Do we measure what we expect to measure? Some issues in the measurement of culture in consumer research

1. Introduction

Culture profoundly influences all aspects of human behavior (Kirkman, Lowe, & Gibson, 2006; Taras, Kirkman, & Steel, 2010; Tsui, Nifadkar, & Ou, 2007), including consumption (Craig & Douglas, 2006; Yaprak, 2008). The accelerating globalization of business means that few marketing researchers or practitioners can afford to ignore cultural differences in consumer psychology and behavior. Consequently, the number of studies exploring the interaction between cultural variables and consumer behavior has grown exponentially in recent decades. Some even maintain that culture has become a central focus in consumer research (Shavitt, Lee, & Johnson, 2008).

In the past, researchers have tended to conduct cross-cultural behavioral comparisons to study the influence of culture on consumer behavior without directly measuring cultural variables. In particular, respondents from Eastern and Western countries are often used as proxies for the different cultures (e.g., Lee & Green, 1991; Lee & Kacen, 2008; Shukla & Purani, 2012). However, culture is a multi-faceted construct and just using countries or groups to represent cultures fails to consider the complexity of culture and the cultural heterogeneity of nations or ethnic groups (Betancourt & Lopez, 1993). Therefore, the role of culture in behavior can only be identified when culture is measured in the same way as variables in mainstream psychology (Betancourt, Hardin, & Manzi, 1992).

However, culture is hard to measure. Firstly, it is a multi-dimensional construct that encompasses all aspects of human life. There is no single view as to which specific types of values or other elements form culture (Taras, Rowney, & Steel, 2009). Most consumer studies apply Hofstede’s (1980, 1991, 2001) five dimensions to the measurement of culture. But does
every cultural dimension have clear conceptual boundaries? For example, individualism–collectivism, the most widely used cultural dimension in consumer research, actually comprises several separate components such as self-versus group-interest, independence versus interdependence, preference for working alone versus in groups, and so on. These components correlate weakly with each other (Triandis, McCusker, & Hui, 1990). Previous studies (e.g., Borsboom, Mellenbergh, & van Heerden, 2003; Cadogan, Lee, & Chamberlain, 2013; Lee, Cadogan, & Chamberlain, 2013) have dealt with the issue of entity realism. They propose that the most commonly used cultural dimensions—such as individualism–collectivism—which are constructed from several conceptually distinct facets or components, are essentially unreal because they are simply some convenient grouping of other variables rather than unitary conceptual entities. These construed unreal variables do not vary independently and cannot have a real relationship with anything (Cadogan et al., 2013). Hence treating individualism-collectivism as a single integrated dimension is problematic. We call this issue conceptual ambiguity.

Secondly, reaching agreement on appropriate ways to conceptualize and measure culture is an even greater challenge. Because a person’s values may lead to their attitudes and behavior, values have been considered the core element of culture (Hofstede, 1980). It is assumed that, to a large extent, the dominant societal values define a culture so these become the focus when explaining social behaviors (Leung & Bond, 1989; Triandis, 1995). In many studies cultural values are even used interchangeably with culture (Taras & Steel, 2009).

However, recent debates in international management (Brewer & Venaik, 2010; Hanges & Dickson, 2006; Hofstede, 2006, 2010; Javidan, House, Dorfman, Hanges, & Sully de Luque, 2006; Maseland & van Hoorn, 2009, 2010; Peterson & Castro, 2006; Taras, Steel, & Kirkman, 2010) generated by House, Hanges, Javidan, Dorfman, & Gupta’s (2004) GLOBE (Global Leadership and Organizational Behavior Effectiveness) study remind consumer
researchers that values are not the only approach to operationalizing culture. Researchers need to be aware of various cultural measurements and the differences between them. The debate includes two theoretical issues. First, should culture be measured in the form of values (as things should be, the desired state) or in the form of practices (as things are, the actual state)? Second, should culture be measured as self-perceptions (self-referenced) or as perceptions of others in one’s society (group-referenced)?

Most research has only focused on one dimension: either values vs practices (e.g., Brewer & Venaik, 2010; Hofstede, 2006; Maseland & van Hoorn, 2009; Taras, Steel, et al., 2010) or self- vs group-referenced (e.g., Fischer, 2009; Hanges & Dickson, 2006; Peterson & Castro, 2006). Some studies simply regard self-referenced scales as values and group-referenced instruments as practices or norms (e.g., Fischer et al., 2009; Stephan & Uhlaner, 2010). Actually, the distinction between values and practices applies to both self- and group-referenced scales. The two dimensions produce four approaches (2×2) to culture operationalization: self-referenced values, self-referenced practices, group-referenced values and group-referenced practices. Each represents a different facet of culture and has its own power to predict social behavior.

Many researchers do not actually measure values, although this may have been their intention. Instead, they use a variety of different approaches to culture measuring. In fact, all four types of cultural scales can be found in consumer research (e.g., Erdem, Swait, & Valenzuela, 2006; Furrer, Liu, & Sudharshan, 2000; Lee, 2000; Sharma, 2010). Some even mix items operationalized with different approaches in a single instrument. Taras et al. (2009) labeled this issue “item wording”, considering it from the linguistic rather than the mathematical perspective and pointing out that item wording should be consistent with level of measurement. However, we believe this flaw is more accurately described as a theoretical conceptualization and operationalization issue (Fischer, 2009) which we call approach
inconsistency.

To date, researchers have developed hundreds of culture measures, some of which are widely used in consumer studies, such as those by Hofstede (1980, 1991, 2001) and Schwartz (1992, 1994). More scales are likely to be added in the future. However, as we have highlighted, many culture measurement scales do not adequately define what they are measuring and how it applies to real-world consumer research. Before more instruments are developed these problems must be resolved.

