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Examining Justifiable and Unjustifiable Cultural Biases in Psychological Science

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ABSTRACT

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      Research in cultural psychology suggests that mind and behavior are necessarily cultural. The implications of this perspective call into question assumptions of scientific psychology's cultural neutrality and indicate that it may be a form of cultural community in its own right. As such, it seems that it will necessarily be defined by certain cultural biases that are exclusive of other cultural biases. Nevertheless, providing that scientists can strive to identify their explicit and implicit cultural biases, and so long as they can define their sciences in terms of cultural biases that are rational and mandatory within the internal logic of psychology, psychology's specific cultural biases may enable them to advance knowledge in ways that other cultural approaches, such as religion or ethics, cannot. This paper suggests criteria for identifying whether any given cultural biases within psychology might be justified or unjustified and reviews exemplars of justified and unjustified implicit and explicit cultural biases. It also discusses how, in cases of unjustified cultural bias, alternative cultural perspectives can be instrumental in scientific advancement. Ultimately, the paper suggests that psychologists can be culturally inclusive without compromising the truly critical cultural biases that make psychological science worthwhile. Moreover, it suggests ways in which cultural inclusion may be beneficial for individual psychologists, the discipline of scientific psychology as a whole, and in how psychological science engages with other cultural communities.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

Examining Justifiable and Unjustifiable Cultural Biases in Psychological Science

One of the hallmarks of science, and undoubtedly one of the reasons for its widespread prestige, is its ability to self-correct (see, e.g., Alberts et al., 2015; Crandall & Sherman, 2015; Cudd, 1998, pp. 51-52). As scientists propose theories and test hypotheses derived from those theories, theories that do not withstand rigorous hypothesis testing are discarded, revised, or replaced. In some cases, rigorous scientific observation yields such profound insights that the core assumptions that had previously guided scientific inquiry into a given phenomenon are questioned or revised (Kuhn, 1962/2012). Scientists then generate new methods, hypotheses, and theories to replace outdated ones.

One example of such a groundbreaking scientific insight is summarized by Marilynne Robinson (2010). She explains that:

No one expected to find that the expansion of the universe is accelerating, and that the rate of its acceleration is accelerating...a conclusion arrived at in the first place by observation. Theory and hypothesis have followed. What was thought to be known about the effect of gravity, that it would slow cosmic expansion, could not be reconciled with new data, and a major and novel factor, in effect an antigravitational force, emerged as a hypothesis in a changed conception of the universe (p. 124-125).

In this example, because of prior scientific assumptions about gravity, scientists expected to find that the expansion of the universe was slowing. In order to make sense of what they actually observed, they had to change some of their fundamental assumptions about the phenomena they were observing and revise their conceptions of the universe. These changed assumptions also contributed to completely new questions and investigations, thus demonstrating

the importance of scientific self-correction.   Other examples of scientific insights that have been similarly self-correcting include the heliocentric model of the solar system, Darwin's theory of evolution by natural selection, and Einstein's theory of general relativity (see Kuhn, 1957/1985; 1962/2012).

Recent work in cultural psychology has produced an observation that may suggest a similar need for self-correction at the level of some of the core assumptions of psychological science. The observation, as Konner (2007) describes it, is that "all human behavior, thought, and feeling is tinged or brushed or saturated with cultural color, and this color is different in different traditions" (p. 97, see also Kitayama & Cohen, 2007b, p. xiii; Markus & Hamedani, 2007; Markus, Kitayama, & Heiman, 1996; Rogoff, 2003; Shweder, 1990). In this paper, I will explore implications of this observation that may offer self-correcting insight into psychological science in a number of important ways.

Several implications of observations on the 'cultural coloring' of all mind and behavior have been noted by scholars. For example, some have suggested that the relationship between culture and mind calls into question the "fundamental assumption of psychological science" expressed by Stroebe and Nijstad (2009, p. 569), "that, unless specified otherwise, our theories apply to all humanity," and so "if no moderation [by some sociodemographic variable] is expected," a sample from "any subgroup of the [human] population will do equally well." In contrast to this perspective, Arnett (2009) argues that, because the vast majority of participants sampled are from American cultural backgrounds, "often what psychologists proclaim as 'general laws of behavior' are actually general 'laws' of American behavior or, worse yet, general 'laws' of American undergraduate introductory psychology student behavior" (p. 573, see also Arnett, 2008; Henrich, Heine, & Norenzayan, 2010).

Another question scholars have raised pertains to the use of scientific methods. Specifically, some suggest that scientific methods may not be context-independent or culture or worldview-neutral, as is commonly assumed. Rather, it seems that the use of any method may imply specific worldview assumptions (see, e.g., Slife, 1998; Slife & Williams, 1995; Yanchar, Gantt, & Clay, 2005; Yanchar and Williams, 2006). Additionally, some have suggested that the way scientific methods are often used "ignores or strips away cultural context" and that the methods thus may limit understanding of human behavior, which necessarily occurs within specific, meaningful cultural contexts (Arnett, 2009, p. 572; Miller, 1999, p. 89-90).

A third implication that has been addressed is the idea that psychological science may benefit from greater cultural variety among scientists themselves. This observation has been made in light of the fact that most psychological scientists are themselves based in American or Western European cultural communities, whereas most of the world's population is not. Some have suggested that the relationship between culture and mind may imply a need for greater cultural variety among psychological scientists because "our theoretical expectations, and the variables we consider as possible moderators, are shaped by our cultural assumptions, whether we realize it or not" (Arnett, 2009, p. 573). Thus, some scholars suggest that many theories implicitly assume American perspectives without testing their universal applicability (p. 573). Further, even though psychology is growing around the world, Arnett (2009) argues that "it is not enough for a growing proportion of authors and editors to be non-American if nearly all of them, American and non-American alike, share a narrow philosophy of science" (p. 572; see also Cudd, 1998; Fessler, 2010; Henrich et al., 2010; Konečni, 2010; Lancy, 2010; Meadon & Spurrett; 2010; Miller, 1999, p. 89-90; Rai & Fiske, 2010).

Importantly, most cultural perspectives like those mentioned above are offered only as means to improve psychological science, not to challenge or undermine its value or legitimacy. In all of the cases mentioned above, for instance, concrete suggestions about how to enhance psychological science in light of cultural variations in mind and behavior are offered. In like manner, in this paper, I will attempt to constructively address one implication of the observation that all thought and behavior is tinged with cultural color. Specifically, it seems that this observation would challenge the commonly-held assumption that psychological science is, can or should be neutral or unbiased (see, e.g., Christopher & Hickinbottom, 2008; Krugly-Smolska, 1996; Slife, 1998; Slife & Williams, 1995; Yanchar & Williams, 2006). If all thought and behavior are tinged with cultural color, as many cultural psychologists have argued, this would imply that psychological science and practice, constituting forms of mind and behavior, must also be tinged with cultural color. Further, it seems likely that if the "color is different in different traditions," (Konner, 2006, p. 97), the color tinging the traditions of psychological science will likely entail necessary biases in favor of some and against some other cultural traditions. As I will illustrate below, this does not negate or reduce the legitimacy of psychological science, but it does suggest that some assumptions of scientific psychology may need revision.

Some of the new kinds of questions that are raised by these implications relate to how science should be practiced in a multicultural world. For example, in what ways do cultural processes influence psychological science? What can psychologists do to better explicate their cultural biases, and how can they determine which cultural biases, if any, are appropriate? How should a cultural discipline like psychology navigate a multicultural world?

In order to introduce and explore these implications and questions more fully, I will first summarize the research of cultural psychologists that seems to encourage these considerations. Second, I will further explore the implication that cultural psychological research challenges the idea that science is or can be culturally neutral and suggest that psychology might be considered a cultural community in its own right. Third, I will expound upon some of the questions that are raised by those implications and offer tentative suggestions about how some common assumptions of psychology, particularly the assumption that it can be culture-neutral, might need to be revised. Fourth, I will offer some suggestions about how psychology might move toward greater cultural awareness and inclusion, and suggest how doing so may strengthen psychological science.

The Observation: Culture and the Psyche are Mutually Created

Scholars from multiple disciplines have long been interested in investigating the relationship between cultural and psychological processes (see, e.g., Fogelson, 1982; Geertz, 1973; Hallowell, 2010; Heine & Norenzayan, 2006; Kitayama & Cohen, 2007b; Levine, 2001; Levine, 2007; Matsumoto & Yoo, 2006; Sapir, 2010: Triandis, 2007). Cultural psychology has made a substantial contribution to this effort over the last few decades because, as Kitayama and Cohen (2007b, p. xiii) explain, "committed empirical psychologists…[devoted] substantial effort…to the questions of how culture might foster and even create different forms of psychological processes." As a result of this work, cultural psychologists have both "[shown] limitations of 'mainstream theories'" as well as "enabled…researchers to extend existent theories, elaborate on them, and thus refine them as full-fledged theories of the interactions between sociocultural processes and psychological processes." They further explain that, "In large part because of this…the field of cultural psychology has emerged from the periphery of

the discipline to establish itself as a mainstay of contemporary psychology," and that "culture…has become an indispensable way to enrich basic theories of psychology" (p. xiii-xiv).

