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Is “Culture” a Workable Concept for (Cross-)Cultural Psychology?

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Abstract

In this essay three points are addressed:

First, despite repeated findings of limited cross-cultural variation for core areas of study, research in cross-cultural psychology continues to be directed mainly at finding differences in psychological functioning. This often happens at the cost of attention for similarities between groups, or invariance. As a consequence, cross-cultural psychology as a field is feeding into stereotyped views of “them” versus “us”.

Second, the notion of culture implies a holistic perspective, in which various aspects of the behavior repertoire within a group tend to be seen as hanging together. Such views tend to contribute to ideas of coherence of observed differences between human groups that are supported insufficiently by empirical findings. Researchers need to avoid overgeneralizations when they interpret their findings and should refrain from construing causal or functional patterns of differences when the available evidence is limited to correlations, which may reflect only coincidental relationships.

Third, it has been argued by various authors that the notion of culture escapes unambiguous definition. If this view is correct, researchers can choose their own meaning, which may suit Humpty Dumpty, but is not good for scientific analysis and communication. Giving up the notion of culture in research may facilitate a reorientation in cross-cultural psychology, leading to a better balance in emphasis between what is common to humans and what is unique to some group in distinction of other groups.

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"When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean—neither more nor less."

Lewis Carroll (1872) *Through the looking glass*

Is "Culture" a Workable Concept for (Cross-)Cultural Psychology?

When a Dutch person (like me) goes to China, the differences between the Chinese and the people back home are striking both in overt and, as far as one can make out, in covert behavior. Such differences are the basis for the notion of culture. As a label in everyday communication, it may well do to speak about Chinese culture and Dutch culture, but here I will argue that in psychological research the term "culture" mainly muddies the water and that its use should be avoided beyond the introduction in research articles and the introductory chapters in textbooks. There are three main sections.

In the first section I show how there is a strong emphasis on behavior differences in important areas of cross-cultural research, such as values and personality dimensions, even when these differences are much smaller than anticipated. There are other domains of behavior where large differences exist as a consequence of, for example, affluence (poverty) and schooling (illiteracy); it is argued that reference to "culture" does not help when trying to make sense of such differences.

The second section is about the psychological organization of group-cultural differences in behavior and about the demarcation of one group ("a culture") from other groups. The main question is to which extent differences across diverse variables are linked and can be interpreted in terms of the same (inclusive) concepts. It is argued that differences tend to be much less interconnected psychologically than portrayed in our literature.

The third section refers to the large number of, sometimes even incompatible, ways in which "culture" has been defined. It is submitted that there is no scope for an essentially undefinable notion in scientific analysis. If "culture" (or "a culture") does not appear to help us explain or understand any behavior any better, then its use should be abandoned. In fact, with the notion of "culture" out of the way, it may become easier to carve out a position for cross-cultural psychology in which there is a better balance between differences and invariance, i.e., between our heritage from cultural anthropology and that from (human) biology.

Emphasis on Differences

For a casual observer, the differences in behavior between persons from various regions of the world tend to be more striking than differences between individuals belonging to the same group. This impression is hardly in agreement with many research findings. Nevertheless, cross-cultural psychologists still emphasize differences in postulated concepts much more than psychological invariance (often called "similarity"). Striking findings demonstrating a strong orientation of researchers towards differences come from

an analysis of articles published in the *Journal of Cross-Cultural Psychology* (JCCP). Brouwers, van Hemert, Breugelmans, and van de Vijver (2004) analyzed a set of empirical studies from this journal and found that in 69% only expected differences were formulated, while in 71% (rather than approximately 31%!) of these studies similarities, as well as differences, were observed. The distribution of similarities and differences observed by Brouwers et al. (2004) makes it highly likely that there should have been at least some studies reporting only similarities, but not a single study like this was found. Apparently, researchers focus on differences when designing their studies and also when reporting their results. Publication bias is difficult to demonstrate, but a former editor of the JCCP has mentioned to me that manuscripts reporting only similarities are considered to be of limited interest¹.