Review studies of (cross-)cultural marketing research focus primarily on theory, design, execution and methods of statistical analysis for cross-culturally/internationally comparative research (e.g., Craig & Douglas, 2001; Douglas & Craig, 1997, 2006; Engelen & Brettel, 2011; He, Merz, & Alden, 2008; Malhotra, Agarwal, & Peterson, 1996; Steenkamp & Baumgartner, 1998; van Herk, Poortinga, & Verhallen, 2005). Others conceptually review the role of culture in consumer research (e.g., Craig & Douglas, 2006; Luna & Gupta, 2001; Yaprak, 2008). None of these studies refer to culture measurement. Some examine established instruments and their applications in marketing research (e.g., Ng, Lee, & Soutar, 2006; Soares, Farhangmehr, & Shoham, 2007; Steenkamp, 2001). However, discussions about general issues in culture measuring are scarce.

If we are not sure whether we are actually measuring the cultural dimensions we intended, it will not be clear whether the observed effects really reflect the influence of these cultural dimensions on consumer behavior. This paper aims to fill that gap, drawing consumer researchers’ attention to flaws in the common measures of culture, and providing some solutions. Because relevant marketing studies are scarce, we have drawn on literature from related fields such as international management and cross-cultural psychology.

As well as the two theoretical issues already raised, there are also statistical and data-analytical issues in culture measuring like data aggregation, structural equivalence and
isomorphism (Fischer, 2009; Hanges & Dickson, 2006; Peterson & Castro, 2006). However, in line with Fischer’s (2009) suggestion that theory should be emphasized over statistical issues, we will primarily focus on the two theoretical issues. We first define culture, then address the issues of conceptual ambiguity and approach inconsistency, and finally provide implications for future consumer research.

2. Conceptualizing culture

Culture is considered the most elusive term in the social sciences (Jahoda, 1984) and is difficult to define. Initially, it was mainly studied by anthropologists. Tylor (1871, p. 1) defines culture as the “complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society”. This definition embodies the question of whether culture should be regarded as intangible abstractions such as norms, beliefs and values, or as concrete activities and behaviors, including material artifacts (Segall, 1984). These two clusters of definitions coexist in anthropology (Kashima, 2000).

The question persists when culture is examined in psychology (Jahoda, 1984; Kashima, 2000; Rohner, 1984). Triandis (1972) differentiates between objective and subjective culture. Objective culture is “the set of observable acts and products regularly found within a group” (Berry, Poortinga, Segall, & Dasen, 1992, p. 168), like tools, roads and overt behaviors. Subjective culture is defined as “a cultural group’s characteristic way of perceiving the man-made part of its environment” (Triandis, 1972, p. 4). More specifically, it refers to mental processes—beliefs, values, and norms—that are shared by a particular group of people and distinguish them from others (Berry et al., 1992; Hofstede, 1980; Rohner, 1984). These distinct aspects of culture lead to the two disciplines of cultural and cross-cultural psychology. Each has its own way of assessing culture in consumer research.

Cultural psychologists conceive of culture as being inside the person and believe culture
and behavior are inseparable (Miller, 1997). Thus, culture cannot be measured, only observed and described. Its relationship with behavior is analyzed through phenomenological methods (Kimble, 1984). The interaction between culture and consumption is assessed by observing material culture, including rituals, artifacts, institutions and traditions (Craig & Douglas, 2006). Lenartowicz & Roth (1999) call this approach “ethnological description” and it mainly refers to qualitative studies of a single culture aimed at understanding indigenous and specific phenomena. Several researchers have used this approach to study consumption in minor ethnicities in the United States or other remote societies (Bonsu & Belk, 2003; Joy, 2001; Ustuner & Holt, 2010).

Although to some extent, direct observation can reveal the relationship between culture and consumption, quantifying culture is more important in psychological and behavioral research (Taras et al., 2009). Based on the subjective culture concept, cross-cultural psychologists view culture as a set of shared norms, values, beliefs and practices which differentiate one group from others (Kashima, 2000; Triandis, 1972). These elements of culture are imparted to group members through everyday exposure and adaption to customs, laws and institutions (Sharma, 2010; Soares et al., 2007). Hence they represent implicitly or explicitly shared abstract ideas which can explain cultural variance (Schwartz, 1999). Based on this conceptualization, culture can be quantified through psychological constructs and treated like experimental variables outside the person (Betancourt & Lopez, 1993; Triandis, 2000). Today most empirical cross-cultural studies follow this model, as does this paper.

3. Measuring culture

Since the 1950s culture measurement techniques have improved dramatically. Researchers in disciplines such as psychology, management and marketing have developed hundreds of instruments to quantify cultural variables. The most widely used in consumer research are the Hofstede value survey (Hofstede, 1980, 1991, 1994), the Schwartz value survey (Schwartz,
1992, 1994) and individual-level individualism-collectivism (Singelis, 1994; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis & Gelfand, 1998; Triandis, Leung, Villareal, & Clack, 1985). This section discusses the two issues in culture measuring—conceptual ambiguity and approach inconsistency—with reference to these commonly used scales.

3.1. Conceptual ambiguity

In a review of 121 instruments for measuring culture, Taras et al. (2009) find 97.5% of them contain at least some dimensions which are conceptually similar to Hofstede’s. The five dimensions provide useful variables for explaining cross-cultural variations in business phenomena. Thus, Hofstede’s dimensions have been widely used in consumer studies (Lynn & Gelb, 1996; Steenkamp, Hofstede, & Wedel, 1999; Yeniyurt & Townsend, 2003). Some researchers develop new scales but still base them on Hofstede’s work (e.g., Donthu & Yoo, 1998; Erdem et al., 2006).

