Personality: The Universal and the Culturally Specific

Steven J. Heine and Emma E. Buchtel

Department of Psychology, University of British Columbia, Vancouver, British Columbia, V6T 1Z4 Canada; email: heine@psych.ubc.ca, ebuchtel@interchange.ubc.ca

Annu. Rev. Psychol. 2009. 60:369-94

The Annual Review of Psychology is online at psych.annualreviews.org

This article's doi: 10.1146/annurev.psych.60.110707.163655

Copyright © 2009 by Annual Reviews. All rights reserved

0066-4308/09/0110-0369\$20.00

Key Words

self-enhancement, cultural equilibria, Big 5, personality utility

Abstract

There appears to be a universal desire to understand individual differences. This common desire exhibits both universal and culturally specific features. Motivations to view oneself positively differ substantially across cultural contexts, as do a number of other variables that covary with this motivation (i.e., approach-avoidance motivations, internalexternal frames of reference, independent-interdependent views of self, incremental-entity theories of abilities, dialectical self-views, and relational mobility). The structure of personality traits, particularly the five-factor model of personality, emerges quite consistently across cultures, with some key variations noted when the structure is drawn from indigenous traits in other languages. The extent to which each of the Big 5 traits is endorsed in each culture varies considerably, although we note some methodological challenges with comparing personality traits across cultures. Finally, although people everywhere can conceive of each other in terms of personality traits, people in collectivistic cultures appear to rely on traits to a lesser degree when understanding themselves and others, compared with those from individualistic cultures.

Contents

INTRODUCTION	370
THE EVALUATION OF THE SELF	
ACROSS CULTURES	371
What Processes Are Implicated	
in Cultural Variation in	
Self-Enhancement	
Motivations?	372
STRUCTURE AND CONTENT	
OF PERSONALITY ACROSS	
CULTURES	377
Apparent Near Universality	
of Personality Structure	377
Cross-Cultural Variability in Levels	
of Personality Traits	379
THE UTILITY OF PERSONALITY	
ACROSS CULTURES	382
Content of the Self-Concept	383
Incremental Versus Entity	
Theories of Self	383
Perceived Consistency of Traits	383
Attributions for Behavior	384
Spontaneous Trait Inferences	385
Personality Traits and Behavior	386
CONCLUSION	387

INTRODUCTION

In previous decades, the study of culture was largely limited to the work of anthropologists, who mainly sought evidence for culture in people's social environments. More recently, the study of culture has also been taken up by psychologists, who primarily look for evidence of culture in the person. These two complementary efforts to understand the nature of cultural beings have been fused in the field of cultural psychology, which hinges on the assumption that personality and culture are mutually constituted (see Heine 2008, Shweder 1990). That is, one cannot fully understand the nature of people without considering the cultural context within which they exist; nor can one fully understand a cultural context without considering the values and beliefs of the people who inhabit it. Cultural psychologists seek to understand people as they are embedded within their cultures.

Over the past two decades, much cultural psychological research has revealed pronounced cultural variation in many psychological processes that were hitherto assumed to be universal, such as the fundamental attribution error (Choi et al. 1999) and preferences for choice (Ivengar & Lepper 1999). This cultural variation has important implications for studying psychology across cultures. The study of psychology in general and of personality in particular has largely been guided by Western research. For example, 92% of publications in the Journal of Personality and Social Psychology are from authors at North American institutions, and 99% are from authors at Western schools (Ouinones-Vidal et al. 2004). The narrowness of the sample upon which most personality research has been conducted raises important questions about the generalizability of this research (see Arnett 2008, Henrich et al. 2008). Much cross-cultural personality research has been conducted to address these questions (for recent reviews, see Benet-Martinez 2007, Diener et al. 2003, Triandis & Suh 2002).

Personality psychology has been conceptualized by some as the study of human nature (e.g., Buss 1984). In this respect there is no better topic in psychology in which to investigate the role of culture, as the nature of humans is very much that of a cultural species (Heine & Norenzavan 2006, Tomasello 1999). A key question to consider is how cultural learning comes to shape the ways that people understand themselves and others. In this article, we explore the relation between culture and personality by reviewing cross-cultural research in (a) how people evaluate themselves, (b) the structure and content of personality across cultures, and (c) the utility of personality information across cultures. There appears to be a universal desire to understand individual differences-that is, personality (Funder 2007). But culture has a large role to play in how we use and understand information about individual differences. In this review, we pay particular

attention to evidence suggesting universality or cultural variability of these different aspects of personality and to describing how culture influences individual differences.

THE EVALUATION OF THE SELF ACROSS CULTURES

The mutual constitution of person and culture becomes especially evident in the exploration of how people evaluate themselves across cultures, such as by considering trait-level selfesteem. That people are motivated to view themselves positively is one of the most deeply held assumptions about the self (Maslow 1943, Tesser 1988). However, much research reveals strong variation in the strength of this motivation across cultures. For example, studies of Mexican-Americans (Tropp & Wright 2003), Native Americans (Fryberg & Markus 2003), and Bangladeshis (Schmitt & Allik 2005) reveal significantly less positive self-views than those found in studies conducted with Westerners.

In particular, cross-cultural research finds that East Asians evince far less motivation for self-enhancement than do Westerners. In a recently published meta-analysis, across 91 crosscultural comparisons using 30 different methods, the Western samples self-enhanced more than the East Asian samples by an average effect size of d = 0.84 (Heine & Hamamura 2007). Analyses within cultures of self-enhancement biases (another indicator of motivation for selfesteem) also reveal striking differences. Among Western samples, the average effect size of selfenhancing biases was d = 0.87, a strong effect that was evident in all 14 of the methods that were used; in contrast, for East Asians, the average effect was d = -0.01 (Heine & Hamamura 2007). Moreover, the methods that did yield a positive self-enhancing effect for East Asians (i.e., those where people compare themselves to the average other) appear to have been largely driven by a methodological artifact: the "everyone is better than their group's average effect" (Klar & Giladi 1997; see Hamamura et al. 2007). Cultural differences in self-enhancement between East Asians and

Westerners are thus large and consistently found across diverse methods.

These cultural differences in motivations for self-enhancement are not easily accounted for by alternative explanations such as (a) East Asians being motivated to esteem their groups rather than their individual selves (much research finds that Westerners also evaluate their groups more positively than do East Asians; Crocker et al. 1994, Heine & Lehman 1997, Snibbe et al. 2003); (b) East Asians enhance themselves in domains that are of most importance to them [the most extensive meta-analysis on this topic finds no correlation between selfenhancement and importance for East Asians, r = -0.01, in contrast to a positive correlation for Westerners, r = 0.18 (Heine et al. 2007a), but see discussion regarding whether studies should be excluded from this meta-analysis (Heine et al. 2007b; Sedikides et al. 2007a,b)]; and (c) East Asians are presenting themselves self-critically, but are privately evaluating themselves in a self-enhancing manner [the cultural differences are similarly pronounced with studies using hidden behavioral measures (Heine et al. 2000, 2001), although the cultural differences are largely absent for measures of implicit self-esteem (Kitayama & Uchida 2003, Kobayashi & Greenwald 2003)]. These findings have led some to conclude that motivations for high self-esteem are far weaker, if not largely absent, among East Asians than among Westerners (e.g., Heine et al. 1999).

In support of this conclusion, some research finds that positive assessments of one's self appear to be of less utility for East Asians than for Westerners. A number of studies find that positive self-views are less correlated with subjective well-being (Diener & Diener 1995, Kwan et al. 1997), self-concept clarity (Campbell et al. 1996), and depression (Heine & Lehman 1999) in East Asia than they are in North America. Moreover, whereas experimentally manipulated positive self-views lead to enhanced persistence among North Americans, such manipulations lead to less persistence among East Asians (Heine et al. 2001). In summary, positive self-views appear to be associated Self-enhancement biases: the tendency to evaluate the self more positively than others with fewer positive consequences among East Asians than among Westerners.

What Processes Are Implicated in Cultural Variation in Self-Enhancement Motivations?

Why are self-enhancement motivations such a salient and important feature of Western personalities, but not of East Asians? That pronounced cultural differences between Westerners and East Asians in self-enhancing motivations emerge so consistently across diverse methods raises the question of why these cultural differences exist. One way to assess this kind of question is to consider the psychological processes that relate to the cultural differences. Thus far, in an effort to make sense of the observed cultural variation in self-enhancing motivations, several different processes have been explored and assessed.

Approach-avoidance motivation. One relevant process contributing to the cultural differences in self-enhancing motivations is approach-avoidance motivation. Approach motivation focuses on advancement, accomplishments, and aspirations; it involves a concern with the presence or absence of positive outcomes. In contrast, avoidance motivation focuses on safety, responsibilities, and obligations; it is concerned with the presence or absence of negative outcomes (Higgins 1996).

There is much evidence that East Asians differ from Westerners in the extent to which they show approach and avoidance motivations. In general, various studies find that in comparison with Westerners, East Asians show relatively more evidence for avoidance motivation and relatively less evidence for approach motivation. For example, in comparison with North Americans, East Asians embrace more personal avoidance goals (Elliot et al. 2001), rate opportunities to lose as more important than opportunities to win (Lee et al. 2000), persist more on a task after failure and less after success (Heine et al. 2001), and are motivated more by negative role models—someone that people want to ensure they do not become like (Lockwood et al. 2005). Furthermore, this cultural difference is evident in the ways that people process information: East Asians have been shown to have better memory for details regarding opportunities for losses than for opportunities for gains (Aaker & Lee 2001), they recall events better if they contain prevention information, and they view book reviews to be more helpful if those reviews contain prevention information (Hamamura et al. 2008b). These reliably observed cultural differences in approachavoidance motivation have been proposed to be the result of the different kinds of positive self-views (i.e., self-esteem and face) that are prioritized by Westerners and East Asians, respectively (see Hamamura & Heine 2008, Heine 2005).