In core areas of cross-cultural psychology, such as values and personality traits, the differences in questionnaire scores between countries are much smaller than the differences between individuals within countries. For the Big Five dimensions, country differences explain approximately 12% of the variance in self-ratings and 4% in ratings by others in a large set of literate samples (McCrae, Terracciano, & Members of the Personality Profiles of Cultures Project, 2005a,b; McCrae & Terracciano, 2008). Fischer and Schwartz (2011) report that, on average, country differences accounted for about 12% of the variance in self-ratings on the Schwartz Values Scale and about 4% on the Portrait Value Questionnaire in Europe. In these percentages, methodological artifacts and bias (lack of equivalence) are still included (e.g., van de Vijver & Leung, 1997; van Hemert, 2011). Already in the 1960s, Campbell (1964) warned that observed differences could come about through “failures of communication,” i.e., they may well result from how questionnaire items and instructions are understood.

In recent years, there has been extensive criticism of research designs and procedures that are geared to rejection of the null hypothesis (e.g., Bakker, van Dijk, & Wicherts, 2012; Simmons, Nelson, & Simonsohn, 2011). Such criticisms apply strongly to cross-cultural studies comparing only a few countries on a string of variables. The logic of null hypothesis testing requires an experimental design with random allocation of subjects and control over the various experimental conditions by the researcher; postulating a null hypothesis makes much less sense in cross-country comparisons where these elementary conditions are strongly violated and the *a priori* likelihood of finding some difference is way above the usual confidence level of $p = .05$ (Shadish, Cook, & Campbell, 2002). In fact, with less than perfect score equivalence, finding a significant difference in score distributions is merely a function of sample size (Malpass & Poortinga, 1986). Moreover, there is a tendency among researchers to accept previous findings without checks on their validity and to further examine some trait or dimension for which differences have been established previously. Typically, such studies are seeking convergent rather than discriminant validity and are likely to be prone to the same errors as the original study (e.g., Ioannidis, 2005; Klassen, 2004).

Traditional psychological measurement methods, such as tests and questionnaires, are developed within a particular context, and it is widely acknowledged that they may be

¹ To avoid possible misinterpretation, this former editor is not my colleague at Tilburg University, Fons van de Vijver.

lacking in equivalence when administered in other groups as for which they were constructed (van de Vijver & Leung, 1997). In the exciting and rapidly developing field of cultural neuroscience, biological variables provide a common standard of comparison that can help to transcend this difficulty. Unfortunately, the empirical record of cultural neuroscience is open to similar criticisms as older research. Arguments for this viewpoint can be found in the supplementary materials (section 1).

With psychological differences over emphasized and so much smaller than expected, cross-cultural psychology has a serious interpretation problem. However, to avoid any possible misunderstanding, this should not be taken to imply that differences in behavior invariably are small. There are also domains of study for which differences between countries or regions, measured as the ratio of between-group variance and within-group variance, are much larger than in the research mentioned so far. In the supplementary materials (section 2) I mention three examples of such domains: poverty as opposed to affluence, differences in religious beliefs, and illiteracy as opposed to literacy. For all three I make plausible why it does not help if we as psychologists refer to “culture” when trying to make sense of such observed differences in behavior.

In summary, as a rule, the focus in cross-cultural psychology is on differences in behavior; psychological invariance as a reflection of “psychological unity” of humankind as a species often is only formally recognized, if at all. In this section I have argued that there tend to be serious shortcomings in the design of cross-cultural studies and undue emphasis on differences in the interpretation of findings. I have also given examples of substantial differences (supplementary materials, section 2), but with indications how these can be linked more or less directly to antecedent conditions, preempting the need for postulating a “culture” concept. There will be serious consequences, if the field of cross-cultural psychology is indeed biased towards differences (due to such factors as poor design of studies, publication bias, and a general tendency to focus on differences). Over time, this is likely to contribute to strengthening popular views on the distinctness of other peoples from “our” people (however defined). The danger of stereotyping is well-recognized (e.g., Heine & Norenzayan, 2006), but little appears to be done about this in applied fields, such as intercultural training, or in teaching cross-cultural psychology. Obviously, stereotyping is not the intention of cross-cultural psychologists who tend to be strongly opposed to discrimination and to hold equalitarian and inclusive views on intergroup relationships and human rights. However, marking people as different is often the first step towards treating them differently. As a field, we also have the responsibility to avoid creating unjustified impressions of differences between people and inequality.