Of the five dimensions, individualism-collectivism is undoubtedly the most frequently used. Some researchers advocate including a broader set of unexplored cultural dimensions in consumer research (Maheswaran & Shavitt, 2000). For example, uncertainty avoidance could predict patterns in the diffusion of product innovations, or the tendency to include expert endorsement in advertisements (Maheswaran & Shavitt, 2000). The dimensions in other frameworks like the GLOBE (Global Leadership and Organizational Behavior Effectiveness) study (House et al., 2004) and social axioms (Leung et al., 2002) inform consumer researchers about newer facets of culture (Yaprak, 2008).

But before seeking unexplored dimensions, a more critical task is to define the boundaries of the existing dimensions and subdivide them into domains that are more specific.

Take for example the dimension of individualism-collectivism, defined by Hofstede (1980, p. 148) as “the relationship between the individual and the collectivity and the way people live together”. Based on this broad definition, existing individualism-collectivism measures
vary on a wide range of content dimensions (Brewer & Chen, 2007). For example, Hofstede’s individualism-collectivism dimension actually measures an individual’s dependence (or interdependence) on his or her organization (Earley & Gibson, 1998).

Triandis et al. (1986) empirically identify four factors that underlie individualism-collectivism: separation from in-groups, self-reliance with hedonism, interdependence and sociability, and family integrity. By factor analyzing 43 items from three individualism-collectivism instruments, Wagner (1995) derives five distinct factors: independence and self-reliance, preference for working alone or in groups, competitive achievement, beliefs about group productivity, and subordination of personal interests to group interests. Ho & Chiu (1994) cluster 18 components of both individualism and collectivism into five major components: values, responsibility, achievement, autonomy/conformity, and self-reliance/interdependence. Triandis et al. (1990) report that these components have a small level of positive correlation with each other, which means they should be treated as different constructs. Schwartz (1992, 1994) states that individualism consists of the value types achievement, hedonism, power, stimulation and self-direction, while collectivism comprises tradition, conformity and benevolence. Finally, Triandis (1995) summarizes the construct as a cultural syndrome with four attributes: whether people define themselves as part of a group or autonomous from groups (Markus & Kitayama, 1991); whether individuals ought to pursue personal goals beyond group goals; whether individuals’ social behaviors are governed by personal attitudes and preferences or social norms and duties; and whether people value relationships and harmony beyond personal benefits (Chen, Meindl, & Hunt, 1997).

Because the construct is so broadly defined, two problematic trends arise in cross-cultural research:

(1) Studies use items inconsistent with and sometimes even unrelated to the construct they expect to measure. For instance, Bond (2002) points out that several items in Hofstede’s
collectivism scale have little to do with collectivism. This view is supported by Brewer & Venaik (2011). Hofstede (2001) himself admits that he should label his scale “company” rather than “collective”. The newly developed GLOBE scales have the same problem. In the GLOBE study the authors develop two separate collectivism dimensions: in-group collectivism defined as “the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families” (House & Javidan, 2004, p. 12) and institutional collectivism defined as “the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action”. However, after evaluating the content validity of the items used to measure these, Brewer & Venaik (2011) note that items from in-group collectivism actually measure family collectivism and items from institutional collectivism are more related to in-group collectivism.

(2) Studies combine vaguely related items in a single dimension (Taras et al., 2009) and treat it as a catch-all to represent all possible forms of cultural difference (Bond, 2002; Earley & Gibson, 1998; Oyserman, Coon, & Kemmelmeier, 2002). For example, in Singelis’s (1994) widely-used self-construal scale (e.g., Kacen & Lee, 2002; Yang & Laroche, 2011), the items “I have respect for the authority figures with whom I interact” and “I would offer my seat in a bus to my professor” measure one’s conformity to social norms and duties. Whereas “It is important for me to maintain harmony within my group” and “Even when I strongly disagree with group members, I avoid an argument” assess an individual’s preference toward group harmony.

In a cultural instrument developed by marketing scholars (Furrer et al., 2000), collectivism-individualism is measured by items including “everyone grows up to look after him/herself and his/her immediate family only”, “people are identified independently of the groups they belong to”, and “people are identified by their position in the social networks to
which they belong”. It is obvious that these items do not measure the same thing: the first two measure family integration and group orientation respectively, while the last measures acceptance of social hierarchy and actually belongs to the dimension of power distance rather than individualism-collectivism. More importantly, when discussing their hypothesis formulation, they actually refer to the characteristics of independence and self-centeredness in individualism. Thus they commit both error types.

In a comprehensive content analysis of 27 individualism-collectivism scales, Oyserman et al. (2002) found great heterogeneity in construct definition and scale contents. This heterogeneity makes the construct “overfreighted” (Bond, 2002), lacking content and construct validity (Fiske, 2002). Earley & Gibson (1998) viewed individualism-collectivism as ill-defined with unclear boundaries and even suggested not using the construct until it achieves theoretical consistency.

Hofstede’s other dimensions have a similar problem. Masculinity-femininity includes the theoretically separate factors achievement orientation, assertiveness, confrontation avoidance, and gender equality (Furrer et al., 2000; Taras et al., 2009). Power distance incorporates accepted inequality, acceptance of authority, and power seeking (Sharma, 2010; Taras et al., 2009). Uncertainty avoidance comprises risk aversion and ambiguity intolerance (Sharma, 2010). Long- versus short-term orientation contains the aspects of tradition and planning (Bearden, Money, & Nevins, 2006). Table 1 summarizes the disparate factors combined in each of Hofstede’s dimensions.

Table 1 here.

3.1.1 Implications for future consumer research

Creating a column of numbers to represent a cultural dimension by adding up the scores of
several conceptually distinct facets generates ontological problems. A real variable must have unitary conceptual content, and cannot be broken into smaller, more fundamental conceptual entities (Cadogan et al., 2013). As we have shown, most of the widely used cultural instruments suffer from conceptual ambiguity. Thus, aggregating the facets of a cultural dimension—individualism, for example—to form a single individualism score actually leads to unreal variables. Although an unreal variable could produce numerical magnitudes as scores, they cannot represent real entities, and do not have existence independent of or transcending the variables that comprise them (Borsboom et al., 2003; Cadogan et al., 2013).