The major insight of cultural psychology is that culture and mind and behavior are always intimately interconnected. This insight contrasts with the treatment of culture "as a categorical variable indicating some kind of group membership, which then figures in a model that controls for group membership in research that addresses various psychological constructs" (Hickman, 2016, para. 3). Thus, the insight of cultural psychology suggests revising the "variable-oriented approach to culture [that] is pervasive in contemporary psychological scholarship" (para. 3) with one that emphasizes mutual "interactions of culture and mind" (para. 15). Some cultural psychologists even go so far as to say that culture and mind mutually create one another.

Rogoff (2003, p. 51, emphases in original), for example, explains that "individual and cultural processes are *mutually constituting* rather than defined separately from each other." This means that "people contribute to the creation of cultural processes and cultural processes contribute to the creation of people." In other words, individual psychological processes and cultural processes simultaneously create one another as two inseparable parts of the same whole (see pp. 52-62 for some especially helpful visual illustrations of this concept).

Markus and Hamedani (2007), affirm Rogoff's point, noting that

The application of a sociocultural approach to psychology makes clear that the dualistic notions of 'inside and outside the head' and of 'the person and the situation' are frameworks that, though useful in the past, may now impede theorizing. Behavior is not the function of 'the person' and 'the situation' as separate entities, but is rather the consequence of the dynamic relationship and basic constitutive interdependence between the two' (p. 28).

As a final example, consider the following quote from Kitayama and Cohen (2007b), who similarly assert that

> …culture is not a 'thing' out there; rather, it is a loosely organized set of interpersonal and institutional processes driven by people who participate in those processes. By the same token, the psyche is also not a discrete entity packed in the brain. Rather it is a structure of psychological processes that are shaped by and thus closely attuned to the culture that surrounds them. (p. xiii).

Although there are subtle differences in the way these arguments are expressed, they all affirm the same theme: "psyche and culture…make each other up" (Shweder, 1990, p. 1). "Accordingly," as Kitayama and Cohen (2007b, p. xiii) explain, "culture cannot be understood without a deep understanding of the minds of people who make it up and, likewise, the mind cannot be understood without reference to the sociocultural environment to which it is adapted and attuned."

Implications for Psychological Science: Psychology as a Cultural Community

The success of cultural psychology in becoming a "mainstay of contemporary psychology" (Kitayama & Cohen, 2007b, p. xiii) has helped enable psychologists to illustrate the importance of culture in numerous areas of psychology (see, e.g., Heine, 2010; Kitayama & Cohen, 2007a; Levine, 2001; Rogoff, 2003; Shweder, 2003). Examples include the relationship between culture and cognition (e.g, Booth, 2003; Mishra, 2006; Nisbett, 2003; Peng & Nisbett, 1999), personhood, the self, and identity (e.g., Bourguignon, 1995; Brewer & Yuki, 2007; Chung-Fang, 2006; Fogelson, 1982; Geertz, 1973, pp. 360-411; Hallowell, 2010; Hollan, 1992; Kitayama, Duffy, & Uchida, 2007; Lebra, 1983; Loving, 2006; Matsumoto, 1999), the philosophy or methods of science (e.g., Geertz, 1973, pp. 193-233; Heine & Norenzayan, 2006;

Henrich et al., 2010; Miller, 1999; Varma, 2002), morality (e.g., Cassaniti & Hickman, 2014;

D'Andrade, 1995; Eberhardt, 2014; Eckensberger, 2006; Hickman, 2014; Hickman & DiBianca

Fasoli, 2015; Jensen, 2008; Shweder, Mahapatra, & Miller, 1987), emotion (e.g., Briggs, 2010;

Menon & Shweder, 1994; White, 1990), mental health (e.g., Calabrese, 2008; Kleinman &

Good, 1985; Smith, Spillane, & Annus, 2006; Sue & Sue, 1977; Thakur & Pirta, 2009), and

development, (e.g., Fong, 2007; Luhrmann et al., 2012; Lutz, 1983; Miller, Fung, & Mintz,

1996; Richman, Miller, & Levine, 2010). In this paper, I will suggest that the cultural

psychological perspective that culture and mind and behavior are always intimately interrelated

may have another major contribution to make. Specifically, I will suggest that it has

implications for how psychologists might understand their own minds and behaviors as they

conduct their research. If culture and psyche are necessarily interrelated, then it seems to follow

that the minds and behaviors (the psyches) of psychological scientists are necessarily interrelated

with their culture or cultures.[1] Thus, I will propose that in a sense, psychology is a cultural

community in its own right. However, many psychologists may not think of their discipline as a

cultural community per se, and so before proceeding to discuss the implications of this

perspective, I will first clarify what is meant by "culture" and then summarize some examples of

research that has led scholars to conclude that psychology is itself cultural.

Scholars have proposed several varying definitions of culture (Matsumoto, 2006, p. 34-

36; Matsumoto & Yoo, 2006, p. 235; Cohen, 2009; Cohen, 2010; Tebes, 2010). However, as

Matsumoto and Yoo (2006) explain, "most definitions share certain characteristics, and we

believe that human culture is generally defined as a meaning and information system shared by a

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[1] This paper is, of course, no exception. The perspective I offer here is interrelated with my own cultural
experiences, including my participation in a theistic religious cultural community, and my participation in the
academic cultural groups of cultural psychology and theoretical and philosophical psychology.

group and transferred across generations" (p. 235, see also Fowers & Richardson, 1996, p. 610). Cohen (2010) also reviewed several definitions of culture and argues that, although other constituents of culture may also be important, "cultures by definition should always be seen to share (to at least some degree) values, roles, practices, norms, [and] self-definitions" (p. 60.)[2]

Given the backdrop of the meaning of "culture" and the research suggesting that culture is intimately interconnected with mind and behavior, I now address research suggesting that psychology is cultural. In order to clarify why psychology can be considered a cultural community in its own right, I will first briefly summarize how it exemplifies the definitions of culture mentioned above. Additionally, because cultural psychologists and anthropologists have suggested that cultural ways of life can sometimes best be recognized by "taking the perspective of people of contrasting backgrounds" (Rogoff, 2003, p. 11), I will summarize some research that compares and contrasts points of view that are common within psychology against some related cultural alternatives.

Consider again the two definitions of culture mentioned above, both of which are based on common themes across definitions, and how they relate to psychological science. First, "human culture is generally defined as a meaning and information system shared by a group and transferred across generations" (Matsumoto & Yoo, 2006, p. 235). Psychological science certainly seems to be a form of meaning and information system, in that it contains terms and ideas that are specially meaningful to participants within the community of psychological scientists (e.g., terms for psychological constructs, or the labels for different fields of psychology

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[2] Note that in these definitions, 'culture' or 'cultural,' does not refer to a "categorical property of individuals" (Rogoff, 2003, p. 77). In other words, from this perspective culture should not be viewed as a fixed, unchanging, categorical designation for an individual or a group. Rather, 'culture' and 'cultural' refer to certain aspects of what individuals do in relation to each other and the communities with whom they share ways of thinking and behaving (see also Miller, 1999).

such as "social psychology" or "cognitive psychology"). Additionally, this meaning and information system is clearly shared by a group (i.e., terms such as those mentioned previously are ones that most or all psychologists use or can use, but that are not necessarily as familiar to those outside of the community of psychologists). Finally, this shared meaning and information system is also transmitted across generations (e.g., in the form of textbooks) as students entering the discipline must learn the terms and meanings in order to fully participate in the community of psychologists.

Second, "cultures by definition should always be seen to share (to at least some degree) values, roles, practices, norms, self-definitions, and the other constituent elements of culture" (Cohen, 2010, p. 60). The discipline of psychology reflects each of these features of culture. It is guided by certain values such as empiricism (see, e.g., Richardson, Fowers, & Guignon, 1999; Slife, Reber, & Richardson, 2005; Slife & Williams, 1995; I will discuss other examples below as well). It is constituted by certain roles (e.g., professor, scientist, postdoctoral fellow, therapist, etc.), practices (e.g., teaching, research, therapy, etc.), and norms (e.g., publication requirements, academic standards, ethical principles, etc.). It also offers certain "self-definitions," (Cohen, 2010, p. 60) that "can be fruitfully viewed as cultural identities," such as "a social psychologist" (Cohen, 2009, p. 195; see also Cudd, 1998, and Krugly-Smolska, 1996 for discussions of cultural features of science). Additionally, practices such as dissertation defenses could be viewed as a form of coming of age or initiation rite, another common feature of many cultural communities.

In addition to manifesting the core features of a cultural community, psychological science can be compared and contrasted with related perspectives and practices of other cultural communities in order to make it easier to see its cultural nature. Specifically, people in many cultural groups "conceptualize, monitor, and discuss their own and others' mental processes"

(Lutz, 1985, p. 36). Such cultural understandings of mind and behavior are often called ethnopsychologies (see, e.g., Lillard, 1998; Lutz, 1985). Examining "other folks' theories of mind and behavior" (Lillard, 1997, p. 28) offers the opportunity for comparisons that make it easier to see the cultural nature of the theories of mind and behavior shared by psychologists (see, e.g., Lillard, 1997; Lillard, 1998; Lutz, 1985).

