



Mindscales across landscapes: Archetypes of transnational and subnational culture

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Abstract

Most research on culture in international business either aggregates people within a country into a single, homogeneous, national culture, or examines heterogeneity within countries based on exogenous criteria. In this study, we explore heterogeneity in cultural values within and across countries endogenously through the *configurations* of values people share in common. We develop a theory of culture archetypes and use a novel methodology that identifies a small number of distinct configurations of values – *archetypes* – in our data. These data come from the World Values Survey 2005 and Schwartz's model of culture. We identify four culture archetypes in Japan, USA and China, and six in India. The existence of *transnational* and *subnational* archetypes across the four countries suggests the need to recognize culture as a combination of universal – *etic* – as well as unique – *emic* – characteristics. Our approach also distinguishes between those individuals represented by our archetypes and those individuals who more closely resemble the average values of a country. By unifying both archetypes and national averages within one theoretical and methodological schema we thus reconcile the conflicting perspectives in the field.

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INTRODUCTION

The concept of culture is of interest to scholars across a wide range of disciplines including anthropology – where the modern concept of culture first emerges with the work of Tylor (1871) on religion – but also sociology and psychology (e.g., Fischer & Schwartz, 2011). In the fields of international business (hereafter, IB), culture became an important topic with the seminal study of IBM employees by Hofstede (1980). Indeed, much of the research on culture by IB scholars uses the cultural dimensions of Hofstede (1980, 2001) or more recently those of House, Hanges, Javidan, Dorfman, and Gupta (2004) or Schwartz (1999), to assign “national scores” that are considered to represent the culture of a nation. Given the ease of use of culture dimensions and national scores for research, they have been embraced enthusiastically by the scholarly community across a range of disciplines, as the high level of citations for these studies indicate.¹ By focusing on the differences and similarities between nations, work on national culture contributes to our understanding of the richness and diversity around the globe and – through the

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various cultural dimensions – provides us with a language with which to describe these differences and similarities. Similarly, we would expect nations – as political, economic and social entities – to influence the values of their citizens to varying degrees depending on their strength and form, just as the citizens of these nations may likewise influence their national cultures. National scores are therefore useful for many scholarly purposes.

Notwithstanding the popularity of these cultural dimensions and national scores, and their rationale in political, economic and social theory, there are also major criticisms of these studies. These include questioning the validity of the constructs – “The ecological fallacy in national culture research” (Brewer & Venaik, 2014: 1063) – and the ideological basis of these works – namely, the “political element in its functionalist writing” and the Western bias in the Hofstede questionnaire (Ailon, 2008: 887). They also include the failure of replication studies to support the results (Spector, Cooper, & Sparks, 2001) and criticisms of the underlying assumption that national cultures are relatively homogeneous (Dheer, Lenartowicz, & Peterson, 2015; McSweeney, 2002; Steel & Taras, 2010).

In this article we use this last criticism, namely, the presumption of the relative homogeneity of a national culture, as the starting point and springboard to a broader discussion of the heterogeneity of culture not only within a nation but also across several nations. Along with many other scholars, we believe there is significant heterogeneity within nations, but also that the more interesting and important research question for IB is how we best conceptualize, measure and analyze cultural heterogeneity across the globe. For example, while the legal framework for multinational corporations is national, increasingly the management, marketing and labor challenges they face are transnational in scope and perspective. Arguably cultural theories, models and methodologies also need to reflect this broader perspective. First though, we need to briefly examine prior work on cultural heterogeneity.

National Culture: Homogeneity or Heterogeneity?

Using a single national score to represent the cultural values of every individual, organization or other subgroup within a nation ignores the variance that we often observe within a country (Ailon, 2008: 893). This assumption might be acceptable if, as some scholars argue, “cross-national variance in individual values is greater than within-nation variance” (Ronen & Shenkar, 2013: 888, citing Hanges

& Dickson, 2006). Indeed, while acknowledging there is some individual variation in values within a nation, proponents of the national culture perspective believe aggregating individual values into one score best reflects the “central thrust of their shared enculturation” (Schwartz, 1999: 26).

However, the assumption of relative homogeneity within a nation is not universal to all researchers in this field. For example, in international marketing, within-nation heterogeneity in values, attitudes and behaviors is essential for identifying global and local segments for targeting and positioning decisions (Broderick, Greenley, & Mueller, 2007; Steenkamp & Ter Hofstede, 2002). In IB, Au (1999: 799) found that “ICV (intra-cultural variation) is as large as the variation of culture means across cultures.” Similarly, Tung and Verbeke (2010: 1266) “highlighted the problems, both conceptual and methodological, associated with assuming cultural homogeneity among people within a given nation-state.” Recent research provides further empirical support for the heterogeneity of values within a country rather than homogeneity (Steel & Taras, 2010). For example, Fischer and Schwartz (2011: 1136) state “Within-country agreement on item ratings was low for most items, indicating little within-country value consensus.” Further, “For all items in all three studies, value ratings varied much more between individuals than between countries” (Fischer & Schwartz, 2011: 1137). Thus larger variance in values between individuals within a nation than between nations potentially undermines the usefulness of aggregated “national culture” scores.

Table 1 summarizes some of the papers on cultural heterogeneity and identifies potential opportunities for extending this literature in new directions. Of the 21 studies, about half (11) are single country studies that, by definition, cannot address commonalities across nations. Twelve studies delineate cultural boundaries exogenously, that is, based on external criteria such as nationality, within-nation regions, ethnicity or demography, and then test the differences among these subgroups on various cultural values. Eleven studies examine differences on single values rather than on configuration of multiple values. Only four studies in the marketing tradition – Kamakura, Novak, Steenkamp, and Verhallen (1993); Ter Hofstede, Steenkamp, and Wedel (1999); Ter Hofstede, Wedel, and Steenkamp (2002); and Wedel, Ter Hofstede, and Steenkamp (1998) – are multi-country studies, use a configuration of multiple values to identify culture subgroups, and delineate culture boundaries endogenously, that is, based on common culture values. However, all four of



Table 1 A summary of intra-national cultural heterogeneity literature

Author(s)	Year	Intra-national cultural heterogeneity	Number of countries	Culture delineation ^a	Culture as configuration
AU	1999	Intra-cultural variation (ICV) on six culture dimensions across 42 countries.	42	Exogenous	No
Caulkins	2004	"Consensus analysis" to identify culture as threshold of shared knowledge.	1	Endogenous	Yes
Coon & Kemmelmeier	2001	Differences in individualism and collectivism among the four largest ethnic groups in USA – African, Asian, Latino and Europeans.	1	Exogenous	No
Dolan et al.	2004	Within-country differences in work and life values between two geographic separated regions in Spain – North-East and South-West.	1	Exogenous	No
Fischer & Schwartz	2011	"Individual differences rather than country cultures are the critical source of influence on responses to value items" (p. 1133).	66	Exogenous	No
Fontaine, Richardson & Foong	2002	Values differences among three ethnic groups in Malaysia – Malays, Chinese and Indians.	1	Exogenous	No
Freeman	1997	Demographic correlates of individualism and collectivism in Sri Lanka.	1	Exogenous	No
Garreau	1981	Nine nations of North America based on cultural boundaries.	3	Endogenous	Yes
Huo & Randall	1991	Differences in values among four Chinese-populated regions – Taiwan, Beijing, Hong Kong and Wuhan.	1	Exogenous	No
Kamakura & Mazzon	1991	Six segments in Brazil on 18 instrumental values in Rokeach Values Survey.	1	Endogenous	Yes
Kamakura & Novak	1992	Four segments in USA on nine terminal values in Rokeach Values Survey.	1	Endogenous	Yes
Kamakura et al.	1993	Five segments across three European countries based on 36 Rokeach values – 18 terminal and 18 instrumental.	3	Endogenous	Yes
Kashima et al.	2004	Within-country differences in three aspects of self between metropolitan and regional cities in two countries – Australia and Japan.	2	Exogenous	No
Kozan	2002	Four subcultural clusters in Turkey and differences in their conflict management styles, based on Schwartz's 56-item values inventory.	1	Endogenous	Yes
Lenartowicz & Roth	2001	Four subcultures in Brazil – Mineiros, Cariocas, Paulistas and Gauchos.	1	Exogenous	No
Lenartowicz, Johnson & White	2003	Intra-national differences: Brazil/Colombia; international similarities – Brazil/Uruguay & Colombia/Venezuela, on Rokeach's six instrumental values.	4	Exogenous	Yes
Matsumoto, Kudoh & Takeuchi	1996	High intra-national cultural heterogeneity in USA and Japan on individualism – collectivism values.	2	Exogenous	No
Singh	1990	Variation in Hofstede values among Indian managers' demographics, etc.	1	Exogenous	No
Ter Hofstede et al.	1999	Four pan-European segments across 11 countries based on nine values in the List of Values (Kahle, 1983).	11	Endogenous	Yes
Ter Hofstede et al.	2002	Five pan-European spatial segments across seven countries based on six attributes of image perception and distance.	7	Endogenous	Yes
Wedel et al.	1998	Five single- and multi-country segments across six European countries using nine List of Values.	6	Endogenous	Yes

^aCulture delineation refers to the method used in the study to define the boundaries of culture groups. Exogenous means the culture groups are defined *a priori* based on nationality or other criteria. Endogenous means the culture groups are defined on the basis of common values of interest to the researcher.

these studies focus on the single region of Europe, which, although diverse, does not represent the full diversity of cultures around the globe.

Above and beyond the simple need to extend research to multiple countries and other regions of the globe, the issues of culture configurations and *endogeneity* are critical to a better understanding of the concept of culture. Many studies represent culture with one or more culture dimensions in isolation (e.g., Hofstede, 2001; House et al., 2004; Trompenaars & Hampden-Turner, 1993). However, it has long been recognized that culture is best understood in terms of patterns of values and behaviors across multiple dimensions rather than as individual traits. For example, according to Kroeber and Kluckhohn (1952: 14), "Culture comprises configuration of values, of normative principles and ideals." Similarly, "value orientations are complex but definitely *patterned*" (Kluckhohn & Strodtbeck, 1961: 4). And Kamakura and Novak (1992: 121) use value-systems since "segments defined by value systems rather than a single value will be more reliable and will have greater interpretability." Although many studies explore culture in terms of individual dimensions, configuration based studies are rare (e.g., Schwartz, 1994). As Tsui, Nifadkar, & Ou (2007: 462) state: "The trait approach, treating cultural values as independent dimensions, continues to dominate current research." Hence there is a need for more studies that take the configuration perspective and examine culture across multiple values.

Moreover, should we delineate culture boundaries endogenously through the values individuals hold in common or should we delineate them exogenously through geography or demography? Many studies divide individuals into subgroups based on exogenous considerations and then examine differences in values among these subgroups. However, the logic of culture is inextricably linked to the sharing of values among individuals, defining subgroups through their shared values, rather than other characteristics. Perhaps the boundary of culture is better delineated endogenously on the basis of the values of interest to the researcher, and subgroups identified according to the commonality of their values rather than by geography or demography. Further, if we take this configurational and endogenous perspective, we believe that the field of IB needs to adopt a different approach to understand and represent the construct of culture itself. The major contribution of our article is therefore to introduce a theory of *culture archetypes*. These we conceptualize as perfect examples of the configurations of values shared by groups of individuals. Our

theory also allows us to distinguish between individuals who are associated with archetypes and those individuals who are associated with the national average scores. Thus the theory we present here potentially reconciles the two views in the literature, national culture and cultural heterogeneity, within one overall schema. We also introduce an appropriate methodology to identify archetypes in the types of data we typically have available.

Our study therefore has three key objectives: (1) endogenously identify culture archetypes within and across countries based on configurations of multiple values, (2) examine the similarities and differences in the profiles of these archetypes, and (3) explore relationships between culture archetypes and other variables of interest to cross-cultural IB researchers and practitioners. The primary contribution of our work lies in the broader, archetypal perspective on culture values and the use of archetypal analysis (AA) to explain heterogeneity within and across countries in a robust and parsimonious manner. To preview our results, we find between four and six archetypes are necessary to capture the significant heterogeneity within our four nations. We also find archetype profiles that are transnational in nature as well as those that are subnational. This finding demonstrates support for both the *etic* and *emic* views on culture. Overall, across our four nations we find that about 56% of our respondents are associated with one of these archetypes, whereas 44% are associated with their respective national average profiles. Finally, when we analyze the differences between these archetypal subgroups on a large number of independent measures, we see not only statistically significant differences but also many large and medium effect sizes. The magnitude of these effects shows the differences between our culture archetypes are both substantive and meaningful. These analyses also show our archetypes are linked into broader sets of values, attitudes, perceptions and behavior. Archetypes are therefore potentially useful for managers in making decisions such as selecting and training employees for specific tasks, segmenting customers for developing and fine-tuning existing and new market offerings. And they are potentially useful for researchers in identifying change agents and directions of change in national and transnational culture.