An unreal variable does not vary independently. It may be derived by aggregating a number of constituent facets, but if the scores associated with those facets exhibit variance it is because the constituent components vary, not because the concept as a whole has some singular property that can be measured and compared across different groups such as nationalities. It is important to be clear about this when interpreting the results of studies that purport to measure cultural dimensions. An unreal variable cannot have a real, measurable relationship with anything. Although the scores associated with the subsidiary components chosen to represent a particular dimension such as individualism could be correlated with some other numerical scores, the meaning of that correlation would be of little value. A theory based on such unreal variables is probably meaningless. Consumer research needs focused and refined measures with clear conceptual boundaries that describe real variables with unitary conceptual content.

For instance, Bhawuk & Brislin’s (1992) individualism-collectivism measure, focusing on direct versus indirect communication, has good psychometric properties because it is narrow in scope (Earley & Gibson, 1998).

Singelis et al. (1995) and Triandis & Gelfand (1998) use horizontal (emphasizing equality) and vertical (valuing hierarchy) distinctions to further differentiate individualism and
collectivism. Horizontal individualists tend to express their uniqueness and independence but consider themselves equal to others in status; vertical individualists prefer to improve their status through competition. This differentiation overlaps with power distance. Indeed the horizontal-vertical individualism differentiation maps onto a $2 \times 2$ table of high-low individualism and high-low power distance. Horizontal collectivists lay stress on sociability and an egalitarian social system; vertical collectivists emphasize improving the status of one’s own social group in competition with out-groups (Maheswaran & Shavitt, 2000).

The horizontal-vertical distinction is another important way to understand the effect of specific cultural aspects on consumer behavior (Bagozzi, Wong, Abe, & Bergami, 2000; Meyers-Levy, 2006; Oyserman, 2006; Shavitt, Lalwani, Zhang, & Torelli, 2006). For instance, Wong, Rindfleisch, & Burroughs (2003) discover a positive relationship between vertical individualism and materialism. Examples of other more refined measures include the work of Wang, Bristol, Mowen, & Chakraborty (2000), Bearden et al. (2006), Fischer et al. (2009) and Sharma (2010).

When applying the Schwartz value survey (SVS) to investigate the influence of culture on consumer behavior, it might be more accurate to use the specific value types rather than the higher-order dimensions. At the cultural level, SVS incorporates seven value types which form three dimensions: embeddedness vs autonomy, hierarchy vs egalitarianism and mastery vs harmony. At the individual level, Schwartz (1992) identifies ten value types that constitute two higher-order dimensions: openness to change vs conservation and self-transcendence vs self-enhancement. Since the SVS can explain both cultural and individual variance, Steenkamp (2001) notes that it offers great potential in international marketing research. Previous studies (e.g., Gregory, Munch, & Peterson, 2002; Hartman, Shim, Barber, & O'Brien, 2006; Steenkamp et al., 1999) mostly use higher-order value domains to predict consumer behavior. However, it is not clear which specific value types influence consumer
behavior. For example, when studying luxury consumption, the influences of specific aspects of hedonism, achievement, and power on consumer behavior might be entirely different from the impacts of self-direction and stimulation. Cleveland, Erdogan, Arikan, & Poyraz (2011) investigate the association of every type of cultural- and individual-level value with a newly developed consumer characteristic: cosmopolitanism. Results suggest that values belonging to the same higher-order dimension exert different effects on the dependent variable. Hence, future research should conceptually identify the specific value types related to focal behavior and then empirically test hypotheses.

**Suggestion 1:** Consumer research requires more focused and refined measures of culture with clear conceptual boundaries that capture each component separately.

The next step is to match certain aspects of culture with certain aspects of consumer behavior. Hofstede’s dimensions are very widely used, especially the individualism-collectivism dimension, but its current definition is too broad. For this reason, we aim to identify which specific facet or facets of individualism-collectivism have the most power to predict consumer behavior.

Focusing on individualism-collectivism is consistent with Lee’s (2000) analysis of how culture influences consumption. In that research, the author adapts the classical model of culture and social behavior relations developed by Triandis (1994b) to the consumer behavior domain. The results show that culture moderates the effects on purchase intention of referent expectations and attitude toward the purchase. Specifically, the effect of referent expectations on purchase intention is stronger for collectivists than individualists because collectivists are more susceptible to social influences, whereas individualists make decisions according to their own preferences. For the same reason, the author also finds that attitude toward the purchase has greater impact on purchase intentions for collectivists than for individualists.

In a study on fast food restaurant patronage behavior, Bagozzi, Wong, Abe, & Bergami
applied the theory of reasoned action (TRA) developed by Ajzen & Fishbein (1980) in the consumer context. This theory suggests that “behavior is directly influenced by intentions to act, and, in turn, intentions to act are determined by one’s attitude toward the act and felt subjective norm that one should act” (Bagozzi et al., 2000, p. 98). The authors find the magnitude of the effects of attitudes toward the act on intentions and behavioral expectations is generally greater for consumers in Western individualistic than in Eastern collectivistic countries. Conversely, the subjective norms–intention consistencies are higher for Eastern collectivistic than Western individualistic nations. In each country, subjective norms–intention correspondence is stronger for collectivists than individualists, and in the situation of eating with friends than eating alone. In a similar study, Lee & Green (1991) find subjective norms have no influence on intentions toward purchase of sneakers for Americans but have a strong impact for Koreans.

