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ARE SCORES ON HOFSTEDE'S DIMENSIONS OF NATIONAL CULTURE STABLE OVER TIME? A COHORT ANALYSIS

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Hofstede's framework, which is based on survey data collected in the late 1960s and early 1970s, dominates quantitative culture research in international strategic management. However, as countries develop economically, modernization theory predicts shifts in cultural values, which likely affect countries' scores on Hofstede's work-related values dimensions, in turn raising doubt about the continued relevance of this framework for global strategy researchers and practitioners. We examine how country scores on Hofstede's dimensions have developed over time by replicating Hofstede's dimensions for two birth cohorts using data from the World Values Survey. Results indicate that, on average, contemporary societies score higher on Individualism and Indulgence versus Restraint, and they score lower on Power Distance than do past societies. We find that cultural change is absolute rather than relative, meaning that countries' scores on the Hofstede dimensions relative to the scores of other countries have not changed very much. As a consequence, cultural differences between country pairs (i.e., cultural distances) are generally stable. We discuss the implications of our findings for global strategy research. Copyright © 2015 Strategic Management Society.

INTRODUCTION

A key challenge for global strategy concerns managing the dissimilarities that exist between the various societies in which a multinational firm operates (Ghemawat, 2007). Variation in culture and the values of societies constitutes an important part of these differences (Ghemawat, 2001). Culture shapes perceptions and responses to strategic challenges, making it vital for multinational managers to recognize cultural differences and deal with this diversity effectively (Schneider and De Meyer, 1991). Key research themes in global strategy, therefore, involve culture and, especially, cultural values differences

(Hofstede, 1994; Lewin and Kim, 2004; Tung, 2008). These literatures rely on various frameworks, including Hofstede (1980, 2001), Schwartz (1994, 2006), GLOBE (House *et al.*, 2004), Trompenaars (1993), and the World Values Survey (Inglehart, 1990, 1997). Although not without criticism (Ailon, 2008; Baskerville, 2003; McSweeney, 2002; Taras, Steel, and Kirkman, 2010), Hofstede's framework in particular dominates the field (see Kirkman, Lowe, and Gibson, 2006 for an overview).¹

Keywords: Hofstede; cohort; world values survey; cultural change; cultural distance

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¹ The appeal of Hofstede's culture framework is reflected in the consistently high number of citations to his studies, ranking his work among the most highly cited works in social science. As of May 2015, Google Scholar generates more than 100,000 citations to Hofstede, of which more than 40,000 are citations to the first edition of his book on culture's consequences (Hofstede, 1980) and more than 25,000 are for the second edition published in 2001. In comparison, the 2004 GLOBE study (House *et al.*, 2004) has close to 4,000 citations.

A recurring concern in the literature is the temporal stability of culture measures and measured cultural differences (Leung *et al.*, 2005; McSweeney, 2009; Shenkar, 2001; Tung and Verbeke, 2010). Theories of cultural change have predicted convergence, stability (divergence), or some combination thereof (Inkeles, 1960; Inglehart and Baker, 2000; Ralston *et al.*, 1997; Webber, 1969). Concerns about temporal stability apply particularly to Hofstede's culture framework because of its widespread use and because Hofstede's dimensions of national culture are based on survey data collected 45 years ago. A key open question is whether the scores on these dimensions of national culture—developed in the late 1960s and the early 1970s—are still representative of today's globalized societies. Specifically, if we were to discern a similar set of national culture dimensions for contemporary societies, to what extent would countries' scores on these dimensions be stable over time?

To test whether shifts in countries' scores on the Hofstede dimensions can be observed, we follow sociological theory and apply a dynamic approach that considers two separate birth cohorts, an older and a younger one. We use data from the World Values Survey (WVS), covering more than 340,000 individuals from almost 100 different countries, with data collected from 1981 to 2008. The first, older cohort is used to replicate Hofstede's dimensions and is based on an analysis of the values of individuals belonging to the working population at the time of Hofstede's original study in the late 1960s and early 1970s. A carefully designed ecological correlation analysis, factor analysis, and subsequent reliability analysis allow us to replicate three of the four original Hofstede dimensions (Individualism, Uncertainty Avoidance, and Power Distance, but not Masculinity/Femininity), as well as one of the two dimensions that Hofstede added to his framework later (Indulgence versus Restraint, but not Long-Term Orientation). Based on this replication, we also derive national culture scores for the second, nonoverlapping cohort (mostly belonging to the current working population) and compare countries' scores on the dimensions of Individualism, Power Distance, Uncertainty Avoidance and Indulgence versus Restraint between the two cohorts. We do not compare scores on the Long-Term Orientation dimension, as this dimension suffers from poor reliability.

We find, first, that Hofstede's dimensions of national culture can be replicated for different

cohorts using contemporary values data. Second, we find that the scores on our replicated dimensions of national culture have changed. Specifically, results indicate that, on average, societies have become significantly more Individualistic, more Indulgent/less Restrained, and less hierarchical, as reflected in lower scores on Power Distance. However, country scores on Uncertainty Avoidance have not changed significantly. Third, results reveal that the change in scores on these dimensions has been *absolute* and not *relative*. That is to say, countries have moved along the same path with value differences between countries staying more or less the same. An implication of this finding is that, on average, the cultural distance between countries is relatively stable. A notable exception is the U.S., for which we find that cultural distance to other countries has decreased.

Our findings contribute to the literature in two related ways. First, we respond directly to an oft-heard disclaimer in extant culture research in global strategy concerning the temporal stability of Hofstede's dimension scores (e.g., Shenkar, 2001). Rather than making a generic claim that Hofstede's dimension scores are (not) outdated, we have sought to address this issue empirically to find that the overall picture on cultural change is more subtle. Second, the relevance of culture for strategic challenges such as how to deal with corruption (Martin *et al.*, 2007), the amount of discretion to grant to CEOs (Crossland and Hambrick, 2011), or whether to focus on long- or short-term profitability (Hayward and Kimmelmeier, 2007; Lewin and Kim, 2004) has not been diminished by processes of global cultural convergence. In fact, our results indicate that using Hofstede's data in international strategic management research is as relevant now as it was when his work was first published. Hofstede's scores on dimensions of national culture have not become irrelevant simply because they were developed 45 years ago. Instead, we call for a better understanding and increased awareness of when and for which countries the field can still rely on Hofstede's framework and when to be more careful in sampling a specific set of countries.