Presumed Coherence of Differences

Data derive their interest from what they stand for; researchers make “interpretations,” “generalizations,” or “inferences” that go beyond the actual data. In the tradition of Generalizability Theory (Cronbach, Gleser, Nanda, & Rajaratnam, 1972), any inference is seen as a generalization to some universe. This can be a universe of behavior (a trait,

domain, etc.) or a universe of persons (all students, the population of a country, etc.). Generalizations from the same data can be made to more than a single universe. For example, performance on some cognitive ability test can be generalized to the test taker's cognitive competence at this point in time, to the person's (inherited) cognitive capacity, or to the quality of school education. Size of the universe, or inclusiveness, is an important parameter of generalizations; e.g., test takers' current cognitive competence is a more limited and less inclusive universe than their inborn cognitive capacity.

Using this terminology, I argue that in cross-cultural psychology there is a tendency towards making broad generalizations, which may well amount to "overgeneralizations." In the supplementary materials (section 3), historical examples of this tendency are mentioned. Here, I distinguish first between three levels of behavior generalizations which differ in the degree of coherence of "culture" they presume and in the extent to which they are open to empirical validation. Thereafter, I pay attention to generalizations from samples of people to populations, mentioning some recent challenges to the notion of "a" culture.

Levels of Generalization

Berry, Poortinga, Breugelmans, Chasiotis, and Sam (2011; see also Poortinga, 2003) have described distinctions between levels of generalization in data interpretation found in cross-cultural psychology. Such levels imply various notions about the psychological organization of differences. Here I mention three kinds of generalizations.

First, the most far-reaching are generalizations to "a culture-as-a-system," in which all aspects of the behavior repertoire of a group hang together in a way that is characteristic for that group. Such coherence is not only presumed in classical ethnographies, but also in the notion of a culture as a system of meanings or values (Rohner, 1984), in notions of "mentality" (Fiske, Kitayama, Markus, & Nisbett, 1998), or culture as a "constellation" of ideas and practices (Chiu, Leung, & Hong, 2011). Cultures-as-systems is an appealing idea, especially if defined as open systems so that change processes can be included. Unfortunately, this is a notion that escapes empirical analysis and refutation; in cultural anthropology, different ethnographies of the same populations have tended to show very limited resemblance (Kloos, 1988). We are unable to identify the parameters that make up a cultural system and to provide a representation (e.g., in the form of a flow diagram). Apparently, the complexities are too forbidding; the systems notion may be a beautiful analog, but I fail to see how it can be helpful in psychological analysis.

A dimension such as individualism-collectivism is reminiscent of a subsystem; it is taken to explain group differences in a substantial portion of the overall behavior repertoire. This is reflected in the idea that individualism-collectivism can be seen as a "syndrome" (Triandis, 1996). A worrisome issue is the lack of clarity about what belongs and what does not belong to such a syndrome or subsystem, making falsification virtually impossible. Evidence, such as that of Fijneman et al. (1996) or Matsumoto (1999) mentioned in section 3 of the supplementary materials, may have gone against expectation, but later research could easily ignore this because only a fraction of the (fuzzy) individualism-collectivism syndrome was challenged.

At the second level are generalizations to personality traits, cognitive abilities, and similar “hypothetical constructs.” Here, sets of items or observable behavior events are put together in scales that are thought to capture the essence or core of a trait or ability; for example, in a scale of neuroticism, items are included reflecting situations where highly neurotic individuals and individuals low on neuroticism are unlikely to show the same reaction. At this level of generalization, differences between groups in score distributions in principle are open to control on psychometric equivalence. Nevertheless, there is a risk of overgeneralization because it remains difficult to distinguish between differences in a target construct and differences due to factors in measurements that are not representative of the construct (i.e., construct and method bias; van de Vijver & Leung, 1997). For example, there are findings from China and South Africa that despite extensive positive evidence on equivalence across a wide range of countries (McCrae et al., 2005a,b), the Big Five dimensions may be incomplete as a representation of personality structure (Cheung et al., 2001; Nel et al., 2012).²

The third level concerns generalizations to a domain of which all the elements can be listed, or for which at least it can be decided unambiguously whether or not a given element belongs to that domain. A measurement of such a domain is constructed to contain a more or less representative sample of all the elements. A test of color blindness with a representative sample of colors from the Munsell system or a test of arithmetic with items on operations such as addition or multiplication are examples. At this level of generalization, it tends to be clear whether or not a domain reasonably can be assumed to be identical across certain populations (e.g., arithmetical operations) or non-identical (e.g., the alphabet in various scripts). Here, data are interpreted in terms of more limited concepts, such as “skills,” “rules,” “symbols,” “meanings,” and “practices.”³ It may be noted that group

² With locally constructed instruments in both China (Cheung et al., 2001) and South Africa (Nel et al., 2012), a social-relational dimension of personality has been found that is lacking in the Big Five. However, such a dimension was also identified when these instruments were administered elsewhere (Cheung, Cheung, Howard, & Lin, 2006; Valchev, van de Vijver, Nel, Rothmann, & Meiring, 2013).