Internal versus external frame of reference.

Another mechanism that is implicated in cultural variation in self-enhancing motivations is the perspective of the evaluator. In evaluating themselves, people can attend to whether they are meeting their own internal standards of competence (i.e., I think I'm doing well), or they can attend to whether they are meeting other people's standards of competence (i.e., others think I'm doing well). Although these two orientations are not independent, as people's evaluations of themselves are influenced by their assessments of how they are meeting others' standards (Leary & Baumeister 2000), people can vary in the extent to which they more closely attend to their own or to others' standards. Elsewhere, we propose that a concern with maintaining "face" leads East Asians to attend more to the standards of others when evaluating themselves, whereas a concern with enhancing self-esteem leads Westerners to attend more to their own internal standards (see Heine 2005, Heine et al. 2008b). This reasoning suggests that East Asians should pay closer attention to the perspective of others than do Westerners.

There is much recent evidence for this cultural difference in perspective taking (for a review, see Cohen et al. 2007). For example, Cohen & Gunz (2002) demonstrated that in comparison with Westerners, East Asians are more likely to recall memories of themselves when they were at the center of attention from a third-person perspective. Apparently, East Asians' attention to an audience leaked into and distorted their memories of themselves. Similarly, East Asians outperformed Westerners on a visual perspective-taking task, making fewer visual fixations on objects that were not visible to a person who was giving instructions to them (Wu & Keysar 2007).

Cross-cultural research on self-awareness also identifies cultural divergences in frames of reference. When individuals are aware of how they appear to others, they are said to be in the state of objective self-awareness (Duval & Wicklund 1972), and this leads to a number of predictable responses (e.g., people become more self-critical and are less likely to engage in counter-normative behaviors; Diener & Wallbom 1976, Fejfar & Hoyle 2000). In a state of objective self-awareness, people are aware of how they appear as an object (a "me") in contrast to the experience of being a subject (an "I"). To the extent that East Asians are aware of an audience and adjust their behaviors to that audience, they would more likely be in a habitual state of objective self-awareness than would North Americans. If this is the case, then stimuli that enhance objective self-awareness (for example, seeing oneself in front of a mirror) should have little effect on East Asians. Even without a mirror present, East Asians should be considering themselves in terms of how they appear to others. Some recent cross-cultural research corroborates this hypothesis: whereas North Americans were more self-critical and were less likely to cheat on a test when a mirror was present compared to when it was absent, the presence of a mirror had no effect on Japanese for either dependent variable (Heine et al. 2008b). Moreover, although North American self-evaluations were much more positive than Japanese when the mirror was not present, they were at relatively similar levels to Japanese when they were in front of the mirror. One reason that self-evaluations tend to be so much

more positive for North Americans than for Japanese may be that North Americans are less likely to consider how they appear to others. Objectivity constrains the ability to maintain a positive self-view.

Independent versus interdependent views of self. Cultural variation in self-enhancement can also be better understood when considering the kinds of self-concepts that are most common in various cultures. One way of considering the self is to see it as a relatively autonomous, self-sustaining collection of attributes that is largely independent from others. This independent view of self is more common in Western cultures and has been the working model for many of the theories of self that have been developed by a Western-dominated social psychology. In contrast, a second way of construing selves is to see them as being fundamentally interconnected, situationally variable, and grounded in roles and relationships with significant ingroup others. This interdependent view of self is more common in non-Western cultures and has been linked to a wide array of distinct phenomena (for reviews, see Heine 2001, Markus & Kitayama 1991, Triandis 1989).

Measures of self-esteem and self-enhancing biases tend to be positively associated with independence and negatively associated with interdependence (although these latter correlations tend to be weaker), regardless of the culture that has been investigated (Heine et al. 1999, Heine & Renshaw 2002, Oyserman et al. 2002). One way to account for these correlations is to consider the consequences of elaborating a positive self-view. Self-enhancement is associated with both costs and benefits to the individual. Paulhus (1998) makes the case that these benefits and costs are realized in two different domains. First, benefits of self-enhancement tend to be intrapsychic in nature. That is, focusing on what is good about the self tends to be associated with subjective well-being and self-efficacy and is negatively associated with dysphoria and depression (Taylor & Armor 1996, Taylor & Brown 1988). One clear benefit of self-enhancing, then, is that it feels good. However, the intrapsychic benefits that derive from self-enhancement come at the expense of one's relationships. A number of researchers have highlighted how self-enhancers risk attracting the scorn of those around them (Colvin et al. 1995, Paulhus 1998, Vohs & Heatherton 2001; for a contrary view, see Taylor et al. 2003). To put it simply, most people do not particularly like self-enhancers. These interpersonal costs are especially evident in long-term relationships (Robins & Beer 2001), the kinds of relationships that are particularly implicated in interdependent selves (Adams 2005).

The costs and benefits of self-enhancement in these two domains suggest that to the extent an individual's culture prioritizes intrapsychic over interpersonal concerns, self-enhancement would be a beneficial strategy. The positive feelings that arise from self-enhancement will be seen as worth the price of the alienation of those around one. In contrast, to the extent that an individual's culture emphasizes interpersonal relationships over intrapsychic rewards, self-improvement and face maintenance should be a more beneficial strategy. The benefits of deepening relations with others outweigh the costs of the negative feelings associated with self-improvement. There is much evidence that people in Western cultures are more concerned with positive feelings than are people in East Asian cultures (Diener et al. 1995, Kitayama et al. 2000, Mesquita & Karasawa 2002), and that people in East Asian cultures are more concerned with maintaining interpersonal harmony than are people in Western cultures (Morling et al. 2002, Suh et al. 1998). This evidence suggests that the cost-benefit ratio of selfenhancing is not as favorable for East Asians as it is for North Americans.

Incremental versus entity theories of abil-

ities. The value of self-enhancement also depends on the lay theories that people hold about the nature of abilities. One way to conceive of abilities is to view them as arising from a set of relatively fixed and innate attributes. This kind of "entity theory" (Dweck & Leggett 1988) of abilities reflects beliefs in an underlying essence that is tied to abilities. Within such a worldview, an individual's successes and failures directly reflect upon his or her perceived capabilities and self-worth. To the extent that abilities are perceived to be largely immutable and reflecting essential aspects of the individual, having a positive assessment of one's abilities would be accompanied by subjective well-being and would provide the individual with the requisite confidence to perform at his or her best on a task. Viewing one's abilities negatively, on the other hand, would seem to be tied closely to depression and would decrease any motivation to improve. There would be little reason to try harder if one's failures were perceived to be immutable (Dweck 1999).

A second way of conceiving of abilities is to view them as being malleable and ultimately improvable. This kind of incremental theory of abilities reflects a belief in the key role of effort in abilities. Within this worldview, rather than successes and failures being diagnostic of one's capabilities and self-worth, they are instead perceived as revealing the extent of one's efforts. Doing poorly on a task does not indicate that one is lacking the potential, but rather that one needs to direct additional effort to improvement. This suggests that those with incremental views of abilities should not find failures as painful, or successes as pleasant, as those with entity theories, and hence performance on tasks should be less tied to their self-esteem.

Cultural differences in entity and incremental theories of abilities parallel those of selfenhancement motivations. For example, a number of studies have identified greater tendencies for East Asians compared with North Americans to attribute school achievement to effort and not to abilities (e.g., Holloway 1988, Stevenson & Stigler 1992; but see mixed evidence on cultural comparisons of Likert scale measures of malleability, e.g., Heine et al. 2001, Hong et al. 1999, Norenzayan et al. 2002). Likewise, experimental manipulations of incremental theories of abilities corroborate the cultural differences. Japanese come to respond to failure in a way similar to Americans when entity-theories are primed, whereas Americans come to respond to failure in the ways Japanese do when incremental theories are primed (Heine et al. 2001). It appears that another reason cultures differ in the positivity of their self-views is the cultural variation in lay theories of abilities.

Dialectical reasoning about the self. Cultural variation in self-enhancing motivations can be understood in yet another way: East Asian and Western cultures differ in their tolerance for contradiction (Peng & Nisbett 1999). That is, whereas Westerners typically respond to contradictory statements by trying to dismiss or transcend the contradiction, East Asians are more content to accept the contradictions as they are. The tendency to perceive and tolerate psychological contradiction has been termed "naïve dialecticism" (Peng & Nisbett 1999). This cultural difference in attitudes toward contradiction is not limited to how people perceive contradictory logical arguments about the world; the difference also generalizes to how people view themselves. When describing themselves, East Asians maintain more contradictory self-views than do Westerners. For example, compared with Westerners, East Asians are more likely to endorse opposing statements about their personalities (e.g., they accept statements regarding being both introverted and extraverted; Choi & Choi 2002, Hamamura et al. 2008a), they acknowledge experiencing positive and negative affective states more simultaneously (Bagozzi et al. 1999), they view themselves as acting less consistently across different situations (Kanagawa et al. 2001, Suh 2002), they have more contradictory knowledge about themselves that is simultaneously accessible (Spencer-Rodgers et al. 2008), and they are more likely to endorse both positive and negative statements about their own self-esteem (Hamamura et al. 2008a, Spencer-Rodgers et al. 2004).

One reason, then, why East Asians might show self-views that are less self-positive than those of Westerners is that they hold dialectical views of themselves (e.g., I am a good person, but I am also a bad person). A dialectical view of the self would lead to moderately positive views of the self rather than overwhelmingly positive self-views, which is precisely the way that East Asian self-enhancement scores differ from those of North Americans (Heine et al. 1999). Importantly, Spencer-Rodgers et al. (2004) find that people's scores on a measure of dialecticism mediate the differences in self-esteem between East Asians and North Americans. Cultural differences in selfenhancement thus also stem from cultural differences in attitudes toward self-consistency.