One compelling example is offered by Lutz (1985). She examined ways in which Ifaluk people (a group of people who live in an atoll in the West Caroline Islands of Micronesia) understand and explain behavior and consciousness. In other words, she examined Ifaluk ethnopsychologies. However, as she describes Ifaluk ethnopsychological knowledge she asks "ethnopsychology compared to what?" (p. 37). She then argues that "the concerns, research questions, and unexamined first assumptions of academic psychologies are deeply rooted in the cultural traditions in which they arise" (p. 37), and that evidence for this has been shown in several domains of academic psychology (p. 37-38). In other words, she argues that academic perspectives are not less culturally informed (i.e., less ethnopsychological) than those of others (e.g., those of Ifaluk people). In fact, the descriptions scientists offer of other cultural groups are an "implicit…contrast with the culture of the observer," and scientific studies of ethnopsychologies reflect "a particular cultural tradition, not a culture-free science" (p. 37).

Similarly, Lillard (1998) clarifies the cultural traditions that have given rise to the assumptions that underlie much of Western scientific psychology. She compares the primary ethnopsychology of scientific psychologists—which she terms the "European American Social Science Model," or EASSM, of mind (p. 9)—to other ethnopsychological perspectives. She explains that the EASSM takes for granted beliefs about the functions of the mind, about its location and identity, its characteristics, and its importance. She then describes specific other

cultural communities that see the mind as having different functions, different locations or identities, different characteristics, and/or different degrees of importance, all of which they take for granted in the same way that European American psychologists take their own cultural assumptions about mind for granted.

In sum, psychology, like other cultural communities, serves as a shared meaning and information system that is transmitted across generations, rich with values, roles, practices, norms, and self-definitions. Additionally, like other cultural groups, it takes for granted assumptions about the fundamental nature of mind and behavior. Further, there are many cultural alternatives to these assumptions that cultural psychologists have identified. Taken together, these perspectives suggest that psychology can be viewed as a cultural community in its own right.

New Questions Raised by the Recognition that Psychology is a Cultural Community

If it is true that psychology is cultural in its own right, as much of the empirical and critical research summarized above indicates, many questions could be raised. I focus on four. First, what does the suggestion that psychology, as a form of mind and behavior, is cultural mean for the assumption that scientific psychology is or can be culturally neutral or "acultural" (Krugly-Smolska, 1996, p. 26)? Second, given evidence, discussed below, that cultural neutrality is impossible, how can psychologists determine which cultural biases are necessary or justifiable? Third, what are some of the major cultural biases of contemporary psychology, and are these biases justified? Fourth, how can psychology balance between its desire to advance knowledge and its desire to be as culturally inclusive as possible? In this section I will elaborate on each of these questions and consider tentative answers.

Can Psychology Be Culturally Neutral?

Neutrality, or the effort to see "the objective truth, as it 'really is'" (Slife, 1998, p. 212), "when all subjectivity has been subtracted" (Shweder, 1996, p. 177), is often stated as an explicit goal or property of psychology as a science (see also, Krugly-Smolska, 1996). However, given that psychological scientists can be said to share a cultural community, and a defining feature of a cultural community is that it embraces distinctive "values, roles, practices, norms, [and] self-definitions," (Cohen, 2010, p. 60), the science of psychology may not be able to be neutral or unbiased toward the values, roles, practices, norms, or self-definitions of other cultural communities. As Christopher and Hickinbottom (2008) explain, "the concerns that motivate social science inquiry, and the understandings derived from such inquiries, arise from the socio-cultural and historical traditions in which the researchers are embedded. Thus, the pursuits of social scientists always reflect the values of their culture" (p. 565). Likewise, Cudd (1998) explains that scientists' "culturally shaped background assumptions help determine how they gather evidence and assess theories" (p. 48-49). Further, the ethnopsychological assumptions that seem to shape European American scientists are not neutral toward alternative ethnopsychologies, such as those already mentioned (Lutz, 1985; Lillard, 1998). In short, given the insight that mind and culture are always intimately interconnected, and thus that the mind and the culture of the psychologist are always intimately interconnected, it seems that "There is…no such thing as a value-neutral, culture-free psychology" (Christopher & Hickinbottom, 2008, p. 565).

How Can Psychologists Determine Which Cultural Biases Are Justified?

Given the perspective that psychology cannot be "culture-free" or value-neutral, it would seem to follow that psychology has and must continue to adopt cultural biases. In fact, as I will

suggest below, the specific set of values and practices psychology adopts may be just what places it in a position to offer unique insights and contributions to society that are not found in other cultural communities. Nevertheless, although the cultural nature of psychology suggests that it must adopt some cultural biases, its commitment to social justice and equality (see, e.g., Cudd, 1998; Fowers & Richardson, 1996; Sampson, 1993) suggests that cultural preferences must be selected conscientiously and with great care. Failure to be conscientious about psychology's cultural biases may make psychology a vehicle of discrimination or oppression, and engaging in discrimination or oppression runs counter to the basic ethical mission of psychology (Fowers & Richardson, 1996, p. 611). This raises the question: how can psychologists determine which cultural biases are acceptable for their discipline?

As a knowledge-seeking community, issues of cultural bias and their role in knowledge production within psychology are complex and multifaceted. Thus, these questions are difficult and will likely require extensive dialogue, and I do not attempt to offer an absolute and comprehensive answer here. Instead, I will suggest two tentative standards that will at least serve as valuable starting points for helping psychologists to *explicitly* recognize and evaluate their cultural biases.

Standard 1: Is the cultural bias universally rational? One theoretical reason why a community could justify a cultural bias would be if that bias were universally rational, meaning that it appeals to forms of reasoning that transcend the particular cultural group who espouses the idea. However, confirming or denying that an idea or practice is universally rational is very difficult, even within science (see, e.g., Feyerabend, 1993; Kuhn, 1962/2012). Additionally, in an ethical perspective called 'value pluralism,' Isaiah Berlin has argued that some values that *are* universally rational (i.e., appeal to a broadly accessible rationale that transcends the local

mentality of a particular community) may conflict with other values that are just as universally rational (Gray 1996). For example, Shweder (2009) argues that autonomy and duty are both universally rational, but that autonomy and duty nevertheless come into conflict with each other in some contexts.

Moreover, with the added complexity of recognizing that psychology and its rational efforts are necessarily culturally informed, and given the diverse perspectives found in a multicultural world, this standard seems difficult to fully satisfy. What's more, any given cultural community may take broadly accessible rational principles, and customize or enact them in culturally-specific ways that are difficult to understand from alternative cultural viewpoints. This complex relationship between culture and rationality is one reason why it is important for cultural perspectives to be accurately represented and understood in dialogue with each other, a point discussed further below. Despite the complex challenges associated with it, the standard of universal rationality is useful for evaluating cultural bias in at least two ways.

First, this standard would imply that psychology should strive to ensure that its current (and future) cultural biases *are* rational, even if the adopted cultural biases are not the *only* logically possible rational values. In other words, although psychology will likely never be able to prove that the cultural perspectives it favors are the *only* rational perspectives, it rightly does and will continue to make efforts to provide rational defenses of its claims that transcend psychology as a community. Second, the standard of universal rationality can usefully illustrate why some cultural biases are *not* justified. For example, this standard is useful when a bias can be shown to be rationally *in*defensible, or when a cultural bias unjustifiably leads to the exclusion of alternative perspectives that are *also* universally rational.

In this paper I assume that the cultural biases psychologists generally assume are rational in the sense that they are among the many rational perspectives. Therefore, when I use the first standard to ask whether a given cultural bias is justified, I am not asking whether it is universally rational or justified in the philosophical sense. All of the examples included here have been philosophically defended in other research and appeal to reason that is accessible outside of psychology. Rather, in using the first standard I am asking: Is it universally, rationally demonstrable that this cultural bias is *better than the excluded alternatives* for use in the effort to advance knowledge about behavior and mind? If so, exclusion of alternatives would be justified by the first standard.

Standard 2: Is the cultural bias a mandatory concept for psychological science? A second reason a cultural bias might be justified is if it is truly integral to what it means to participate in a given cultural community, even if the bias is neither culturally neutral nor demonstrable as the only or best rational perspective. This standard is adapted from Shweder, Mahapatra, and Miller's (1987) comparison of the moral perspectives of two cultural communities. They argue that 1) more than one rationally defensible way of thinking exists, and 2) within those rational ways of thinking there are both mandatory and discretionary concepts. Mandatory concepts are those that cannot be removed or replaced without the entire cultural system losing its rational appeal, whereas discretionary concepts are those that can be discarded without causing the entire way of thinking to lose its rational appeal (p. 18).

Consider a religious cultural community such as Christianity, for example. Central to what it means to be a Christian is to believe in Jesus Christ as Son of God and as the only way people can be saved from sin (Acts 4:10-12; McMinn, Ruiz, Marx, Wright, & Gilbert, 2006). This premise is not culturally neutral; accepting Christ as Son of God and Savior seems to

necessarily entail believing that traditions that reject Christ as Son of God and Savior are, at least in that sense, incorrect. However, Christianity is rationally persuasive, and belief in Christ as Savior is mandatory to Christianity (whereas for example, whether all of the stories in the Old Testament are literal or symbolic is a discretionary feature of Christianity, see Lewis, 1947/1996, p. 218). Thus, belief in Jesus Christ as Savior, and the exclusion of contradictory alternatives, constitute a justifiable cultural bias within Christianity because it is a belief on which the entire rational appeal of the cultural community rests.