The article is organized as follows. In the next section, we explain our theory of culture archetypes in more detail and we illustrate why it may be able to help us answer certain research questions that existing approaches cannot. In the following two



sections we provide more justification for the two foundations on which this theory rests, namely, culture as an endogenous construct and culture as a configuration of multiple values. Our discussion of configurations also allows us to introduce the Schwartz values model and the three propositions we test in this article. Then we outline our methodology; including the key aspects of our novel AA method, our measures, and the four-country data we use to test our hypotheses. Finally, we present and discuss our results and their implications for cross-culture related IB theory and practice, our study limitations, and directions for future research.

A THEORY OF CULTURE ARCHETYPES

Our objectives in this section are fourfold. First, we introduce the philosophical foundations underlying the idea of an "archetype." Second, we explain and illustrate our construct of a "culture archetype." We also show how the construct of a "culture archetype" differs from that of an "average" member of a group or nation. This step is important because averages are typical of culture research in IB, where we see them used both conceptually, for example, national culture, and methodologically, for example, cluster analysis. Archetypes should not be confused with averages and so making this distinction is critical to the development of our arguments. Third, and having established a definition of a single archetype, we look at the case of multiple archetypes in a larger and more diverse population such as a nation or a set of nations. Our discussion here is conceptual but also provides the necessary background for the methodology we introduce later in the article. Fourth, we show not only why archetypes represent a novel and different approach to studying cultural heterogeneity, but also why they enable us to answer certain research questions in a more insightful way than existing approaches in the literature. In particular, we believe archetypes provide a better framework for understanding the dynamics and evolution of culture over time and space.

What is an Archetype?

The development of the idea of an "archetype" commences with the work of Plato, in particular his theory of forms. In this theory Plato distinguishes between abstract "universals" and concrete "particulars." To illustrate the meaning of this distinction we can think of drawing a circle on a blackboard. This particular circle would have a certain color and size and might only roughly resemble a circle because this is hard for most of us to draw by hand. But

everyone looking at the blackboard would recognize that we have drawn a "circle" because we all understand the universal form of a circle, and we recognize this form in the particular case on the blackboard. Moreover, we would know this is a "circle" and not a "square" because we have a different universal for a square. Skip forward through several centuries of philosophical debate on the nature of universals (including the works of Aristotle, Abelard, Kant, Hegel, Berkeley, Whitehead and Russell, among many others), we would now say that we all hold an abstract concept of the universal "circle" in our minds. And although we never observe this universal circle, we can easily recognize "circles" in the many objects and images we see every day. Archetypes themselves are a later development that builds on Plato's ideas, often by defining classes of universals for specific fields of application, but a development that retains his idea of a *pure form that embodies the fundamental characteristics of an object*.

The word "archetype" itself enters the English language in the 16th century (Barnhart & Steinmetz, 1988) via Latin but deriving from an Ancient Greek word whose roots, *arkhe* and *tupos* roughly translate as "original model." The modern definition of archetype is "a perfect example" (Merriam-Webster Dictionary). Over time, and because of its usefulness in many fields, the word has taken on several meanings, each defining a specific class of universals. For example, in the field of biology the word means "the plan or fundamental structure on which a natural group of animals or plants or their systems of organs are assumed to have been constructed" (Webster's Revised Unabridged Dictionary), for example, the vertebrate archetype.

The Construct of a Culture Archetype

In this article our focus is on archetypes of culture values that are shared by groups of individuals within and across nations. Further, we view these shared values through a configurational lens because individuals may hold many distinct and different sorts of values (e.g., Tsui et al., 2007). Using the Platonic origins of the word "archetype" and its etymology, we define a culture archetype as: *a configuration of the fundamental values shared by a group of people and represented by a hypothetical individual who perfectly embodies these values*. As we do not directly observe it, a culture archetype is a *latent construct*, though not in the usual social science sense of a latent variable, rather an archetype is a latent or hypothetical *individual*. This is consistent with Tsui et al.'s (2007: 462) conceptualization that "Culture is

a latent, a hypothetical construct." The configuration of values of each member of the group will then have varying degrees of resemblance to the archetype configuration, analogous to the way our particular cases of a circle relate to the universal concept of a circle.

For the sake of simplicity, we start first by examining a single archetype of one group sharing common values. By definition, the configuration of the group *average* would have an intermediate level of resemblance to the archetype but would not represent the archetype itself. We can begin to illustrate this important distinction by contrasting the phrase "an English gentleman" with the phrase "an average member of the English upper class." The former is more a statement of an archetype, since it focuses our minds on the presence of certain key values, for example, "good manners" and also the absence of others, for example, "gamesmanship" (Debrett's, www.debretts.com). However, the distinction between "average" and "archetype" is best seen graphically, so in Figure 1 we illustrate the profiles of the group average and of an archetype for that group. There are ten culture values in our illustration and these are set out along the horizontal axis of the figure. The vertical axis shows the relative importance of these values, increasing in importance from low at the bottom of the figure to high at the top. While the two profiles we show are clearly related, as they must be since both are based on group values, the archetype highlights the two values that really matter to this group (V3 & V8 in the figure). The archetype also tells us the other eight values are of less importance to this group. Indeed, the sharp differentiation between these two subsets of values, and the configuration that results,

illustrates the power of archetypes to embody the fundamental values of the group. In contrast, averaging acts to smooth out these differences and, in doing so, blurs our understanding of the fundamental values of the group.

While our illustration is conceptual and stylized, it helps not only to clarify what the construct of a culture archetype represents, but also to suggest the archetypal perspective may have advantages over the typical average-based approaches in the IB literature. For example, in addition to the point on sharper differentiation above, the archetypal perspective also allows us to discover diverse configurations in a heterogeneous population, configurations that remain hidden if only averages are considered. This is the focus of our article and, while the empirically derived archetypes we present later are more complex than this simple illustration, they provide powerful descriptions of the fundamental values of groups, both within and across nations. Second, the richer description of heterogeneity provided by configurations like these, might, in the future, allow us to develop a better understanding of the dynamics and evolution of culture over time and space. We next discuss the extension of the construct of culture archetypes to a heterogeneous population before we outline how archetypes might contribute to future research on the dynamics and evolution of culture.

Multiple Archetypes in a Heterogeneous Population

Since all individuals within and across countries are unlikely to share exactly the same values, implicit in our discussion is the existence of more than one culture archetype. Moreover, these multiple archetypes should be distinct from each other, each representing a different configuration of values. Indeed in a large, diverse population such as a nation or a set of nations, we might expect to find several culture archetypes, each associated with a subgroup of this population. This last point follows from our conceptualization of an archetype. For example, if an individual X_i has a configuration that resembles archetype A, they belong to archetype A. However, if their configuration does not resemble archetype A, they potentially belong to some other archetype B, and by definition the configuration of this second archetype B is not the same as A. This logic extends to further archetypes, each with a different configuration to the others, until we identify a set of archetypes and associated subgroups that capture all the distinct configurations in the population. And once we have identified these archetypes and their

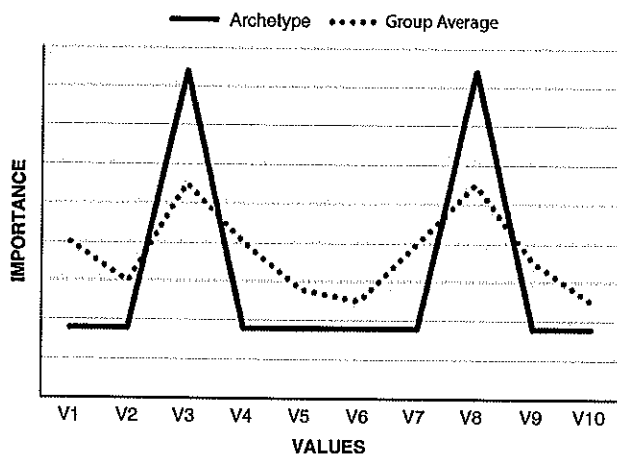


Figure 1 A stylized illustration of an archetype compared with the group average.

associated subgroups, we will be left with a remaining subgroup whose configuration will resemble the average configuration of the population. The logic behind this conclusion is that, by definition, the average configuration is a weighted composite of the values of ALL the subgroups within the population, and so cannot resemble any of the archetypes themselves, these being based on subsets of that population. Individuals whose value configurations resemble this population average configuration are therefore also, by definition, not associated with any of the archetypes.² Thus our theory distinguishes between archetypal individuals with distinct configurations of values and non-archetypal individuals whose values resemble the averages.

From this discussion we can conceptualize multiple archetypes within a population by using a "donut" diagram, as in Figure 2. This figure shows four hypothetical archetypes (A, B, C & D) and a stylized distribution of the population. In the figure we represent the subgroups of the population associated with each of the four archetypes by sectors in the body of the donut. The individuals in these subgroups we refer to as *archetypal cases*. We then represent those individuals with configurations resembling the population average by the "hole" of the donut. These individuals we refer to as *non-archetypal cases*. The power of the archetypal perspective is thus twofold. One, it separates those who are archetypal from those who are non-archetypal. Two, it describes those who are archetypal with a small number of perfect examples, that is, archetypes. If the population is of a nation, then the hole of the donut represents the "national average," while the body of the donut represents those who do not fit this national average and also the various ways in which they differ from it.

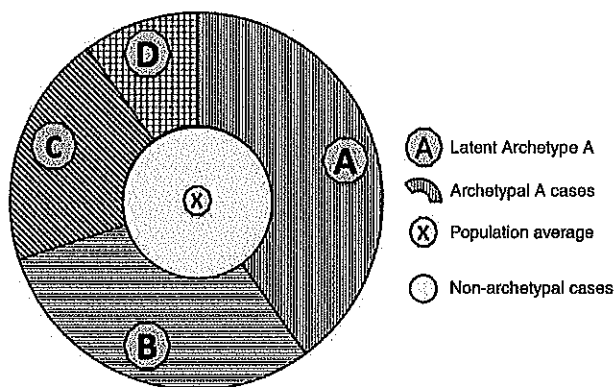


Figure 2 Multiple archetypal and non-archetypal cases in a diverse population.

The configurations of the archetypes and the exact sizes of the various subgroups are naturally dependent on the characteristics of the population we are studying. How we define boundaries between subgroups also depends on the methodology we use. This raises the question of how we identify archetypes in the sorts of culture data we have available. To do so requires a different methodological approach to those typically used by researchers in the IB field, because we need to endogenously identify both the archetypes and their associated subgroups of individuals from the configurations of values in our data. Existing methods, such as those that classify or describe individuals by averages or group them by exogenous factors, are inadequate for this task. Fortunately, a method for endogenously identifying archetypes in multi-variate data exists and is increasingly being used in a range of physical and social sciences. We describe this method, AA (Cutler & Breiman, 1994), in the methodology section of our article. There we also show how this method is consistent with, and builds on, our conceptual discussion above. In particular, just as Figure 1 contrasts the shapes of the two configurations, AA draws more on ideas from topology and matrix algebra than from the typical statistical methods seen in the IB literature. Here we should note that, in their seminal book on the concept of culture, Kroeber and Kluckhohn stated: "the main unresolved problems of culture will never be resolved by statistical techniques precisely because cultural behavior is patterned and never randomly distributed. Mathematical help may come from matrix algebra or some form of topological mathematics" (Kroeber & Kluckhohn, 1952: 162). AA provides just such mathematical help.

We can summarize the key conclusions from our theoretical development as follows. First, archetypes are clearer and sharper than group averages since they differentiate more between subsets of values in the configuration. Second, in more diverse populations, multiple archetypes separate those who conform to the population average from those who do not, and they provide a parsimonious description of the latter through a small number of perfect examples. Third, identifying culture archetypes in empirical data requires a new and different methodology – AA. Overall, the construct of a culture archetype, and the AA necessary to identify these from empirical data, together provide a novel and radically different approach to studying cultural heterogeneity.



Do Culture Archetypes Help Us Answer Questions that Existing Approaches Cannot?

We think they can. First, they provide a powerful tool for advancing our understanding of cultural heterogeneity within and across nations. This is the topic of our article and we believe our results demonstrate the potential of archetypes to bring deeper understanding to this important area. Second, we see culture archetypes as a step towards a better understanding of the dynamics and evolution of culture over time and space. We do not specifically address culture dynamics, except to advance some suggestions for future research, but we believe archetypes are worthy of consideration in this context. One view on culture is that of learning, where values are transmitted from one generation to another as social heritage. In this view individuals are "passive porters of a social tradition" (Dollard, 1939: 54). But this view, which arguably still dominates much of the IB literature, is incorrect and limiting. Human beings are "not only the carriers and creatures of culture – they are also creators and manipulators of culture" (Kroeber & Kluckhohn, 1952: 49). Culture evolves over time and, through the influence of travel and communication, now does so globally as well as locally (e.g., Tsui et al., 2007).