Relational mobility. Another more recent effort to understand the mechanisms underlying cultural variation in self-enhancing motivations comes from the study of relational mobility (see Oishi et al. 2007, Yuki et al. 2007b; cf., Adams 2005). Relational mobility refers to the perceived amount of opportunity that an individual has for forming new relationships. In many individualistic contexts, such as those of American undergraduates, for example, individuals live in a high-relational-mobility context, in which they are frequently meeting new people and have the potential to forge new relationships on a day-to-day basis. In contrast, in many collectivistic contexts, for example, much of Japanese society, there is little relational mobility in that people tend to belong to nonoverlapping groups (such as a school club or an office) where there is little movement between social groups and the membership is largely stable (also see Adams 2005 for similar arguments in West African communities). Because self-esteem is influenced by the degree to which one feels socially accepted (Leary & Baumeister 2000), it has been proposed that people will rely on their self-esteem to predict when they will be accepted by others (Sato et al. 2007). In contexts where people have many opportunities for forming new relationships, then, having high self-esteem will serve to aid them in functioning well. Indeed, the perceived availability of opportunities for forming new relationships has been shown to significantly mediate East-West cultural differences in both self-esteem (Sato et al. 2007) and in the relation between self-esteem and well-being (Yuki et al. 2007a). Relational mobility thus is another compelling candidate for a mechanism that can explain cultural variation in self-enhancement motivations.

Summary of mechanisms related to selfenhancement. The above review reveals six different mechanisms that underlie the observed cultural difference in self-enhancement, and it is possible that additional mechanisms will prove to be relevant in the future. This hardly provides a parsimonious account for cultural variation in positive self-views—the tendency for North Americans to self-enhance more than East Asians thus appears to be overdetermined. Why might there be so many different mechanisms related to this cultural difference?

We suggest that the similar pattern across cultures for each of the six phenomena reviewed above indicates that it is not productive to think of these as independent mechanisms underlying self-enhancement. Rather, we propose that we can understand the cultural variation in each of these phenomena as indicating a stable equilibrium point in a dynamical system (Cohen 2001, Kitayama 2002). That is, the elements of a culture are not independent from each other. One feature of a culture (such as having a norm where extended families live in the same household) will influence another feature (such as the likelihood that other family members get involved in decisions regarding who one will marry; Lee & Stone 1980). This interdependence among different features of cultures reduces the variability of possible cultural arrangements. Each aspect of a culture is influenced by, and in turn influences, other aspects of the culture. This interdependence results in a relatively small number of stable equilibria within a system. If an individual deviates from an equilibrium point, the interrelations among the various parts of the system will constrain her options, and she will likely gravitate back toward the cultural norm (Boyd et al. 1997).

In present East Asian cultural contexts, a dynamical system exists such that people tend to view themselves as interdependent with significant others, have few opportunities to forge new relationships, tolerate contradictions, have more incremental theories of abilities, are especially attentive to others' perspectives, are vigilant of potential losses, and exhibit self-critical motivations. Each of these psychological variables is sustained by the other variables, and they represent a fairly stable system. It is unlikely, say, that just one of these variables could be changed without influencing the other variables as well. The mutual interdependence of these variables suggests that there are few opportunities for much change in any single variable because the presence of the other variables would act to constrain and stabilize the system (Boyd et al. 1997). We submit that cultural change in these variables is only likely to occur when the pressures for change are great enough that the system reaches a tipping point and then gravitates toward a new equilibrium (Cohen 2001). For example, another equilibrium point is found in present North American contexts, where people tend to view themselves as independent from others, have many opportunities to develop new relationships, eschew contradictions, have entity theories of abilities, primarily consider their own perspective, are attentive to opportunities for gain, and evince self-enhancing motivations. The dynamic systems of the cultures of East Asia and North America are not best described as different from each other on a single variable, such as their self-construals, but rather they represent different systems that gravitate toward divergent equilibria. Cultural change in these cultures is likely to be noticed across the entire system when a tipping point is reached, rather than being restricted to any transformation of a single variable. This systems view of culture calls into question the value of efforts to identify mediational variables that are theorized to underlie cultural differences (Heine & Norenzayan 2006).

In summary, a cluster of interrelated variables correlates with self-enhancement and distinguishes East Asians from Westerners. We submit that these variables mutually influence each other and manifest in at least two different stable equilibria within East Asian and Western cultural contexts. It is possible that other cultural contexts possess different equilibria points among these same variables.

STRUCTURE AND CONTENT OF PERSONALITY ACROSS CULTURES

In the above section, we outlined cultural differences in one aspect of individual difference, namely self-enhancement. The degree to which self-enhancement is a salient and important trait depends on an intertwined set of cultural variables. Self-enhancement, however, is only one type of individual difference. Are other individual differences in fact equally important in all societies?

People tend to be curious and reflective about the ways that individuals differ from each other. This curiosity may well be universal across cultures, at least to a certain degree. Various different personality typologies have been proposed over time and around the world that serve to classify people into different types. For example, Hippocrates proposed that there were four basic types of human temperaments, which depended upon the balance of the four fluids, or humors, that were present in the body: blood, yellow bile, phlegm, and black bile. Ayurvedic medicine from India proposes that there are three metabolic body-types (vata, pita, and kapha), thus maintaining that one's metabolism rate provides the foundation of individual temperaments. Popular Japanese folklore views the four blood types as underlying reliable differences in personality. In short, across cultures and history, people have come up with a remarkably diverse array of ways for carving up personalities.

Western psychologists have also made many targeted research efforts toward developing personality typologies to classify the variety of ways to be a person. Several different schemes have been proposed (e.g., Ashton et al. 2004, Cattell 1957, Eysenck 1975), each varying in the number of core traits and the content of those traits. However, the typology that is by far the most widely accepted and researched is the Five-Factor Model (McCrae & Costa 1987; for criticisms of this model, see Block 1995, McAdams 1992). According to this model [first derived by Fiske (1949)], there are five core personality traits: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. The "Big 5" are said to underlie the nearly 18,000 traits that exist in the English language (Allport & Odbert 1936). Several hundreds of studies have explored these traits and their relation to other constructs. This research raises some interesting and important questions regarding personality across cultures: Is the five-factor structure something basic about human nature that we should find in the personalities of people in all cultures that we look? Or, alternatively, does the five-factor model reflect ideas about personhood that are limited to the West, where the vast majority of this research has been conducted?

Apparent Near Universality of Personality Structure

A number of evolutionary psychological perspectives on personality maintain that the fivefactor model reflects universal kinds of individual variation. Some have argued that the Big 5 are fundamental responses to core challenges faced by humans (e.g., Ellis et al. 2002, Goldberg 1981). For example, it would be adaptive for people to be able to identify who was likely to rise in the social hierarchy (extraversion), who could be reliable and dependable (conscientiousness), who would have difficulty coping with adversity (neuroticism), who could be a good friend (agreeableness), and whom one could turn to for wise advice (openness; Buss 1991)-that is, the accurate perception of the Big 5 in others could enhance one's fitness. However, arguments for why it is adaptive for individuals themselves to vary in the Big 5 are currently incomplete, as the heritability of personality traits (typically around 0.40; Plomin et al. 2001) makes it appear that between-individual variability should be drastically reduced, as long as personality traits uniformly afforded fitness across all environments. Compelling evolutionary accounts for why individuals differ in the degree to which they possess adaptive personality traits may be developed if we consider individuals' responses to their different environmental niches (Penke et al. 2007). Regardless of the particular evolutionary theory that is applied, to the extent that the Big 5 evolved in response to core challenges from the ancestral environment, it follows that the model should be cross-culturally universal in its application.

Some evidence supporting the biological universality of the Five-Factor model can be found in comparative research, which has identified markers of the Big 5 traits in a number of animal species (Gosling & John 1999). For example, behavioral patterns consistent with each of the Big 5 traits have been identified in chimpanzees (King & Figueredo 1997), and some traits, for example neuroticism, have been identified in species as diverse as hyenas (Gosling 1998), guppies (Budaev 1997), and octopuses (Mather & Anderson 1993). It is possible that the Big 5 (or at least some of the dimensions) represent fundamental responses to biological challenges encountered by many, if not most, species. However, the vast majority of animal studies have been conducted by Western researchers, and the similarity of the traits that are observed between animals and humans might be due to people interpreting animal behavior through the lens of their most familiar ways of categorizing people-an account that is addressed to a degree by noting that evidence for traits in animals is clearer for some traits and in some species than in others (Gosling 2001). Nonetheless, the best evidence for the universality of a psychological construct requires the consideration of data from multiple cultures (Norenzayan & Heine 2005). The study of the cross-cultural generalizability of the Big 5 is one of the most ambitiously researched attempts to address the question of universality for any psychological phenomenon, and several large-scale multicultural studies have been conducted.

Various measures of the Big 5 |e.g., Neuroticism-Extroversion-Openness Personality Inventory-Revised (NEO-PI-R); Costa & McCrae 1992] have been translated into a number of languages and have been distributed to thousands of people in dozens of cultures around the world. Early cross-cultural comparisons of the factor structure of the Big 5 were promising: Four out of five factors (all except Openness) emerged in Hong Kong (Bond 1979), Japan (Bond et al. 1975), and the Philippines (Guthrie & Bennett 1971), revealing considerable similarity in the structure of personality across these diverse cultures. More recent studies with some other cultures have fared even better-all five factors emerged in cultures from countries as diverse as Israel (Montag & Levin 1994), Korea (Piedmont & Chae 1997), and Turkey (Somer & Goldberg 1999). One large-scale study investigated people from 50 different cultures from all continents except Antarctica and had participants evaluate someone they knew well on trait adjectives that assessed the Big 5 (McCrae et al. 2005). In most of the 50 cultures, the factor structure of the Big 5 was replicated. In a number of developing cultures (in countries including Botswana, Ethiopia, Lebanon, Malaysia, Puerto Rico, and Uganda), the factor structure was not so evident. However, in these latter cultures, the quality of data was rather poor, which suggests that people may not have fully understood the questions or were unfamiliar with answering questions in that format (McCrae et al. 2005). If unfamiliarity with Western measures can account for the poor data fit found in some cultures, then there is good evidence that the Big 5 reflect the universal structure of personality (also see Allik & McCrae 2004, Yik et al. 2002). Still, support for universality would be stronger if convergent evidence emerged from studies of developing and small-scale societies (cf., Henrich et al. 2005).