THEORY AND BACKGROUND

Culture in international strategic management

The study of culture in international management has a comparative and an interactive tradition

(Beugelsdijk, 2011). Comparative research focuses on showing the effects of societies' cultural backgrounds on all kinds of outcome variables, ranging from human resource practices through attitudes toward corruption and opportunism to national innovation rates and economic development (Aycan *et al.*, 2000; Hofstede and Bond, 1988; Chen, Peng, and Saporito, 2002; Johnson and Lenartowicz, 1998; Martin *et al.*, 2007; Rosenzweig and Nohria, 1994; Ryan *et al.*, 1999; Schneider and De Meyer, 1991; Shane, 1993). In this literature, researchers most frequently use the framework developed by Hofstede (1980, 2001) to study levels of culture. As Hofstede's framework identifies a set of universal dimensions of national culture on which all societies can be located, it allows for intercultural comparisons.

Interactive culture research does not consider the direct effects of countries' cultures on outcomes, but rather focuses on the question of how managers and multinational firms deal with or are affected by the fact that they are operating in multiple, dissimilar cultural environments. Researchers in this tradition have primarily studied culture as a source of distance. In this literature, the concept of cultural distance, or the degree of difference between national cultures, is taken as an important input for psychic distance (Beckerman, 1956; Dow and Karunaratna, 2006) and for the liability of foreignness experienced by firms operating abroad (Bae and Salomon, 2010; Eden and Miller, 2004; Peng, Wang, and Jiang, 2008; Zaheer, 1995). Indeed, many empirical studies have examined the impact of measures of cultural distance on a range of issues in international management and global strategy (for surveys, see Kirkman *et al.*, 2006; Tihanyi, Griffith, and Russell). The theoretical interest in the concept notwithstanding, empirical results on the effects of cultural distance are mixed, which has been related to the incomplete operationalizations of cultural distance (Kirkman *et al.*, 2006; van Hoorn and Maseland, 2014; Shenkar, 2001). The most common operationalizations of cultural distance are based on differences in scores on Hofstede's dimensions between country pairs (Kogut and Singh, 1988).

Hofstede's dimensions of national culture

Hofstede (1980) constructed his culture framework from data collected in attitudinal surveys conducted in subsidiaries of IBM in 72 countries from 1967 to 1973. Hofstede (1980) subsequently was one of the

first researchers to use factor analysis and reduce cross-national cultural diversity to country scores on a limited number of dimensions. Hofstede's work provided researchers with a consistent and parsimonious quantification of cultural differences between countries, causing a surge in empirical studies about the impact of culture on the activities and performance of multinational firms (Kirkman *et al.*, 2006). Although competing frameworks and dimensions of national culture have appeared since (Schwartz, 1994; Trompenaars, 1993; House *et al.*, 2004), none of these works has yet reached the level of influence that the Hofstede framework has. Hofstede (1980) originally identified four dimensions of national culture: Individualism (or Individualism/Collectivism), Power Distance, Uncertainty Avoidance, and Masculinity/Femininity. The fifth and sixth dimensions, Long-Term Orientation and Indulgence versus Restraint, were added later. Only the four original dimensions are based on the surveys conducted at IBM, while scores for the latter two dimensions are based on items and data from the World Values Survey.

Individualism denotes the extent to which society sees people primarily as individuals looking after themselves (high individualism) or primarily as members of tightly knit communities (low individualism). *Power Distance* reflects the extent to which people in a society expect and accept that power is distributed unequally. *Uncertainty Avoidance* measures the degree to which members of society are comfortable in unstructured situations. High uncertainty avoidant cultures are characterized by a strong need for predictability and control over the environment. *Masculinity/Femininity* reflects the emphasis in society on caring for others, solidarity, and quality of life (Femininity), as opposed to achievement and success (Masculinity).

The *Long-Term Orientation* dimension was uncovered in a study by the Chinese Culture Connection (1987) project, which sought to remedy the potential Western cultural bias in the original IBM survey by running a separate survey designed by an independent team of Asian researchers (Hofstede and Bond, 1988). The project confirmed the existence and relevance of the four Hofstede dimensions, but also identified a fifth, until then unknown dimension. Initially this fifth dimension was labeled Confucian Dynamism to reflect the Confucian nature of the values it included. However, Hofstede (1991) changed the name of this dimension to the more general Long-Term Orientation. Cul-

tures scoring high on Long-Term Orientation tend to be more future oriented, accepting delayed gratification of material and social needs. Such cultures are characterized by strong persistence and thrift, whereas cultures that are short-term oriented value respect for tradition and social obligations more.

While the original Long-Term Orientation scores are available only for a limited number of countries, Hofstede, Hofstede, and Minkov (2010) recalculated this dimension using value items from the WVS and using data imputation techniques to increase the number of countries for which scores on this dimension are available to 93. Hofstede *et al.* (2010) further introduced a sixth dimension called *Indulgence versus Restraint*, originally discovered by Minkov (2007; see, also, Minkov, 2011). This dimension was also identified on the basis of WVS items and reflects the degree to which societies have strong norms regulating and suppressing the instant gratification of human drives.

Cultural stability and change

The argument that culture is stable (e.g., Hofstede, 2001) is related to the so-called culturalist perspective (Beugelsdijk and Maseland, 2011; Khalil, 2010), which claims that values differences between societies are deeply rooted in history and drive socioeconomic developments rather than the other way around (Weber, 1904/5; Huntington, 1996). According to Hofstede (2001), value systems have their origins in ecological factors. From thereon, however, value systems lead to the emergence of particular institutions in society, such as family structures, law, education systems, and political structures. These institutions, in turn, reinforce the values underlying them, as they direct the socialization of younger cohorts and shape the evolution of knowledge in society. Such symbiosis between the institutions of a society and the mental models held by its population creates a strong degree of stability in both culture and formal institutions (Hofstede, 2001; North, 1992, 2005). In the culturalist perspective, countries' scores on the dimensions identified by Hofstede, thus, reflect a long historical evolution. As Hofstede (2001: 12) puts it, culture is 'the crystallization of history in the minds, hearts, and hands of the present generation.' Because each society has its own particular history that cannot be changed, values differences between societies are highly persistent.