At a simple level, culture archetypes provide one approach to track this evolution, both in the changing configurations of values of our archetypes and the increasing or decreasing size of the subgroups associated with them. But at a deeper level, culture archetypes represent individuals who, through their social interactions with others both like and unlike themselves, may influence the direction in which culture evolves (e.g., Lytle, Brett, Barsness, Tinsley, & Janssens, 1995). Indeed, the work of more recent scholars of culture – particularly quantitative modelers such as Boyd and Richerson (2005) – points to the complex and dynamic interplay between heterogeneity, learning, creation and imitation. Here we speculate that culture creation and change is more likely to be driven by individuals who are exemplars of culture values, that is, associated with certain archetypes, rather than the average individuals. As Stewart Brand, the co-founder of The Long Now Foundation remarked, "you look at the edges to see where the center is going" (Sykes, 1994: 179). Our archetypal approach thus opens the door for future researchers to address the new and challenging research question of understanding the processes underlying the evolution of culture over time and space. However, before describing this approach, we

first explain why culture is best thought of as an endogenous construct.

WHAT IS CULTURE: AN ENDOGENOUS CONSTRUCT

"Culture" has many definitions with varying connotations, encompassing both subjective norms and beliefs and objective artifacts (Kroeber & Kluckhohn, 1952; Taras, Roney, & Steel, 2009). Notwithstanding the differences, two key aspects underpin most definitions of culture: (1) culture refers to *values*, beliefs and meaning systems (Rokeach, 1973: 5), (2) that are *shared by groups of people* (Hall, 1977: 16). For example, according to Herskovits (1948: 625), "culture is essentially a construct that describes the total body of belief, behavior, knowledge, sanctions, *values*, and goals that mark the way of life of any *people*." (Italics added.) Similarly, House et al. (2004) define culture as *shared* understandings manifested in societal *values*. Thus the term "culture" encompasses two key components. One, it refers to one or more types of *values*, for example, the value of (respecting) "tradition." Two, it refers to a *group of individuals who share common values*, for example, people with traditional values. Given these two distinct aspects of culture, we cannot delineate the boundaries of both *a priori* – either we must (1) define the group exogenously and determine their values *a posteriori*, or (2) endogenously join together individuals with similar values and define them as a group *a posteriori*.

In the first case, if the aim of the researcher is to study people who are members of a clearly defined and homogenous *group*, for example, a small tribe living in isolation, then the values these people share is an empirical question. We can discover their values by studying the tribe in the context of their day-to-day lives. In the second case, if we are interested in a specific set of *values*, for example, those for tradition – that we define to have distinct conceptual meaning – then we must endogenously determine the boundary of the group of people who share these traditional values. However, in both cases our objective is the same, namely to identify a distinct group of people who share common values, where sharing implies relative consensus and homogeneity of their beliefs. If we accept this definition of culture as the shared values of a group, the approaches taken by the proponents of national culture create two problems. First, imposing exogenous national geographic boundaries on cultural space may or may not align with the endogenous cultural groupings within and across countries. Countries such as India



or the USA may be built from many separate cultural groupings; each holding their own set of shared values (Garreau, 1981; Sen, 2005; Woodward, 2012). Second, these approaches use averaging to arrive at a national score on a cultural dimension. It is, however, difficult to reconcile *averaging* of values with *sharing* of values unless there is a high degree of homogeneity of belief among all people within the nation (Maruyama, 1999). Averaging may also hide underlying differences in values among the individuals who are averaged (Kamakura & Mazzon, 1991; Venaik & Brewer, 2013).

In sum, it is the sharing of values among individuals that is the defining characteristic of culture, and not the averaging of values according to some exogenously determined identity boundary such as age, class or nation (e.g., Fischer & Schwartz, 2011; Steel & Taras, 2010). National averages have certainly advanced our understanding of culture but we can do much better to represent the richness and diversity of shared values. What then is a better way to represent this richness and diversity?

CULTURE ARCHETYPES: A CONFIGURATION OF VALUES

In their comprehensive review of the culture concept, Kroeber and Kluckhohn (1952) provide a number of definitions based on the patterning and organization of culture. For example, Kroeber and Kluckhohn (1952: 34) state that "The essential part of culture is to be found in the patterns embodied in the social traditions of the group, that is, in knowledge, ideas, beliefs, values, standards, and sentiments prevalent in the group." Rokeach (1973: 5) distinguished the concepts of "value" and "value system" as follows: "A *value* is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. A *value system* is an enduring organization of beliefs concerning preferable modes of conduct or end-state of existence along a continuum of relative importance." In both these conceptualizations of values, individual differences are reflected in differences in the pattern or configuration of the value systems rather than on single values. In the same vein, Triandis (1994: 2) states that "The elements of subjective culture are organized into *patterns*" and Hofstede (2001: 1) views "culture *patterns* are rooted in value *systems*." Thus most definitions refer to culture as "the integrated, complex set of interrelated and potentially interactive *patterns* characteristic of a group of people" (Lytle et al., 1995: 170).

A few scholars also empirically identify patterns of values across a number of dimensions. For example, in marketing, Kamakura and Novak (1992: 119) identify four value-system segments "reflect(ing) the reality that multiple values will affect individual's behavior." Similarly, in organization behavior, Greckhamer (2011) examines the "configuration" of cultural and macro-environmental factors that explain compensation levels across countries. Overall, there is strong support for viewing culture as a distinct pattern, configuration or gestalt of values shared by a group of people. To standardize terminology we will use the word "configuration" in this article, where a configuration is a group's values expressed across multiple dimensions. In this study, we identify culture archetypes within and across countries through common configurations of cultural values shared by groups of people. However, in order to identify archetypes we first need to select the holistic set of values on which we will base them.

The Schwartz Values Model

A number of different models of cultural values have been discussed in the literature (e.g., Hofstede, 2001; House et al., 2004; Schwartz, 1992; Trompenaars & Hampden-Turner, 1993). Although "groups can exist on multiple dimensions (cognitions, behaviors, and values), cross-cultural research has focused on shared cultural values as the major source of differentiation among national groups" (Tsui et al., 2007: 431). We focus on the Schwartz values model for four key reasons: (1) this model is one of the preeminent models of individual-level values; (2) the accompanying survey instrument – the Schwartz Value Survey – has been shown to "exhibit high construct equivalence across scores of countries covering all continents" (Steenkamp & Ter Hofstede, 2002: 197). Indeed, both the long and short forms of the Schwartz Values Survey have been extensively validated as appropriate instruments for cross-cultural research (Lindeman & Verkasalo, 2005; Schwartz, 1994; Schwartz & Sagiv, 1995; Spini, 2003); (3) from a practical perspective, individual-level data on Schwartz values are publicly available online for 52 countries in the World Values Survey (WVS) 2005 (www.worldvaluessurvey.org). We need such individual level data to identify the diverse culture archetypes within and across countries, and profile the values structure of the archetypes. In contrast, only national-level aggregated data are available in the public domain for other models such as those of Hofstede or GLOBE; and (4) the Schwartz values have an underlying theoretical model that builds on a



stream of prior research, notably Rokeach (1973), and provide a holistic view of the individual. This gives us confidence that we have a broad view of the values we may find in any research setting.

Schwartz (1994: 21) defines "values as desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity." According to Schwartz (1994), values reflect responses to three universal requirements: (1) as biological organisms, (2) for coordinated social interaction, and (3) for smooth functioning and survival of groups. These could be summarized into two broad needs: (1) survival of individual, biological organisms, and (2) sustenance of group, social organizations, in large part to support individual survival. From these universal requirements, Schwartz derives ten motivational value types (Schwartz, 1992). These he organizes into four categories around a circle: (1) self-transcendence (reflecting universalism and benevolence values); (2) conservation (encompassing tradition, conformity and security values); (3) self-enhancement (reflecting power and achievement values); and (4) openness to change (which includes the values of self-direction and stimulation). A tenth value – hedonism – straddles both self-enhancement and openness to change. Inherent in the model are also two tensions, self-transcendence vs self-enhancement and openness to change vs conservation. Using the Schwartz model as our source of individual values, we now turn to our research propositions, in particular the archetypes we might expect to find in a multi-nation study.

Which Culture Archetypes Might We Identify?

Since we believe we are introducing the idea of archetypes to the cross-cultural IB literature, there is no directly comparable study in the prior literature. Extant studies that address heterogeneity in values within and across countries use measures based on the older Rokeach model, more conventional methodologies and are relatively few in number (see Table 1). Nonetheless these studies are useful in suggesting which archetypes may exist. Some of these studies are to be found in the marketing literature, under the topic of international segmentation. The other literature that provides guidance here is that of Maruyama.

International segmentation studies

Steenkamp and Ter Hofstede (2002) review the international segmentation literature in depth, identifying 25 empirical studies on this topic. However, most of these studies use country-level rather than individual-level data. Further, of the individual-level

studies only three use values as a segmentation basis. In particular, Kamakura et al. (1993) study respondents living in Great Britain, Italy and Germany and, using the Rokeach Value Survey, find five segments, all showing a strong but not exclusive national connection. Wedel et al. (1998) study consumers across six European countries, using the List of Values instrument. They also find five segments; four that are present in two or more countries, including two – pan-European – segments that are present in all six countries. Finally, Ter Hofstede et al. (1999) study consumers in 11 countries of the European Union using the short nine-item List of Values instrument. They find four international segments including a pan-European segment, a North-European segment and a cross-national segment. All three of these studies lend general support to our arguments about the need to identify cultural boundaries endogenously based on configuration of multiple values within and across countries, but we need to mention an important qualification to this support. Two of the three studies use the List of Values instrument. This instrument is an extract from the Rokeach Values Survey but one more oriented to marketing purposes than the study of culture. In particular, the extract focuses on self-enhancing values and largely omits self-transcending interests (Wedel & Kamakura, 2000). As such it is an incomplete description of culture, especially compared with the Schwartz model.

Maruyama's mindscapes

Maruyama's (1992: 92) "mindcape" refers to "the way a person organizes his/her thinking and behavior" and parallels the concept of culture we discuss earlier, although his concept is broader in that it also includes ways of perceiving, reasoning and decision-making. He identifies four key types (or archetypes) of mindscapes and suggests (on the basis of small sample research, literature and logic) that roughly two-thirds of the people in most countries belong to one of these types or a composite of two or more of them (Maruyama, 1999: 56). On the basis of the universality of the four types, he further argues that neither nationality nor regional geographic proximity is an accurate basis for identifying culturally homogeneous groups (Maruyama, 1992: 93). Thus he identifies the four types as essentially *transnational*, that is, present in most countries. Similarly, people within the same country may belong to different mindscape types resulting in within-country cultural diversity. Maruyama's two decades of research on mindscapes is suggestive of the existence of culture archetypes that are transnational in nature



as well as those that are country-specific, paralleling some of the work in marketing above. Maruyama's four mindscales can also be roughly divided into more self-enhancement ("H-type," "I-type") and self-transcendence types ("S-type," "G-type").

Propositions. The literature above allows us to put forward three tentative propositions as to the culture archetypes we expect to find in the Schwartz values data from the WVS. Our three propositions are as follows:

Proposition 1: Heterogeneity in culture – within and across countries – can be adequately described by a small number of archetypes.

Proposition 2: Some of these archetypes will be transnational (i.e., found in more than one country), and some will be subnational (i.e., country-specific.)

Proposition 3: Some archetypes will have predominantly self-enhancement and openness to change values and some will have predominantly self-transcendent and conservation values.

The next section presents the methodology we use to identify culture archetypes.

METHODOLOGY

Here we start with a brief introduction to AA that builds on the theory presented earlier. We then discuss the WVS including the countries we select for analysis, how the WVS implements the Schwartz values model, the topic of scale equivalence, the issue of response bias and our tests for heterogeneity in values. To save space here, many of the technical details of our procedures are to be found in the Technical Supplementary Appendix, namely: (1) Measurement of Schwartz values in WVS, 2005; (2) Steps to preprocess the WVS, 2005 data; (3) Testing heterogeneity in country values; (4) The AA algorithm, comparisons with other methods and advantages/limitations; (5) Applying AA to our data, and the stability and validity of our solutions; (6) Tests of response bias; and (7) Tables of sample statistics. In the article itself these details are referenced by section of the Supplementary Appendix, for example, section 1, 2, etc.

Archetypal Analysis

Earlier we noted that for a large diverse population, such as a nation or a set of nations, we need a new methodology to identify both the multiple culture archetypes that may exist in the population and the subgroups of individuals associated with each of

these archetypes. Cutler and Breiman (1994) introduce AA as a mathematical technique precisely for identifying such archetypes in multi-variate data. AA builds on the theory we introduced earlier by providing a formal and general algorithm for endogenously identifying archetypes in multi-variate data. In particular, AA extends the idea of composite configurations by associating each individual case with each archetype. These associations allow us to separate the archetypal cases from the non-archetypal cases, as well as estimating the relative proportions of each subgroup in the population. Thus AA is the appropriate method to apply to our work here.