These studies indicate that when studying purchasing behavior, the individualism-collectivism distinction is primarily reflected by whether the determinants of social behavior are personal thoughts, feelings and needs or social norms, duties and obligations. These are labeled attitudinal control and normative control respectively. This is the third attribute in Triandis’s (1995) aforementioned summary. This distinction has been widely applied to investigate the effect of culture on various consumer behaviors. For example, people in individualistic cultures are more likely to accept novel and innovative products than their collectivistic counterparts. Several studies find that national individualism is positively related to a country’s innovativeness (e.g., Lynn & Gelb, 1996; Steenkamp et al., 1999; Yaveroglu & Donthu, 2002; Yeniyurt & Townsend, 2003). Studies of the desire for high-status possessions show that collectivists feel they must buy luxury products in order to conform to social norms rather than to satisfy their personal preferences as individualists do (Gil, Kwon, Good, & Johnson, 2012; Kastanakis & Balabanis, 2012; Wong & Ahuvia, 1998). Impulsive
buying behavior is another example—compared to individualist consumers, collectivist consumers are more satisfied with their impulse purchase when it was bought in the presence of another person (Lee & Kacen, 2008).

Thus we believe that when studying consumption issues, the most important facet is whether social behaviors are determined by personal preferences or social norms.

Different facets may play a major role in other consumer issues. A review of studies that clearly articulate the effect of culture on consumer service issues finds the fourth attribute in Triandis’s (1995) classification—whether people value relationships and harmony beyond personal benefits—to be relevant. For example, collectivist customers have lower service quality expectations than individualist customers because they place greater value on group harmony and thus better tolerate poor service. Conversely, individualistic customers value personal benefits and are less willing to accept poor service (Donthu & Yoo, 1998). Therefore, higher brand loyalty and equity is found among collectivists than individualists (Yoo, 2009). For the same reason, Chan, Yim & Lam (2010) find that a personal collectivism orientation reinforces the effect of customer participation on the creation of customer relational values, whereas a personal individualism orientation reinforces the effect of customer participation on the creation of customer economic values.

Suggestion 2: More differentiated treatment of cultural dimensions is needed. When studying acts of consumption, the key distinction is whether social behaviors are determined by personal preferences or social norms. When studying service issues, the key distinction is whether people value interpersonal relationships beyond personal benefits.

3.2. Approach inconsistency

In behavioral research, culture can be reflected in a range of shared psychological elements, including norms, beliefs, values and practices (Triandis, 1972). Wagner & Moch (1986) separate measures of individualism and collectivism into three categories: values,
beliefs and norms. In their classification, values start with “I prefer” or “I would rather” and are defined as “generalized principles of behavior to which people feel strong positive or negative emotional commitment” (p. 286). For example, “I prefer to work with others in my work group rather than to work alone”. Beliefs refer to “statements about reality that individuals accept as true” (p. 286). For example, “My work group is more productive when its members do what they want to do rather than what the group wants them to”. Norms are “socially shared and accepted rules or standards regarding the extent to which specific behaviors are to be considered socially acceptable” (p. 287) expressed as “should” statements. For example, “People in my work group should realize that sometimes they are going to have to make sacrifices for the sake of the work group as a whole”.

In short, values, beliefs and norms assess “What I prefer to do”, “What my group actually does” and “What my group should do”. The authors missed a fourth category that is widely used in culture scales: “What I actually do”.

The same types of culture measures are termed differently in other studies. For instance, Cialdini, Reno & Kallgren (1990) propose that norms fall into two categories: what group members should do and how they behave, which equate to norms and beliefs in Wagner & Moch’s typology. These two components are termed injunctive and descriptive norms in Cialdini et al.’s and later studies (e.g., Smith & Louis, 2008; Stephan & Uhlaner, 2010), but labeled values and practices in the GLOBE studies (House et al., 2004). Additionally, there are other terms such as ideologies and worldviews (Rohan, 2000).

In order to avoid confusion, this paper uses the simplest nomenclature for the different approaches. As shown in Table 2, the two measures produce four categories: referent target (self- vs group-referenced) and desired or actual state (value vs practice). They are “what I prefer to do” (self-referenced value) vs “what I actually do” (self-referenced practice) vs “what (people in) my group should do” (group-referenced value) vs “what (people in) my
group actually do” (group-referenced practice).

It is noteworthy that the SVS asks respondents to rate the importance of values as guiding principles in their lives. Similarly, the Hofestede value survey asks how important life or work issues are to individuals. This is a variant form of self-referenced values because they reflect a desired state that transcends specific situations. This form can apply to group-referenced values as well (how … would be important to my group). An alternative way to look at practices is to examine the frequency of a specific behavior. A typical phrase is “how often do you/(people in) your group do…” (see Bierbrauer, Meyer, & Wolfradt, 1994; Zou et al., 2009).

Recent studies in social psychology and management reveal inconsistency in the use of different approaches to measuring culture, pointing out that each has its own usefulness in predicting social behavior (Bond, Leung, Au, Tong, & Chemonges-Nielson, 2004; Fischer et al., 2009; House et al., 2004). Arbitrary use of one or the other approach to operationalize culture may undermine our understanding of culture and how it affects consumer behavior. As a result, the relationship that we observe between these cultural dimensions and consumer behavior may be not valid. It is necessary to discuss the difference between the different approaches in culture measuring (self- versus group-referenced and values versus practices) and which approach is better in what context. First, however, we will briefly address the issue of levels of analysis.

3.2.1. Levels of analysis

Culture is a multi-level construct consisting of global culture, national cultures, organizational cultures, group cultures and personal cultural orientations that are embedded in
individuals’ minds (Leung, Bhagat, Buchan, Erez, & Gibson, 2005). The level of analysis is the first thing to consider when conducting cross-cultural research (Douglas & Craig, 1997; Leung, 1989). There are at least two levels of culture in consumer research: the level of the individual and the culture in which the individual is situated. Triandis (1994a) outlines these two types of culture studies based on their unit of analysis: ecological (focusing on cultures) and psychological (focusing on individuals). In the former, the observations are different cultural groups like countries, whereas individuals are the observations in the latter.