³ The term I prefer is “conventions,” implying agreements in a society about how things should be done, what to believe, what fashion to follow, etc. There are other terms with a similar reach, but with a less cognitive and more social meaning, viz. “cultural descriptive norms” and “intersubjective cultural norms” (Wan, Chiu, Peng, & Tam, 2007). There is an aspect of arbitrariness to conventions, while at the same time having or not having a clear convention may not at all be arbitrary (e.g., left-hand or right-hand traffic). When low levels of inclusiveness are emphasized, the behavior repertoire of a group can be seen as consisting of a large set of conventions, like the words in a dictionary. An outsider’s perspective (akin to making a translation with the help of a dictionary) is likely to go awry on shades of meaning. It can be said that there are analogous mismatches when “translating” expressions or gestures, as in intercultural communication. A case in point may be the switching of cultural frames after presentation of cultural primes (Hong, Morris, Chiu, & Benet-Martínez, 2000; Oyserman & Lee, 2008). Should frames be seen as networks of associations that form a higher order entity (called “culture”) or are primes incidental as tentatively suggested by recent replication studies in which primes replicate poorly (Klein et al., 2014). Moreover, if a prime should happen to show unexpected results, this is likely to be seen as evidence against the effectiveness of that prime rather than against the presumed underlying dimension (Medin, Unsworth, & Hirschfeld, 2007).

differences at low levels of inclusiveness do not rule out generalization to broader concepts or dimensions. However, explicit empirical evidence on causal relationships between the smaller domains, and not just correlational relationships, is needed and such critical scrutiny is lacking too often in our literature.

Generalization to a Universe of Persons

As mentioned, in Generalizability Theory (Cronbach et al., 1972), generalizations can also be made from a sample of respondents to a universe of people, i.e., a population; in cross-cultural research, commonly referred to as “a culture.” In traditional ethnography, the notion of “a culture” presumed demarcation of one group of people with a particular way of life from other groups. Such cultural populations were characterized by differentiation (behavior variance) and permanence (continuity over time) demonstrated by homogeneity within and heterogeneity between populations for a wide range of variables (Berry et al., 2011). In cross-cultural psychology, distinctions between populations are mostly in terms of regions (e.g., East Asian, Western) or countries, which *a priori* are unlikely to be more or less homogeneous on almost any psychological variable. The traditional meaning is also eroded when the term “culture” is applied to more limited groups and distinctions, such as organization culture, youth culture, urban culture, etc. Still, in such instances, the notion of “a culture” is associated with identifiable group membership and a set of characteristic practices (including meanings, norms, skills, etc.).

In recent research, there appears to be further erosion of the traditional notion. For example, one objective in marketing research is to define subgroups or segments so that the variance between segments on some target variable (e.g., buying intention for some product) is maximized (Steenkamp & Hofstede, 2002). Such segments are *post hoc* distinctions and are likely to be cross-cutting recognized group distinctions, such as countries. A further development along these lines is a distinction between three value archetypes that equally apply across countries, with *post hoc* explanation why differences in archetype profiles between countries make sense (Lee et al., 2014). Moreover, one now finds new terms such as “superdiversity” to refer to communities with large variation in ethnic and national origin (van de Vijver, Blommaert, Gkoumasi, & Stogianni, 2015), and “polycultural psychology” to refer to multiple influences on individuals in such communities (Morris, Chiu, & Liu, 2015). Yet another step was taken in a well-received fMRI study by Chiao et al. (2009) in which 24 participants initially were selected on the basis of membership of a collectivist culture (n = 12 Japanese students) versus an individualist culture (n = 12 European American students), but subsequently reassigned on the basis of their individual scores on a questionnaire, the Self-Construal Scale (SCS, Singelis, 1994; allegedly a scale of questionable validity, Bresnahan et al., 2005). The results of this study, presented as supporting the individualism collectivism distinction, were obtained from 7 Japanese and 3 Caucasians participants with more individualist scores and 5 Japanese and 9 Caucasian participants with more collectivistic scores. This raises the question whether the notion of individualism and collectivism as a value dimension characteristic of cultural populations

(Hofstede, 1980) was not essentially violated in this study⁴. All this is not to deny that important distinctions between categories of humans can be made which show substantial variation on psychologically relevant variables and little ambiguity in assignment of individuals to these categories, such as speakers versus non-speakers of a language, literates versus non-literates, or categories based on number of years of education or level of income. But few would argue that such variables are defining “cultural” populations.

