are likely to shape distinct patterns of behavior within group boundaries.

Finally, the literature on national identity could also be very useful here (Anderson, 1983; Billig, 1995). National identity is related to a sense of imagined community and need not be based on shared values, although it is a powerful source of identification. Following the argument made by political scientists that national identity has become more important in response to globalization (Kaldor, 2004), one may even conjecture that people's values and the (perceived) uniqueness of their nation, national cultures have become more salient. It is an open question whether the need for national identity in a globalized world makes national cultural values more salient, and how it affects international cooperation in business settings.

Table 2 summarizes information from the World Values Survey for 84 countries on people's main sense of belonging. It clearly shows that most people first identify with their immediate locality (39%) closely followed by country (36%), but not so much with either subnational regions (14%) or supra-national regions (5%).

Interestingly, although cultural values tend to be shared in supra-national cultural clusters as discussed earlier, people hardly identify with such supra-national cultural clusters. Similarly, it is interesting to observe that in only three of the 84 countries (Austria, Germany, and Switzerland) people indicate that they identify primarily with the subnational region, and only after that with country. And, it is exactly these three countries in which sub-national regions (called German Länder or Swiss Kantons) have a significant administrative institutional function with strong historical roots.

While values will continue to be very useful in explaining cross-country differences in behavioral patterns and organizational arrangements, these other concepts and theoretical perspectives hold great promise to explain different, yet important country-level effects in the absence of sharedness of cultural values or for a different set of outcomes.

#### CONCLUSION

KLG wrote an article that - looking back - turned out to be rather impactful. They not only provided a thoughtful overview of a very large Hofstedeinspired literature which is useful in and of itself, but also offered a series of recommendations that have contributed to more nuanced and sophisticated study of culture in international business. We limited our commentary to the country level of analysis but we believe that our assessment of their impact is true for the other levels as well. As KLG discussed country-level culture research mostly in terms of cultural distance, our commentary focused on cultural distance as well. However, it is important to realize that Hofstede-inspired country-level culture research is more than just distance research. Hofstede himself did not develop the distance concept; it was 'us' (i.e., the international business and management community), as 'heavy' users of his framework on national cultural differences that allowed the cultural distance concept to feature so prominently in national culture research in international business. It is important to keep in mind that cultural differences and cultural distance are not the same. In fact, one can see value in Hofstede's effort to differentiate cultures but be critical of the idea to measure cultural distance.

As illustrated above, the original paper has had a strong following and has led to a number of extensions in the way culture value research has been applied in the last decade. Our empirical test also showed that incorporating KLG's recommendations

<b>Table 2</b> Main source of identification: local, regio	nai, nalionai, supra-nalionai (in % c	n total respondents) by	supra-nation	al cultural
cluster as defined by Ronen & Shenkar (2013)				
		<b>c</b> ,	<b>.</b>	

	Local	Sub-national region	Country	Supra-national region
All 84 countries	39%	14%	36%	5%
Nordic	46	13	33	4
Latin Europe	42	16	29	7
Germanic	38	39	22	5
Anglo-Saxon	38	13	38	6
African	37	14	36	6
Eastern Europe	45	13	34	4
Latin America	34	14	35	8
Arab	22	12	55	6
Confucian Asia	39	18	39	2
Far East	36	15	43	3
Near East	35	12	42	5

*Note*: Data are taken from the combined World and European Values Survey. Scores are wave-averaged (1990–2010) to obtain data for as many countries as possible. The question used in WVS-EVS is the following: "To which of these geographical groups would you say you belong first of all?" Respondents have a choice between locality, region, country, continent and world. We grouped continent and world under the heading supra-national. The numbers do not add to 100% because we took the wave averaged scores. The total number of respondents is 291,108. For more details on the World and European Values Survey we refer to their respective websites (www.worldvaluessurvey.org, and www.europeanvaluesstudy.eu). In both cases the question used is coded G001.

makes a difference – it produces more reliable and rigorous results on the effects of culture, which are possibly different from the traditional approach. More importantly, KLG's ideas have brought forth a number of novel insights and research questions that could shape a more forward looking research agenda. As our field continuous to grow and diversify, we need more contributions like this that synthesize, integrate, and push our collective scholarship to the next level. We think this is the main reason why the KLG 2006 paper became this year's *JIBS* Decade Award winning article.

#### ACKNOWLEDGEMENTS

The first author thanks the Netherlands Organization for Scientific Research (NWO) for their financial support (VIDI Grant 452-11-010).

#### NOTES

<sup>1</sup>An alternative technical perspective of the interaction between cultural mean scores and the standard

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deviation on these cultural dimensions is to think of the standard deviation as the extent to which the mean contains measurement error. In countries with a high standard deviation, the measurement error can be considered large, requiring a correction of the extent to which the mean is mis-measured. We think the degree of value consensus itself also has substantive meaning, as shown already by Gelfand et al. (2011). For that reason we prefer to think of the interaction between cultural values and cultural tightness as not only a technical correction.

<sup>2</sup>Although these data are only available for 40 countries, 73% of the global FDI stock is concentrated in these 40 countries (UNCTAD, World Investment Report, 2015). That is to say that the sample size may be relatively small in terms of number of countries covered, its relevance to IB is substantial.

<sup>3</sup>The three misclassified countries are Brazil, Slovenia and Taiwan. Note that Taiwan was classified in Ronen and Shenkar's Eastern European cluster with a probability of 52% while Ronen and Shenkar put it in the Confucian cluster where it has a probability of 41%.

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Supplementary information accompanies this article on the *Journal of International Business Studies* website (www.palgrave.com/journals)

Accepted by John Cantwell, Editor-in-Chief, on 22 August 2016. This article was single-blind reviewed.