To illustrate how this algorithm works, we can imagine our data as a cloud in a multi-dimensional space described by the variables of interest. Each case in the data would then occupy a point in this cloud defined by its coordinates, that is, the particular magnitudes of the variables observed for that case. Archetypes are then defined as the coordinates of a small number of points on the frontier of this cloud and each case is described as a simple weighted composite of these archetypes. Using iterative optimization techniques, AA chooses both the coordinates of the archetypes and the individual case weights to best fit the totality of the data. Largely because of this topological approach, and in addition to the theoretical advantages listed above, AA provides a number of practical advantages over other techniques when our purpose is to describe value configurations in a clear and parsimonious manner. These advantages include imposing no strong "model" on the data (Li, Wang, Louviere, & Carson, 2003), and being robust to noise in the data (Chan, Mitchell, & Cram, 2003). (See the Supplementary Technical Appendix section 4 for a discussion of the AA algorithm, comparison with other methods and advantages/limitations.)

In the output from AA, all cases in the data have weights between 0 and 1 representing the degree to which they associate with each archetype. Weights for each case also sum to 1 across the set of archetypes. A weight of 0.5 or greater implies the individual's configuration is more strongly associated with one archetype than any other, or with all the other archetypes combined. This we define as an "archetypal" case. We should also note 0.5 is not an arbitrary threshold; it has real meaning. A weight of 0.5 or greater implies the case is located in the region of the multi-dimensional space close to the coordinates of one archetype. However, if all weights for a case are below 0.5, the individual's values configuration is located more towards the center of the space and closer to the overall average of the multi-variate

values distribution. These are the “non-archetypal” cases, that is, individuals who, in national data, resemble the “national average.” Our archetypal cases thus represent those individuals who have made a clear choice in the importance they ascribe to each of the values, be this importance high or low, and be this for one or several values in their archetype. In contrast, our non-archetypal cases represent individuals who ascribe average importance to these values. We apply AA to Schwartz values and so next we explain the origin of our data, as well as the various tests we apply to establish the validity of these data for our purposes.

The WVS

We extract the data for our study from the WVS for 2005, available online at <http://www.wvsevsdb.com/wvs/WVSDData.jsp>. The WVSs have been carried out in five waves between 1981 and 2007, and contain data from 97 countries representing nearly 90% of the world population. The data are collected from a representative sample of respondents in each country, via face-to-face interviews in the local language. However, the specific questions and the sample countries vary from one wave to another. We focus on the ten universal culture values of the Schwartz model and these are included for the first time in the fifth wave of the WVS in 2005. WVS, 2005 contains data for 58 countries ($N=82,992$), with sample size per country ranging from 954 for New Zealand to 3051 for Egypt.

Our countries and sample

We select the WVS, 2005 samples for Japan, USA, China and India. We selected these four countries primarily to capture global cultural diversity and secondarily to focus on countries that are significant for the global economy. The four cultural criteria that we use to select our sample are: (1) secular/self-expression values, (2) religion, (3) language, and (4) ethnicity. One, these four countries cover all four quadrants in the global cultural framework of Inglehart and Welzel (2010: 554) that maps 53 countries on the two dimensions of traditional vs secular-rational values and survival vs self-expression values. Two, each of these four countries has a different dominant religion, namely, Shintoism in Japan, Christianity in USA, Taoism/Buddhism in China, and Hinduism in India. Although these four countries cover all the major religions of the world except perhaps Islam, it is important to note that India has nearly 170 million Muslims (which are more than in any other country in the world except

Indonesia and Pakistan). Three, each of these four countries has a different dominant language, namely, Japanese, English, Mandarin and Hindi. Four, each of these four countries also has a different dominant ethnicity, namely, Japanese (99%), White (80%), Han Chinese (92%) and Indo-Aryan (72%). Overall, therefore, the four countries in our sample capture a major proportion of global cultural diversity and are appropriate to test our propositions regarding diverse culture archetypes within and across countries. Further, from a practical perspective of IB, these four countries are among the top five in the world on gross domestic product, and three of the four are among the top four in population and among the top five in exports.

The original sample size for each of these four countries in WVS, 2005 is: Japan 1096; USA 1249; China 2015; and India 2001. However, the WVS data vary in quality, containing incomplete questionnaires, missing values and outliers, and requires pre-processing before analysis. Here we follow best practice in the social sciences (Graham, 2009) and impute missing values for those non-outlying cases, which reach acceptable quality levels. We present the consolidated results from 30 imputations, a number that also follows from best practice (White, Royston & Wood, 2011). Our pre-processing results in final samples of 1062 for Japan, 1222 for the US, 1928 for China and 1694 for India, totaling 93% of the original data. (See the Supplementary Technical Appendix section 2 for steps to preprocess the WVS, 2005 data.)

How the WVS Implements the Schwartz Values Model

The WVS, 2005 uses the Short Schwartz Values Survey. This instrument includes one representative item for each of the ten motivational value types, thus ensuring broad coverage of the Schwartz model. Most of these items have the highest loading on the corresponding motivational value type in prior research. Further, Lindeman and Verkasalo's (2005: 170) “results show that the new scale (with ten representative items) had good reliability and validity and that the values measured by the SSVS (Short Schwartz Values Survey) were arrayed on a circle identical to the theoretical structure of values” in the Schwartz (1992) model. This suggests the items are not only representative of the Schwartz model but also reliable measures of the ten motivational values. (See the Supplementary Technical Appendix section 1 for measurement of Schwartz values in WVS, 2005.) We use these ten items to identify



culture archetypes within and across countries using our AA methodology.

Scale Equivalence

Scale equivalence is an important topic in cross-cultural research and has received a lot of attention (for reviews, see Milfont & Fischer, 2010; and Steenkamp & Baumgartner, 1998). However, more relevantly here, there are several studies providing strong support for the scale equivalence of Schwartz values measures and their appropriateness and usefulness for international cross-cultural research. According to Inglehart and Welzel (2005: 239), "The (World) Values Surveys address this (the scale equivalence) problem by avoiding situation-specific questions with meanings that vary greatly from one setting to another." They also provide empirical evidence for scale equivalence of WVS scales (including the Schwartz values) across different countries. Similarly, Beuckelaer, Lievens, and Swinnen (2007) found support for measurement equivalence (form equivalence and metric equivalence) in the Schwartz values survey administered across 25 countries located in all regions of the world. More specifically, Spini (2003: 18) assesses the equivalence of items used to measure Schwartz's ten motivational value types and confirms "the legitimacy of using the Schwartz Value Survey as an instrument for cross-cultural research." Overall, therefore, we believe the ten Schwartz values in WVS, 2005 adequately represent the values of individuals in different countries. Next, we address the issue of response bias in cross-cultural research.

Response Bias

The literature on response style bias in cross-cultural research is equivocal (Fischer, 2004). While some researchers consider response patterns as bias or noise (e.g., Harzing, 2006; Van Herk, Poortinga, & Verhallen, 2004), others view it as a signal of actual cultural differences (e.g., Smith, 2004). In the view of the former, response bias is a problem that can be mitigated by employing various standardization strategies (Fischer, 2004). However, according to Fischer (2004: 275), "comparison of standardized measures in absolute terms ... will give misleading results," and "standardization would remove variation that is substantial and related to culture" (Fischer, 2004: 264). Lee, Soutar, and Louviere (2008: 335) make a similar point: "Values researchers most often suggest ipsatizing or centering responses around an individual's overall mean or alternatively using this mean as a covariate to reduce such effects (e.g., Schwartz, 1992). However, this process may

remove true differences from the data" (Smith, 2004; Van Hemert et al., 2002). Here we take the perspective of Smith, Fischer and others and use raw data from WVS, 2005 for our AA.

The WVS adopts multiple strategies to overcome the potential problems of bias in cross-cultural surveys. We also carry out several tests to check if these strategies are successful or not, full details of which are provided in the Supplementary Technical Appendix (see section 6 "Tests of response bias"). In these tests we examine the magnitude of any yea/nay saying, and common method and social desirability biases in the overall samples for each of the four countries. Using our archetypal analyses, we also examine the magnitude of any archetype-specific yea/nay saying or social desirability biases. Overall, these tests suggest that the strategies adopted by the WVS are effective and any response biases in our data are relatively small in magnitude and unlikely to affect our findings.

Tests of Heterogeneity in Country Values

Our final tests are of heterogeneity and simply to show there is adequate heterogeneity in our sample for our purposes. Further details are included in the Supplementary Technical Appendix (see section 3 "Testing heterogeneity in country values"). We use four tests of heterogeneity. First, we compare within and between country variance on the Schwartz values. As in previous research, we find that on average 82% of the variance is within country and only 18% between countries. Next, for each country, we carry out two tests comparing values across subgroups based on five demographic variables. The first is a one-way multi-variate analysis of variance testing for the equality of subgroup means. The second test is through the E-statistic (Szekely & Rizzo, 2013) for the equality of the multi-variate distributions of the various subgroups. Here our tests reject equality of subgroup means and distributions. For our fourth and last test of heterogeneity, we follow Fischer and Schwartz (2011) and apply an inter-rater agreement statistic to establish the degree to which consensus on the importance of values exists within a country. Here we find there is little consensus as our test statistics are well below accepted norms. Overall, our tests show there is substantive heterogeneity in the values held by the citizens of any one country, so we next seek to understand this heterogeneity through AA. (See the Supplementary Technical Appendix sections 4 and 5 for details of AA.)

RESULTS

We divide this section into five subsections. First, we briefly discuss the fit and stability of the solutions we obtain from AA. Second, we discuss the archetypes we identify for Japan. Japan is regarded as one of the most homogeneous countries in the world, with 98.5% of its population being ethnic Japanese. It is thus interesting to start with the most ethnically homogeneous nation of the four before we move to other, more diverse nations. Our discussion of the archetypes for Japan also allows us to illustrate the way we present archetypes and also to reinforce the distinction between archetypes, the archetypal cases and the non-archetypal cases. Third, we compare country archetypes in sequence from Japan through the USA and China to the most diverse country, which is India. Fourth, we pool the data from the four countries into one database for a transnational analysis. Here we use random samples of 1000 from each country to ensure each gets equal weight in the resulting archetypes. Otherwise, the almost 2 to 1 difference between the original sample sizes for India and China vs those for the USA and Japan would unduly influence the pooled archetypes, either in proportions of archetypal cases or the configurations of the archetypes themselves. Fifth and finally, we profile the five archetypes we obtain from the pooled data across 43 independent variables: namely, five demographic characteristics and 38 other values, attitudes and perceptions from the WVS, 2005. There are strong differences across many of these independent variables, demonstrating that our Schwartz archetypes can discriminate between individuals on a much broader set of values than we use to develop them, and thus providing further support for their overall validity and predictive ability.

Fit and Stability of AA Solutions

On the basis of fit to the data and other criteria (see the Supplementary Technical Appendix section 5 for details), we identify four archetypes as the best solution for Japan, the USA and China. For India we identify six archetypes because of the greater diversity of this country and because of the better fit of the solution for six archetypes. For the pooled data we identify five archetypes as the best solution. For all these solutions, the residual sum of squares after fitting the archetypes is small (ranging from 1.2% to 2.8% of the initial data value) and the generalized multi-variate variance explained by the archetypal cases is high (ranging from 75.3% to 83.8%). Furthermore, all these solutions also have low

standard errors of imputation and cross-validation via linear discriminant analysis shows high levels of correct classification in all imputations and split-half samples (see the Supplementary Technical Appendix section 5 for details). Thus we can be confident we have good and robust fits to these data.

Culture Archetypes for Japan

We show our four archetypes for Japan in Figure 3. Following Schwartz's (1992) circle of ten motivational value types, we present these archetypes as radar plots for ease of comprehension, and also for comparison between archetypes within and across countries. The dark line in each radar plot is the value configuration of the archetype itself. The periphery of the circle represents values that are *highly important* to the respondent (see the Supplementary Technical Appendix section 1 "Measurement of Schwartz values in WVS, 2005" for details).

Archetype A in Figure 3 is associated with 21.9% of the Japanese sample (i.e., cases with a weight ≥ 0.5 on Archetype A). These "Archetypal A" individuals do not believe any of the Schwartz values are particularly important to them. In contrast, the individuals associated with Archetypes B, C and D make strong statements as to what is important to them. Archetypal B cases (14.8% of the sample) are those that regard self-transcendence and conservation values such as *universalism*, *benevolence*, *tradition*, *conformity* and *security* as important to them. In contrast, Archetypal C cases (8.7% of the sample) are those giving importance to *self-direction*, *stimulation* and *achievement*. Finally, Archetypal D cases (8.1% of the sample) consider *hedonism* and *security* as important to them. Overall, this is a surprisingly diverse set of archetypes, especially for a country that is often regarded as one of the most homogeneous in the world. The four archetypal subgroups total 53.5% of the Japanese sample; while the remaining 46.5% is composed of non-archetypal cases, that is, individuals who more closely resemble the national averages for Japan on these ten values. Thus assuming homogeneity of values for Japan is clearly incorrect – by analogy the annular ring of the Japanese "donut" is larger than the hole of the donut, and this ring is divided into four distinct sectors. This we show in Figure 4.