Doubts about cultural stability are fuelled by a large literature on societal value change during pro-

cesses of modernization and globalization. Building on Marx's view of social consciousness as a reflection of a society's economic structures (Marx, 1846), modernization theorists have long argued that continued economic development goes together with predictable changes in norms, values, and beliefs (Bell, 1973; Inglehart, 1990, 1997; McClelland, 1961; Nash, 1964). Most notably, the shift from industrial to post-industrial society brings about fundamental changes in people's daily experiences, which are reflected in changing worldviews (Inglehart and Baker, 2000). Whereas industrial structures require rational, hierarchical forms of organization and matching attitudes toward authority, in a service-dominated, post-industrial economy, information processing and communication become much more important. As a result, values such as self-expression and autonomy get stressed (Inglehart, 1990). This shift in emphasis would translate in higher scores on individualism and lower scores on power distance in the Hofstede framework. In addition, increasing prosperity implies that entire birth cohorts in developed countries grow up taking material security and survival for granted. Since people tend to attach more value to objects that are in short supply, these cohorts subsequently increasingly tend to emphasize issues such as quality of life, freedom, and aesthetics over economic and physical security (Inglehart, 1997; Inglehart and Baker, 2000; Leung, 2006). The Hofstede dimensions are not immune to such forces, as they relate to levels of economic development (Hofstede, 2001; Tang and Koveos, 2008). We summarize this discussion in Hypothesis 1, which concerns changes in countries' scores on the Hofstede dimensions:

Hypothesis 1: Country scores on Hofstede's dimensions of national culture have changed over time.

Even when the scores on these dimensions of national culture change, what happens to cultural distance in this process is an open question. The earlier arguments imply that, on the one hand, dimension scores are likely to change, but that, on the other hand, differences can be expected to persist as well. Under the influence of economic and technological developments, societies will probably become more individualistic, less permissive of hierarchies, and more focused on indulgence and enjoying life. However, these changes are largely the same for societies worldwide, while the fundamental differ-

ences between societies rooted in each society's historical and institutional legacy remain. The upshot is what Ralston (2008) calls static crossvergence: convergence in the sphere of economic and political values coinciding with continued diversity in the cultural sphere (cf. McGrath *et al.*, 1992). In this scenario, 'cultures change, (but) they change in formation' (Hofstede, 2001: 36). Cultural distances would then remain the same, as the observed cultural change does not cause alterations in the positions of countries on Hofstede's dimensions relative to each other.

Still, there are also ample theoretical reasons to expect that cultural distances between countries do change. Apart from changing economic conditions, globalization in the sense of increased contact between societies is also likely to affect the evolution of national cultures (Zaheer, Schomaker, and Nachum, 2012). More in particular, exposure to Western media, education systems, management techniques and consumer goods has been suggested to cause a global convergence of cultures. When younger cohorts grow up being exposed to American culture (Hollywood, MTV) and socialized in Western education programs during their formative years, these experiences are bound to leave an imprint on their values. As these younger cohorts gradually replace their parents in society, society as a whole experiences cultural change in the direction of a more Americanized, global culture (Ritzer and Ryan, 2004). More recently, the shift of economic weight toward Asia has led some scholars to predict cultural convergence toward Asian values and beliefs in the near future (Sheth, 2006). Formal translation of these theoretical ideas gives us the following hypothesis:

Hypothesis 2: Country differences in the scores on Hofstede's dimensions of national culture (i.e., cultural distance) have decreased over time.

DATA AND SAMPLE

Measuring changes in values

Methods for measuring cultural change fall into four main categories. First, value change has been studied by means of new survey instruments. The GLOBE project (House *et al.*, 2004), for instance, has been heralded as a more recent source of information on cultural dimensions and countries' positions on them

(Hutzschenreuter and Voll, 2008; Javidan *et al.*, 2006) that can be compared to the results reported by Hofstede (1980, 2001).

Second, using the same survey instrument, measurements at different points in time may be compared to see whether values change or are stable. For example, Heuer, Cummings, and Hutabarat (1999) investigate the stability of Hofstede's value measures by exposing MBA students and middle-level private sector managers from Indonesia and the U.S. to a survey similar to Hofstede's original IBM study.

A downside of these first two approaches is that survey measures are not completely identical, complicating comparisons. The vigorous debate on whether the GLOBE and Hofstede frameworks measure the same things illustrates this point (Brewer and Venaik, 2011; Hofstede, 2006; Javidan *et al.*, 2006; Maseland and van Hoorn, 2009; Smith, 2006). In addition, the costs of conducting a survey of the size of Hofstede's IBM study are prohibitive for engaging in such an endeavor on a regular basis (Zaheer *et al.*, 2012).

A third approach involves replicating value survey results with different types of data that are available at later points in time. Tang and Koveos (2008), for instance, report a strong cross-sectional relationship between some of Hofstede's culture dimension scores and per capita income levels and other institutional factors. They subsequently use this finding to calculate updated dimension scores using time series data on income per capita. The extrapolation of cross-sectional relations to relations within countries over time is only useful if culture dimensions can be replicated by means of readily available data that contain little information other than information on cultural differences. Replications of culture dimensions on the basis of a factor like per capita income, for example, are of limited value, because income levels are associated with many other variables besides culture.

For these reasons, we follow a fourth approach to assess value change, which is to compare different birth cohorts within the same survey (cf. Inglehart, 1990, 1997). The approach is based on the socialization hypothesis, which finds that 'one's basic values reflect the conditions that prevailed during one's pre-adult years' (Inglehart, 1990: 68) and remain largely stable after that. The process of socialization implies that basic value change takes place through the replacement of older birth cohorts by younger birth cohorts. By comparing the values of the cohort included in Hofstede's IBM study with the values of

a cohort that was born after this first cohort, we are able to assess whether values have remained stable or have changed significantly.

Data and procedure

We use combined data from the World Values Survey and the European Values Study (European Values Study Group and World Values Survey Association, 2006; World Values Survey Association, 2009). This dataset gives us the largest database on values with the broadest country coverage possible. Moreover, as the recent fifth and sixth dimensions (Long-Term Orientation and Indulgence versus Restraint) are also based on the WVS dataset (Hofstede *et al.*, 2010), it is consistent to continue using the WVS for the replication of the four original Hofstede dimensions as well.