It is important to note that the measures of the Big 5 (such as the NEO-PI-R) were initially developed through the exploration of English personality terms, and largely with Americans. The challenge with factor analyses is that they only speak to the structure that emerges from the universe of items that were considered. It is possible that a different set of items, particularly those that were more meaningful in other cultural contexts, might reveal a different underlying personality structure. An important question to consider, then, is whether the Big 5 personality dimensions emerge regardless of what traits one considers, or whether they reflect the underlying structure of the kinds of personality traits that are discussed in English.

A number of investigations have explored this question. For example, Cheung et al. (1996) sought to identify what kinds of personality dimensions would emerge if they factor-analyzed indigenous Chinese personality traits rather than relied on translations of English traits. The researchers first explored the kinds of personality traits that were common in Chinese by examining Chinese novels, Chinese proverbs, people's personality descriptions, and the Chinese psychology literature. These efforts revealed 26 unique personality constructs (as well as another 12 clinical constructs). The constructs were then put into a personality questionnaire (the Chinese Personality Assessment Inventory), which was completed by Chinese participants. The resultant factor structure was not the same as the Big 5; rather, four factors emerged that were captured by the following labels: dependability (reflecting responsibility, optimism, and trustworthiness), interpersonal relatedness (reflecting harmony, thrift, relational orientation, and tradition), social potency (reflecting leadership, adventurousness, and extraversion), and individualism (reflecting logical orientation, defensiveness, and self-orientation). Further analyses included the Chinese Personality Assessment Inventory together with a measure of the Big 5 (Cheung et al. 2003). That analysis revealed that there was substantial overlap between three of the factors; namely, neuroticism correlated with dependability, extraversion correlated with social potency, and individualism correlated with agreeableness. Openness to experience did not correlate with any of the Chinese factors, and

interpersonal relatedness was not correlated with any of the Big 5 factors. Perhaps, then, interpersonal relatedness may be a sixth personality factor that is especially salient in Chinese culture. Whether interpersonal relatedness is a reliable sixth factor in Western samples has yet to be demonstrated.

Similar approaches have been taken with other cultures. For example, Church et al. (1997; also see Church et al. 1998) developed an indigenous list of Filipino personality traits and explored their underlying factors through factor analysis. This analysis revealed five traits that were highly similar to the Big 5; however, they also revealed two additional factors: temperamentalness and a negative valence dimension, which did not correlate strongly with any of the Big 5. Likewise, Benet-Martinez & Waller (1995, 1997) found that an investigation of Spanish personality constructs revealed seven underlying personality factors, although these did not map on so well to the Big 5. Similarly, Saucier et al. (2005) found that a six-factor solution emerged from indigenous Greek terms and was somewhat at odds with the Big 5. In general, investigations with indigenous traits reveal that although the Big 5 personality traits appear to be cross-culturally robust, they may not be an exhaustive list of the ways that personality can emerge in other cultures. Some alternative dimensions have emerged from explorations of personality structures using indigenous personality terms, and future research is necessary to determine the robustness and universality of these other factors.

Cross-Cultural Variability in Levels of Personality Traits

Given the evidence that the Five-Factor model of personality appears to adequately capture the structure of personality traits in many cultures, researchers have recently begun to compare mean levels of personality traits across large samples of cultures (e.g., McCrae 2002, McCrae et al. 2005, Schmitt et al. 2007). This burgeoning research program has resulted in debate about the meaning and validity of such cross-cultural comparisons. Below, we outline some of the findings of these large crosscultural comparisons and discuss the debate about their validity.

Some of the most thorough multinational comparisons that have been conducted in psychology have compared Big 5 traits across cultures. As of this writing, aggregate personality means from the NEO-PI-R (Costa & McCrae 1992) have been reported for selfratings from 36 cultures (McCrae 2002) and for peer-ratings from 51 cultures (McCrae et al. 2005), and a modified Big 5 measure was used to collect people's perceptions of their compatriots in 49 cultures (Terracciano et al. 2005). Another popular measure, the Big Five Inventory (BFI; Benet-Martínez & John 1998), has been used to collect self-ratings in 56 nations (Schmitt et al. 2007). This hard-won wealth of data has attracted much interest and sparked further research (e.g., McCrae & Allik 2002). It has shown, for example, that according to the self-report means, the most neurotic people on the planet are Spaniards, the most extraverted are Norwegians, the least conscientious are Japanese, the most open to new experiences are Austrian, and the most agreeable are Malaysian (McCrae 2002).

Part of the promise of these kinds of multinational comparisons of mean levels of personality traits is that they stand to map out the "personality profiles" of cultures across the globe. The value of this research enterprise would be especially noteworthy to the extent that it offered cultural profiles that were of greater validity than those profiles formed on the basis of inferior or biased methods, such as those formed on the basis of people's stereotypes. To demonstrate this point, Terracciano, McCrae, and colleagues investigated how well people's perceptions of the national character of their country correlated with the means from self-reports and peer reports on the NEO-PI-R discussed above (McCrae & Terracciano 2006, Terracciano et al. 2005). The results indicated that there were essentially no correlations between the national character profiles—what people believe their average compatriot is like-and the actual national average self-ratings or peer ratings on the NEO-PI-R. The investigators argued that the findings provided strong evidence that common perceptions of national character in fact have little to no connection with reality; people's views of their compatriots do not appear to contain "even a kernel of truth" (McCrae & Terracciano 2006, p. 160).

The assertion that aggregate self-reports or peer reports are appropriate validity criteria in themselves, and that perceptions of national character are therefore illusory, has been met with some resistance (Ashton 2007, Heine et al. 2008a, McGrath & Goldberg 2006, Perugini & Richetin 2007). Indeed, the literature on cross-cultural methodology raises a number of caveats that should make one cautious in drawing conclusions from direct comparisons of mean levels of personality traits across cultures. For example, there are questions of whether items are interpreted in the same way by people from all cultures (e.g., Church & Katigbak 2002, Grimm & Church 1999, Poortinga et al. 2002), whether people respond to items in the same way (Chen et al. 1995, Greenfield 1997, Hamamura et al. 2008a, Poortinga et al. 2002), and whether individuals in different cultures compare themselves to different standards when making ratings (e.g., Heine et al. 2002, 2008a; Peng et al. 1997). Nevertheless, some personality researchers have optimistically maintained that most of these potential biases can be controlled for (e.g., the acquiescence bias; McCrae 2001, McCrae et al. 2005) or that these differences still yield largely interpretable results (McCrae et al. 2005, Schmitt et al. 2007). The difficulties in comparing mean scores on subjective Likert scales across cultures means that researchers must seriously consider what kinds of data could actually validate such cross-cultural comparisons.

What are the sources of evidence for and against the validity of such cross-national personality comparisons? Though evidence from data clustering of national personality profiles and some correlations with other nationallevel variables have been put forth as validating mean nation-level scores, other evidence suggests that this kind of national profiling may be inaccurate, such as the low reliability between different measures of the Big 5, disagreement with expert ratings, and bizarre correlations with behavioral measures. We discuss this evidence below.

Cluster analyses indicate some reasonable relationships emerging from the cross-cultural comparisons of the traits. For example, analyses of profile similarity reveal that cultures of similar geographical or historical backgrounds tend to cluster together (Allik & McCrae 2004, McCrae et al. 2005, Schmitt et al. 2007). Though suggestive of validity, we note that cluster analyses are difficult to examine as validity evidence. For example, Schmitt et al. (2007) find that although most of the closest pairings on BFI personality profiles are predictable (e.g., Botswana and South Africa, Cyprus and Greece), some others are not explainable by geographic or historical similarity (e.g., Estonia and Mexico, Israel and Finland). More problematic, similar personality profiles could reflect either actual personality similarities or simply similar cultural standards for comparison and are therefore not necessarily good evidence of validity (Heine et al. 2008a).

Researchers have also calculated correlations of mean trait levels with other countrylevel data to establish validity of the crosscultural comparisons. For example, Schmitt et al. (2007) found that extraversion correlated with liberal views toward sexuality both within and between cultures. McCrae (2002) found that Hofstede's (2001) cultural dimensions correlated with some of the Big 5 measures. This convergence with other criteria would appear to be a good demonstration of the validity of the country scores. However, we note a few points about using other kinds of country scores to validate the personality data. First, it is crucial that any validity criteria be theoretically relevant a priori. For example, noting that neuroticism and masculinity are correlated (McCrae 2002) does not provide validity unless there are clear theoretical reasons to anticipate such correlations beforehand. Second, validity correlations should be reliable across different measurements of the Big 5. We note that no significant correlations exist between any of the Big 5 and Hofstede's (2001) five dimensions that replicate across three independent measures of the Big 5 (McCrae 2002, McCrae et al. 2005, Schmitt et al. 2007). Third, we emphasize that the strongest kind of criteria that one could seek to validate country mean scores would be those that utilized different methods. Finding significant correlations between two sets of self-report measures could reflect the fact that both measures are compromised by the same kinds of culturally specific reference-group effects and response biases.