To reinforce and clarify the distinction between archetypes, archetypal cases and non-archetypal cases, we also show all of these configurations as radars in Figure 4. These radars reinforce two important outcomes of AA that are a direct result of its overall approach. First, by comparing an archetype

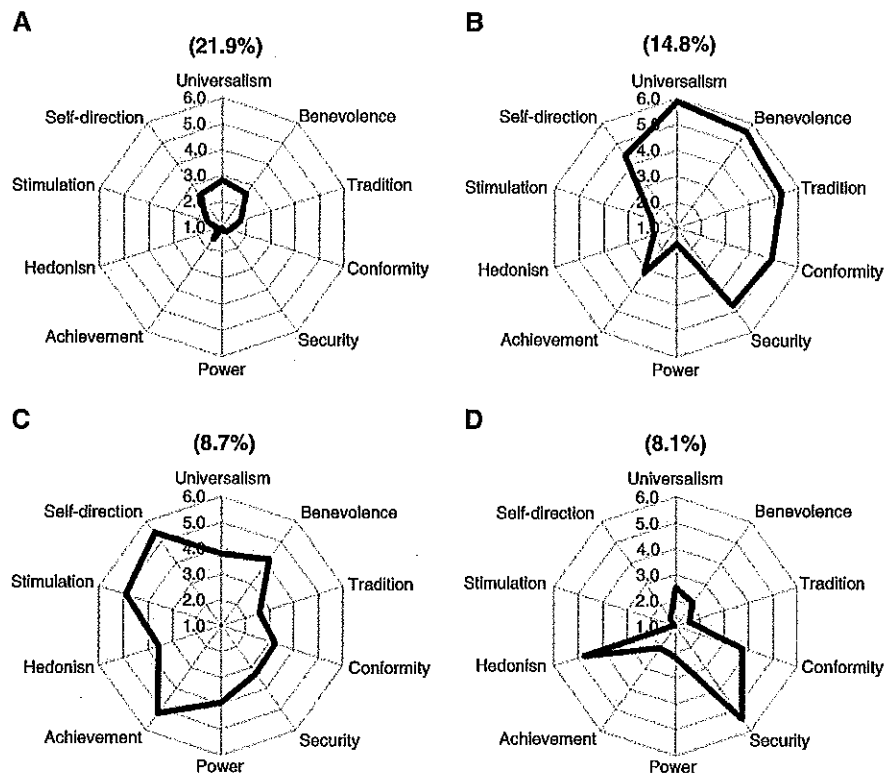


Figure 3 Culture archetypes in Japan.

(shown in solid lines) with the average of the archetypal cases associated with that archetype (shown in dotted lines) we can see there is a good resemblance between the two. This result holds for all four archetypes here and indeed for all our other analyses (see the Supplementary Technical Appendix section 7 Tables A9 and A10 for all profiles, means and standard deviations). Thus the archetypes themselves provide a parsimonious representation – perfect examples – of important subsets of the sample. Second, the configuration for the non-archetypal cases (weight < 0.5 on all four archetypes) is indistinguishable from the overall sample means (in fact we had to show them as separate plots because they overlay each other). Thus the non-archetypal cases also provide a good representation of the national average configuration.

Comparisons across the Four Countries

As we show in Figures 5, 6 and 7, our analysis identifies four culture archetypes each for the USA and China and six for India. These figures have the same format as for Japan. The USA, China and India show roughly the same configuration of values for archetype A as Japan, namely, individuals associated with this archetype do not regard any of the ten values as particularly important to them (10.1%,

8.8% and 6.6% of the respective samples). Interestingly, all four countries also share another common archetype with relatively strong self-transcendence and conservation values and relatively weak self-enhancement and openness to change values (archetype B in Japan, USA and China, and archetype E in India, representing 14.8%, 20.0%, 12.4% and 5.3% of the respective samples). These two archetypes are potentially candidates for global archetypes as they are found in all four countries, countries that represent over 3 billion people. However, since we only have four countries in our study, we prefer to label them more circumspectly as *transnational* archetypes, that is, archetypes that span more than one country.

Three countries (excluding Japan) also share another transnational archetype D, representing individuals who regard all values as important to them (20.5%, 19.1% and 20.2% of the respective samples). There are potentially two other transnational archetypes spanning two countries each. Archetypes C in China and India (representing 21.2% and 7.1% of the respective samples), though not entirely the same, have similarities in that they are strong on three of the same self-transcendence and conservation values of *universalism*, *benevolence* and *tradition*, and also the self-enhancement value of

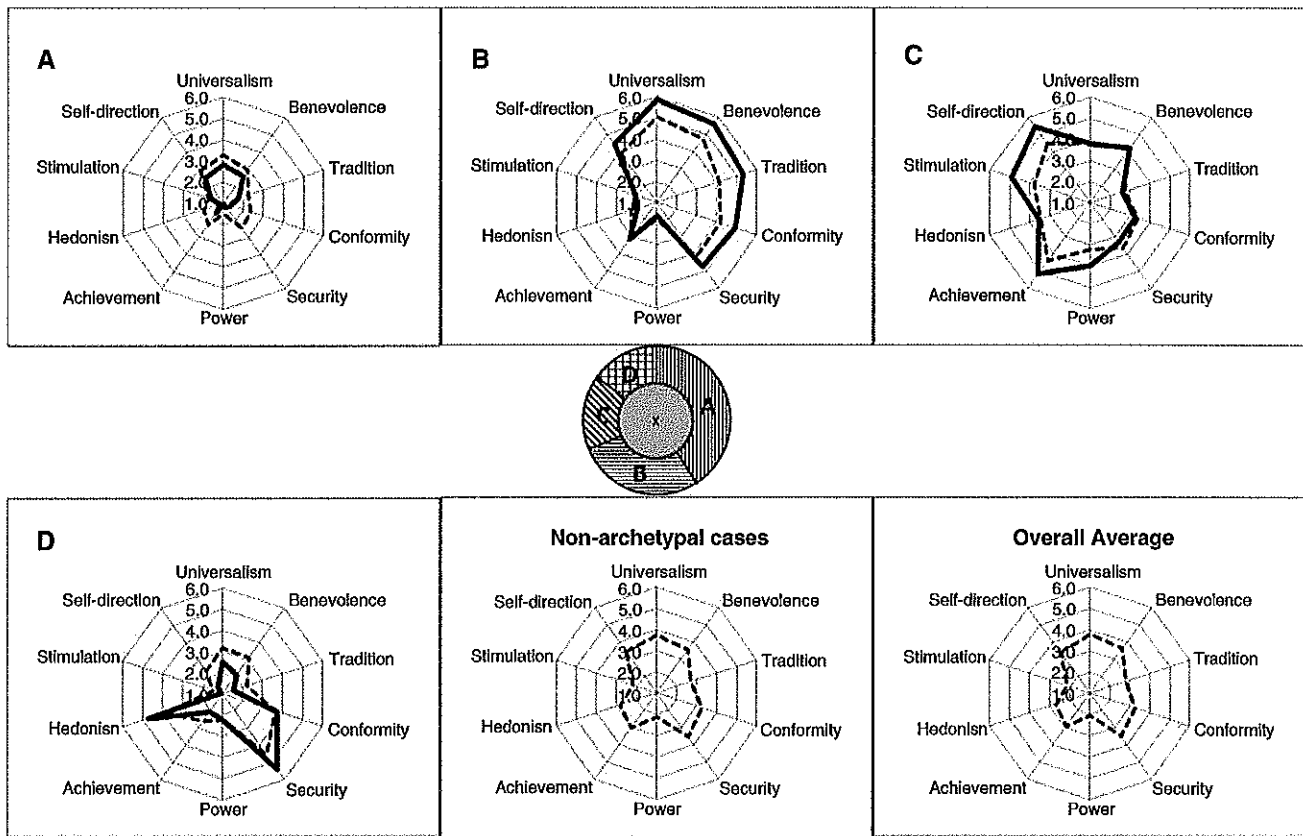


Figure 4 Archetype configurations (solid lines), averages (dotted lines) and donut for Japan.

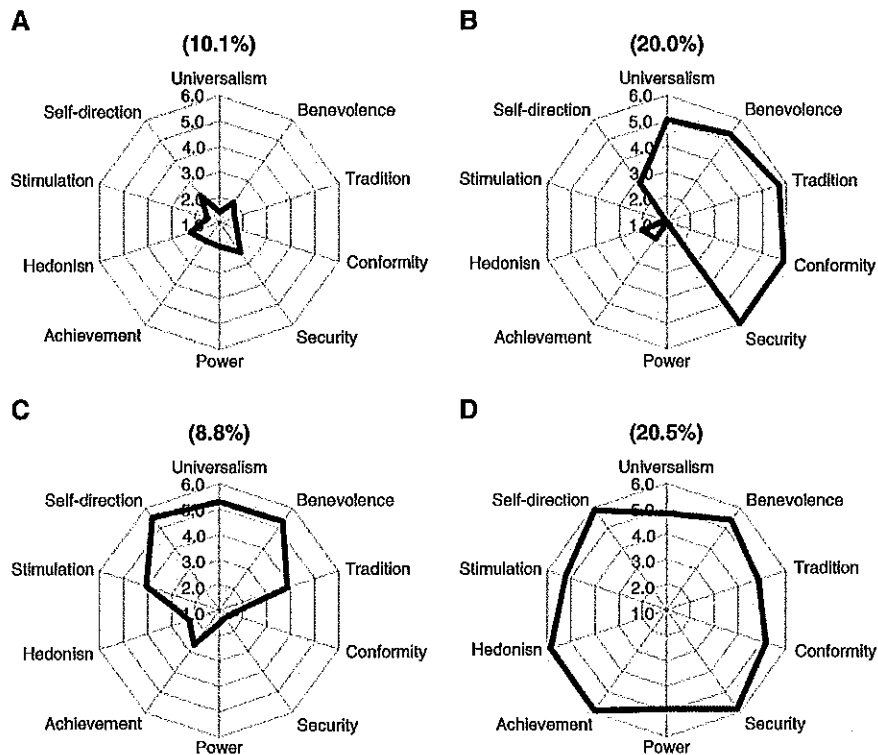


Figure 5 Culture archetypes in USA.

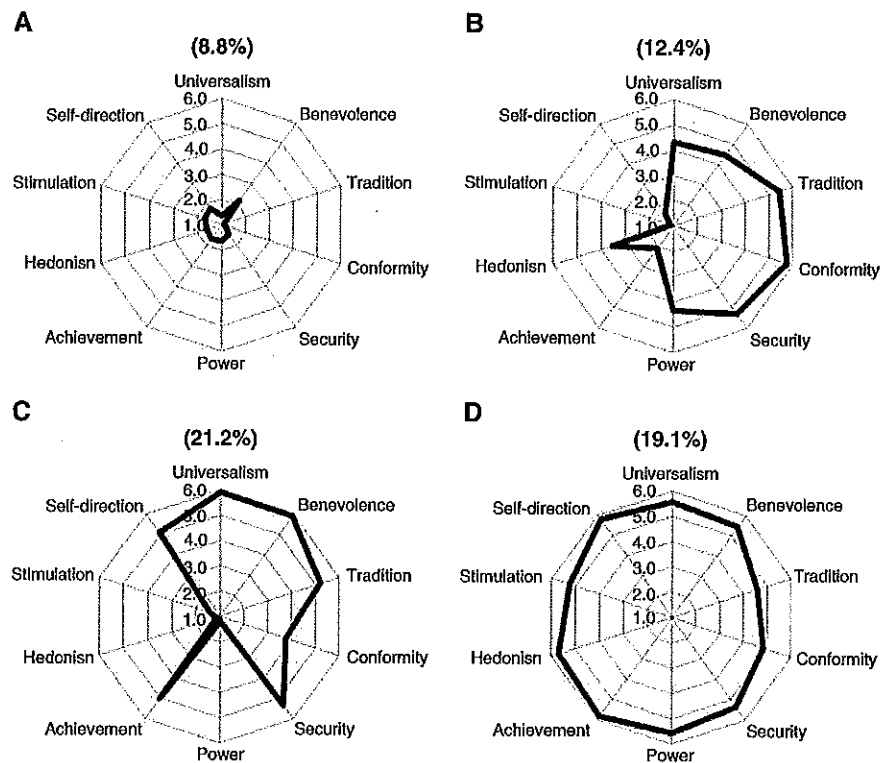


Figure 6 Culture archetypes in China.