In summary, using ideas from Generalizability Theory (Cronbach et al., 1972), I have argued in this section that in cross-cultural psychology, there is a tendency towards making sweeping generalizations that elude direct empirical testing. Three levels of generalizations of differences were presented that vary in presumed coherence of “culture” and, simultaneously, in the extent to which they are open to empirical validation. The community of cross-cultural researchers appears to believe in coherence or patterning of behavior differences. In the supplementary materials (section 3), three examples of research traditions were given as illustrations of this tendency. At the end of this section, I have given examples of conceptualizations that are not anymore compatible with the notion of a cultural population, which covers a range of variables and to which an individual person either belongs or does not belong. Given such trends, it would seem that only someone like Humpty Dumpty can feel at ease with the meaning of “a culture.”

Cross-Cultural Psychology without a Concept of Culture?

Definitions of Culture

The emphasis on differences described in the first section has deep historical roots in cultural anthropology. Going back at least as far as Tylor (1871/1958), the concept of culture has been associated with differences in behavior between groups of humans (Goodenough, 1996; Rapport, & Overing, 2000). The concept has been criticized, but mainly from a postmodernist perspective in which not cultural differences as such were questioned, but the objectivity of cultural analysis (e.g., Greenfield, 2000; Ortner, 1999). The traditional mission of cultural anthropology has withstood this onslaught from inside; the objective remains “to build a truly comparative science of human variation” (Kuper & Marks, 2011, p. 166). Cross-cultural psychology has embraced this anthropological heritage and pursued psychological explanation (or understanding) of differences in behavior between cultural populations. There is wide consensus about the relevance of this enterprise; in the words of Wyer (2009):

⁴ Given the size of the samples, this study by Chiao et al., (2009) is evidently in need of replication with prior deposition of the criteria for assignment of individuals to groups. It may be noted that the data set was probably collected before alarming concerns were raised about the methodological quality of many small scale studies in social psychology (see the previous section). However, no rationale is presented why the initial selection of respondents was not based on the SCS, or why the majority of scores placed individuals in the opposite category as expected on the basis of their cultural background as conceived of by the authors.

Culture matters! Cultural experiences can influence human psychology in many important ways (p. 457).

When it comes to formal definitions, there is a babel-like confusion of tongues. Legendary is a lengthy and inclusive definition by Kroeber and Kluckhohn (1952) in which they captured the major aspects of culture, as studied in various anthropological traditions. This definition amounted to an enumeration of what culture is supposed to consist of (e.g., “patterns,” “systems,” “ideas”). Although it is the most famous definition in the history of cultural anthropology, it turned out to be too unwieldy to provide direction or integration for later research. An impressive update and extension including definitions of culture from various disciplines and a distinction of various themes in the definitions was reported by Baldwin, Faulkner, Hecht, and Lindsley (2006). In this book, the term is described as “an empty sign that people fill with meaning from their own academic backgrounds or personal experiences” (Baldwin et al., 2006, p. 24).

An attempt in cross-cultural psychology to classify definitions was reported by Soudijn, Hutschemaekers, and van de Vijver (1990). These authors rated 128 definitions of culture from the period of 1871 to 1987 on 34 categories. A factor analysis resulted in five factors showing only limited correlation with the major distinctions of Kroeber and Kluckhohn (1952). Soudijn et al. (1990) argued that a single definition derived from their taxonomy would be as unwieldy as that of Kroeber and Kluckhohn (1952). They advocated an eclectic approach in which researchers have considerable freedom to choose their own position.

A new dimension to the reach of culture has been added by researchers interested in its biological evolution, examining transmission of behavior patterns across regions and over generations (Boyd & Richerson, 2005; Cavalli-Sforza & Feldman, 1981). Whiten, Hinde, Laland, and Stinger (2012) provide the following definition:

Culture, broadly conceived as all that individuals learn from others that endures to generate customs and traditions, shapes vast swathes of human lives (p. 1).