Both of these standards for evaluating whether a cultural bias could be justified are difficult to fully satisfy, and debate will undoubtedly surround either one generally as well as in the context of questioning any specific cultural bias. Further, these standards are only intended to evaluate whether certain cultural biases within psychology are justifiable; they are not intended to evaluate the philosophical justifiability of a community itself. (For an account of perspectives that explain how social sciences are philosophically justified, see Trigg, 2001; Slife & Williams, 1995). Additionally, these standards themselves are, like all thoughts and behaviors, culturally informed (for example, by multiculturalism, which has been argued to have been influenced by forms of individualism that were themselves influenced by other traditions, see Fowers & Richardson, 1996). Being culturally informed, they should likely always be used reflexively and in dialogue with multiple cultural traditions. These limitations notwithstanding, these two standards can at least be useful starting points for explicating and evaluating the legitimacy of cultural biases within psychology. In the following section I will illustrate their potential utility by using them to evaluate a selection of assumptions or biases that have been attributed to academic psychology in previous research.

Are the Current Values Defining Psychology Justified?

In this section I will first describe two examples of types of cultural bias that can be evident within psychology. I will then discuss a few examples of values that have been attributed to psychology in prior research and explain how they reflect cultural bias. Finally, with each example, I will use the two standards I proposed above to evaluate whether those cultural biases are justified.

There are at least two types of cultural biases within psychology. On the one hand, cultural bias may involve one cultural perspective or practice being given preference while a cultural alternative is opposed or denigrated. On the other, cultural bias can involve omitting certain cultural perspectives from representation (see, e.g., Cudd, 1998; Krugly-Smolska, 1996; Sampson, 1993). Note that in either case the bias can be either implicit or explicit. Explicit biases are embraced knowingly or expressly, whereas implicit biases are embraced without explicit awareness or acknowledgment (see, e.g., Cudd, 1998, p. 48; Nosek, 2007; Slife, Yanchar, & Reber, 2005; Slife & Williams, 1995). Both explicit and implicit biases have been argued to be influential in scientific research, with influences both in the context of scientific discovery and of scientific justification (see Cudd, 1998, p. 48-50; see also Slife & Williams, 1995), and the examples included here are not intended to be exhaustive.

To illustrate both implicit and explicit forms of cultural bias within psychology, as well as to exemplify the utility of the standards mentioned above for determining whether a cultural bias is justified, I will provide an example of a justified explicit bias, a justified implicit bias, an unjustified explicit bias, and an unjustified implicit bias (see Table 1, for a summary). Within each example, I will first summarize the assumption and describe how the assumption leads to

practices within scientific psychology that reflect cultural bias. I will then suggest whether and

why each example of bias is or is not justified according to the standards above.

Empiricism: a justified, explicit cultural bias. Broadly speaking, scientific psychology

assumes empiricism, though the precise definition and implementation of empiricism in science

has varied (Slife & Williams, 1995, pp. 67-71). Additionally, some philosophers of science have

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Table 1

Evaluating whether four cultural biases are justified within psychological science

		Standard of Justification	
Cultural Bias	Implicit or Explicit	Rationally Superior[a]	Culturally Mandatory
Empiricism	Explicit	No	Yes
Rationalism	Implicit	No	Yes
"The" Scientific Method[b]	Explicit	No	No
Naturalism	Implicit	No	No

Notes: [a]*This standard asks whether the cultural bias can be demonstrated to be superior to or more universally rational than alternatives which it excludes.*
[b]*Refers to the practice of calling a single set of steps "the" scientific method.*

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rejected the use of anything besides observation (see pp. 68-69), whereas others add to

observation the use of other ways of knowing, such as reason (pp. 77-89). These differences

notwithstanding, empiricism, at least in the sense that observation is viewed as one legitimate

means of obtaining knowledge, is ubiquitous in the cultural community of scientific psychology.

Not only is psychologists' commitment to empiricism often explicitly acknowledged,

psychologists frequently acknowledge perspectives that are excluded or rejected by empiricism,

although they may or may not specifically state that the commitment is culturally informed. For

example, many psychology textbooks clearly differentiate between 'empirical questions' (e.g.,

does "Sugar [cause] children to become hyperactive"?) and other questions (e.g., "Is abortion morally right or wrong?", Zimbardo, Johnson, & McCann, 2014, pp. 24-25). Similar distinctions are made when, for example, scholars attempt to delineate the differences between psychological science and other disciplines such as religion, ethics, or philosophy (see, e.g., Geertz, 193-233; Henriques, 2013; Spackman & Williams, 2001; Staats, 2005). In this case, the commitment to empiricism in psychology is biased against other perspectives in the sense that pursuing these other questions or pursuing knowledge by other means is not viewed as a part of one's participation in scientific psychology. Even if a psychologist were to address such questions, the way these boundary lines are drawn implies that their doing so would reflect their participation in a different cultural community, not their work as scientific psychologists per se.

As another example, psychology texts often provide students with standards that the scientific cultural community uses to differentiate between science and pseudoscience or superstition (e.g., Zimbardo et al., 2014, pp. 7-9). In this case, psychologists may criticize pseudoscience or superstition because they "mislead people by claiming to have 'evidence' that is, in truth, only anecdotes and testimonials" (p. 24). In this case, the commitment to empiricism implies a more widespread bias against any cultural practice that would make claims that are empirically testable without empirically testing them. Thus, this bias is not simply present in the sense of drawing boundaries between one cultural group and another, but implies the denigration of cultural alternatives (such as those that are perceived to be pseudoscientific, see p. 7).

The question, then, is whether the cultural bias of empiricism is justified. Note that it is not justified by the first standard of justification; empiricism is universally rational, but because it is an assumption about what would constitute or approximate proof, it cannot be proven to be more rational than alternatives that are excluded (see Slife & Williams, 1995, pp. 65-91). In

other words, as Slife, Wiggins, and Graham (2005) suggest, "there is no *empirical* [emphasis added] evidence for empiricism" (p. 86). Indeed, "the epistemology of empiricism has never been *scientifically* [emphasis added] compared to other epistemologies" because "some epistemology would have to undergird the method of comparison when it is the very issue in dispute" (p. 86).

On the other hand, empiricism seems to be justified by the second standard—it is culturally mandatory. The commitment to checking ideas against experience and observation is widespread and critical to enough of psychological science that it can be said to be indispensable to what it means to be a psychological scientist. Thus, just as Christianity would lose a mandatory feature of its rational appeal if Christians rejected their belief in Christ as Son of God and Savior, psychological science would lose a mandatory feature of its rational appeal if it rejected empiricism because it is biased against alternative cultural ways of gaining knowledge.

That said, although empiricism is widespread in psychological science, scholars have suggested that there are different interpretations of what qualifies as empirical (such as, for instance, qualitative and quantitative perspectives, see, e.g., Bernard, Wutich, & Ryan, 2017, Camic, Rhodes, & Yardley, 2003; pp. 5-6; Shweder, 1996; Shweder, 2012). Moreover, scholars have suggested that if such differences are not appreciated, empiricism may come to be defined in a way that "select[s] against and ultimately exclude[s]" various perspectives "*before* investigation even occurs" (Slife et al., 2005, p. 92, emphasis in original), and therefore "the conclusions of science can then be misleadingly portrayed as refuting arguments that were in fact disqualified from consideration at the outset" (Johnson, 1993, p. 118). Additionally, some scholars have raised questions about whether and how other traditions besides empiricism should be incorporated into science (see, e.g., Sugarman & Martin, 2005; see also, Kirschner, 2006;

Slife & Williams, 1995, pp. 65-93). Nevertheless, despite variations in empirical perspectives, empiricism seems to be a justified cultural bias within psychology because valuing empiricism in some form is a mandatory concept within psychological science.

Rationalism: a justified implicit bias. Broadly speaking, rationalism within the context of philosophy of science means that reason can be a source of reliable and valid knowledge (Slife & Williams, 1995, p. 71-72). However, just as empiricism in scientific psychology does not necessarily mean that all experience is seen as scientifically valid, rationalism does not mean that all reason is scientifically valid (see pp. 71-77 for some examples of disagreeing rationalist perspectives). Moreover, precisely explicating psychologists' commitment to rationalism is even more difficult than defining their commitment to empiricism because, in addition to difference of opinion about what forms of reasoning are valid, the scientific commitment to rationalism is often implicit, whereas the commitment to empiricism is typically explicit. For example, psychological scientists often call the practice of using experiments and other scientific methods asking "empirical questions" (see, e.g., Lovett & Schunn, 2000; Ouellette, 2015). This is also common in textbooks (see, e.g., Aronson, 2016, p. 5; Ciccarelli & White, 2015, p. 22; Goodwin, 2010, p. 18, 90), which could be said to be transmitting the cultural values of psychological scientists to students. However, the work of several scholars suggests that using scientific methods might better be termed asking "rational-empirical questions" (see, e.g., Cudd, 1998; Feyerabend, 1993, pp. 11, 22; Kuhn, 1962/2012, pp. 111-134; Slife & Williams, 1995, pp. 71-77, for an explanation of why philosophers of science have concluded that empirical research necessarily entails reason). It is outside the scope of this paper to deal with all of the nuances of the implicit relationships between empiricism and rationalism and their role in science.

However, through an exemplar of a cultural alternative, the cultural commitment of scientists to rationalism will become clearer.