Following Hofstede's (1980) original approach, we use the WVS data to calculate country mean value scores, which we then use as inputs for the construction of measures of the different dimensions of national culture. Many value items included in the WVS and EVS have binomial answers categories (0/1), in which case we take the fraction of people in one of the two categories and calculate country averages. A limited number of questions have nominal answer categories with three or more possible answer categories from which respondents choose. We recode these items and calculate country averages as the fraction of respondents in each of the possible answer categories. Finally, for survey items using a Likert-type scale, we take the average country score. We exclude questions on outcome variables such as income and number of children. A careful analysis of all questions in the WVS and EVS using the 'Integrated questionnaire WVS-EVS 1981-2008 v 2011-06-09' yields 233 value-related survey items.²

Based on the timing of Hofstede's original IBM study, from 1969 to 1973, we define two birth cohorts. The first cohort includes everyone potentially sampled in the IBM survey and refers to the working population from 1969 to 1973. Setting the age of the working population at 15 to 65, our first cohort includes all WVS respondents born in or before 1958 and in or after 1902 (i.e., all individuals that were at least 15 years and a maximum of 65

Table 1. Birth cohort characteristics

	Cohort 1	Cohort 2
Definition of cohort	1902–1958	After 1958
Average birth year	1941	1971
Total number of respondents	171,379	173,447

years old by the time of Hofstede's second survey). The second, nonoverlapping cohort consists of people born after 1958. Table 1 summarizes the key characteristics of both cohorts. The first cohort is only meant to replicate Hofstede's dimensions, as this cohort overlaps with the cohort from which Hofstede sampled the values data in his original study. The second cohort, then, allows us to examine changes in values of the working population over time.

We start our analysis with the first cohort. For each of the 233 value-related EVS-WVS questionnaire items, we calculate the ecological correlations with the four original Hofstede dimensions (Individualism, Masculinity/Femininity, Power Distance, and Uncertainty Avoidance). As mentioned, Long-Term Orientation and Indulgence versus Restraint are two recent dimensions that are already based on WVS items. Hence, for these two dimensions, we simply calculate country averages on the WVS items already used by Hofstede and collaborators.

For the original four dimensions, we first consider absolute correlations larger than 0.6. In the entire WVS database, we find one correlation that is larger than 0.9, four correlations between 0.8 and 0.9, 21 correlations between 0.7 and 0.8, and 56 correlations between 0.6 and 0.7. In case a value item has a high ecological correlation but is available for a small sample of countries only (e.g., $N \leq 15$), we exclude the item in question. Small samples result when a particular question has not been asked to all respondents in all countries covered by the WVS but only to, for example, respondents in European or Islamic countries. We subsequently optimized the replicated dimensions based on maximization of the correlation with the original Hofstede dimension, the face validity of the WVS questions (more on that later), a factor analysis, and a reliability analysis.

The first rule is that our factor analysis of the items chosen to replicate a specific Hofstede dimension should have only one eigenvalue larger than 1 and should, thus, fit into a single overall dimension.

² All codebooks and data are available from the WVS Web site (<http://www.worldvaluessurvey.org>).

The second rule is that the Cronbach's alpha that we calculate for each replicated dimension should have an optimal score and cannot be increased further by leaving out one or more value items. The third rule is that none of the value items is included more than once, i.e., that none of the items is used to replicate more than one of Hofstede's dimensions of national culture. In other words, each replicated dimension consists of a unique set of WVS items. At the end of this iterative process, we rescale our replicated dimensions to fit a 0 to 100 scale, which matches Hofstede's procedure for calculating country scores on his dimensions.

Using the same set of WVS items, we calculate the scores for the second cohort, employing the same rescaling formula we used for the first cohort. Value change is then easily assessed as the absolute difference in countries' scores on the replicated dimensions between the first cohort and the second cohort.

COUNTRY SCORES ON HOFSTEDÉ'S DIMENSIONS USING THE WVS

We are able to replicate three of the four original Hofstede dimensions, as well as one of the two recently added dimensions that are already based on WVS data. We find only one item in the WVS database that correlates substantially ($r = 0.79$) with Masculinity/Femininity. This item asks for the degree to which the respondent agrees that a wife must always obey her husband. Although this question does not contradict the meaning of Hofstede's Masculinity/Femininity dimension, it is available for only 12 countries. Hence, we are not able to provide a meaningful replication of the Masculinity/Femininity dimension. For Long-Term Orientation, we manage to construct a dimension on the basis of the same WVS items used by Hofstede *et al.* (2010) to construct their updated measure of Long-Term Orientation. However, this dimension turns out to have a Cronbach's alpha of only 0.57 ($N = 39$). Although the correlation with the original 1991 Long-Term Orientation measure is high at 0.83 ($N = 14$), the small Cronbach's alpha suggests that the internal consistency of Long-Term Orientation is questionable (George and Mallery, 2003). Hence, we decide that, Hofstede *et al.*'s (2010) new measure notwithstanding, the WVS data do not render a meaningful replication of Long-Term Orientation and we do not consider this dimension in our remaining analyses.

Replicating Individualism, Power Distance, and Uncertainty Avoidance

Conceptually, the *Individualism* dimension describes 'the relationship between the individual and the collectivity' (Hofstede, 2001: 209), in particular the 'extent to which people are autonomous individuals or embedded in their groups' (Triandis and Gelfand, 2012: 499). In collectivist cultures, people perceive themselves as closely linked to each other, tend to take the norms and duties imposed by the collectivity as guiding, and attach high importance to their relationships with others. Individualist cultures are characterized by low levels of interdependency and by people following their own personal goals rather than behaving according to the norms imposed by society (Hofstede, 2001; Triandis, 1995). There is a high tolerance of deviation from societal norms and a low emphasis on conformity and obedience, especially to expectations from parents or other family (Hofstede, 2001; Triandis, 2001).

Although primarily selected on the basis of their correlation with Hofstede's original Individualism dimension, the WVS items we select in our replication closely correspond to this theoretical concept. The first three of these items concern the fraction of people who *disagree* with the statement that one of the main goals in life is to make one's parents proud, the extent to which people in a country find abortion justifiable, and the extent to which people in a country find homosexuality justifiable. Insofar as abortion and homosexuality are not representative of a society's majority, these items reflect the tolerance of society toward deviating from the norm and the inclination of people to follow their own preferences and beliefs rather than adhere to the moral rules imposed on them by their society or by their family. In the same vein, Hofstede (2001) relates Individualism to autonomy and self-orientation, the right to a private life, weak family ties, and less conformity behavior.