Two concepts of psychology, and especially developmental psychology, are central here: learning and behavior transmission. Whiten and colleagues (2012) do not limit the study of these functions and their use of the term culture to humans. While in the 1990s, the question of culture in non-human species still was a matter of debate, its presence has been extended to include a broadening range of species. In a cleverly designed study with experimentally induced innovations, Aplin et al. (2015) have demonstrated transmission across generations (called “persistent culture”) in great tits (a kind of small bird, *Parus major*). Needless to add that for many cultural anthropologists this is miles too far, but there is no reason why learning and development should not be studied by psychologists in whatever species they may occur.

Within cross-cultural psychology, recent developments do not appear to have brought consensus beyond a live and let live position. In an impressive handbook edited by Wyer, Chiu, and Hong (2009), part of the concluding paragraph by Hong reads:

Authors who contribute to this volume have defined culture in many different ways, ranging from culture as an interpretative construct (e.g., Kashima) to shared representations (e.g., Hong; Wan & Chiu), syndromes (Oyserman & Sorenson) and social systems and institutions (e.g., Leung ...). Each definition focuses on a different level and facet of culture. (p. 499).

There are dissenting voices, but they are few. Hong's comment appears in a dialogue that addresses the question, "Should cultural psychology strive to eliminate culture as an explanatory variable?" There is one seemingly positive reply by Markman (Bond et al., 2009; see also Markman, Grimm, & Kim, 2009). He argues for a shift in explanation; differences in behavior should not be explained in terms of cultural variables, but in terms of psychological variables. This does not imply that Markman and colleagues (2009) want to give up on the culture concept; they are echoing an older perspective formulated by Beatrice Whiting (1976) in which culture is seen as a "packaged variable" that needs "unpackaging."

Probably more than any other cross-cultural psychologist it is Jahoda (e.g., 2011, 2012) who has criticized the use of the culture concept in cross-cultural psychology. In an overview of definitions in leading texts, he has pointed to incompatibilities and inconsistencies. Although he refers to the "extraordinary malleability of the construct" (2012, p. 299) and considers attempts at definition futile, he views the term culture as indispensable. Like Soudijn et al. (1990), he suggests that an author can select elements from the vast complex of phenomena when building a definition. Jahoda (2012) uses as a motto the same statement by Humpty Dumpty that is mentioned at the top of the present essay, but he upholds culture as a concept for the field.

Finessing "Culture"

Cross-cultural psychology could take a big step towards ending terminological confusion by abandoning the use of the term "culture." Several, sometimes acrimonious, debates follow from different conceptions of the subject matter of research. If it would be clear from the outset that there is little communality in subject matter, such discussions would be seen more easily as being rather pointless. Generally, the precise meaning of terms is considered to be an important condition for clear scientific communication. This can be difficult, as illustrated by classifications of mental disorders such as in ICD or DSM. Even though the definition of a specific disease is often problematic, medicine, including psychiatry, could not function without classifications, as these are linked closely to treatments. In contrast, imagine a meeting to define "culture," or to come up with binding definitions on how to demarcate the world's populations. It is safe to predict failure at two levels; most likely the meeting would not come to any consensus, and in the unlikely event that this happened, the results would be widely rejected by others.

We could follow Baldwin et al. (2006) and Soudijn et al. (1990), allowing researchers to make more or less of "culture" what suits them, but then each instance would require a specification of meaning to keep communication clear. Or, one might argue that behavior patterns that have evolved phylogenetically and are transmitted from generation to

generation should be qualified as culture (cf. Whiten et al., 2012), but what is, in that case, the additional meaning of “culture” more than that of the behavior patterns to which it refers? Alternatively, one might argue that any clear specification of the meaning of “culture” in a particular study or research project could save the concept. However, each specific meaning would then override a more general notion and make this superfluous.

Domains of research evolve over time, including the meaning of their central concepts. Notable examples of concepts that have been abandoned include *ether* that was postulated in physics as a carrier substance to enable the transport of light in a vacuum and *generatio spontanea* that served in biology to explain how living organisms could materialize from non-living matter. Similarly, psychology used to be the science of the *psyche*, or soul, as distinct from the body. Behaviorism and other schools dispatched of the soul and focused on manifest behavior. Although hypothetical constructs referring to internal dispositions gained a central place again with the cognitive revolution in psychology, the notion of soul continues to be obsolete. Nowadays, we hardly use the term soul in analyses of behavior, but the term “*psych(e)ology*” is still the common label for the discipline. Equally, we can continue to do (cross-)cultural psychology if we give up the use of “culture” as an inclusive notion referring to fuzzy differences in overt and covert behavior repertoire and of “a culture” to identify a population. We will lose only the essentialist and reified notions embedded in most definitions ⁵.