Consider the following question, used by Luria in research on reasoning in central Asia: "In the Far North, where there is snow, all bears are white. Novaya Zemlya is in the Far North and there is always snow there. What color are the bears there?" (cited in Rogoff, 2003, p. 39). The logical inference from these premises, namely that all of the bears in Novaya Zemlya are white, was taken for granted by researchers. However, Luria found that many people who were not trained in the particular cultural practices that use and justify such logical inferences not only avoided making the inference, but did not feel that the inference was justified. From the perspective of many of the central Asian participants Luria interviewed, personal experience provides the *only* grounds on which knowledge claims can be made. As one participant stated "We always speak only of what we see; we don't talk about what we haven't seen…if a person wasn't there he can't say anything on the basis of your words" (cited in Rogoff, 2003, p. 39).

The difference between the standards of scientific justification and the standards of justification espoused by the people Luria interviewed illustrates psychology's cultural commitment to syllogistic logical inference (a form of rationalism). If the perspective shared by many of the Central Asian people Luria interviewed were taken for granted, it seems that no scientific study, regardless of how rigorously controlled or effectively executed, could provide justification for a scientist claiming inferences or knowledge beyond their direct personal experiences. However, the scientific concept of generalizability is an effort to do precisely that – generalize beyond immediate experience. Hence, in the practice of seeking generalizability we find an example of psychology's commitment to rationalism. Just as the premises of Luria's question are viewed as providing the justification for the inference that all bears in Novaya

Zemlya are white, the premises of "good" scientific research (i.e., that the sample is representative, that there are no biases in the group selection, that there is good internal and external validity, etc.) are—whether this assumption is explicitly acknowledged or not—intended to allow inferences that are *logically* justified by the premises of the research design (see, e.g., Popper, 1959, for an analysis of the role of logic in scientific research). Thus, scientists embrace a commitment to justifying knowledge claims in part through certain forms of reasoning that are not accepted by all cultural groups, and in so doing, necessarily adopt a cultural bias against practices that do not use or see as valid syllogistic logical reasoning.

Is this (often implicit) commitment to rationalism justified? On the grounds of the first standard, rationalism, like empiricism, cannot be justified because it cannot be demonstrated that rationalism is rationally superior to the alternatives that are excluded from science. For example, as indicated by the Central Asian perspective offered previously, for someone who does not already assume the validity of syllogistic logic, logical inferences are not seen as valid. Thus, although scientific forms of rationalism are universally rational in the sense described above, the superiority of rationalism for understanding mind and behavior is assumed, not demonstrated, by scientific research in psychology (see also Slife & Williams, 1995, pp. 71-77.)

However, like empiricism, it seems that a commitment to rationalism is justified on the grounds of being culturally mandatory. Just as the validity of using experience and observation is, at least generally, critical to science, scholars have suggested that the same is true for testing ideas against rigorous reasoning. As Trigg (2001) explained, scientists cannot merely respond to stimuli; they "have to make reasoned judgements…the possibility of science demands the idea of a rational self, able to assess the evidence and recognize truth" (see also Cetina, 1991). He also argues that "All social science…must be rationally based" (Trigg, 2001, p. 225) Thus, in some

way, most or all scientists seek to apply rigorous reasoning to problems of great interest, including identifying strategies for justifying inferences beyond immediate sensory experience.

At the same time, just as there has been disagreement about what constitutes legitimate scientific observation or experience, not all scientists agree on precisely what constitutes valid reasoning. The historical and contemporary debate between verificationism and falsificationism is one example. Verificationism argues that the logic of scientific research allows theories to be supported or verified, whereas falsificationism argues that theories can only be falsified, but never supported or verified (Williams, 2005). Thus, notwithstanding the variety of cultural perspectives within psychology on how to use reason to justify knowledge claims, the general commitment to seeing reason as one valid means of gaining knowledge seems to be a mandatory concept for psychological science.

"The" scientific method: an unjustified explicit bias. One common practice within psychology is to call a particular set of research steps '*the* scientific method.' For example, in many textbooks students are taught that this method involves identifying a question, formulating a hypothesis, collecting objective data, analyzing the results and accepting or rejecting the hypothesis, and publishing, criticizing, and replicating the results (e.g., Ciccarelli & White, 2015, pp. 20-21; Coon & Mitterer, 2015, pp. 19-21; King, 2016, pp. 13-16; Martorell, 2013, p. 21; Myers, 2014, pp. 19-20; Rathus, 2016, pp. 17-18; Zimbardo et al., 2014, pp. 25-26). Although textbook authors often acknowledge that "Psychologists do not necessarily follow the steps of the scientific method as we might follow a recipe in a cookbook" (Rathus, 2016, p. 17), numerous scholars have acknowledged, whether in defense or in critique, that psychology often claims to be scientific because it uses "the" scientific method (see, e.g., Henriques, 2013; Koch, 1981; Rychlak, 2005; Spackman & Williams, 2001; Staats, 2005; Yanchar et al., 2005).

However, several scholars have critiqued the practice of calling these steps "the" scientific method in a way that suggests that doing so may not meet the two standards suggested above for identifying a justified cultural bias.

First, with regard to the standard of universal rationality, scholars have suggested that any formulation of method would face the same challenges described above, in reference to empiricism and rationalism. Specifically, methods are themselves ways of evaluating whether or not something is true (see, e.g., Yanchar, et al., 2005; Yanchar & Williams, 2006). Thus, because they take for granted, rather than demonstrate, the standards against which evidence is evaluated, the methods are not themselves demonstrated to be rationally superior to alternatives (see also Slife, 1998; this issue will also be addressed further below).

Second, with regard to the standard of whether a bias is culturally mandatory, the work of several scholars suggests that calling one formulation of scientific research "the" scientific method also seems unjustified. Feyerabend (1993) and other scholars (e.g., Denmark & Krauss, 2005; Fishman & Messer, 2005; McGovern & Brewer, 2005; Petocz & Mackay, 2013; Rappaport, 2005; Rychlak, 2005; Sternberg & Grigorenko, 2001; Yanchar & Slife, 1997; Yanchar & Williams, 2006) have noted that many individuals have and continue to make scientific contributions without following any one particular set of methodological steps. Further, as Feyerabend (1993) has argued, the claim that there is a single scientific method is historically false. Moreover, many scholars have argued that method (even if there only were one used by scientists) is not in itself what makes a discipline scientific (see, e.g., Henriques, 2013; Rychlak, 2005; Spackman & Williams, 2001; Staats, 2005). Thus, given that no single or uniform set of steps or practices can be considered crucial to all scientific research, and that numerous psychologists argue that things other than methods are what actually constitute a

science, the cultural bias inherent in calling one set of practices "the" scientific method, is not justified by the second standard. This does not mean that this formulation of scientific method must be rejected; in fact, the aforementioned formulation of the scientific method may be central to the valuable work of *some* scientific psychologists. However, because alternatives can also be shown to be universally rational, and because no specific method is mandatory for psychological science, these standards seem to suggest that some greater efforts should be taken to acknowledge and value methodological alternatives.

Naturalism: an unjustified implicit bias. Naturalism refers to a perspective that "directs psychologists to appeal to and study only natural events and processes, not 'supernatural' events and processes, to understand and explain psychological phenomena" (Slife & Reber, 2009, p. 64). The assumption of naturalism has been found to be widespread in psychology, and influences many aspects of the discipline (pp. 70-76; the influence of naturalism will also be summarized below). The term 'naturalism' can refer to either the belief that a god, gods or other supernatural entities do not exist, a position known as metaphysical naturalism, or to the idea that only natural events and processes should be studied in a given context, a position known as methodological naturalism (see p. 64).

The assumption of naturalism is widespread in science. In fact, as Johnson (1998) explains, sometimes "It is said that naturalism is science" (p. 10), and that "science and naturalism are inseparable" (p. 207). He also notes that "naturalism and empiricism are often erroneously believed to be the same thing" (Johnson, 1993, p. 117). The popularity of naturalism within science seems to spring from the perception that it "is considered to get the perceiver closer to the objective" (Slife & Reber, 2009, p. 67) or that it reflects "neutrality or nonpartisanship" (p. 63). However, as Slife and Reber (2009) argue, naturalism is actually a

worldview, or a "world of meanings" (p. 67), is based on specific assumptions about the nature of reality, and is born of specific Western cultural histories (see, pp. 66-67). Further, they argue that, as a worldview, naturalism is not ideologically neutral or 'nonpartisan,' but rather is "science's central dogma" (Leahey, 1991, p. 379, cited in Slife & Reber, 2009, p. 64, see also p. 67).

As with the other cultural perspectives discussed here, naturalism seems to be intrinsically biased against alternative cultural perspectives, and offering an example of such an alternative helps to partly illustrate why naturalism is not culturally neutral. For example, Slife and Reber (2009) argue that naturalism is biased against theism, which is a worldview that "necessarily assumes that a currently active God (or Gods) is necessary for understanding the world" (p. 65). Further, they argue that the widespread influence of naturalism has contributed to a "significant prejudice" (p. 64) and to "a host of unintentional discriminatory practices" against theism (p. 77). Specifically, they explain that the pervasive influence of naturalism has led to the omission of theistic topics from mainstream psychology (p. 70-72), a naturalistic (i.e., non-theistic) interpretation of experiences that religious people see as involving theistic entities (p. 72), investigations of people's relationships or experiences with God without reference to God as an actual entity (p. 74), and leaving God or other theistic entities out of later citations or summaries of theories in which God or other theistic entities were originally central (p. 74-76). In short, even though naturalism claims to be neutral or objective, its widespread implicit acceptance leads to systematic, pervasive practices that are prejudicial and discriminatory toward the values and perspectives of people from other cultural (e.g., theistic) communities. This seems to be true of both metaphysical and methodological naturalism (see, e.g., p. 64). Moreover, some have raised concerns that naturalism leads not only to prejudices in science, but

in "every field of study" (Johnson, 1998, p. 8), and even in other domains of American culture (pp. 9-10).