The fourth item in our Individualism replication concerns the extent to which respondents agree that private ownership of business should be increased. Such trust in private enterprise is a logical extension of the belief that 'everyone is expected to look after him/herself and her/his immediate family only' (Hofstede, 2001: 225). As individualist cultures stress autonomy and nonconformity, they are less likely to see states as able to represent the collective interest of entire groups of individuals. Private individuals, rather than collective states, need to provide

people's economic needs. Indeed, Hofstede (2001) relates his Individualism dimension to a greater appeal for market capitalism, individual incentives, and competition. In the GLOBE study, individualism is measured through a similar question: 'I believe that the economic system in this society should be designed to maximize: individual interests-collective interests' (House *et al.*, 2004: 464).

Thus, all four items are consistent with the meaning of Individualism and its implications. The replicated dimension is available for 84 countries (many more than for Hofstede's original dimension score), has a Cronbach's alpha of 0.81 (Hofstede reports an alpha of 0.77 in his original study), and correlates 0.77 with Hofstede's original Individualism dimension.

Hofstede's second dimension, *Power Distance*, conceptually relates to the degree to which members of an organization or society expect and accept that power is shared unequally (Hofstede, 2001: 98). High Power Distance cultures perceive inequality as the basis for societal order. Hierarchies and people's positions therein form an essential part of social identity. Superiors are seen as persons who are entitled to privileges, obedience, and respect. In low Power Distance cultures, hierarchical positions are merely functional, so that higher and lower ranked people remain essentially equals. Hofstede (2001) stresses that the notion of Power Distance is not just present at the work floor, but spills over to other institutions such as the family or society as a whole. A similar definition and understanding of Power Distance is provided by the GLOBE study, defining it as 'the extent to which a community accepts and endorses authority, power differences, and status privileges' (House *et al.*, 2004: 513), with community referring to both the family and society at large. According to GLOBE, high Power Distance is associated with a society that is differentiated into classes and in which resources are available to only a few.

Our replication of Hofstede's Power Distance dimension yields one factor comprising three WVS items that together capture the different aspects of Power Distance. The first item is Inglehart's materialism-postmaterialism index. This index is a composite index based on four items included in the WVS, and it has been used to measure the shift from materialist to postmaterialist values (Inglehart, 1990, 1997; Inglehart and Baker, 2000). Two important anchors are the preference for maintaining order versus giving people more say at work and in their communities. These two anchors clearly relate to the

notion of hierarchy versus equality as a basis for social order. The second item asks respondents whether they feel that one must always love and respect one's parents. This item captures the notion that higher-placed persons are entitled to respect and obedience because of who they are rather than what they do. Although none of the three questions originally used by Hofstede relate to hierarchy in the family, both Hofstede and GLOBE have argued that the notion of power distance extends to the family. Hofstede (2001) argues that Power Distance is related to the tendency of parents to teach children obedience.

The third item concerns a statement as to whether nationals are privileged over immigrants when jobs are scarce. The notion of privilege is a direct consequence of the perception of superiors as persons with more rights than lower-placed others. Hofstede describes the acceptance of privilege as an important aspect of Power Distance (Hofstede 2001), and it is closely related to hierarchy and inequality. Privileging nationals over immigrants constitutes a hierarchical solution to a problem (scarcity of jobs). It violates the low Power Distance principle that all people are essentially equal and have equal rights.

The replicated Power Distance dimension is available for 80 countries, has a Cronbach's alpha of 0.83 (Hofstede reports an alpha of 0.84 for his dimension), and correlates 0.72 with Hofstede's original Power Distance dimension.

Hofstede's third dimension, *Uncertainty Avoidance*, refers to 'the extent to which the members of a culture feel threatened by uncertain or unknown situations' (Hofstede, 2001: 161). High Uncertainty Avoidance has its roots in the belief that the world is a hostile place (Hofstede, 2001). This translates in a strong need for firm and rigid rules to reduce uncertainty, causing, for instance, more proliferate legislation in highly Uncertainty Avoidant cultures. At the same time, the perception of the outside world as threatening and hostile implies that people are skeptical about the tendency of others to stick to those rules. Although highly Uncertainty Avoidant cultures tend to award states a lot of power to keep the behavior of others in check, there is also a strong fear and expectation that these states will abuse this power to pursue their own interests (Hofstede, 2001).

The items we select in our replication of Uncertainty Avoidance reflect this orientation. The first item measures the degree of trust or, better, lack thereof in other people. High Uncertainty Avoidance

is associated with a large fraction of people saying that generally speaking you cannot trust people and need to be careful in dealing with people. This item captures the belief that the world is a hostile place and that any ambiguity in interactions is likely to be exploited by others. The other three items—the confidence people in a country have in political parties, the confidence people in a country have in the justice system, and the belief that the country is run by a few big interests looking out for themselves—reflect the societal implications of this anxiety aspect of Uncertainty Avoidance: the proliferation of laws and state influence causing a less than optimal institutional setting to emerge, coupled with a deep distrust of the state's willingness to make and uphold laws in the interest of the general public. Our items correspond to Hofstede's (2001) finding that Uncertainty Avoidance causes citizens to have little confidence in civil service, and to feel that the law is usually against them, as well as to the questions used in other surveys when measuring Uncertainty Avoidance (for example, 'I believe that society should have rules or laws to cover situations,' in the GLOBE study (House *et al.*, 2004).³

The replicated Uncertainty Avoidance dimension is available for 59 countries, has a Cronbach's alpha equal to 0.76 (Hofstede reports an alpha of 0.72 for his dimension), and correlates 0.67 with Hofstede's original dimension.

Table 2 summarizes this discussion and lists the questionnaire items used to replicate Individualism, Power Distance, and Uncertainty Avoidance.

Measuring Indulgence versus Restraint

Since the dimension scores for Indulgence versus Restraint reported by Hofstede *et al.* (2010) are already based on WVS items, we simply follow their construction method, using the same set of WVS items for our measurement of this dimension. Table 3 presents the questionnaire items used to measure this dimension.

The three items included in the measurement of the Indulgence versus Restraint dimension concern the extent to which people feel that leisure time is important in their lives, people's happiness levels, and how much freedom of choice and control people

feel they have in their lives. Higher scores on Indulgence versus Restraint are associated with increased importance of leisure time, higher levels of happiness, and higher levels of freedom of choice and control. The Indulgence versus Restraint dimension is available for 96 countries, has a Cronbach's alpha of 0.79, and correlates 0.92 with the original Indulgence versus Restraint dimension. The reason this correlation is not equal to 1 is because our measure is based on a specific birth cohort, whereas Hofstede *et al.*'s (2010) original measure is not.