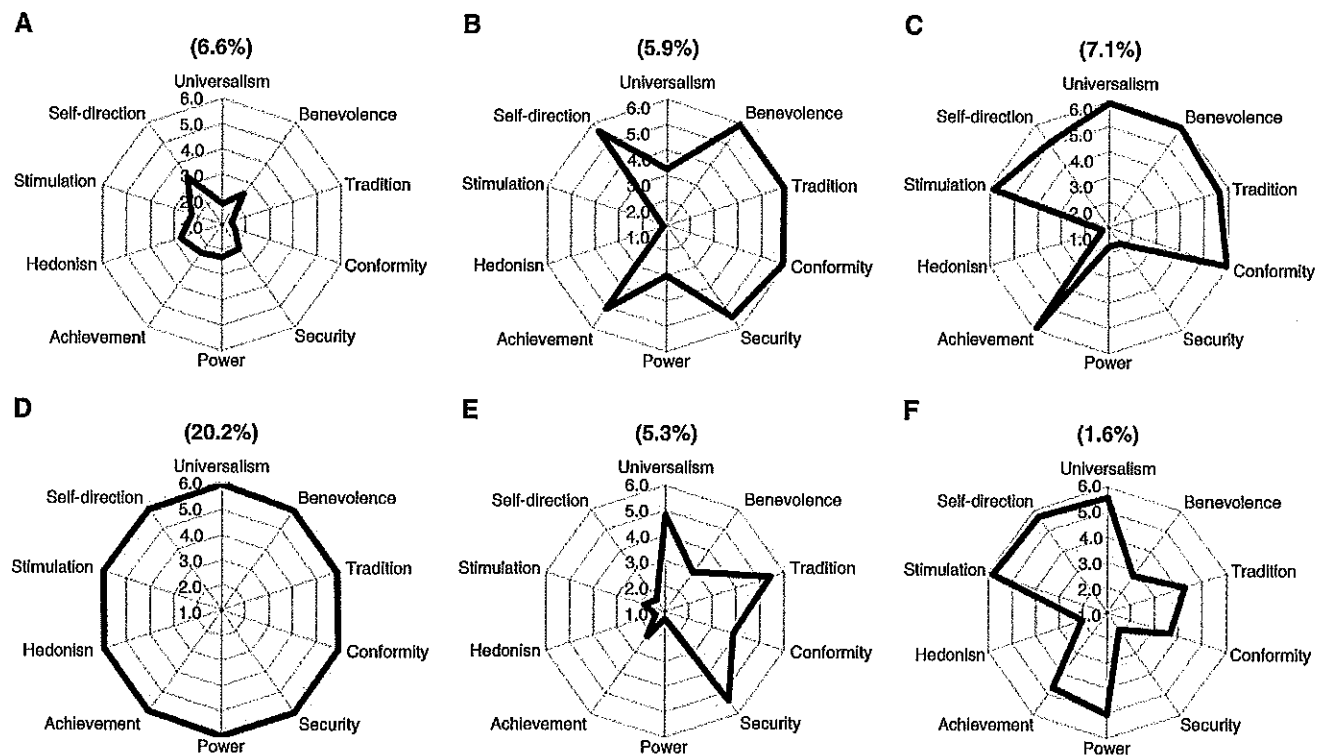


Figure 7 Culture archetypes in India.

achievement. Similarly, archetypes C in Japan and F in India (representing 8.7% and 1.6% of the respective samples) share *achievement*, *stimulation* and *self-direction* values. In addition to the transnational archetypes, we also find subnational archetypes that are specific to individual countries, namely, archetype D in Japan, C in USA and B in India (comprising 8.1%, 8.8% and 5.9% of the respective samples).

Overall, our results support Proposition 1 in that the heterogeneity in individual values within each country can be captured by a small number of well-defined archetypes. Our archetypes also provide support for Proposition 2 in that some culture archetypes are clearly transnational (i.e., found in all four of our countries), and some are subnational (i.e., found in specific countries). Finally, turning to Proposition 3, we find, while the configurations are not exactly the same across the four countries, there do seem to be, qualitatively at least, some common themes. Some archetypes give high importance to self-transcendence and conservation values (e.g., B in Japan, USA and China, and E in India) and others focus solely on self-enhancement and openness to change values (e.g., C in Japan, F in India). Thus there is some support for Proposition 3 regarding differences in the dominant value orientations among archetypes. However, an interesting finding is that there are many individuals who simultaneously embrace all values (e.g., D in USA, China and India). This finding has implications for the Schwartz theory of values, namely whether values are bipolar, bi-dimensional or multi-dimensional. We will return to this point in our discussion section. Given we see common themes across countries, we next present the results of our analysis on pooled data. This analysis is designed to confirm the existence of transnational archetypes and also deepen our understanding of them.

Culture Archetypes from Pooled Four-country Data

Applying AA to the pooled sample of 4000 cases and the ten Schwartz values, we identify five archetypes (see Figure 8). For four of these we also see strong similarities with the previous country-level results, namely archetypes A, B, C and D, thus confirming our previous results. Archetype A (associated with 12.5% of the pooled sample) represents individuals who do not regard any of the Schwartz values as important. Archetype B (10.9%) represents individuals with strong self-transcendence and conservation values. Both are similar to the ones we found earlier in all four countries. Archetype C (4.9%) represents individuals who place importance on four

self-transcendence and conservation values and three self-enhancement and change values (similar to the ones we found in China and India). Archetype D (16.0%) represents individuals who place relatively strong importance on all ten values (similar to the ones we found in USA, China and India). Finally, the fifth archetype, E (7.4%), represents individuals with a simple configuration of values. They believe in *benevolence* and *self-direction* but do not place much importance on any of the other values. The cases associated with the five archetypes total 51.7% of the pooled sample, with the remaining 48.3% non-archetypal cases closely resembling the four-nation average for these data.

To gain more insight into how these five archetypes are distributed across the four countries of the pooled sample, we present them as four country donut charts in Figure 9. These charts are built from a cross-tabulation of pooled archetypes by country (see the Supplementary Technical Appendix Table A11 for cell numbers). The annular sectors show the proportion of each archetype (A, B, C, D and E) within each country and the size of the donut hole varies according to the proportion of non-archetypal cases. It is important to note that with these data the AA algorithm itself is potentially capable of producing a solution where each country is represented by a single archetype (which would occur if, for example, the values in each country were homogeneous and distinctly different from other countries). This is not what we see here. First, we see the presence of all archetypes in all four countries, albeit some are only present in small proportions in some countries. However, more importantly each country is strongly associated with at least two archetypes. Japan with archetypes A and E, the USA with B, D and E, China with B, D and E, and India with C and D. These archetypal links across countries (Japan with the USA, the USA with China and China with India) further add to the evidence supporting Proposition 2 (transnational archetypes that span more than one country). Overall, the pooled analysis confirms and extends our findings from the individual country-level analyses, particularly the existence of transnational archetypes and the diversity among the archetypes within and across countries.

Overall, we believe the archetypes we report above are a useful and interesting way to represent the configurations of shared values in these data. The next question is whether these archetypes relate to other, independent facets of the individual. The answer to this question potentially provides evidence that these five archetypes are not only

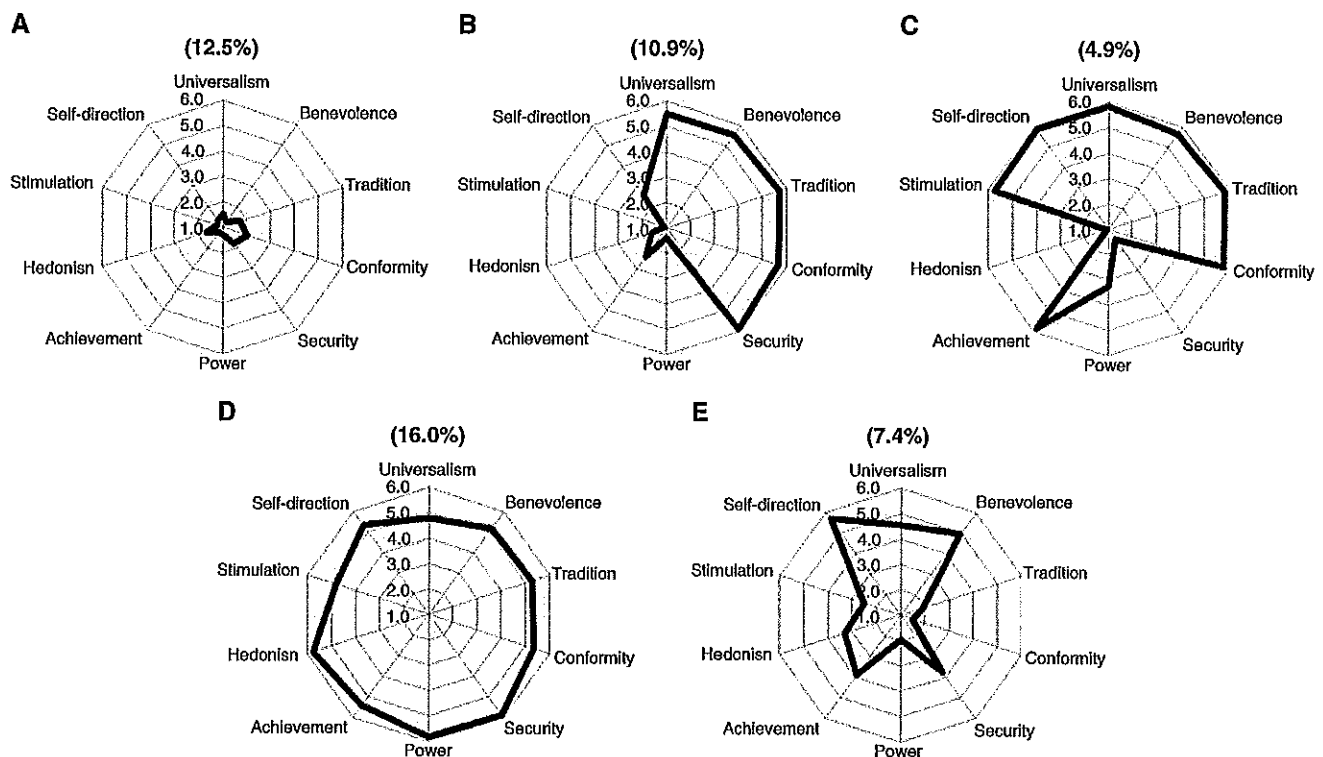


Figure 8 Culture archetypes with pooled data from Japan, USA, China and India.

interesting, but they are also of broader theoretical and managerial value.

Relationship between Transnational Culture Archetypes and Other Facets of the Individual

We select 43 items from WVS, 2005 to examine these relationships (see Table 2 here, and Table A12 in the Supplementary Technical Appendix for full details). These items include some demographics, but also attitudes, perceptions, and importance statements that describe the individual's values across the broad canvas of the WVS. In addition to breadth, our other criterion for selecting these items is they have at least a four-point scale, providing some variance for analysis. This set of items also includes one measure of behavior (an index of the number of social organizations – church, political, etc. – in which each respondent is active).

To understand the relationship between each item and our archetypes we follow the procedures outlined in Ter Hofstede et al. (1999). We take each item in turn and estimate an OLS regression with this item as the dependent variable and membership of the five archetypes (archetype weight ≥ 0.5) as contrast-coded dummy predictor variables (e.g., code membership of archetype A as 1 0 0 0).

The contrast here is with the grand mean of the dependent variable. We use the non-archetypal cases (with weight < 0.5 on all archetypes) as the category whose coefficient is not estimated to avoid complete collinearity (e.g., code membership of the non-archetypal cases as $-1 -1 -1 -1 -1$). Ter Hofstede et al.'s procedure tests whether an archetype is significantly above or below the grand mean, which we show as plus or minus in Table 2. These pluses and minuses provide a simple and readily interpretable profile of archetype differences across the 43 items. Finally, we also examine the largest pairwise difference between the archetypal cases, estimating the effect size for this difference (last column in Table 2 using Cohen's d). The effect size is, in our opinion, the most useful statistic as it shows the differences between the archetypes that are not only statistically significant but also substantive in a theoretical and managerial sense. Table 2 lists the 28 of the 43 variables that have large or moderate effect sizes, all of which are statistically significant ($p < 0.001$, Bonferroni corrected for multiple comparisons). (The Supplementary Technical Appendix Table A12 gives the full results including the remaining 15 variables, six of which are statistically significant but only have

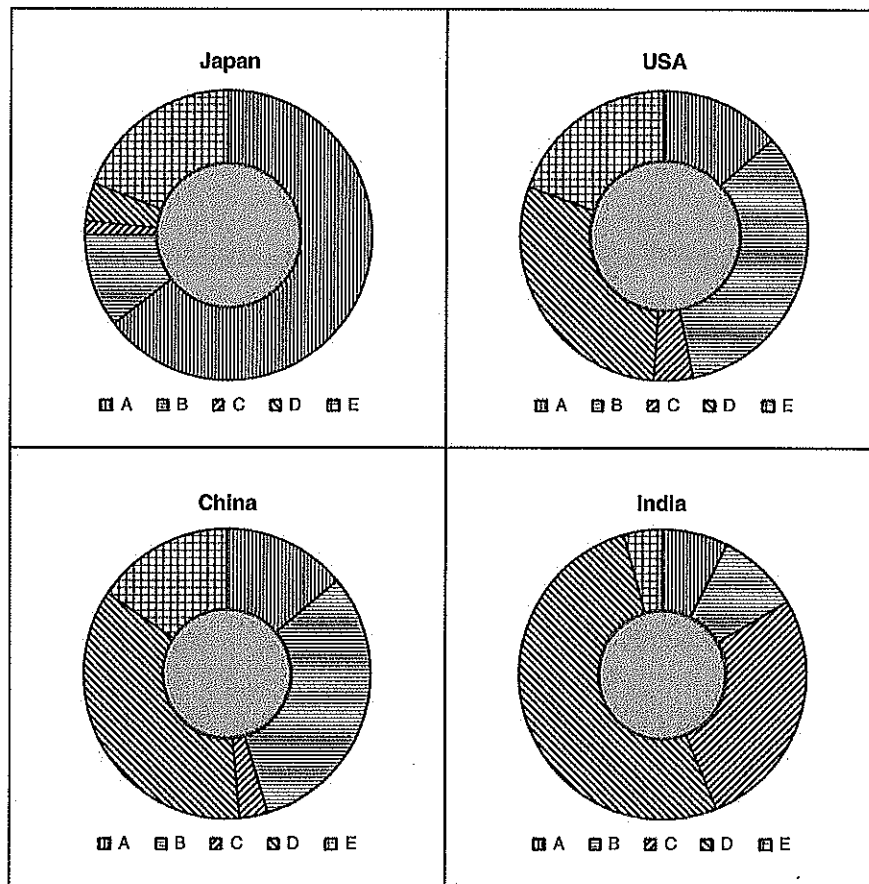


Figure 9 Diverse archetypal and non-archetypal cases by country with pooled data.

small effect sizes, and nine of which are not statistically significant.)