Given that both metaphysical and methodological naturalism are cultural perspectives that are biased against cultural alternatives, we must ask whether the assumption of naturalism (in either form) is justified. Neither methodological nor metaphysical naturalism is scientifically justified on grounds of universal rationality. Metaphysically speaking, the question of whether or not there are supernatural or theistic entities is a longstanding debate, and scientists from both persuasions see their perspectives as supported by scientific evidence (i.e., scientists from both persuasions have argued that their perspectives are universally rational; see, e.g., Dawkins, 1986/2015; Johnson, 1998; Strobel, 2004). Methodologically speaking, naturalism faces the same challenges as described above. Just as the use of any method necessarily entails preconceived assumptions about the subject matter being studied (Slife, 1998; Yanchar, et al., 2005; Yanchar & Williams, 2006), one decides "before…investigation" whether or not supernatural or theistic entities should be considered relevant to the phenomenon being studied (Slife & Reber, 2009, p. 73), and so there are no clear scientific grounds on which to infer that methodological naturalism is rationally superior to alternatives. Thus, according to the first standard, neither form of naturalism is justified.

Metaphysical naturalism is also clearly not justified as culturally mandatory. Despite the extent to which some scientists may claim that science has made other cultural perspectives, such as the belief in God, unnecessary or untenable (e.g., Dawkins, 1986/2015; Lewontin, 1997; Weinberg, 1999), and despite the centrality of naturalism to the work of such scientists, many other scientists not only embrace alternative cultural perspectives, such as a belief in God, but argue that naturalism is inconsistent with scientific evidence (see, e.g., Johnson, 1998; Strobel,

2004). Thus, one can be a successful scientist and either accept or reject metaphysical naturalism, and so metaphysical naturalism is not a mandatory concept for psychological science.

The justifiability of methodological naturalism within psychology is more difficult to assess because it has varied across time. As Slife and Reber (2009) argue, many early psychologists saw psychology as inherently Christian, which is not necessarily naturalistic. However, they also recognize that others see naturalism as "important to traditional science" (p. 64). Either way, naturalism, at least in the methodological sense, along with its attendant bias, is currently very "pervasive" (p. 63, 76) in psychology. Its pervasiveness notwithstanding, methodological naturalism does not seem to be justified as culturally mandatory for two reasons. First, the fact that legitimate scientific researchers in psychology as well as in other disciplines disagree on this point implies that at least many active scientists who are contributing to science's rational appeal believe that science can be properly conducted within alternative frameworks besides naturalism (see, e.g., Johnson, 1998; Strobel, 2004). Perhaps more importantly, many scholars claim that many individuals are in actuality conducting meaningful scientific research from alternative perspectives, such as from theistic perspectives, that suggest that the active involvement of God or Gods must be studied scientifically (see, e.g., Behe, 2001; Dembski, 1998; Meyer, 2008; Slife, Reber, & Lefevor, 2012; Strobel, 2004). Hence, it seems clear that one can legitimately be a scientist while working within the framework of either naturalism or alternative worldviews, and thus neither form of naturalism can be said to be culturally mandatory for what it means to be a psychological scientist.

Looking Forward: How Can Psychology Be More Culturally Inclusive?

The implication that psychology may necessarily be defined by certain cultural biases, and that it must seek to identify which biases are justified, is especially important when

considered against the importance psychologists give to "attention to cultural differences" and "the value of diversity as a core principle" (Fowers & Richardson, 1996, p. 609). As Cudd, (1998), for example, has stated, "justice clearly requires that as a society we offer equal opportunity to persons of all races and genders to create and influence the direction of science" (p. 51). However, offering equal opportunity to people from all cultural backgrounds may seem difficult if psychology is inherently and necessarily defined by certain cultural biases, as I have suggested in this paper. Moreover, as a culture that specifically seeks to test ideas and "create new knowledge," (Krugly-Smolska, 1996, p. 23) it would seem that there must be parameters on what kinds of cultural ideas can be included.

For example, perspectives that reject the idea of testing ideas against observation and reason at all, such as arguments *solely* based on "traditional authority, faith, or subjective revelation" (Henriques, 2013, p. 168), will likely always be excluded. This leads to the question of exactly how psychology should address any potential tensions between these two goals: the desire to advance knowledge while also avoiding unjustified devaluation or exclusion of alternative cultural perspectives. As with other questions raised in this paper, this issue is complex, and I again do not attempt to propose a final, comprehensive answer here. However, I will propose a few principles that may guide a fruitful discussion as psychologists and others conduct further research and dialogue regarding the implications of the cultural nature of psychological science.

Cultural biases can be beneficial. The fact that "the work of science is unavoidably perspectival, theory laden, and value based" (Yanchar & Williams, 2006, p. 4) is not necessarily a weakness. Consider scientific methods as an example. Yanchar and Williams (2006) explain that scientific methods must be based on "underlying assumptions about the nature of reality

(time, causation, what exists), context, language, knowledge, progress, and related issues" (p. 4). From the cultural psychological perspective I am addressing here, it would be important to note that these assumptions (e.g., about reality, etc.) are necessarily cultural. Hence, from this perspective any use of method will favor certain cultural assumptions over others. However, "this apparent limitation is also what makes method effective in the first place" (Yanchar & Williams, 2006, p. 4). Indeed, these necessary cultural biases may be precisely what makes the work of psychological science valuable in the world. For example, although the assumption that behavior and mind can be understood through empirical and rational means is not culturally neutral, assuming empiricism and rationalism has enabled psychology to understand mind and behavior in ways that may not be readily accessible in the contexts of alternative cultural assumptions. Although failure to be cognizant of the limitations of scientific cultural biases can be harmful (discussed further below), the scientific cultural biases of empiricism and rationalism offer unique understandings and perspectives that offer valuable contributions to the understandings and practices of other cultural communities and to society at large.

For example, neuroscientific and other psychological research on disorders such as schizophrenia have offered alternatives to cultural perspectives that once viewed schizophrenic symptoms as resulting from demonic possession. Scientific perspectives on these symptoms have fostered better understanding of the biological, psychological, and social influences on them. As a result, participants in such communities have access to tools to aid in the understanding and treatment of schizophrenia as a psychological disorder, but this access has not compelled them to deny the possibility of spirit possession altogether, nor has it denigrated or devalued other aspects of their cultural values. In fact, it may be that participants in some religious cultural communities believe they are better able to live up to their own cultural values

(e.g., to care for those who suffer) because of the tools and perspectives that have been made available through the use of scientific cultural biases such as empiricism (see, e.g., Gallagher, 2008; Mishra, 2006; Thakur & Pirta, 2009)

Psychology can be more culturally inclusive than it currently is. A second principle I suggest, which has been articulated in various ways by several other scholars (see, e.g., Arnett, 2008; Arnett, 2009; Christopher & Hickinbottom, 2008; Christopher, Wendt, Maracek, & Goodman, 2014; Cudd, 1998; Heine & Norenzayan, 2006; Henrich et al., 2010; Krugly-Smolska, 1996; Luhrmann, et al., 2012; Markus & Hamedani, 2007; Miller, 1999; Mishra, 2006; Sampson, 1977; Sampson, 1993; Varma, 2002) is that psychology can be more culturally inclusive than it currently is. As I said above in regard to the standards of unequivocal certainty or cultural necessity, some cultural exclusions may at times be justified. Nevertheless, as mentioned above, several points of view, such as theism and alternative methodological perspectives, seem to be currently excluded from (or relatively devalued within) psychological science for reasons that are not clearly justified. Other examples of exclusion include 'folk' psychologies that are embraced by various cultural groups around the world (see, Lillard, 1998; Luhrmann, et al., 2012; Mishra, 2006; Peng, Spencer-Rodgers, & Nian, 2006; Shweder, 2003, pp. 134-167; Varma, 2002; Whoolery, 2014) and alternative visions of psychology that attempt to better account for diversity in gender, sexual orientation, or culture (see, e.g., Cudd, 1998; Sampson, 1993).

Note that greater cultural inclusiveness will likely require that psychologists go "beyond learning *about* other psychologies;" they will likely also "need to be open to learning *from* them" (Christopher, et al., 2014, p. 652, emphasis in original). Several scholars have argued that psychologists ought to be more willing to "take seriously the perspective of the other," and to "encounter others as if their ways of life, beliefs, and values are potentially on an equal footing

with our own" (p. 653, see also Arnett, 2008; Arnett, 2009; Calabrese, 2008; Christopher & Hickinbottom, 2008; Cudd, 1998; Fowers & Richardson, 1996; Henrich et al., 2010; Lutz, 1985; Meadon & Spurrett, 2010; Mishra, 2006; Sampson, 1977; Sampson, 1993; Varma, 2002).