Doing Cross-Cultural Research Without “Culture”

If “culture,” or some other grand concept, can no longer serve as independent, mediating, or dependent variable, researchers will have to define more precisely the target and scope of their research. In that case, we also cannot refer anymore to “cultures,” like the one of the Chinese or of the Dutch; it will have to be made clear why certain populations are included in a research project and how they are defined. In the literature of cross-cultural psychology, there is already an abundance of studies in which “culture” is a superfluous notion. In psycholinguistics, a population usually consists of the speakers of a language (or family of languages) with a certain feature (such as gender of the noun that affects the attribution of male and female characteristics, Boroditsky, Schmidt, & Phillips, 2003). In a test of the Protestant work ethic, Munroe and Munroe (1986) compared a sample of traditional believers with a sample of converts to Protestantism among the Abaluyia on achievement motivation, a key variable in Weber’s theory on the rise of capitalism. In marketing research where economic affluence is an important variable, it makes sense to distinguish income segments nationally or cross-nationally (Steenkamp & Hofstede, 2002). In these examples the definition of the target variables does not need any reference to “culture.”

⁵ An illustration of essentialist thinking is the often mentioned metaphor of three blind men touching respectively a trunk, a leg, and a tail, and describing what they feel without realizing that these are all parts of a single elephant. The metaphor presumes that there exists indeed this big, single thing, “culture,” even if we can grasp it only partly. To a certain extent, such essentialism or reification (i.e., “the world as a conglomerate of separate and internally homogeneous cultures,” Meyer & Geschiere, 1999, p. 4) is inescapable; why have a concept if it does not stand for anything distinguishable?

As mentioned, the unity of humankind as a species often is only formally recognized in cross-cultural psychology. In contrast, such a unity is the explicit starting point in biological approaches where differences between human groups are seen more as variations on common themes, or developmentally as emerging from common roots. If cross-cultural psychology is to complement its legacy from cultural anthropology with approaches rooted in biological research, the field will be well placed to contribute to the biological revolution in psychology and to counteract the danger of genetic determinism. Cross-cultural research brings a range of variation, which can help to put into question too superficial reference to genetic determinants and phylogenetic processes, which ignore the complex influences of context on gene expression and epigenesis, processes that so far are poorly understood (see, e.g., Laland et al. (2014).

Brown, Dickins, Sear, and Laland (2011) have provided a brief overview of three research fields that span biology, anthropology, human behavioral ecology, evolutionary psychology, and cultural evolution. Human behavioral ecology studies variation in behavior as reflecting adaptive responses to the environment. It is a core assumption that the individual is aiming at enhancing reproductive fitness, but the models in this field tend to be neutral on the traditional contrast of genetic versus social-environmental. One topic of research is on patterns of care giving to infants and how these differ for industrialized societies, agricultural societies, hunter-gatherers, and even between various hunter-gatherer groups (e.g., Konner, 2007).

Evolutionary psychology (following the earlier school of sociobiology) is postulating specialized psychological mechanisms that are genetic and have evolved in response to selection pressures. Research illustrating how an evolutionary orientation may lead to new insights has been reported, for example, by Chasiotis and colleagues (Bender & Chasiotis, 2011; Chasiotis, Bender, & Hofer, 2014). Considering developmental stages as evolutionary end products that are preparations for adulthood, they found that the number of siblings is a crucial variable in explaining cultural variance in autobiographical memory and implicit parental motivation, variance previously attributed to sociocultural dimensions.

//Cultural evolution is analyzing how behavioral practices change over time and how these changes can be modeled (Boyd & Richerson, 2005; Whiten et al., 2012). Examples are a relatively high rate of red-green color blindness in groups that gave up hunting and gathering a long time ago and the development of lactose tolerance in populations of herders in colder regions of the world where milk is needed to compensate for low rates of ultraviolet light needed for the production of Vitamin D (see Berry et al., 2011 for more on these examples)//.