If we focus on the ten large effects, we see these include the behavior (*membership of social organizations*), three attitudes to work, two role perceptions, two expectations, the importance of *religion* and one attitude to life (*technology benefits the world*). Six of these ten effect sizes are greater than one standard deviation, which is large by the standards of social science research. These are substantive effects, demonstrating strong relationships between the archetypal groups and other independent facets of the individual. All in all, these results suggest a broad and rich set of relationships between the individuals and the culture archetypes they associate with.

Transnational archetypes and social behavior

The links to behavior are especially interesting. Those individuals associated with archetypes C and D are members of more social organizations than is the case for those associated with archetypes A and E. This closely parallels their relative orientation on

the Schwartz values, demonstrating an association between values and behavior that is consistent with theory. The largest difference is between C and A which suggests that archetype C is a valid reflection of people who not only value self-transcendence and conservation values but also engage in activities that manifest these values. Moreover, the configuration of archetype C also displays strong *self-direction*, *stimulation* and *achievement* values, of the sort that might be expressed through active membership of several organizations. In contrast, those individuals associated with archetype A do not regard any values as important nor are they active in society. We do not have space to illustrate all the possible contrasts but hopefully these examples demonstrate a theoretically consistent connection between archetypal value configurations and behavior.

Transnational archetypes and other independent variables

Here we focus on the nine other variables showing large effect sizes and we start with the three

Table 2 Relationships between pooled archetypal groups and demographics plus other variables in WVS, 2005

Category	Summary description	A	B	C	D	E	LPD	Pairwise ES
Behavior & demographics	Index of membership of social organizations	–		+	+	–	CA	1.80 (L)
	Gender (high = female)		+	–			BC	0.67 (M)
	Age		+		–		BD	0.68 (M)
Attitude to work	Humiliating to get money without work	–		+		–	CE	1.03 (L)
	Work is a duty to society	–		+		–	CE	1.00 (L)
	Work should always come first	–		+	+	–	CA	1.21 (L)
	Need a job to develop your talent	–		+	+	–	CE	0.77 (M)
	People who don't work turn lazy			+		–	CE	0.71 (M)
	I see myself as a citizen of (country)	–		+			CA	0.91 (L)
Role perception	I see myself as an autonomous individual	–	–	+	+		CA	0.94 (L)
	I see myself as a world citizen	–		+	+		CA	0.56 (M)
	I see myself as a member of the local community	–		+			CA	0.66 (M)
	Important to meet parent's expectations	–		+	+	–	CA	1.18 (L)
Meeting expectations	Important to meet your own expectations	–		+			CA	0.97 (L)
	Important to meet friend's expectations	–		+	+	–	CE	0.73 (M)
	Important to set your own goals in life	–		+			CA	0.75 (M)
	Justifiable to claim benefits not entitled to		–	+	+		CB	0.56 (M)
(Non)-Ethical stance	Justifiable to avoid fares		–	+			CB	0.65 (M)
	Justifiable to cheat on taxes		–	+	+		CB	0.67 (M)
	Justifiable to take a bribe		–	+	+		CB	0.70 (M)
	My work is mostly cognitive	+		–		+	EC	0.55 (M)
Nature of work	I have complete independence in my work	–					EA	0.51 (M)
	Importance of religion	–		+		–	CA	1.67 (L)
Social priorities	Importance of work	–	–	+	+		CB	0.58 (M)
	Technology benefits the world	–		+			CA	1.07 (L)
Attitudes to life	Other people are fair		+	–			BC	0.68 (M)
	In control of life	–					BA	0.52 (M)
	Hard work brings success	–		+			CA	0.78 (M)

Notes:

A, B, C, D, E – refer to culture archetypes with pooled data in Figure 8.

LPD – Largest Pairwise Difference; ES – Effect Size (L: large; M: moderate).

(+) archetype mean significantly larger than the grand mean; (–) archetype mean significantly smaller than the grand mean.

In the last column, items within each category are arranged in descending order of effect size, from large to medium.

configurations that are more oriented to self-transcendence and conservation, namely C, D and B. The individuals represented by archetype C have a strong work ethic, see themselves as a citizen of their nation but also autonomous in their actions, strive to meet their parents' and their own expectations, are religious and positive about technology. This is a consistent set of perceptions and attitudes that reflects their overall strong social and specific self-focused Schwartz values. The individuals represented by archetype D have something in common with those of archetype C; in particular they put work first, regard themselves as autonomous individuals and strive to meet their parent's expectations. However, they are average on the other variables. Is this because their Schwartz profile, in contrast to archetype C, places a much heavier emphasis on security, power and hedonism? Further research is needed to answer this question, as it is for archetype B, a

Schwartz value profile that is entirely oriented towards self-transcendence and conservation, but which is average on all nine WVS variables. And then we have archetypes A and E; which come out lower than the average on all or most of these variables respectively, perhaps reflecting the overall lack of strong values in their archetypal configurations. Both do not have as strong a work ethic, do not strive to meet their parent's expectations and are less religious. This pattern of results also seems consistent with their archetypes and suggests they are, in this restricted sense, possibly less part of their societies. However, there is a difference between the two configurations in that archetype E has two fundamental values – *self-direction* and *benevolence* – whereas archetype A has none. Indeed, the individuals represented by archetype A also do not think it important to meet their own expectations, do not see themselves as citizens or autonomous

individuals, and see few benefits to technology. Thus the fact that they regard none of the Schwartz values as important is entirely reflected in the fact that they are below the average on all nine WVS variables. In contrast, those individuals represented by archetype E are average on own expectations, citizenship, autonomy and technology, implying that their two fundamental Schwartz values are reflected in these facets of their life. Overall, while further research is clearly needed to validate and extend these findings, as for behavior we see several consistent and theoretically plausible connections between the various archetypal configurations and individual attitudes, expectations and perceptions.

Using archetypes for managerial decision-making

We believe our archetypes are also potentially useful for managerial decision-making. Firms seek employees who have a good fit not only with the overall culture of the organization, but also with the specific tasks that each individual performs. Similarly, firms pursue customers whose value drivers align with the value propositions offered by the firm. Thus understanding the values profiles of individuals will help firms to more effectively achieve both these objectives. This is especially critical in the context of large, diversified MNCs that undertake a wide and complex variety of tasks involving a large number of people with different skills and capabilities.

Speculatively, and to illustrate the potential, our analysis suggests that archetypal C individuals might be well suited for decision-making under complex and conflicting situations, however, they might be less likely to take up leadership roles as they do not value power or hedonism. Similarly, they might try new products, albeit as followers rather than leaders, and could be targeted by innovative firms at the second stage of the new product introduction process. On the other hand, archetypal D individuals might be more motivated to take up such leadership roles since, while holding several values in common with archetypal C individuals; they differ in placing a high value on power and hedonism. And with the potential to become the early users of new products, innovative firms might target these individuals at the launch phase of new product introduction. Archetypal B individuals are socially conscious with high ethical values. These individuals could suit roles and organizations that place high value on ethical conduct, for example, public service and social organizations. They are also likely to value trusted brands and products and be conservative in trying new products. Archetypal E

individuals are less engaged in society but do give strong importance to self-direction, universalism and benevolence. They may be more social dreamers than doers. As such, they could fit roles that require thinking rather than action, such as planning and R&D. Finally, archetypal A individuals are difficult to understand as they are not strong on any of the Schwartz values and generally less engaged with society. More in-depth research is needed to figure out the values, if any, of this group of individuals, as well as to confirm our other speculations here. Further research is also needed to explore our idea that certain archetypes might be agents of cultural change. Archetype D is one potential candidate for the change agent role in our data here.

Overall, therefore, we find substantive differences among the archetypal cases on a range of independent variables, differences that reflect the archetypal profiles on the Schwartz values in a consistent and interpretable manner. To us this signifies the potential usefulness of AA for IB theory development and management decision-making. The next section discusses the implications of our study for theory and practice, and its limitations and possible directions for future research.

DISCUSSION

In this section we first look at the implications of our results for IB research on culture, both for theory and methodology, and then their implications for management practice, particularly the impact that different customer and employee values may have on international organizations. Finally we discuss the limitations of the WVS and our work and the possible directions this suggests for future research, particularly cultural dynamics and methodology.

Implications for Research

There are four key implications of our results for IB research: (1) the operationalization of the culture concept, (2) averages or archetypes – reconciling national and heterogeneous culture perspectives, (3) integrating the emic-etic views in culture, and (4) the dimensionality of values.

(1) Operationalizing the concept of culture

A fundamental issue in the definition and operationalization of culture is clearly how we delineate the boundary of a culture. To most scholars, culture refers to characteristics shared by a group of people. It is therefore arguable that we would be better to determine such boundaries endogenously on the basis of the characteristics of interest to the



researcher, and not impose them exogenously through national, regional or organizational considerations as is common in many cross-cultural studies. Once culture boundaries are defined and profiled, researchers can examine the extent to which they coincide with regional, national or organizational boundaries. Further, as we illustrate in this article, and following Kluckhohn and Strodtbeck (1961), it is better to identify cultural groups on the basis of similarities and differences in their configurations of multiple values rather than single values.

(2) Averages or archetypes – Reconciling national and heterogeneous culture perspectives

AA identifies culture archetypes through the topology of all the data rather than through subgroups of these data. This is in contrast to existing approaches such as cluster analysis or latent class analysis that build classifications with a more internal and subgroup focus. Consequently, we find our sample is split approximately equally between archetypal cases that are associated with sharp and differentiated archetypes, and non-archetypal cases that have values close to the sample average. The archetypal cases represent individuals who have made clear choices in what they value and, moreover, choices that differ markedly from the sample average. On the other hand, the non-archetypal cases represent individuals whose choices are more middle-of-the road and also less differentiated. With a national sample, these individuals also represent the national average scores reported in previous research. The theory and methodology of archetypes thus allows us to reconcile two conflicting views in the literature. That is, those scholars who believe in national average and those who believe more in national diversity. Our results indicate that these views are not in conflict; rather they are two partial but complementary pictures of the whole.

(3) Etic or emic?

Our research also potentially integrates the etic-emic perspectives in culture research (e.g., Cheung, van de Vijver, & Leong, 2011). Bond and Smith (1996: 226) state that "The search for universals and an emphasis upon indigenous culture-specifics are often cast as contradictory enterprises that exemplify contrasting etic and emic approaches" and "the methodological problems stemming from the etic-emic dilemma must be more clearly addressed." We believe our article goes some way to provide a methodology that can address and resolve this dilemma. Our multi-country "transnational"

archetypes reflect common, more universal configurations of values, and provide tentative empirical support for the etic view of culture. Further, our country-specific, subnational archetypes reflect local, indigenous configurations of values, supporting the emic view of culture. By finding support for both the etic and emic perspectives, we "progress from documenting contrasts between different cultures toward examining the ways in which individuals and groups from different cultures relate to one another" (Bond and Smith, 1996: 227).

(4) Multi-dimensional, bi-dimensional or bipolar values?

The ten values in the Schwartz model are viewed either from a bi-dimensional or a bipolar perspective (Schwartz, 2011: 466). However, our results show that individuals in most of our archetypes are more ambidextrous, that is, often hold different types of values simultaneously. This finding suggests that individuals have a multi-dimensional configuration of values, rather than a bi-dimensional or a bipolar one (e.g., Oyserman, Coon, & Kemmelmeier, 2002). Further research could help clarify how such individuals express their diverse values in their behavior, and under what contexts different values are evoked in practice.