Reliability of the questionnaire items used

As we followed Hofstede (1980) and based our replication on country averages, rather than on the values of individuals, we have added information on country mean scores on the various WVS items to Tables 2 and 3. Hofstede selected countries from the attitudinal data that IBM collected in subsidiaries in 72 countries, requiring a minimum of 20 respondents per country (Hofstede, 2001). In contrast, the country mean value scores we calculate are based on a minimum of 67 respondents per country and up to 2,114 observations per country on average. Reliability of country mean values scores is correspondingly high. Specifically, we have checked the reliability of countries' average scores on the WVS value items by randomly splitting the complete sample of individual respondents in half and calculating country mean value scores for each of the two halves. We repeated this procedure 1,000 times for each of the 14 value items we used. Even though individual respondents were assigned to one of the two halves completely randomly, country mean value scores calculated for the two halves were virtually identical, correlating at least 0.979 (detailed results for each item are available upon request).

Factor structure

The apparent content validity of the dimensions and the reliability of the underlying values scores notwithstanding, a remaining question is whether the replicated dimensions together accurately capture the gist of Hofstede's framework. Our goal is to replicate Hofstede's dimensions as accurately as possible, including, where possible, the strong interrelations between the various dimensions of national culture present in Hofstede's framework (Hofstede, 1980, 2001). To assess whether our selected items are unique for the dimensions they

³ See the GLOBE questionnaire available online at <http://business.nmsu.edu/wordpress/wp-content/uploads/2010/05/GLOBE-Phase-2-Beta-Questionnaire-2006.pdf>.

Table 2. Replicating individualism, power distance, and uncertainty avoidance

WVS-EVS questionnaire item	Reverse coded?	Answer categories/scale	Mean score whole sample	Average number of respondents per country	Minimum number of respondents per country
INDIVIDUALISM					
One of my main goals in life is to make my parents proud	No	1 strongly agree 4 strongly disagree	1.86	944	73
Private versus government ownership of business	Yes	1 private ownership should be increased 10 government ownership should be increased	5.24	1,424	75
Justifiability; homosexuality	No	1 never justifiable 10 always justifiable	2.56	1,640	72
Justifiability; abortion	No	1 never justifiable 10 always justifiable	3.32	1,683	74
POWER DISTANCE					
Inglehart's materialism-postmaterialism index	Yes	1 materialist 2 mixed 3 postmaterialist	1.74	1,860	73
Regardless of what the qualities and faults of one's parents are, one must always love and respect them	No	0 disagree 1 agree	0.84	1,649	77
When jobs are scarce, employers should give priority to [OWN NATION]'s people over immigrants	Yes	1 disagree 2 agree 3 neither % disagree	0.17	1,739	67
UNCERTAINTY AVOIDANCE					
Confidence in political parties	No	1 a great deal 4 none at all	2.93	1,369	70
Confidence in justice system	No	1 a great deal 4 none at all	2.47	1,818	72
Country is run by big interest (versus for all people's benefit)	Yes	1 run by big interests 2 for all people	1.30	935	76
Generally speaking people can be trusted versus you need to be careful in dealing with people	Yes	0 you need to be careful 1 most people can be trusted	0.29	2,114	75

Table 3. Measuring indulgence versus restraint

WVS-EVS questionnaire item	Reverse coded?	Answer categories/scale	Mean score whole sample	Average number of respondents per country	Minimum number of respondents per country
Leisure time is important in life	Yes	1 very important 4 not at all important	1.99	1,558	69
How happy one is	Yes	1 very happy 4 not at all happy	2.01	1,719	75
How much freedom of choice and control	No	1 none at all 10 a great deal	6.66	1,654	75

Table 4. Factor structure of the selected WVS items and Hofstede's original dimensions

	Factor 1	Factor 2	Factor 3
<i>Hofstede's Individualism</i>	0.83		
One of my main goals in life is to make my parents proud	0.90		
Private versus government ownership of business	-0.48		
Justifiability: homosexuality	0.58		0.43
Justifiability: abortion	0.90		
<i>Hofstede's Power Distance</i>	0.72		
Inglehart's materialism-postmaterialism index	-0.41		-0.66
Regardless of what the qualities and faults of one's parents are, one must always love and respect them	0.92		
When jobs are scarce, employers should give priority to [OWN NATION]'s people over immigrants	0.72		
<i>Hofstede's Uncertainty Avoidance</i>		0.75	
Confidence in political parties		0.90	
Confidence in justice system		0.83	
Country is run by big interest (versus for all people's benefit)		-0.76	
Generally speaking people can be trusted versus you need to be careful in dealing with people		-0.65	
<i>Hofstede's Indulgence versus Restraint</i>			0.98
Leisure time is important in life			-0.71
How happy one is			-0.84
How much freedom of choice and control			0.87

Note: Only loadings larger than 0.4 are shown. $N = 41$.

are supposed to represent, we examine how strongly the selected WVS items load on the original Hofstede dimensions. The results of the factor analysis of the items included in the replication of Individualism, Power Distance, Uncertainty Avoidance, and Indulgence versus Restraint are shown in Table 4 (as indicated, we do not consider the Long-Term Orientation dimension, as this dimension lacks internal consistency).

We find three factors with an eigenvalue larger than 1. Although the sample size is relatively small compared to the number of items (41 countries, 18

items; subject to variable ratio [SVR] of 2.3), *post hoc* analysis gives no reason to question the reliability of the factor analysis. Loadings of the size displayed in Table 4 have been shown to be interpretable whatever the sample size used (Guadagnoli and Velicer, 1988). Moreover, the mean of the item commonalities is larger than 0.7, which is considered sufficient (MacCallum *et al.*, 1999). We find three factors with at least four items and a variable to factor ratio (VFR) of six which is also considered good (Fabrigar *et al.*, 1999). Finally, we find that the BIC model fit is best in a three-factor model.

Just as in Hofstede's (1980, 2001) original work, our three-factor solution shows that Individualism and Power Distance are part of one factor. We observe a negative correlation between the replicated Individualism and Power Distance dimensions and the separate value items associated with these dimensions. We follow Hofstede and 'continue treating them as two dimensions because they are conceptually distinct' (Hofstede, 1980: 62). Uncertainty Avoidance and the associated WVS items clearly distinguish themselves from Individualism, Power Distance, and associated value items. A similar observation holds for Indulgence versus Restraint. Our factor analysis, thus, shows that the selected items load strongly on the original Hofstede dimensions they are supposed to represent.