Of course, “culture” is widely used in these fields of science. It tends to be conceptualized as a common human propensity or biological functionality that defines the niche of the human species (e.g., Odling-Smee, Laland, & Feldman, 2003). Fascinating perspectives on the scope for human variability, often incorporating ontogenetic development, are presented in terms of biocultural co-constructivism or biology-culture co-evolution (e.g., Baltes, Reuter-Lorenz, & Rösler, 2006; Cole & Hatano, 2007). But my argument is that also here, “culture”

does not add to power of explanation. The previous paragraph (between double slashes //) on cultural evolution was adapted from an earlier text in which “culture” was mentioned (Poortinga, 2013). That text read (with emphasis added here):

Cultural evolution is analyzing how *cultural* practices change over time and how these changes *that influence gene-culture co-evolution* can be modeled (Boyd & Richerson, 2005; Whiten et al., 2012). Examples of *such co-evolution* are a relatively high rate of red-green color blindness in groups [... etc.]. (p. 1143),

Please ask yourself whether for an analysis of variations in color blindness, lactose tolerance, or, for that matter, group differences in other patterns of behavior, the clauses in italics are needed for research designs and/or interpretation. I respectfully submit that the answer can be negative.

Conclusion

Cross-cultural psychology is a dynamic field, continually reflecting on past research and raising further questions (van de Vijver, Chasiotis, & Breugelmans, 2011). This overview is meant to contribute to such reflection by addressing the status of “culture.” It is a convenient notion that suggests an organizing frame for many behavioral and social phenomena. For this reason, it is unlikely to suffer any time soon the fate of ether or *generatio spontanea*. However, that can hardly be a principled reason for maintaining the culture concept in cross-cultural psychological research. The question in the title has been asked before (e.g., Chiu & Chiao, 2009; Jahoda, 2012), and the answer has been mainly affirmative; we should continue to work with the concept of culture. This essay has argued for a negative answer: the notion of “culture” does not help psychologists to formulate researchable questions or to interpret results.

In the first section, the cross-cultural research record with its one-sided emphasis on differences was challenged. In the second section, it was argued that broad generalizations tend to be based on convergent searches where correlations of variables that merely show simultaneous presence are too easily interpreted as evidence of cause or function. Correlations between difference variables by themselves demonstrate coincidence of phenomena; causality of relationships between them is rarely established. In the third and final section, the position was taken that cross-cultural psychology can do without “culture,” just like psychology has lost “soul” as a scientific concept. Even if the proposal to abandon culture as a concept in psychological research is found too provocative, moving away from research designs with hardly justifiable null hypotheses, designs where coincidence is difficult to distinguish from causal or functional relationships between variables, and designs with fluid definitions of the lead concept in the long run should only strengthen cross-cultural psychology.

Supplementary Materials

Section 1: Methodological Weaknesses of Cultural Neuroscience Studies

Section 2: Some Domains of Behavior Showing Large Group Differences

Section 3: Three Examples of Over-Generalization in Cross-Cultural Psychology

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Discussion Questions

1. It is argued that research in cross-cultural psychology can do without the concept of culture. What do you see as important arguments *against* such a viewpoint?
2. Assuming that in your opinion the author makes at least some (more or less) valid points, what are these, and how should they impact on the design of future research in cross-cultural psychology?
3. In the three sections of the article, the author is presenting three main arguments for the viewpoint that cross-cultural research can do without a concept of culture. Which of these do you see as the most important to keep in mind when reading research articles on behavior and culture, and for what reasons?

4. Probably the most serious allegation in the article is that research in cross-cultural psychology feeds into stereotypes about “others” being different from “us.” Is this the kind of objection that always holds when we do research on differences (like “driving is dangerous because you can have an accident”), or should cross-cultural psychologists do more to avoid providing arguments that can be used for endorsing and promoting social inequality and exclusion?
5. The author argues for a better balance between research on differences in human behavior (variation) and how humans are psychologically the same (invariance). Is this a valid point, or does it amount to a misrecognition of the field of cross-cultural psychology as a field of research that studies differences?
6. The article is critical of research in cultural neuroscience as this tends to suffer from the same methodological shortcomings as earlier research traditions. Is this an overall weakness of cultural neuroscience research, or is the author underestimating the consistency in the findings, especially between East Asian and European American samples?
7. Are individualism-collectivism and similar dimensions so broad that they become rather meaningless for research, or are they foundational to our analysis of the importance of context to human psychosocial functioning?
8. If you do not want to give up the concept of culture for cross-cultural psychology, can you formulate a definition of culture that, for you, captures what research on behavior-and-culture should be about?
9. Is this a good definition just for your interests and orientation on behavior-and-culture research, or is it also a good definition for the entire field of cross-cultural psychology?

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