Level of analysis in cross-cultural research has two problems: how level of analysis affects measure design and how it affects relationships between measures. The two are related because if conducting cultural/individual-level analysis, the corresponding level constructs must be developed and applied in the analysis or it will generate a fallacy. Thus the problem of measure design logically comes before the problem of analysis between measures (Peterson & Castro, 2006). The latter has been discussed in cross-cultural psychology (Leung, 1989; Leung & Bond, 1989), international business (Kirkman et al., 2006; Lenartowicz & Roth, 1999) and marketing literature (Malhotra et al., 1996), but the former is seldom addressed by consumer researchers.

Collective constructs “emerge, are transmitted and persist through the actions of members of the collective (or the collective as a whole)” (Morgeson & Hofmann, 1999, p. 253). They reside at the higher collective level and thus have different functions from individual constructs. Among those cultural instruments that are widely used in consumer research, Hofstede’s value survey is traditionally regarded as a cultural level measure because its dimensions are derived through ecological factor analysis based on the average (or aggregating) score of individuals’ responses from one culture toward each item. It has been criticized for failing to capture variance at the individual level (Oyserman et al., 2002; Soares et al., 2007). Hofstede (2006) also emphasizes that his construct is intended to assess national
culture, and items attaching to the same dimension are not even correlated at the individual level. Therefore, both Hofstede’s original 32-item construct and his 1994 Value Survey (VSM94) lack reliability and validity when applied to predict individual-level behavior (Bond, 2002; Sharma, 2010; Spector, Cooper, & Sparks, 2001), whereas several individualism-collectivism instruments (Singelis, 1994; Singelis et al., 1995; Triandis & Gelfand, 1998; Triandis et al., 1985) are operationalized at the individual level to assess personal orientations. Moreover, the SVS can explain both cultural and individual variance.

However, heated debate on multilevel management research indicates that measuring collective constructs includes a series of theoretical and methodological issues beyond just selecting a level of conducting factor analysis (e.g., Chan, 1998; Chen, Mathieu, & Bliese, 2004; Fischer, 2008, 2009; Fischer, Redford, Ferreira, Harb, & Assmar, 2005; Glick, 1985; Klein, Dansereau, & Hall, 1994). Taras et al. (2009) list three issues related to level of analysis in culture measuring: item wording (called approach inconsistency in this paper), data aggregation, and structure isomorphism.

Data aggregation and structure isomorphism refer to a series of data-analytical steps in the development of collective constructs based on individual-level data. Because homogeneity is the most obvious assumption about collective constructs such as national culture, the assessment of sufficient agreement within each cultural group is necessary to justify aggregation (Fischer, 2008). From this point of view, the nature and function of the Hofstede value survey is still at the individual level because the author aggregates individual-level data to the cultural level without investigating within-group agreement. His aggregated scores only represent the average tendency of individuals within groups, and therefore describe a collection of individuals rather than collective phenomena (Hofmann & Jones, 2004). The SVS has the same problem (Fischer, 2008). Sufficient variability across cultural groups should also be provided in order to support the implication that cultural constructs
differentiate between groups of people. Isomorphism is attained when the same measurement model is found in each of the cultural groups at the individual level and at the cultural level (Fischer, 2009).

However, the first thing to address when measuring culture is how items are phrased. Fischer (2009) also emphasizes that theoretical conceptualization and operationalization of measured constructs is more important than data analysis issues and this is the main focus of our paper. The next section discusses the issue of approach inconsistency in culture measurement and implications for future research.

3.2.2. Self- versus group-referenced

Culture can be studied at both the individual and the collective level. This differentiation is not just important for data analysis, but also for operationalization. The most common method for measuring psychological constructs is to ask respondents about their own attitudes, values and behaviors. However, as a shared system within a social group, culture also describes how people think society as a whole should or does look (Mueller & Wornhoff, 1990). Measuring culture only through the mathematical averages of the personal values or practices within a group is problematic.

Hofstede (2001, p. 17) maintains, “Cultures are not king-size individuals. They are wholes, and their internal logic cannot be understood in the terms used for the personality dynamics of individuals. Eco-logic differs from individual logic”. Although this statement actually refers to the method of factor analysis, and his values survey still uses self-referenced ratings (items that concentrate on each person, rather than their society), it inspired House et al.’s (2004) GLOBE project to measure national culture another way. In one of the most ambitious and comprehensive culture studies, the GLOBE team challenges conventional measures of culture that ask respondents what is important to them (defined as values) and what they actually do (defined as practices) as individuals. Instead, they ask respondents to report on
how things should be done and how things are actually done in their society, which they believe is the *gestalt* of each culture (Javidan et al., 2006). The items contain the phrase “in this society…” or “in this organization”. A sample question is, “The economic system in this society should be (is) designed to maximize Individual vs Collective interests”. With this approach, collective culture is measured through respondents’ perceptions of values or practices in their societal group (Wan, Chiu, Peng, & Tam, 2007).

Group-referenced items reflect social beliefs and norms that represent shared thoughts or practices in a particular society. For instance, Leung et al. (2002) have developed a systematic social belief instrument termed “social axioms”. Typical items are “Powerful people tend to exploit others” and “The various social institutions are biased toward the rich”. Focusing on individualism-collectivism, Bierbrauer et al. (1994) have developed a group-referenced Cultural Orientation Scale by asking how often specific behaviors occur in participants’ society (practices) and how they evaluate those behaviors (values). Fischer et al. (2009) have developed a subjective norm individualism-collectivism instrument with good statistical properties that is validated at both the individual and the cultural level.