Calculating country scores on the WVS-based Hofstede dimensions

Having established which items load on which dimension of national culture, we can now calculate the country scores on the dimensions for the first birth cohort. We calculate the scores using the mean scores on the WVS value items. Technically, by using the average scores instead of the factor scores, we give each item included in a specific dimension equal weight. Using the factor scores, these weights could potentially differ. In practice, however, the factor scores and the scores based on averages are highly correlated. Following Hofstede (1980, 2001), we rescale the scores for each dimension so that country scores for the first cohort are from 0 to 100. For replication purposes, we provide the formula to calculate the scores for the different dimensions:⁴

- Individualism: $17.3 + 7 \times (\text{country mean item 1} - \text{country mean item 2} + \text{country mean item 3} + \text{country mean item 4})$
- Power Distance: $134 + 60.4 \times (\text{country mean item 2} - \text{country mean item 1} - \text{country mean item 3})$
- Uncertainty Avoidance: $-11.3 + 21.67 \times (\text{country mean item 1} + \text{country mean item 2} - \text{country mean item 3} - \text{country mean item 4})$
- Indulgence versus Restraint: $6.79 + 18.4 \times (\text{country mean item 3} - \text{country mean item 1} - \text{country mean item 2})$

We apply the same formulas to calculate country scores on these dimensions for the second birth cohort. By applying the same rescaling formula, we can explicitly compare country scores on the replicated Hofstede dimensions between the two cohorts. If values have changed, calculated scores will differ for the second cohort compared to the first cohort. Depending on the direction and size of the changes, calculated scores for the second cohort may be smaller than 0 or larger than 100.

DO COUNTRY SCORES ON THE HOFSTEDE DIMENSIONS CHANGE?

We first discuss results relating to Hypothesis 1, which predicts a change in countries' scores on the (replicated) dimensions of national culture. Table 5, Panel A, presents an overview of dimension scores for the two birth cohorts that we identified. Comparison of the first cohort (mean birth year = 1941) with the second cohort (mean birth year = 1971) indicates that the working populations in countries have, on average, become more individualistic (+9 points on a 0 to 100 scale), less based on power relationships (-12 points), and more indulgent (+8 points). But, average changes in country scores on the Uncertainty Avoidance dimension are smaller (+3 points). For a formal assessment of our first hypothesis, we apply a t-test to the average dimension scores for Cohort 1 versus Cohort 2 (last row of Panel A in Table 5). We find statistically significant differences between the two birth cohorts for all four dimensions, which supports Hypothesis 1.

A caveat concerning the discussion of aggregate numbers is that such numbers mask country-specific changes, which can deviate substantially from global trends. Individualism in the U.S., for example, increased by only +4 points, compared to an average

⁴ As mentioned in the main text, the formulas provided assume equal weights for the items included in each dimension. Because not each item is measured on the same scale, it may be that the country scores on the items require standardization first. There may be a difference between the weighted and the non-weighted dimension scores when the factor is based on low loadings and poor reliability. Given the strong results for our factor analysis, we do not expect this to be the case. However, to rule out this possibility, we also performed the factor analysis on the standardized item scores and subsequently calculated the overall dimension scores using the regression-based weights calculated for each item. We correlated the dimension scores based on the standardized item scores with those in which we give equal weights to the items, and we find correlations larger than 0.97 for all four dimensions. Because of this high correlation, we prefer to provide the 'simple' formulas based on the non-weighted items for replication purposes.

Table 5. Summary of replicated country scores on Hofstede's dimensions for Cohort 1 and Cohort 2

Cohort 1: Average birth year 1941					Cohort 2: Average birth year 1971			
	Individualism	Power Distance	Uncertainty Avoidance	Indulgence versus Restraint	Individualism	Power Distance	Uncertainty Avoidance	Indulgence versus Restraint
PANEL A: ABSOLUTE SCORES OF COUNTRIES								
Number of countries	84	80	59	96	84	80	59	96
Minimum	0	0	0	0	0	-18	1	5
Maximum	100	100	100	100	110	98	102	102
Mean	34	70	71	56	43	58	74	64
Standard deviation	22.2	24.4	18.3	22.1	27.3	27.6	18.3	19.0
t-test if the mean dimension score of the second cohort is equal to the mean dimension score of the first cohort	Δ(cohort2—cohort1)				t-value			
	Individualism				p-value			
	Power Distance				.00			
	Uncertainty Avoidance				.00			
	Indulgence versus Restraint				.00			
PANEL B: AVERAGE CULTURAL DISTANCE BETWEEN COUNTRIES								
Matrix of countries	83x83	79x79	58x58	95x95	83x83	79x79	58x58	95x95
Minimum	18	19	13	18	23	23	13	16
Maximum	66	70	73	56	67	76	74	59
Mean	25	27	19	25	31	31	19	22
Standard deviation	9.1	10.6	10.4	7.9	9.6	10.6	10.2	7.3
t-test if the mean of the average cultural distance score of the second cohort is equal to the mean of the average cultural distance score of the first cohort	Δ(cohort2—cohort1)				t-value			
	Individualism				p-value			
	Power Distance				18.2			
	Uncertainty Avoidance				8.93			
	Indulgence versus Restraint				0.26			
					0.796			
					0.000			

Table 6. Descriptive statistics on the correlation between absolute cultural distance calculated for Cohort 1 and absolute cultural distance calculated for Cohort 2

	Individualism	Power Distance	Uncertainty Avoidance	Indulgence versus Restraint
Number of observations	84	80	59	96
Minimum correlation	0.67	0.33	0.77	0.31
Maximum correlation	0.97	0.96	0.97	0.93
Mean correlation	0.92	0.90	0.93	0.82
SD of correlations	0.067	0.093	0.046	0.115
Lower bound 95% CI	0.90	0.88	0.92	0.80
Upper bound 95% CI	0.93	0.92	0.94	0.84

increase of +9 points. Power Distance in the U.S. decreased by -3 points, compared to an average decrease of -12 points, and Indulgence versus Restraint in the U.S. increased by +3 points, compared to an average increase of +8 points. Only the change in Uncertainty Avoidance in the U.S. is more or less equal to the average change in the sample as a whole (+2 for the U.S. versus +3 for the sample as a whole). Overall, the picture for the U.S. is that developments are qualitatively in line with global developments but less pronounced.

DOES CULTURAL DISTANCE DECREASE?