Many sources of evidence call into question the validity of these cross-cultural comparisons. One first step to demonstrating validity is to establish the reliability of the findings-it is difficult to make the case that one rank ordering of means is valid if it is not reproduced through other methods. However, the rank orderings that have emerged from the above endeavors to compare personality traits across cultures do not correlate particularly strongly. For example, correlations between the country scores for the self-report measures of the Big 5 with the NEO-PI-R and the BFI ranged from 0.22 to 0.45 (Schmitt et al. 2007), which are quite modest given that these are measures of the same constructs. Perhaps more disturbing is that the correlations between the country scores from the BFI and NEO-PI-R measures correlate more weakly for the corresponding traits than they do for their noncorresponding traits in four of the Big 5 traits (e.g., the BFI measure of openness correlates 0.73 with the NEO-PI-R measure of extraversion, but only 0.27 with the NEO-PI-R measure of openness; Schmitt et al. 2007). This is in direct violation of the multitrait-multimethod matrix approach to validating personality traits (Campbell & Fiske 1959). Furthermore, as described above, the country scores from the perceptions of national character showed no significant positive correlations with the country scores from the NEO-PI-R for any of the Big 5 traits (Terracciano et al. 2005). In sum, there is little convergence among the country scores Reference-group effects: implicit comparison to the average, or ideal, amount of a construct within your group when making self-ratings across different assessments of the same personality traits.

One method of validating conflicting crosscultural data has been to utilize expert ratings (e.g., Heine et al. 2002, John & Robins 1994). The relative rankings of cultures on mean selfratings of traits has been shown to disagree with the judgments of cultural experts (Church & Katigbak 2002, McCrae 2001), whereas the national character profiles are closer to expert ratings (Terracciano et al. 2005, footnote #26). However, a weakness of this validation strategy is that the expert ratings, such as the National Character ratings, may draw on the same invalid cultural stereotypes (McCrae & Terracciano 2006, Terracciano et al. 2005).

We submit that the strongest evidence for validity would come from actual observations of personality-related behavior frequency in the different cultures, but such data are difficult to find or produce (e.g., Ashton 2007). A recent example of using behavioral data to validate the country scores of conscientiousness (the trait with the clearest behavioral markers; also see Roberts et al. 2007), and the only one for which we could find cross-national data, found that National Character ratings correlated highly with national rankings on conscientious-related behaviors such as clock accuracy and efficiency of postal clerks (average r = 0.61), whereas the NEO-PI-R and BFI self- and peer-report aggregate means correlated negatively or not at all with these behaviors (average rs ranged from -0.43 to 0.06; Heine et al. 2008a). These findings indicate that the National Character ratings are more accurate than average self-reports or peer reports at predicting the conscientious behaviors of average citizens. These findings dovetail with other evidence that comparisons of self-report measures across cultures suffer from some serious methodological confounds (Cohen 2007; Heine 2008; Heine et al. 2001, 2002; Kitayama 2002). We suggest that in the absence of convergent evidence from other designs, any cultural differences in means on subjective Likert scales should be taken with a grain of salt. At the least, future cross-cultural comparisons of personality need to more seriously consider validity criteria and the development of improved methods.

Although methodological artifacts such as the reference-group effect make it problematic to compare means across cultures, it is important to underscore that those same problems do not typically emerge when using self-report scales within cultures. Within a culture, people tend to evaluate themselves in contrast to similar referents, a method that preserves the validity of the rank order of individuals within a culture as well as with correlations both within and between self-report scales. In fact, as discussed above, cross-cultural studies of the structure of personality have revealed much evidence for universality. Arguably, it is part of the human condition to perceive personality in terms of universal traits. However, another question to consider is the extent to which people attend to and rely on personality information in their efforts to understand themselves and others. Are personality traits of equal utility across cultures?

THE UTILITY OF PERSONALITY ACROSS CULTURES

Markus & Kitayama (1991) played a key role in relaunching the field of cultural psychology when they posited that the self-concept varied in significant ways across cultures. Although in the West the self tends to be identified more as an independent entity, importantly grounded in internal traits, the interdependent self-concept that is more common in the rest of the world is largely based on its relationships and roles with others. This difference in self-definition across cultures raises the possibility that in societies more characterized by interdependent selves, personality traits might be of less utility for understanding oneself or in predicting the behavior of others than are more relationally defined aspects of the self-such as social roles (see Markus & Kitayama 1998). Below we consider evidence that speaks to the question of whether personality is of comparable utility between individualistic and collectivistic societies.

Content of the Self-Concept

One source of information germane to the question of the utility of personality is the kind of information that people spontaneously consider when describing themselves. Open-ended descriptions of the self-concept measured using the Twenty Statements Test (Kuhn & McPartland 1954) have consistently revealed evidence for a weaker tendency to list pure psychological attributes (largely personality traits) among people from various collectivistic cultures (e.g., Native Americans, Cook Islanders, Masai, Samburu, Malaysians, and East Asians) than among those from individualistic cultures (e.g., Australians, Americans, Canadians, and Swedes) when describing themselves. Instead, people from various non-Western cultures are more likely to describe themselves in terms of their social roles (Ip & Bond 1995, Ma & Schoeneman 1997) or specific descriptors that are not abstract trait terms (Rhee et al. 1995). Evidence from these studies suggests that the self-concepts of people in collectivistic cultures may not emphasize abstract personality traits in the same way that self-concepts common in individualistic societies do. Personality traits may not be useful to the same degree everywhere for describing the self.

Incremental Versus Entity Theories of Self

Another phenomenon related to the perceived utility of personality trait knowledge is the lay theory that people tend to embrace regarding the nature of their selves. As discussed above, people tend to view the self as being either a rather stable and immutable entity or as more fluid and changing. Dweck and colleagues (Dweck & Leggett 1988, Hong et al. 1999) have described these views as entity and incremental theories of self, respectively. Typical views of personality in individualistic cultures are grounded in the notion that personality traits are inherited and somewhat stable across the lifespan—ideas that are conceptually consistent with an entity theory of self. The notion of an ever-changing and incremental theory of the self would seem to be at odds with the notion of trait theories (Levy et al. 1998, Molden & Dweck 2006). As described above, past cross-cultural research on theories of self finds that in comparison with Westerners, East Asians are less likely to conceptualize their selves in entity terms (Heine et al. 2001, Norenzayan et al. 2002). The incremental nature of the self-views of East Asians is inconsistent with Western views of stable and innate personality traits. It remains to be seen whether people from collectivistic cultures outside of East Asia also demonstrate incremental views of themselves. In summary, lay theories of the self, at least in East Asia, are at odds with the prevailing view of personality as consisting of stable traits, and such a view may be utilized less in such cultures for the understanding of self and others.

Perceived Consistency of Traits

Another perspective on the utility of personality traits is the consistency that those traits manifest across situations. To the extent that people's perceptions about their personality vary considerably across situations, this would render personality traits to be less useful for understanding the person (Mischel 1968; though see Fleeson 2004 for new interpretations of the person-situation debate). Indeed, the lay theories of personality and personhood in collectivistic contexts may in fact be closer to that proposed by Mischel & Shoda (1995), in which a person's traits shift across situations in an individually characteristic pattern. The power of the situation over behavior is acknowledged more in collectivistic cultures than it is within individualistic cultures. Much cross-cultural research has explored the extent to which personality is consistent across situations.

For example, Kanagawa et al. (2001) examined how much the testing situation—filling out a questionnaire in front of a professor versus in front of one peer, a group of peers, or alone—influenced self-descriptions. They found that Japanese self-descriptions (on

www.annualreviews.org • Personality 383

Twenty Statements Test: a method of measuring the content of the self-concept by asking participants to complete twenty "I am..." statements

the Twenty Statements Test) varied significantly more depending on the testing situation than did Americans' self-descriptions. Likewise, in an experience-sampling study, Oishi et al. (2004) asked participants in India, Japan, Korea, and the United States to record their mood and who they were with (i.e., their situation) at random moments during the day. Cultural differences emerged in the effect of situations on mood. For example, whereas Japanese participants felt much happier when with a romantic partner than otherwise, Americans did not experience as much of a mood change. Mood was more influenced by situation in collectivistic cultures than in individualistic cultures. Similarly, Suh (2002) asked Korean and American participants to report what they believed their personality to be like with five different people (e.g., parents, close friend, or stranger) as well as in general. The results indicated that Korean participants reported much less consistency among these six ratings than did American participants; moreover, consistent selves were more strongly correlated with positive outcomes for Americans than they were for Koreans. Relatedly, a number of studies have found that East Asians tolerate more contradiction in their thoughts of self, including variation across contexts, than do Westerners (Choi & Choi 2002; Hamamura et al. 2008a; Spencer-Rodgers et al. 2004, 2008).

These studies suggest that the East Asian self is not as consistent across situations in comparison with the Western self. This raises the question of how the East Asian self might maintain enough coherence to be even considered a self. One possibility is that despite being unstable across situations, one might display a stable personality within situations across time. One's global traits might not be a good way to define one's self, but one's traits within a certain social role-around a certain relationshipmight be. To investigate this question, English & Chen (2007) asked Asian American and Euro-American participants to rate their personality traits within certain relationship contexts. As found by Suh (2002), the correlation of traits between relationship contexts

was smaller for Asian Americans than it was for Euro-Americans. Importantly, however, Asian Americans showed as much consistency within that relationship situation over time as Euro-Americans did. In other words, their self-ratings of traits within a certain relationship context were quite stable over time; that is, who one is with one's mother does not change, even if this is quite different from who one is with one's roommate. Likewise, in other research, when East Asians were asked if they had a "true self," they considered a context-sensitive self. In contrast, Westerners responded to this question by considering their feelings of self that were invariant across situations (Kashima et al. 2004; also see Tafarodi et al. 2004). This research highlights how the self-concept in East Asian contexts appears to be grounded in one's roles and relationships rather than something that primarily derives from component traits. Future research is necessary to see whether the Western and East Asian patterns generalize to other cultural contexts.