What is the relationship between self- and group-referenced ratings, and which can better predict behaviors? Fischer (2006) uses the SVS to ask respondents to rate the importance of each value for themselves (self-referenced value) and most people in their country (group-referenced value). The self- and group-referenced ratings correlate at the country level for only two out of seven dimensions, indicating that individuals do not internalize most societal values. The self- and group-referenced ratings share only 7.84% of their variance, demonstrating little overlap between them.

At the individual level, Wan, Chiu, Tam, et al. (2007) find an imperfect correspondence between self- and group-referenced SVS ratings, which also suggests that values measured by the two approaches are not the same. The study also empirically illustrates that the group-
Fischer (2006) examines to what extent self- and group-referenced values influence individual-level behaviors. Because self-referenced values tap personal desires and wishes, they correlate with attitudes and behaviors related to personal well-being and experiences. In contrast, culture-referenced values correlate with behaviors that are strongly regulated by social norms, such as compliance with social beliefs (Fischer, 2006). Bond et al. (2004) report that their social axioms construct adds moderate predictive power to the SVS when studying social behaviors such as vocational choices, coping styles and methods of conflict resolution.

3.2.3. Value versus practice

Extant culture instruments include both value and practice items. For example, Hofstede’s (1994) Values Survey Module includes “How important would it be to you to have sufficient time for your personal or family life?” (value) and “How often in your experience, do you feel nervous or tense at work?” (practice). The former investigates individuals’ desired states, while the latter explores what really happens to them. Scholars generally believe that values are the core element that drives other cultural elements—including practices—and expect these different facets of culture to correlate positively with each other (Taras, Steel, et al., 2010).

However, the GLOBE study’s unique findings on the relationships between values and practices generated a great deal of attention and discussion (Hofstede, 2006, 2010; Javidan et al., 2006; Smith, 2006; Taras, Steel, et al., 2010). In the GLOBE project, House et al. (2004) extend Hofstede’s original five dimensions to nine and measure cultural values and practices separately by asking isomorphic “should be” and “as is” questions. This construction provides an opportunity to empirically explore the theorized positive relationship between these two facets of culture. Here, for example, are value and practice questions relating to the
dimension of uncertainty avoidance: “In this society, societal requirements and instructions should be spelled out in detail so citizens know what they are expected to do” and “In this society, societal requirements and instructions are spelled out in detail so citizens know what they are expected to do”. Correlations between values and practices across countries revealed a significant negative relationship for seven of the nine dimensions, which is counterintuitive. The finding highlights the discrepancy between value and practice approaches, and cross-cultural consumer researchers need to consider this when measuring culture.

Rokeach (1973, p. 5) defines a value as “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”. Hofstede (1980, p. 5) believes values are “broad tendencies to prefer certain states of affairs over others”. Based on these definitions, as well as some others, Schwartz & Bilsky (1987) conclude that values are concepts or beliefs about desirable states or behaviors that transcend specific situations. In other words, values are individuals’ ideal states or behaviors, regardless of the actual situation. Thus, researchers should not equate values with deeds because behavior depends not only on the person but also on the situation.

In light of the unexpected negative value–practice correlations in their study, the GLOBE team proposes a deprivation hypothesis, that societies lacking a desired characteristic are likely to want more of it (Javidan et al., 2006). McCrae, Terracciano, Realo, & Allik (2008, p. 809) further propose a “perceived deprivation hypothesis” that “values are perhaps determined not by what is actually lacking but by what is perceived to be lacking”. Similarly, Maseland & van Hoorn (2009, 2010) borrow the concept of marginal utility from economics and argue that value surveys actually capture marginal preferences and the diminishing marginal preferences lead to the negative relationships between values and practices. Finally, Brewer & Venaik (2010) suggest that the explanation for this counterintuitive relationship is
very complex and researchers need to study each dimension separately instead of as a whole, establishing clear definitions and measurement items for both values and practices.

It is unfortunate that, because the construct is designed to measure collective culture, the GLOBE team did not report the individual-level correlations. But Bierbrauer et al. (1994) test their Cultural Orientation Scale that decomposes the group-referenced individualism-collectivism into practices and values dimensions and find that the discrepancy between practices and values levels for Koreans is smaller than for Germans. This is because members in collectivistic cultures are more likely to adhere to social norms that indoctrinate what should be done.

There is no constructed research that explores the discrepancy between isomorphic self-referenced values and practices at the individual level. Nevertheless, Bardi & Schwartz (2003) provide clues in their study of the relationship between each value type in the SVS and its corresponding behavior. The behavior items, such as “Pressure others to go along with my preferences and opinions” (power) and “Consume food or drinks even when I’m not hungry or thirsty” (hedonism), are practices per se. All value types and their corresponding behaviors are positively correlated, ranging from 0.30 to 0.68, suggesting higher consistency at the individual than the cultural level. Specifically, the relationship between values and practices is weaker for the behaviors subject to social norms. Thus, if most members of a group behave in a particular way, individuals tend to conform to the same behavior even if they do not value it, otherwise they might be marginalized or excluded (Fischer, 2006). Therefore, a reasonable assumption is that discrepancies between values and practices for both self- and group-referenced scales will be more obvious in high-conformity societies.

3.2.4. Implications for future consumer research

Consumer researchers mainly use self-referenced ratings—especially the Hofstede value survey or derivative models—to study country-level consumer behavior. But because
national culture is not necessarily internalized by individuals, this approach might be flawed (Fischer, 2006). Morgeson & Hofmann (1999) recommend the use of group-referenced ratings for measuring collective constructs. Wan, Chiu, Tam, et al. (2007) find the group-referenced SVS plays a more important role in identification of national culture. Other examples are the GLOBE, social axioms and normative individualism-collectivism instruments. Several scholars have noted that group-referenced measures are more appropriate for explaining societal outcomes (e.g., Fischer, 2008; Klein & Kozlowski, 2000).