Implications for Management

Our results also have interesting implications for the management of international firms. MNCs operate in multiple countries and interact with a diverse range of individuals as customers and employees. How best to sense and respond to the similarities and differences among individuals within and across countries remains a constant challenge for large multi-national firms. According to Wedel et al. (1998: 234), "The universality, centrality, and stability of values render them not only a particularly suitable basis for segmentation *within* a country but also for *cross-national* market segmentation." Although the concept of customer segmentation originated in marketing, it can be extended to employees especially in the context of MNCs operating in a number of different countries and employing individuals with diverse values. Our results show that assuming one's employees in country X conform to the national culture of country X is clearly misleading as less than 50% of individuals will conform to these values. Though we note with irony that dealing with the differences between these national cultures is the topic of many popular business books and management training courses. Thus

both employment practices and managerial styles need to reflect multiple value configurations.

Transnational and subnational archetypes

The identification of transnational and subnational archetypes suggests that individuals belonging to each of these archetypes have similar value drivers, as customers or employees of the firm. Multinational firms can therefore use common strategies for all individuals within an archetype irrespective of their country of origin, thus reducing complexity and enhancing efficiency and performance. For transnational culture archetypes, MNC managers can potentially use a standard approach across a subset of countries that share similar value configurations. For example, Matsumoto (2002) presents strong evidence to debunk the oft-repeated stereotype of the young Japanese as collectivists. Thus this subgroup in Japan can be targeted with, for example, individualistic market positioning or employment reward systems similar to that used by MNCs for their individualistic customers or employees in other parts of the world. On the other hand, individuals belonging to different archetypes within or across countries would need a different approach for effective customer satisfaction or employee motivation. For example, there may be small, subnational archetypal subgroups within each country with specific needs and characteristics and which may require significant adaptation by MNCs. As Tsui et al. (2007: 462) note: "Treating culture as a global construct, especially the use of a proxy (nation) for culture, does not provide informative insight into how culture influences employee behaviors in different national contexts." Thus our discovery of transnational and subnational archetypes has important implications for business managers in their day-to-day decision-making, for example, how best to serve the diversities and commonalities in the country markets around the globe, and how best to manage a global workforce that is sourced from different countries (e.g., Williams & Gregoire, 2015).

Limitations and Possible Directions for Future Research

Our study has limitations that need to be addressed in future research. First, our study provides a snapshot of culture archetypes in four different countries. However, culture is not static, and rates of change may differ within and across countries as a consequence of different political and economic forces. It is widely believed that increasing globalization is a strong force for international cultural convergence

(e.g., Tsui et al., 2007). Nonetheless, in their national-level analysis, Li and Bond (2010) found no evidence of convergence or divergence in secularism values within countries across four WVSs. One way to extend Li and Bond's convergence thesis is to examine the trajectory of culture archetypes using longitudinal panel data. Unfortunately such data does not exist. A less satisfactory (from a methodological perspective) though still useful approach would be to repeat our analysis for the new WVS data which became available in 2014 and then the subsequent wave planned for 2017. Though not as strong as panel data, three cross-sectional waves over a decade may well provide useful evidence on the convergence thesis. All in all, time trends are important challenges for future research, as it will enable us to examine cultural change through potential changes in existing archetypes, the emergence of new archetypes, and whether these changes reflect convergence or divergence in values within and across countries. Further, as we speculate at the start of the article, such approaches might allow us to understand the drivers of these changes, particularly through the social and other interactions of individuals represented by different archetypes.

Second, although we identify archetypes for four culturally diverse countries, extending our AA to more cultures (e.g., Islamic countries) would help us test whether our transnational archetypes are generalizable across a larger number of countries. Indeed, perhaps some archetypes are essentially global in nature? Equally, it might enable us to identify other country-specific archetypes that may potentially exist in a broader sample of countries. A related challenge is how we project the proportions of our archetypes to obtain the profile for the total population of a country or a set of countries. The statistics we present here are based on the respective country samples (or equalized for the pooled analysis) and need to be appropriately weighted to obtain the population profiles. How we best choose those weights is a topic for future research. Another useful next step would be to identify each archetype with a meaningful label that both captures the rich configuration of values underlying each archetype and is not reductionist in scope.

A third important methodological issue for future research concerns the measurement of the importance of values. The WVS uses representative items for each of the ten Schwartz domains and, while this has been shown to be a valid approach, the full set of Schwartz items might provide a richer picture. However, rather than add many more items to the WVS,



with consequent pressures on interview duration and response rates, we believe there is a better approach for the future. This is to collect values data using trade-off based conjoint or choice modeling techniques. Such techniques may reveal the importance of values in a more robust way than the ratings or rankings of the typical values survey. By combining choice methods with best-worst scaling, the work of Lee et al. (2008) on Schwartz values in one country shows that such approaches need not necessarily be time-consuming for the respondent. A related issue is the domain of values we examine. Schwartz is one model; there are others such as those of Hofstede or GLOBE. We might apply choice models to determine the relative importance of the various values these models advocate, shedding light on a more unified model of values. And we might also use choice-based data to address the important question of context. Are an individual's values expressed similarly in all contexts or does this expression differ by context, for example, work vs family? These alternative approaches to collect data could potentially result in a more clear and differentiated choice of values by respondents. Subsequent AA with such data would likely show a larger proportion of archetypal cases and a smaller proportion of non-archetypal cases, thus complementing and enhancing the efficiency of AA.

Fourth, although we argue that national scores present an incomplete picture of culture, we would like to acknowledge that national political, economic and social factors could influence individual level values. For researchers studying culture, a meso-level phenomena, an interesting research question is which culture archetypes are more strongly associated with macro-, national-level factors, and which ones are more connected with micro-, individual-level factors. In future research, AA could be followed with hierarchical linear modeling (e.g., Raudenbush & Bryk, 2002) instead of simple regression that we use here to examine the relative impact of individual and national-level factors on our culture archetypes.

Finally, it is important to recognize that the role of culture in human behavior is both complex and subtle. AA can help us shed light on this role in specific circumstances but it is not the panacea for all of the many issues related to culture conceptualization, measurement and theory-building. The main contribution of the archetype concept and our AA, and the archetypes that result from it, is to endogenously describe the heterogeneity in value configurations within and across nations with a parsimonious, differentiated and meaningful set of archetypes that encompass the fundamental values of people. We

need other models and methods to answer the many interesting questions these archetypes themselves raise or to address other aspects of culture that AA cannot.

CONCLUSION

In summary, we believe our study makes four contributions to the IB literature: (1) delineates culture endogenously as configurations of values; (2) develops a theory of culture archetypes and introduces AA as a better way to study configurations; (3) identifies transnational archetypes; and (4) validates our archetypes by showing they have substantive relationships with a broad set of independent measures. We conclude by briefly discussing each of these contributions and then offer an analogy to illustrate the overall thrust of our work.

(1) Delineate Culture Endogenously as Configurations

Tsui et al. note "the abundance of culture dimensions and corresponding measures does not necessarily advance our knowledge on culture. We need consolidation of cultural values and development of configuration models to improve its conceptual clarity and to advance future research" (Tsui et al., 2007: 463). We directly take up this challenge and identify four culture configurations in Japan, USA and China, and six in India. In addition, consistent with the definition of culture as shared characteristics, we use AA to identify culture archetypes endogenously on the basis of the ten Schwartz values in the WVS 2005.

(2) Theory of Culture Archetypes and AA

Our article clearly enunciates the theory of culture archetypes and operationalizes the archetype concept appropriately using the AA methodology. Our theory and method have a number of advantages for studying configurations, particularly through its use of the topology of the data. We are able to separate the archetypal cases from the non-archetypal cases and thus reconcile the national average vs heterogeneous culture conflict within a single theoretical and methodological framework. And describing the archetypal cases by a small number of perfect examples, that is, archetypes, enables us to understand and work with the cultural diversity of the world in a simple and readily interpretable manner.

(3) Transnational Archetypes

We find a number of multi-country archetypes that either span all four countries, or are found in two or

more but not in all countries. This is a novel finding and a significant extension of a literature that often focuses on simple differences in averages between countries. Our findings also contribute to integrating the etic-emic perspectives, not only in that we find support for both perspectives, but also that through the transnational archetypes we suggest the usefulness of an intermediate perspective.

(4) The Transnational Archetypes Have Strong and Consistent Relationships with Independent Variables

We show large effect sizes for a number of relationships between the five archetypes from the pooled four-country analysis and various independent attitudes, perceptions and behavior measures from the WVS. Further, these strong relationships appear to be broadly consistent with the Schwartz value configurations of the archetypes in the sense that they are easily interpretable from these configurations. To us, this is evidence the archetypes have substantive practical implications, though clearly further research is also necessary to confirm and extend these results.

In sum, following Leung, Bhagat, Buchan, Erez, and Gibson (2005), our article extends cross-cultural IB research in three key directions: (1) we introduce the new concept of culture archetypes for further investigation in IB research; (2) our transnational and subnational culture archetypes capture the phenomena of cultural convergence and divergence in IB; and (3) examination of culture archetypes over time can help us understand cultural dynamics in new and innovative ways. We speculate that interaction among individuals within relatively insulated archetypal groups (e.g., subnational archetypes) is likely to result in consolidation of their value systems. Such intra-group interactions could amplify the differentiation of the subnational archetypes

relative to other archetypes within and across nations. On the other hand, interactions among individuals across relatively open archetypal groups (e.g., transnational archetypes) is likely to reduce differentiation, as people exchange, understand and appreciate the values of others, and assimilate those that they find useful into their own value systems. Such interactions can also potentially give rise to new value configurations. Further, interactions among diverse culture archetypal groups within and across countries can enhance creativity through conceptual expansion and integration in novel ways (Leung, Maddux, Galinsky, & Chiu, 2008; Stahl & Tung, 2014).

A Concluding Analogy on Culture Mindscales across Landscapes

A useful analogy for mindscales across landscapes, that is, cultural similarities and differences within and across countries is found in the physics of color. This we illustrate in Figure 10. In the figure, each small circle represents a country. Culture, like color, exists in the minds of people. The *national* culture perspective sees each nation through monochromatic lens, and paints each country with a single color reflecting the uniformity of its culture (Figure 10a). Here we are using a color as an analogy for a configuration of multiple values. The national culture perspective implies one configuration and hence for us one color. The alternative *heterogeneous* culture perspective views each country through a polychromatic lens (Figure 10b) with a different color for each subnational configuration. Although this perspective extends the national culture view by recognizing cultural heterogeneity within each country, it does not explicitly connect those individuals in different countries who, as we demonstrate here, share similar values. In contrast, our *archetypal*

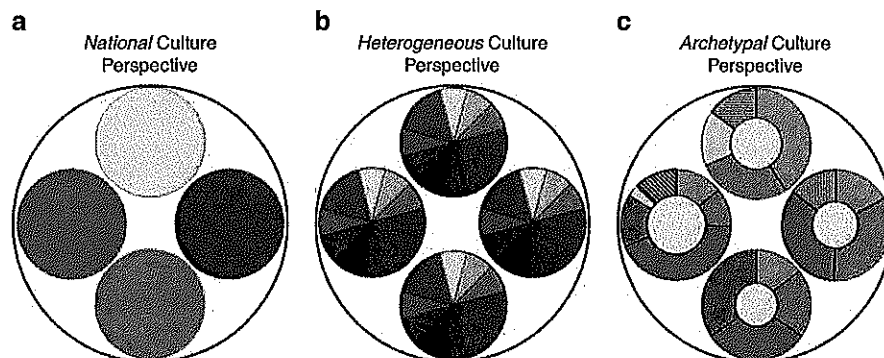


Figure 10 National, heterogeneous and archetypal culture perspectives. *Note:* Circles represent countries; colors represent cultures/archetypal cases; grey centers in (c) are non-archetypal cases.



culture perspective views the world of nations through a differentiated polychromatic lens and recognizes the similarities and differences among individuals within and across countries (Figure 10c). Overall, we believe the archetypal culture perspective reflects the real world of cultural diversity with greater clarity, precision and fidelity. We thus hope our archetypal approach will open doors to a more enlightened debate on how we can best conceptualize, measure and understand the richness, diversity and dynamism of culture we see around us.

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NOTES

¹According to Google Scholar, Hofstede (1980) has 36,611 citations, House et al. (2004) 4468 citations, and Schwartz (1999), 2000 citations, as of 21 April 2015.

²An alternative, but equivalent perspective, on these individuals is that, because they resemble a composite, their value configurations can also be regarded as a composite of the various subgroup configurations. This perspective underlies the specific methodology we will describe later, which extends this idea by treating all individuals as weighted composites of the latent archetypes, and then assigns them to archetypal or non-archetypal subgroups on the basis of the strengths of the various weights.

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