However, the effort to learn from others can be difficult when their perspectives are understood through a cultural framework that implicitly (i.e., without awareness) shapes the dialogue between perspectives. For example, Sampson (1993) differentiates between "accommodative" and "transformative" voice (p. 1219) within psychology. He argues that discourse in psychology assumes specific perspectives that use an "implicit standard…based on the point of view of primarily educated, heterosexual, White males from the more dominant social and economic classes" (p. 1225). Within that context, accommodative voice refers to instances wherein alternative perspectives (such as feminist or multicultural critiques) are 'added on' to existing psychological perspectives without changing psychology's fundamental assumptions or reliance on the historically dominant point of view. Transformative voice, by contrast, involves hearing alternative perspectives carefully enough that they have genuine possibility of effecting change in the discipline's basic framework (see pp. 1219-1221).

The problem with only granting alternative perspectives accommodative voice (similar to only being willing to learn *about*, but not *from* those other perspectives), according to Sampson, is that

> Insofar as the speaking parts that are available to the cast of humanity have already been scripted in ways that implicitly represent that standpoint of dominant societal groups, merely to have a speaking part is still not to have one's own groups' interests, point of view, or specificity represented in a genuine dialogue. If, in order to be heard, I must speak in ways that you have proposed, then I can be heard only if I speak like you, not

like me…The clear message is that current forms of cultural and psychological practice

deny certain groups any possibility of being heard in their own way, on their own terms,

reflecting their own interests and specificities (p. 1220).

In short, for various reasons and in varying contexts, scholars have argued that

psychology is (often implicitly and unintentionally, see Cudd, 1998, pp. 48-50; Johnson, 1993, p.

118; Krugly-Smolska, 1996, pp. 25-26; Sampson, 1993, p. 1221) dominated by certain

perspectives and thus oppressive to other perspectives. Thus, against the first principle that

cultural bias does not *necessarily* undermine psychology's inclusiveness nor its potential to

advance knowledge, this second principle suggests that some of the current exclusions are

unjustified and actually seem to restrict or limit the advancement of psychological knowledge.

As such, those unjustified exclusions seem to need to be identified and redressed.

Cultural inclusion may benefit both psychology and other cultural communities.

The third principle reflecting the importance of better incorporating the voices of people from

multiple cultural backgrounds was summarized nicely by Sampson (1993). He argued that

It is clear to almost everyone in psychology that if we failed to be responsive to new

scientific discoveries, our legitimacy as a scientific enterprise would be significantly

reduced. The thrust of identity politics [the idea that some perspectives are not given

equal transformative voice], I believe, makes it equally clear that our failure to be

responsive to the claims of the people who seek their own voice will also undermine our

legitimacy…If psychology hopes to avoid [a] crisis of legitimation…it cannot remain

smugly the same when the people whose interests we purport to serve insist we do not

represent their voices. Under such conditions, the legitimacy we currently have will

lessen; the power, the prestige, and the money will disappear; and we will not have even

the moral pleasure of arriving at the Gates of Heaven feeling good about what we have

done (p. 1228).

In the context of the cultural psychological perspective represented in this paper (i.e., that research suggests that mind and behavior are necessarily cultural), it seems that the two threats to psychology's legitimacy (failing to respond to scientific discoveries and failing to represent the voices of those whom psychology serves) are merged. In other words, recognizing the cultural nature of psychologists' thinking is both a response to a scientific discovery and a necessary response to those who "seek their own voice."

The good news, I believe, is that "multiculturalism has cognitive benefits for science," and "science will be better off, by its own internal goals, if society pursues a policy of multiculturalism within science" (Cudd, 1998, p. 51). Indeed, as Kitayama and Cohen (2007b) argue, and as the examples below will illustrate, multicultural perspectives have already begun to enrich sciences like psychology in several ways. Additionally, I will illustrate below that enriching science with multicultural perspectives benefits other cultural communities as well.

Benefits for science. As an example of how multicultural perspectives can benefit science, Nisbett (2003) reports the impact of a comment from a culturally aware student, Kaiping Peng. One day Peng pointed out that Western cultural ways of perceiving the world differed from many of those commonly favored by Chinese people. Nisbett was "skeptical but intrigued" (p. xiii). As he and others explored perspectives from disciplines such as "the humanities and other social sciences," they encountered claims that "Human cognition is not everywhere the same" (p. xvii). This perspective challenged the view of psychologists, who "assumed universality" (p. xvi), and contributed to a new body of research that Nisbett explains "provided us, as prior evidence could not, with enough information so that we can build a theory about the

nature of these differences" (p. xviii). In short, Peng helped Nisbett to see that some of the perspectives offered by scientists were based on unjustified implicit assumptions of universality. As a result, Peng's cultural insight contributed to a substantial body of scientific research by encouraging those assumptions to be tested.

As another example, Cudd (1998) summarizes the groundbreaking work of economist and philosopher Amartya Sen. She explains that Sen's "direct experiences with colonialism and famine," coupled with a "multicultural outlook" and "keen philosophical mind [led] him to question basic assumptions of economic theory" (p. 58). Before Sen's work it had been the "dogma among economists that famines were caused by food shortages or overpopulation" (p. 57). However, utilizing his unique cultural viewpoint, Sen was able to illustrate through research that famines are "caused by political and legal structures rather than by shortages of food" (p. 58). In fact, he illustrated that "famines often happen when there is no shortage of food in the region where people are starving, and that famines happen in times of economic boom…as well as economic decline" (p. 57).

Cudd suggests that one major reason the influence of political structures on famines were not readily visible to many economists was because their cultural communities are advantaged by the "free-market" (p. 57). However, they were visible to Sen because he knew from his cultural experiences that "people who need the food cannot 'demand' it in the economic sense…because they cannot pay for it" (pp. 57). In other words, in large part because of his cultural background, Sen was able to identify some unjustified implicit cultural biases that had previously shaped economic theories. By exploring an alternative cultural perspective, he was able to contribute valuably to the testing and revision of those cultural biases and offer substantial contributions to economic theory surrounding famines.

Benefits for other cultural communities. As sciences like psychology and economics are being enriched by multicultural perspectives, they are simultaneously becoming increasingly beneficial and accessible to other cultural communities. For example, Krugly-Smolska (1996) illustrates how emphasizing cultural inclusion within science might help to increase the representation and accessibility of science to people from multiple cultural backgrounds. She explains that enhancing the inclusiveness of science has involved changing the way science is taught, in order to more clearly indicate how multiple cultural perspectives have been scientifically valuable.

She explains that science education sometimes implicitly and unjustifiably marginalizes many non-Western cultural perspectives and leads them to feel excluded from "scientific culture" (p. 22). All cultures, she explains, have boundaries implying membership, and one such boundary is cultural knowledge that "includes myths that are characteristic of that culture and are passed on from generation to generation often without challenge," (p. 25). She then shows that science has its own myths that "are often passed on in science classrooms and in science textbooks" (p. 25). One such myth surrounds the nature and origin of science. Many histories imply that non-Western ways of understanding things "were not based on evidence" and that "science started with Bacon, when Western science was starting to become dominant" (p. 25).

Importantly, Krugly-Smolska recognizes that "there is no personal conspiracy involved in maintaining these myths, they are 'truths' that are passed on unexamined from teachers to students who then become teachers" (p. 25-26). Nonetheless, she argues this presentation of the history of science is problematic for a number of reasons. For one, it ignores such problems as inherent contradictions, the fact that "all civilizations have had scientists" (p. 24), and that "Empirical methods existed long before the 16th and 17th centuries" (p. 25). Additionally, it

communicates an "implicit assumption that knowledge is not valid until the Western scientific community acknowledges it as such." Finally, she argues that it "completely ignores the fact that some of those [non-Western scientific cultural perspectives]…have been confirmed by the scientific community," and have "universal validity" (p. 25).

By contrast, she suggests that a better and more accurate account of "the history and philosophy (and sociology) of science," used by many science educators today, includes "acknowledging that science existed and exists in other cultures." She claims that this presentation of science may make it more "inclusionary to individuals from a variety of cultural backgrounds" (p. 26). Further, some science educators have utilized such inclusive descriptions of science and have found evidence that doing so is indeed be helpful in cultivating greater representation and participation in science of people from diverse backgrounds (see, e.g., Brown & Abell, 2007; Hadi-Tabassum, 2000; Slay, 2001).

Cultural biases have multiple levels of influence. One implication of the necessity of cultural biases in psychology is that they will influence psychology on multiple levels: the level of individual psychologists, on the level of the cultural makeup of the discipline, and on the level of how psychology interacts with other cultural communities. At the level of the individual, consider again the aforementioned example of Nisbett and Peng. Peng's provocative questioning of the implicit cultural assumption of universality, and Nisbett's willingness to consider the alternative cultural bias Peng offered, illustrate the way individual scientists can be influenced by cultural biases. Both seemed to recognize and value each other's cultural backgrounds in a way that profoundly shaped their research careers. As individual scientists similarly explicate their own and listen to others' cultural biases, they may be similarly influenced both personally and

professionally. Table 2 provides several examples of steps individual psychological scientists

can take to be more culturally inclusive.