Consumer research should adopt this approach and make comparisons with the Hofstede value survey to see which is more useful in consumer contexts. Furthermore, the GLOBE study shows that compared to values, practices better predict some societal phenomena, such as economic health, national competitiveness and societal health (Javidan et al., 2006).

McCrae et al. (2008) report that the GLOBE practices dimensions reflect shared beliefs about a culture. In the business sphere Stephan & Uhlaner (2010) explain differences in entrepreneurship rate and antecedent supply-side and demand-side variables across 40 countries through the GLOBE practices dimensions. Thus, group-referenced practices rather than values may be more appropriate for studying country-level consumption issues. This proposition requires testing.

**Suggestion 3:** Group-referenced cultural practices are appropriate for studying country-level consumption issues.

The implications for individual-level studies are more complex because all four approaches can capture individual differences in cultural orientation. In most cases, self-referenced scales better assess an individual’s preferences. Studies that use the group-referenced approach to study individual differences may be flawed. Take, for example, the concept of power—now considered an increasingly important cultural distinction for understanding consumer psychology (Meyers-Levy, 2006; Oyserman, 2006; Shavitt et al., 2006). The construct
originates from Hofstede’s power distance dimension and shows the extent to which a person accepts inequality in power and status. Collective values or practices related to this construct do not necessarily correspond with individual ones, because if I do (or should) not agree with power inequalities, others will not necessarily hold the same view (Hofstede, 2006). For instance, Furrer et al. (2000) use a group-referenced scale to measure this concept and the sample items include “Inequalities among people are both expected and desired” and “Less powerful people should be dependent on the more powerful”. The construction is problematic because an individual who desires power equality at the social level might disagree with these items but still tend to pursue personal power superiority over others. This problem is more obvious in Earley & Erez’s (1997) organization-context instrument which contains the item “In most situations, managers should make decisions without consulting their subordinates” and “Employees should not express disagreements with their managers”. Respondents might disagree with the statements but, as employees, still have to behave as if they agree.

Because of pressure to conform, an individual’s desired values might deviate from his or her actual practices. Consumer researchers have discovered that in collectivist societies the discrepancy between attitude and behavior is greater than in individualist societies (Bagozzi et al., 2000; Kacen & Lee, 2002). Through meta-analysis of the three decades of management research, including the Hofstede values survey, Taras, Kirkman et al. (2010) find Hofstede’s self-referenced values relate most strongly to emotions, followed by attitudes, then behaviors. Therefore, this paper postulates that values are more suitable for predicting consumer emotions and attitudes, whereas practices correspond to actual behaviors, especially when targeting social-oriented consumer behaviors in collectivistic societies where an individual’s behavior is highly regulated by social norms, duties and obligations. For instance, when analyzing the effect of Chinese culture on consumption, Lin & Wang (2010) propose the concept of ideal versus actual values—which essentially equals values versus practices—and
further emphasize that Chinese people should be observed largely “not in what they say, but in what they do”.

However, because people often decide what to do by examining what others consider appropriate or how the majority behave (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999), group-referenced scales that describe social norms and beliefs also reflect culture in a particular society. Moreover they (primarily practices) capture unique cultural insights that go beyond the self-referenced approach and have their own power to predict social behavior (Bond et al., 2004; Fischer et al., 2009; Shteynberg, Gelfand, & Kim, 2009; Zou et al., 2009). For instance, the social axioms instruments developed by Leung et al. (2002) tap one’s perceptions of some beliefs about the world. One dimension is “fate control” representing the viewpoint that social events are affected by impersonal or external forces. The sample item is “Fate determines one’s successes and failures”. Equating the statement with “My successes and failures are determined by fate” is not appropriate, since it is a general belief or worldview. This cultural belief has been used to study consumer tolerance of service failures (Chan, Wan, & Sin, 2009).

On another dimension, “social cynicism”—referring to a negative assessment of human nature—items include “Powerful people tend to exploit others” and “Kind-hearted people usually suffer losses”. This dimension is probably better at evaluating an individual’s power-seeking tendencies than self-referenced measures when studying consumption related to status because equating the statements with “I tend to exploit others” and “I usually suffer losses” obviously deviates from the original meanings.

Empirical research shows that self- and group-referenced measures provide complementary information and one cannot substitute for the other (Bond et al., 2004; Fischer et al., 2009). Compared to self-referenced, group-referenced scales better predict behaviors that are norm-governed (Fischer, 2006). Consumption is a social behavior and is affected by normative
influences (Bearden, Netemeyer, & Teel, 1989; Rook & Fisher, 1995), especially in collectivist cultures (Bagozzi et al., 2000; Lee & Kacen, 2008). Thus, a group-referenced approach to investigating cultural differences may be useful to consumer researchers.

_Suggestion 4: Both self- and group-referenced cultural practices should be included to study individual-level consumption issues. They may provide complementary information and one cannot be substituted for the other._

4. Conclusion and future research

Conceptualizing and operationalizing culture is important because the concept has become a central focus of research in consumer psychology and behavior. Although hundreds of culture measures have been developed, significant problems have been ignored, especially in consumer research.

This paper discusses the definition of culture and addresses two important issues in culture measurement that have clouded past research: _conceptual ambiguity_ and _approach inconsistency_. We also provide some recommendations for future studies. Resolving these problems will help clarify the role of culture in consumer behavior.

Future research should use culture constructs with more specific definitions and clearer conceptual boundaries. More importantly, consumer researchers need to consider the implications when measuring culture with self- versus group-referenced, and value versus practice scales. No scale will be better than the others in all circumstances, and each dimension should be looked at separately in terms of its definition and the research context.

As Moorman & Blakely (1995), Shteynberg et al. (2009), and Fischer et al. (2009) have done in their respective areas, studies that compare the utility of these different approaches in predicting consumer emotions, attitudes and behaviors will provide insight into which type of measure is better in which circumstances. Isomorphic scales would be well suited to this type of study.
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