Attributions for Behavior

The above review has considered how people in collectivistic cultures appear to rely on personality traits less than do those from individualistic cultures in understanding themselves. Other research indicates that people from collectivistic cultures might rely on personality traits less than Westerners do for understanding others as well. This research on how people explain the behavior of others reveals another way that utility of personality varies across cultures. A number of classic studies have found that when asked to explain the behavior of others, people tend to largely attend to the person's disposition as a means for explaining the behavior, even when there are compelling situational constraints available (Jones & Harris 1967, Ross et al. 1977). This tendency to ignore situational information in favor of personality information when explaining the behaviors of others is so commonly observed that it has been termed the "fundamental attribution error." However, as with so many other psychological phenomena, this original research had been conducted almost exclusively with Western participants. Observations with a number of collectivistic cultures have painted a different picture regarding people's preferred ways of making sense of the behavior of others. Geertz (1975) described how Balinese do not tend to conceive of people's behavior in terms of underlying dispositions, but instead see it as emerging out of the roles that they have. Shweder & Bourne (1982) found that Indians tended to eschew trait descriptions of others' behaviors but rather would explain their behaviors in descriptive terms. Building upon this idea, Miller (1984) found that Indians showed evidence for a reverse fundamental attribution error in that Indian adults tended to favor situational information over personality accounts. More recently, several studies conducted with East Asians and Americans reveal that whereas Americans attend to dispositions first, regardless of how compelling the situational information may be (Gilbert & Malone 1995), East Asians are more likely than are Americans to infer that behaviors are strongly controlled by the situation (Norenzayan et al. 2002) and are more likely to attend to situational information (Miyamoto & Kitayama 2002, Morris & Peng 1994, Van Boven et al. 1999), particularly when that information is especially salient (Choi & Nisbett 1998). They may even automatically consider the situational information prior to the personality information (Knowles et al. 2001; but for contrary findings, see Lieberman et al. 2005). Furthermore, in an investigation of people's lay beliefs about personality across eight cultures, Church et al. (2006) found that people from individualistic cultural backgrounds (i.e., American and Euro-Australian) strongly endorsed implicit-trait beliefs, such as the notions that traits remain stable over time and predict behavior over many situations. In contrast, they found that those from collectivistic cultural backgrounds (i.e., Asian Australian, Chinese Malaysian, Filipino, Japanese, Mexican, and Malay) more strongly endorsed contextual beliefs about personality, such as ideas that traits do not fully describe a

person as well as roles or duties and that traitrelated behavior will change from situation to situation. In summary, people in collectivistic cultures appear to be less likely than are people from individualistic cultures to utilize personality information in explaining the behavior of others.

Spontaneous Trait Inferences

Do these cultural differences also exhibit themselves at an automatic, cognitive level? Much research has revealed that people spontaneously encode observed behaviors in terms of underlying traits: For example, learning of one person giving money to another person in need may be encoded as "generous" (Uleman 1987). However, until recently, the majority of this research had been conducted in Western cultures, thus failing to shed light on the question of the universality of this tendency. More recent crosscultural studies suggest that such spontaneous trait inferences might not be so common elsewhere. For example, Maass et al. (2006) found that whereas Italians inferred traits from behaviors and viewed trait adjectives to be predictive of future behaviors, Japanese did this significantly less so. Rather, Japanese tended to rely more on behavior-descriptive verbs in their person descriptions and memories of target events. Likewise, Zarate et al. (2001) found that Latinos showed evidence of fewer spontaneous trait inferences compared with North Americans. Similarly, tendencies to make spontaneous trait inferences have been shown to correlate with trait measures of independence (Duff & Newman 1997), which are more common in individualistic cultures. In a study that explored how well people encoded trait versus role information about themselves, Wagar & Cohen (2003) utilized the self-reference effect, in which words encoded in relation to elaborated areas of self-concept are remembered better, to determine whether social or personality traits were more cognitively elaborated areas of the self-concept. This study revealed that Asian Canadians, compared to Euro-Canadians, remembered social-role words better than they remembered trait words when they were encoded in relation to the self, a finding that suggests that the social role aspect of identity was more cognitively elaborated than were personality traits. These studies converge to suggest that people from collectivistic cultures are less likely to spontaneously encode trait information either about others or about themselves.

Personality Traits and Behavior

The above review is consistent with our thesis that personality, defined as situation-consistent traits, is of less importance in collectivistic cultures than it is in individualistic ones. Ultimately, however, the most compelling kind of evidence in support of this claim would be evidence that personality traits are less predictive of behavior in collectivistic cultures. Among the many forces that prompt and guide behavior, such as norms, role obligations, peer pressure, and situational influences, we should expect that personality traits play a less central role among collectivists than they do among individualists. Is there any evidence for a greater decoupling of personality and behavior among people from collectivistic cultures?

This question is challenging to address because evidence for the relationship between behaviors and personality is relatively rare even in Western contexts owing to the practical difficulties of assessing behaviors. Some evidence for the predictive validity of personality traits in behaviors among Westerners includes behavioral residue, such as how one decorates one's dorm room (Gosling et al. 2002), life outcomes, such as health and occupational success (Roberts et al. 2007), and discreetly observed behaviors, such as whether one cheats on an exam (e.g., Nathanson et al. 2006). Thus far, however, such direct behavioral evidence has been limited to studies with Westerners.

Some indirect evidence speaks to the question of the predictive validity of personality traits across cultures. For example, consider one cross-cultural difference that was reviewed above: When explaining other people's behaviors, those from collectivistic cultures rely on personality information less than do those from individualistic cultures, and they are less likely to communicate that information (e.g., East Asian newspapers tend not to report on information about people's personalities as much as do Western newspapers; Morris & Peng 1994). Although it is possible that people are wrong in their theories about what are the actual causes for others' behaviors, it is informative that in comparison with individualists, collectivists believe that personality is a less compelling explanation for people's behavior; collectivists may indeed perceive a weaker correlation between observed personalities and behaviors.

A second indirect source of evidence comes from studies that compare people's selfreported personality with peer ratings. Peer ratings are often used as an index for behaviors because peers are in the position to form personality assessments on the basis of observed behaviors (e.g., Gosling et al. 1998, John & Robins 1994). For example, a study by Suh (2002) compared self-reported personality traits with ratings made by friends and parents of Korean and American participants. Results indicated that the self-peer correlations were lower among Koreans than they were among Americans. Moreover, correlations between parent ratings and friend ratings were also lower among Koreans than among Americans. These findings are consistent with the notion that personality traits, as perceived by the self, are less predictive of behavior (as witnessed by the observers) among East Asians and Americans. East Asians act more differently across contexts than do Americans, suggesting that contextual factors are guiding their behavior relatively more so than are traits. Before we can draw any firm conclusions on any cultural differences in the predictive validity of traits, it will be necessary to utilize more direct measures of behavior and to consider a wider array of cultural samples. Indeed, thus far almost all of the literature relevant to the question of the cross-cultural utility of personality has focused only on North American and East Asian samples.

CONCLUSION

Personality research has been greatly informed by investigations outside of Western culture, and such data provide new perspectives to address important questions. Personality research has taken an important step in advancing the field from what was largely the study of American undergraduates to the study of human nature. We applaud this move, and we urge the field to consider a much broader spectrum of samples, including those from other social classes and other age groups, and to target nonliterate subsistence populations as well. Such kinds of investigations have the potential to identify what appear to be human universals (e.g., the structure of personality) and what is culturally variable (e.g., the positivity of evaluations of personality, the distribution of personality traits, and the utility of personality).

An understanding of what is universal and what is variable about human personality is not

some tangential question, but rather stands to illuminate fundamental concerns of the field (for more discussion, see Norenzayan & Heine 2005). Evidence for universality is particularly informative for guiding evolutionary theories regarding the adaptiveness of certain facets of personality, whereas evidence for variability provides important information regarding boundary conditions, mechanisms, and the role of contextual variables in influencing aspects of personality. The fact that so little work on personality has been conducted outside of Western samples (Quinones-Vidal et al. 2004) or has employed methods other than self-report [more than 95% of papers in the Journal of Personality rely on self-report methods (Kagan 2007), which are particularly problematic for cross-cultural comparisons; Heine et al. 2002, 2008a; Peng et al. 1997)] means that there are still vast lacunae in our understanding of human personality.

DISCLOSURE STATEMENT

The authors are not aware of any biases that might be perceived as affecting the objectivity of this review.