Table 2
Suggestions for how psychologists can make their own work more culturally inclusive

Teaching

- Actively seek to incorporate perspectives from more diverse backgrounds. Emphasize how these individuals' perspectives were valuably shaped by their cultural experiences. (For examples of textbooks that make efforts to do this, see, e.g., Fancher & Rutherford, 2011; Walsh, Teo, & Baydala, 2014).

- Encourage students to ask how their cultural perspectives compare and contrast with scientific perspectives. Invite or assign them to consider how their cultures could contribute to scientific psychology and vice versa.

- Share personal cultural experiences and how they have shaped your teaching and research.

Research

- Actively seek critiques and read alternative perspectives on your phenomena of interest from anthropology, cultural psychology, feminist scholarship, or other disciplines that emphasize cultural variety.

- Strive to identify how the cultural backgrounds and contexts of research participants partially constitute the behaviors you observe.

- Consider expressing how your own cultural background shapes your research so that the variety of cultural perspectives shaping scientific research becomes more visible.

Citizenship

- Assume that those you seek to help already utilize cultural traditions that are rational and evidence-based, and seek to engage in dialogue to better understand the meaning of these traditions.

- Utilize scientific tools to build upon existing cultural traditions where possible and appropriate.

- Seek to provide opportunities for people with diverse cultural backgrounds to express their diverse cultural perspectives in scientific and other contexts.

At the disciplinary level, cultural bias influences the cultural makeup of the discipline as

a whole. This could be manifest, for example, when some cultural groups are overrepresented,

when some are underrepresented, or when others feel or are excluded altogether. Consider again the example of Amartya Sen, as summarized above by Cudd (1998). One of the reasons Sen's work was so remarkable was because it clarified the cultural biases of the dominant perspectives on economic science, and gave voice to some who had been underrepresented. However, Cudd also explains that his perspectives have been met with some resistance in part because of the way his ethnic and cultural background leads him to challenge the prevailing norms (see p. 58). Thus, in Sen's work we see the importance of cultural bias at the level of a discipline, both in how cultural bias has historically narrowed the perspectives that have been utilized in economics, and in how it has limited the level of influence of cultural alternatives. Nevertheless, as dialogue between currently prevailing and potentially transformative cultural biases such as Sen's occurs, new theories may emerge that are more inclusive, and the cultural makeup of the discipline will change accordingly.

Finally, the work of Krugly-Smolska (1996) and other educators who are attempting to utilize multicultural science education provides an example of how cultural bias can influence how scientific communities relate to other cultural communities. As a scientific community, psychology seeks "to create new knowledge" (Krugly-Smolska, 1996, p. 23). As such psychology has been and will continue to be in dialogue with other communities similarly engaged in the advancement of knowledge, such as by seeking to persuade other communities to adopt its claims. However, as Krugly-Smolska indicates, cultural bias has influenced the ways in which Western scientists have historically engaged with (or have chosen not to engage with) other cultural communities, such as by prejudicially assuming that their efforts to create new knowledge lacked reason and evidence. As she explains, this often reflected an implicit assumption that knowledge affirmed by Western scientists was universally valid, but that the

knowledge of other cultural groups was not. Nevertheless, she illustrates that as more cultural perspectives have challenged such implicit and unjustified biases and offered more inclusive cultural biases, many scholars have advocated a change in how scientists engage with other communities. Specifically they now often seek to learn from other cultural communities, not only to persuade other cultural groups to adopt their claims (see, e.g., Christopher et al., 2014; Feyerabend, 1993, pp. 1-4, 252-267; Hook & Watkins, 2015; Tervalon & Murray-Garcia, 1998). Thus, in the context of the multicultural science education examples illustrated above, we see how cultural bias can influence how sciences interact with other cultural communities.

Conclusion

Cultural psychology has suggested that the cultural nature of human nature must be more thoroughly acknowledged in psychological science (e.g., Arnett, 2008; Arnett, 2009; Henrich et al. 2010; Kitayama & Cohen, 2007b; Markus & Hamedani, 2007; Markus, Kitayama, & Heiman, 1996; Miller, 1999; Rogoff, 2003; Shweder, 1990). Some argue that psychological knowledge is incomplete because it lacks adequate attention to culture (see, e.g., Miller, 1999). Others go so far as to claim that psychology is "oppressive…in its unreflective perpetuation of the status quo and portrayal of American norms as universal" (Fowers & Richardson, 1996 p. 609).

Nevertheless, as Fowers and Richardson (1996) have argued, "Although far from entirely successful, psychology has been at pains to respond correctively to these criticisms" (p. 609). "Psychology has," they acknowledge, "failed to live up to its…democratic, egalitarian, liberal…ideals, but the profession is working to overcome this," with the help of the "valuable assistance" of multicultural critics (p. 613). In this sense they suggest that there has been a "paradoxical acceptance of multiculturalism in psychology" (p. 613); paradoxical, they explain,

because psychology is at once criticized for being oppressive and yet is eagerly striving to respond to the points of view of those it is claimed to oppress.

However, scholars have suggested that these corrective responses have been too limited in that they have only granted accommodative, rather than transformative, voice to perspectives that challenge the cultural status quo (see, e.g., Christopher et al., 2014; Sampson, 1993). As Miller (1999) explained,

> There are indications that, to the extent that culture is being increasingly taken into account in psychology, it is primarily in a diversity sense and not also in a basic process sense. Thus, for example, the trend remains in publications to raise cultural issues in a footnote, concluding note, or ancillary chapter, and not in the presentation of basic psychological theory. Culture tends to be portrayed merely as a qualification on the generality of psychological effects or as a moderator variable and not as a constituent process that is implicated in explaining what are considered basic psychological phenomena (p. 85).

By contrast, she argues that "Psychology already is and has always been cultural…the theoretical challenge is to make this cultural grounding explicit" (p. 85).

In this paper I have attempted to contribute to the effort to make the cultural grounding of psychology explicit. In addition to recognizing the cultural nature of basic psychological processes (as Miller suggests), I have summarized scholarship suggesting that the manner in which psychology investigates them is also necessarily cultural. I have argued that, as a result of the intimate relationship between culture and psychology, psychological science cannot be culturally neutral. Rather, it will always be defined by cultural biases that are exclusive of or in disagreement with other cultural biases. From this perspective, rather than claiming neutrality,

one key to practicing psychological science with "critical cultural awareness" (Christopher et al., 2014, p. 645) involves explicitly identifying which cultural biases can be justified as essential to the cultural community of psychological scientists. Psychologists can then seek to illustrate why those cultural biases might be beneficial to others outside the community.

I believe that this perspective is valuable both as a potentially transformative response to multicultural critiques and as a contribution to scientific knowledge. By acknowledging that psychological science is necessarily culturally biased, and that not all of the currently prevalent implicit or explicit cultural biases are justified, it attempts to respond correctively to claims of cultural oppression (e.g., Cudd, 1998; Fowers & Richardson, 1996; Sampson, 1993). At the same time, by acknowledging that psychology could, in theory, justify some cultural biases and their attendant exclusions, it also acknowledges the legitimacy of psychological science as one knowledge-advancing cultural community. Further, it suggests that, rather than being a limitation, the explicit acknowledgment and justification of cultural biases may be distinctly beneficial both in responding to claims of oppression and in the pursuit of knowledge.

As part of psychology's effort to "provide a critical perspective that actively fights against…oppression" (p. 611), acknowledging cultural bias in psychological science is beneficial. Explicating the prevailing cultural biases challenges the common tendency to only label as 'cultural' those perspectives that deviate from the cultural status quo (see, e.g., Lutz, 1985; Sampson, 1993). Additionally, multiple cultural perspectives may be more likely to achieve transformative voice when acknowledgment of cultural bias challenges the inherent neutrality of the predominant perspectives (see, e.g., Fowers & Richardson, 1996, pp. 618-620; Sampson, 1993; Slife, et al., 2005). For those psychologists who have historically focused on advancing knowledge, with no or only accommodative attention to culture, this perspective is

beneficial in that it exposes the cultural nature of their own work, and suggests the need for greater openness to potentially transformative cultural alternatives.

At the same time, as part of psychology's effort to "create new knowledge," (Krugly-Smolska, 1996, p. 23), acknowledging cultural biases is beneficial in at least two ways. On one hand, theoretical and empirical scholarship suggests that recognizing the cultural nature of mind and behavior may be itself an advancement in knowledge, as mentioned above. On the other, explicit justifications of cultural biases clarify why psychological science is uniquely valuable; the cultural biases on which it bases its investigations differ from those of other cultural communities. These culturally unique biases, in turn, enable psychologists to make unique contributions to knowledge that may not be readily visible from alternative cultural perspectives.

Moreover, the two standards proposed above for evaluating whether a cultural bias is justified may help psychologists fairly evaluate the theoretical and empirical merits of both prevailing and alternative cultural perspectives. In cases in which prevailing cultural assumptions are not justified, the two standards suggest that transformative voice should potentially be granted to new cultural perspectives. In other cases the standards may suggest recognizing the value or justifiability of some of the prevailing cultural biases and their attendant exclusions. Whether transformation follows or not, balancing cultural inclusion and knowledge advancement through the explicit justification of cultural biases may promote even greater understanding of the psychological world (or worlds) we investigate, and may affirm that cultural inclusion strengthens efforts to advance knowledge, and vice versa.

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