Next, we examine whether value change has had an impact on the differences in the scores between countries, i.e., on cultural distance (Hypothesis 2). First, we correlate the scores on the different dimensions and compare the first and second cohorts. The correlation between country scores for the first cohort and the second cohort is 0.97 for Individualism, 0.96 for Power Distance, 0.97 for Uncertainty Avoidance, and 0.93 for Indulgence versus Restraint. These high correlations between Cohort 1 and Cohort 2 suggest that, although scores on the dimensions have changed between cohorts, countries' relative positions in this ranking are rather stable. Countries that scored in a particular way on a dimension in the first cohort tend to do so in the second cohort as well. For comparative research, this finding implies that using data from the period of the Hofstede sample or data from younger cohorts does not make much of a difference.

High correlations between country scores in the first and second cohorts do not necessarily mean that cultural distance has not changed quantitatively,

however. To test whether cultural distance indeed has decreased (Hypothesis 2), we calculate the distance from each country to all other countries on all dimensions for both Cohort 1 and Cohort 2. Panel B in Table 5 presents the results. For the sample as a whole, cultural distance has increased for the Individualism and Power Distance dimensions, while it has decreased for the Indulgence versus Restraint dimension. T-tests confirm that these changes in cultural distance are statistically significant. For Uncertainty Avoidance, though, we observe no statistically significant differences in countries' average cultural distance between the two cohorts. Overall, we conclude that our results lend no clear support to Hypothesis 2. The cross-country differences in the scores on the replicated dimensions of national culture do not consistently decrease over time.

To get a clearer picture of how aggregate-level trends mask country-specific developments, we have calculated the correlations between cultural distances calculated for Cohort 1 and Cohort 2 for all countries in the sample. Table 6 summarizes the results. A correlation of 0.9 means that the average cultural distance to/from Country A in the first cohort correlates 0.9 with the average cultural distance to/from Country A in the second cohort. A high correlation indicates that the distribution of cultural distances from/to Country A is largely the same between cohorts. Hence, a strong correlation implies that using distance calculated on the basis of data from the time of Hofstede's data collection and distances calculated on the basis of updated data are largely the same and can be used interchangeably.

CONCLUSION

An important pillar of global strategy research is the assessment of culture and cultural differences in

values and their impact on global strategy. Culture research in global strategy is dominated by Hofstede's framework of dimensions of national culture. A key open question is whether the dimension scores based on the data collected by Hofstede in the late 1960s can still be used to study the role of culture and cultural differences in global strategy today. In this article, we have tested whether country scores on the Hofstede dimensions of national culture have changed over the past decades and whether changes in these scores invalidate the continued use of Hofstede's (1980, 2001; Hofstede *et al.*, 2010) dimension scores and the cultural distance measures derived from them. Embedded in sociological theory, the main goal of this article has been exploratory.

Concerning value change, modernization theory predicts that as countries grow richer, people's values will change as well. Our findings are in line with these predictions, as we find average increases in Individualism and Indulgence versus Restraint and a decrease in Power Distance. Interestingly, the change in values we observe has not altered the relative positions of countries vis-à-vis each other. The scores on Hofstede's dimensions seem to have changed, but in lockstep, as evidenced by the strong correlations between the dimension scores as well as the cultural distances calculated for the first and the second birth cohort. Hence, widespread values change notwithstanding, the relative positions of and differences between countries are remarkably stable.

Our results imply that Hofstede-based culture research in global strategy should not be discarded simply because Hofstede's country scores appear outdated. Having said this, individual countries may have escaped the general trend that we uncovered so that they have, in fact, changed relative positions in the global distribution of cultural values. For global strategy research, this caveat has an important implication—namely that samples should be designed carefully, especially in comparative case studies. Including in one's sample a country that happened to undergo extraordinary values change could, by itself, be the driver of any result found.

Our finding that country differences on the scores of the (replicated) Hofstede dimensions have on average not become smaller implies that managing cultural differences remains important. Even in an increasingly interconnected world, there is continued need for global managers to take cultural differences into account when deciding where to expand (Asmussen and Goerzen, 2013; Barkema, Bell, and

Pennings, 1996), how to organize global outsourcing (Handley and Angst, forthcoming), which entry mode strategy to follow (Barkema *et al.*, 1996; Eden and Miller, 2004), or whether to pursue an integration, responsiveness, or export-orientation subsidiary strategy (Meyer and Estrin, 2014), among others. Cultural differences are still substantial and managing them remains a key challenge for global strategy.

Some caveats are in order. We used a cohort analysis to assess value change. The results found in a cohort analysis might be due to the difference in mean age between the two cohorts. In that case, the observed differences in values between the first and second cohort may not be attributable to a shift in values across birth cohorts. Once the younger cohort has achieved the same age as the older cohort in our analysis, the members of this younger cohort might express the same values as their predecessors. We readily acknowledge this limitation, but point out that this limitation likely creates a bias in the direction of seeing too much value change rather than too little. Given that our results suggest relative stability of absolute cultural differences and of cultural distance, we do not believe this limitation has seriously affected our results.

We further stress that our analysis has not addressed the issue as to whether Hofstede's measures provide valid representations of national culture in the first place. While a lack of temporal stability would undermine the continued validity of Hofstede's framework and, hence, the relevance of this framework for global strategy, the evidence that we present here cannot be used to prove that Hofstede's framework is valid. We have focused on dimension scores and compared those between cohorts and have not considered whether, perhaps, the configuration of cultural dimensions has changed. An implicit assumption underlying our analysis of changing dimension scores is that the dimensions relevant in the first cohort are also relevant in the second cohort. Likewise, the assumed stability of the configuration of the dimensions of national culture also applies to the appropriateness of the questionnaire items used to capture those dimensions. Such critique is, however, not unique to our approach but extends to most, if not all, cultural frameworks currently used, as they are all based on questionnaire data collected over time.

To conclude, we appreciate the critique that Hofstede's framework has received (e.g., Baskerville, 2003; McSweeney, 2002), yet it is precisely because of such critique that we believe it is

crucial to empirically test the validity of the assumptions underlying the (continued) use of Hofstede's dimension scores in global strategy research. Our research is only a partial contribution to this endeavor, showing that one should not dismiss the country scores of Hofstede's framework simply because these scores are based on data collected more than 45 years ago. Whether there may be other reasons to dismiss Hofstede's framework is beyond the scope of this article. If there is an issue with the relevance or validity of Hofstede's measures of national culture, it is not due to the assumption of temporal stability.

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