LITERATURE CITED

- Aaker JL, Lee AY. 2001. "I" seek pleasures and "We" avoid pains: the role of self-regulatory goals in information processing and persuasion. 7. Consum. Res. 28:33–49
- Adams G. 2005. The cultural grounding of personal relationship: enemyship in West African worlds. J. Personal. Soc. Psychol. 88:948–68
- Allik J, McCrae RR. 2004. Toward a geography of personality traits: patterns of profiles across 36 cultures. 7. Cross-Cult. Psychol. 35:13–28
- Allport GW, Odbert HS. 1936. Trait-names: a psycho-lexical study. Psychol. Monogr. 47:171-220
- Arnett JJ. 2008. The neglected 95%: why American psychology needs to become less American. Work. pap., Clark Univ., Worcester, MA
- Ashton MC. 2007. Self-reports and stereotypes: a comment on McCrae et al. Eur. J. Personal. 21:983-86
- Ashton MC, Lee K, Perugini M, Szarota P, de Vries RE, et al. 2004. A six-factor structure of personalitydescriptive adjectives: solutions from psycholexical studies in seven languages. *J. Personal. Soc. Psychol.* 86:356–66
- Bagozzi R, Wong N, Yi Y. 1999. The role of culture and gender in the relationship between positive and negative affect. Cogn. Emot. 13:641–72
- Benet-Martínez V. 2007. Cross-cultural personality research: conceptual and methodological issues. In Handbook of Research Methods in Personality Psychology, ed. RW Robins, CR Fraley, RF Krueger, pp. 170–89. New York: Guilford
- Benet-Martínez V, John OP. 1998. Los cinco grandes across cultures and ethnic groups: multitrait multimethod analysis of the Big Five in Spanish and English. J. Personal. Soc. Psychol. 75:729–50

- Benet-Martinez V, Waller NG. 1995. The Big Seven factor model of personality description: evidence for its cross-cultural generality in a Spanish sample. J. Personal. Soc. Psychol. 69:701–18
- Benet-Martinez V, Waller NG. 1997. Further evidence for the cross-cultural generality of the Big Seven factor model: indigenous and imported Spanish personality constructs. *J. Personal.* 65:567–98
- Block J. 1995. A contrarian view of the five-factor approach to personality description. Psychol. Bull. 117:187– 215
- Bond MH. 1979. Dimensions of personality used in perceiving peers: cross-cultural comparisons of Hong Kong, Japanese, American, and Filipino university students. Int. J. Psychol. 14:47–56
- Bond MH, Nakazato H, Shiraishi D. 1975. Universality and distinctiveness in dimensions of Japanese person perception. J. Cross-Cult. Psychol. 6:346–57
- Boyd R, Borgerhoff-Mulder M, Durham WH, Richerson PJ. 1997. Are cultural phylogenies possible? In Human by Nature: Between Biology and the Social Sciences, ed. P Weingart, pp. 355–86. Mahwah, NJ: Erlbaum
- Budaev SV. 1997. "Personality" in the guppy (*Poecilia reticulata*): a correlational study of exploratory behavior and social tendency. *J. Comp. Psychol.* 111:399–411
- Buss DM. 1984. Evolutionary biology and personality psychology: toward a conception of human nature and individual differences. Am. Psychol. 39:1135–47
- Buss DM. 1991. Evolutionary personality psychology. Annu. Rev. Psychol. 42:459-91
- Campbell DT, Fiske DW. 1959. Convergent and discrimination validation by the multi-trait multimethod matrix. Psychol. Bull. 56:81–105
- Campbell JD, Trapnell PD, Heine SJ, Katz IM, Lavallee LF, Lehman DR. 1996. Self-concept clarity: measurement, personality correlates, and cultural boundaries. *J. Personal. Soc. Psychol.* 70:141–56
- Cattell RB. 1957. Personality and Motivation Structure and Measurement. New York: World Book Co.
- Chen C, Lee S-Y, Stevenson HW. 1995. Response style and cross-cultural comparisons of rating scales among East Asian and North American students. *Psychol. Sci.* 6:170–75
- Cheung FM, Cheung SF, Leung K, Ward C, Leong F. 2003. The English version of the Chinese Personality Assessment Inventory. J. Cross-Cult. Psychol. 34:433–52
- Cheung FM, Leung K, Fan RM, Song W, Zhang J-X, Zhang J-P. 1996. Development of the Chinese Personality Assessment Inventory. J. Cross-Cult. Psychol. 27:181–99
- Choi I, Choi Y. 2002. Culture and self-concept flexibility. Personal. Soc. Psychol. Bull. 28:1508–17
- Choi I, Nisbett RE. 1998. Situational salience and cultural differences in the correspondence bias and in the actor-observer bias. *Personal. Soc. Psychol. Bull.* 24:949–60
- Choi I, Nisbett RE, Norenzayan A. 1999. Causal attribution across cultures: variation and universality. Psychol. Bull. 125:47–63
- Church AT, Katigbak MS. 2002. The five-factor model in the Philippines: investigating trait structure and levels across cultures. In *Five-Factor Model of Personality Across Cultures*, ed. RR McCrae, J Allik, pp. 129–54. New York: Kluwer Acad./Plenum
- Church AT, Katigbak MS, Del Prado AM, Ortiz FA, Mastor KA, et al. 2006. Implicit theories and selfperceptions of traitedness across cultures: toward integration of cultural and trait psychology perspectives. *J. Cross-Cult. Psychol.* 37:694–716
- Church AT, Katigbak MS, Miramontes LG, del Prado AM, Cabrera HF. 2007. Culture and the behavioural manifestations of traits: an application of the act frequency approach. *Eur. J. Personal.* 21:389–417
- Church AT, Katigbak MS, Reyes JAS. 1998. Further exploration of Filipino personality structure using the lexical approach: Do the Big-Five or Big-Seven dimensions emerge? *Eur. J. Personal.* 12:249–69
- Church AT, Reyes JAS, Katigbak MS, Grimm SD. 1997. Filipino personality structure and the Big Five Model: a lexical approach. *J. Personal.* 65:477–528
- Cohen D. 2001. Cultural variation: considerations and implications. Psychol. Bull. 127:451-71
- Cohen D. 2007. Methods in cultural psychology. In Handbook of Cultural Psychology, ed. S Kitayama, D Cohen, pp. 196–236. New York: Guilford
- Cohen D, Gunz A. 2002. As seen by the other...: perspectives on the self in the memories and emotional perceptions of Easterners and Westerners. *Psychol. Sci.* 13:55–59

- Annu. Rev. Psychol. 2009.60:369-394. Downloaded from arjournals.annualreviews.org by University of British Columbia Library on 12/16/08. For personal use only.
- Cohen D, Hoshino-Browne E, Leung AK-Y. 2007. Culture and the structure of personal experience: insider and outsider phenomenologies of the self and social world. In *Advances in Experimental Social Psychology*, Vol. 39, ed. MP Zanna, pp. 1–67. San Diego, CA: Elsevier Acad.
- Colvin CR, Block J, Funder DC. 1995. Overly positive evaluations and personality: negative implications for mental health. J. Personal. Soc. Psychol. 68:1152–62
- Costa PT Jr, McCrae RR. 1992. Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) Professional Manual. Odessa, FL: Psychol. Assess. Resourc.
- Crocker J, Luhtanen R, Blaine B, Broadnax S. 1994. Collective self-esteem and psychological well-being among white, black, and Asian college students. *Personal. Soc. Psychol. Bull.* 20:503–13
 - Diener E, Diener M. 1995. Cross-cultural correlates of life satisfaction and self-esteem. J. Personal. Soc. Psychol. 68:653–63
 - Diener E, Diener M, Diener C. 1995. Factors predicting the subjective well-being of nations. J. Personal. Soc. Psychol. 69:851–64
 - Diener E, Oishi S, Lucas RE. 2003. Personality, culture, and subjective well-being: emotional and cognitive evaluations of life. Annu. Rev. Psychol. 54:403–25
 - Diener E, Wallbom M. 1976. Effects of self-awareness on antinormative behavior. J. Res. Personal. 10:107-11
 - Duff KJ, Newman LS. 1997. Individual differences in the spontaneous construal of behavior: idiocentrism and the automatization of the trait inference process. Soc. Cogn. 15:217–41
 - Duval TS, Wicklund R. 1972. A Theory of Objective Self-Awareness. New York: Academic
 - Dweck CS. 1999. Self-Theories: Their Role in Motivation, Personality, and Development. New York: Psychol. Press
 - Dweck CS, Leggett EL. 1988. A social-cognitive approach to motivation and personality. *Psychol. Rev.* 95:256–73
 - Elliot AJ, Chirkov VI, Kim Y, Sheldon KM. 2001. A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychol. Sci.* 12:505–10
 - Ellis BJ, Simpson JA, Campbell L. 2002. Trait-specific dependence in romantic relationships. *J. Personal.* 70:611-60
 - English T, Chen S. 2007. Culture and self-concept stability: consistency across and within contexts among Asian Americans and European Americans. J. Personal. Soc. Psychol. 93:478–90
 - Eysenck HJ. 1975. Manual of the Eysenck Personality Questionnaire. London: Hodder & Stoughton
 - Fejfar MC, Hoyle RH. 2000. Effect of private self-awareness on negative affect and self-referent attribution: a quantitative review. *Personal. Soc. Psychol. Rev.* 4:132–42
 - Fiske DS. 1949. Consistency of the factorial structures of personality ratings from different sources. J. Abnorm. Soc. Psychol. 44:329–44
 - Fleeson W. 2004. Moving personality beyond the person-situation debate: the challenge and the opportunity of within-person variability. Curr. Dir. Psychol. Sci. 13:83–87

Fryberg SA, Markus HR. 2003. On being American Indian: current and possible selves. Self Identity 2:325-44

- Funder DC. 2007. The Personality Puzzle. New York: Norton
- Geertz C. 1975. On the nature of anthropological understanding. Am. Sci. 63:4-53
- Gilbert DT, Malone PS. 1995. The correspondence bias. Psychol. Bull. 117:21-38
- Goldberg LR. 1981. Language and individual differences: the search for universals in personality lexicons. In *Review of Personality and Social Psychology*, ed. L Wheeler, pp. 141–65. Beverly Hills, CA: Sage
- Gosling SD. 1998. Personality dimensions in spotted hyenas (Crocuta crocuta). J. Comp. Psychol. 112:107-18
- Gosling SD. 2001. From mice to men: What can we learn about personality from animal research? *Psychol. Bull.* 127:45–86
- Gosling SD, John OP. 1999. Personality dimensions in nonhuman animals: a cross-species review. Curr. Dir. Psychol. Sci. 8:69–75
- Gosling SD, John OP, Craik KH, Robins RW. 1998. Do people know how they behave? Self-reported act frequencies compared with online codings of observers. *J. Personal. Soc. Psychol.* 74:1337–49
- Gosling SD, Ko SJ, Mannarelli T, Morris ME. 2002. A room with a cue: personality judgments based on offices and bedrooms. J. Personal. Soc. Psychol. 82:379–98
- Greenfield PM. 1997. Culture as process: empirical methods for cultural psychology. In *Handbook of Cross-Cultural Psychology*, ed. JW Berry, YH Poortinga, J Pandey, pp. 301–46. Boston, MA: Allyn & Bacon

Grimm SD, Church AT. 1999. A cross-cultural study of response biases in personality measures. J. Res. Personal. 33:415–41

Guthrie GM, Bennett AB. 1971. Cultural differences in implicit personality theory. Int. J. Psychol. 6:305-12

- Hamamura T, Heine SJ. 2008. Approach and avoidance motivations across cultures. In Handbook of Approach and Avoidance Motivations, ed. AJ Elliot, pp. 549–62. Mahwah, NJ: Erlbaum
- Hamamura T, Heine SJ, Paulhus DL. 2008a. Cultural differences in response styles: the role of dialectical thinking. *Personal. Individ. Differ.* 44:932–42
- Hamamura T, Heine SJ, Takemoto T. 2007. Why the better-than-average effect is a worse-than-average measure of self-enhancement: an investigation of conflicting findings from studies of East Asian selfevaluations. *Motiv. Emot.* 31:247–59
- Hamamura T, Meijer Z, Heine SJ, Kamayo K, Hori I. 2008b. Approach-avoidance motivations and information processing: a cross-cultural analysis. Unpubl. manuscr., Univ. Br. Columbia
- Heine SJ. 2001. Self as cultural product: an examination of East Asian and North American selves. *J. Personal.* 69:881–906
- Heine SJ. 2005. Constructing good selves in Japan and North America. In Culture and Social Behavior: The Tenth Ontario Symposium, ed. D Cohen, JM Olson, MP Zanna, pp. 95–116. Hillsdale, NJ: Erlbaum
- Heine SJ. 2008. Cultural Psychology. New York: Norton
- Heine SJ, Buchtel EE, Norenzayan A. 2008a. What do cross-national comparisons of personality traits tell us? The case of conscientiousness. *Psychol. Sci.* 19:309–13
- Heine SJ, Hamamura T. 2007. In search of East Asian self-enhancement. Personal. Soc. Psychol. Rev. 11:4-27
- Heine SJ, Kitayama S, Hamamura T. 2007a. The inclusion of additional studies yields different conclusions: a reply to Sedikides, Gaertner, & Vevea 2005, JPSP. Asian J. Soc. Psychol. 10:49–58
- Heine SJ, Kitayama S, Hamamura T. 2007b. Which studies test the question of pancultural self-enhancement? A reply to Sedikides, Gaertner, & Vevea, 2007. Asian J. Soc. Psychol. 10:198–200
- Heine SJ, Kitayama S, Lehman DR, Takata T, Ide E, et al. 2001. Divergent consequences of success and failure in Japan and North America: an investigation of self-improving motivations and malleable selves. *7. Personal. Soc. Psychol.* 81:599–615
- Heine SJ, Lehman DR. 1997. The cultural construction of self-enhancement: an examination of group-serving biases. J. Personal. Soc. Psychol. 72:1268–83
- Heine SJ, Lehman DR. 1999. Culture, self-discrepancies, and self-satisfaction. Personal. Soc. Psychol. Bull. 25:915-25
- Heine SJ, Lehman DR, Markus HR, Kitayama S. 1999. Is there a universal need for positive self-regard? Psychol. Rev. 106:766–94
- Heine SJ, Lehman DR, Peng K, Greenholtz J. 2002. What's wrong with cross-cultural comparisons of subjective Likert scales? The reference-group effect. *J. Personal. Soc. Psychol.* 82:903–18
- Heine SJ, Norenzayan A. 2006. Towards a psychological science for a cultural species. Perspect. Psychol. Sci. 1:251–69
- Heine SJ, Renshaw K. 2002. Interjudge agreement, self-enhancement, and liking: cross-cultural divergences. Personal. Soc. Psychol. Bull. 28:578–87
- Heine SJ, Takata T, Lehman DR. 2000. Beyond self-presentation: evidence for self-criticism among Japanese. Personal. Soc. Psychol. Bull. 26:71–78
- Heine SJ, Takemoto T, Moskalenko S, Lasaleta J, Henrich J. 2008b. Mirrors in the head: cultural variation in objective self-awareness. *Personal. Soc. Psychol. Bull.* 34:879–87
- Henrich J, Boyd R, Bowles S, Camerer C, Fehr E, et al. 2005. "Economic man" in cross-cultural perspective: behavioral experiments in 15 small-scale societies. *Behav. Brain Sci.* 28:795–855
- Henrich J, Heine SJ, Norenzayan A. 2008. Are college-educated Americans the weirdest people in the world? Work. Pap., Univ. Brit. Columbia
- Higgins ET. 1996. The "self-digest": self-knowledge serving self-regulatory functions. J. Personal. Soc. Psychol. 71:1062–83
- Hofstede G. 2001. Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations. Thousand Oaks, CA: Sage
- Holloway SD. 1988. Concepts of ability and effort in Japan and the United States. Rev. Educ. Res. 58:327-45

- Hong Y, Chiu C, Dweck CS, Lin DM, Wan W. 1999. Implicit theories, attributions, and coping: a meaning system approach. 7. Personal. Soc. Psychol. 77:588–99
- Ip GWM, Bond MH. 1995. Culture, values, and the spontaneous self-concept. Asian J. Psychol. 1:30-36
- Iyengar SS, Lepper MR. 1999. Rethinking the value of choice: a cultural perspective on intrinsic motivation. J. Personal. Soc. Psychol. 76:349–66
- John OP, Robins RW. 1994. Accuracy and bias in self-perception: individual differences in self-enhancement and the role of narcissism. J. Personal. Soc. Psychol. 66:206–19
- Jones EE, Harris VA. 1967. The attribution of attitudes. J. Exp. Soc. Psychol. 3:1-24
- Kagan J. 2007. A trio of concerns. Perspect. Psychol. Sci. 2:361-76
- Kanagawa C, Cross SE, Markus HR. 2001. "Who am I?" The cultural psychology of the conceptual self. Personal. Soc. Psychol. Bull. 27:90–103
- Kashima Y, Kashima E, Farsides T, Kim U, Strack F, et al. 2004. Culture and context-sensitive self: the amount and meaning of context-sensitivity of phenomenal self differ across cultures. *Self Identity* 3:125–41
- King JE, Figueredo AJ. 1997. The Five-Factor Model plus dominance in chimpanzee personality. J. Res. Personal. 31:257–71
- Kitayama S. 2002. Culture and basic psychological processes—toward a system view of culture: comment on Oyserman et al. 2002. *Psychol. Bull.* 128:89–96
- Kitayama S, Markus HR, Kurokawa M. 2000. Culture, emotion, and well-being: good feelings in Japan and the United States. *Cogn. Emot.* 14:93–124
- Kitayama S, Uchida Y. 2003. Explicit self-criticism and implicit self-regard: evaluating self and friend in two cultures. J. Exp. Soc. Psychol. 39:476–82
- Klar Y, Giladi EE. 1997. No one in my group can be below the group's average: a robust positivity bias in favor of anonymous peers. *J. Personal. Soc. Psychol.* 73:885–901
- Knowles ED, Morris MW, Chiu C, Hong Y. 2001. Culture and the process of person perception: evidence for automaticity among East Asians in correcting for situational influences on behavior. *Personal. Soc. Psychol. Bull.* 27:1344–56
- Kobayashi C, Greenwald A. 2003. Implicit-explicit differences in self-enhancement for Americans and Japanese. J. Cross-Cult. Psychol. 34:522–41
- Kuhn MH, McPartland TS. 1954. An empirical investigation of self-attitudes. Am. Sociol. Rev. 19:68–76
- Kwan VSY, Bond MH, Singelis TM. 1997. Pancultural explanations for life satisfaction: adding relationship harmony to self-esteem. J. Personal. Soc. Psychol. 73:1038–51
- Leary MR, Baumeister RF. 2000. The nature and function of self-esteem: sociometer theory. In *Advances in Experimental Social Psychology*, ed. MP Zanna, pp. 1–62. San Diego, CA: Academic
- Lee AY, Aaker JL, Gardner WL. 2000. The pleasures and pains of distinct self-construals: the role of interdependence in regulatory focus. J. Personal. Soc. Psychol. 78:1122–34
- Lee GR, Stone LH. 1980. Mate-selection systems and criteria: variation according to family structure. *J. Marr: Fam.* 42:319–26
- Levy SR, Stroessner SJ, Dweck CS. 1998. Stereotype formation and endorsement: the role of implicit theories. *J. Personal. Soc. Psychol.* 74:1421–36
- Lieberman MD, Jarcho JM, Obayashi J. 2005. Attributional inference across cultures: similar automatic attributions and different controlled corrections. *Personal. Soc. Psychol. Bull.* 31:889–901
- Lockwood P, Marshall TC, Sadler P. 2005. Promoting success or preventing failure: cultural differences in motivation by positive and negative role models. *Personal. Soc. Psychol. Bull.* 31:379–92
- Ma V, Schoeneman TJ. 1997. Individualism versus collectivism: a comparison of Kenyan and American selfconcepts. Basic Appl. Soc. Psychol. 19:261–73
- Maass A, Karasawa M, Politi F, Suga S. 2006. Do verbs and adjectives play different roles in different cultures? A cross-linguistic analysis of person representation. J. Personal. Soc. Psychol. 90:734–50
- Markus HR, Kitayama S. 1991. Culture and the self: implications for cognition, emotion, and motivation. Psychol. Rev. 98:224–53
- Markus HR, Kitayama S. 1998. The cultural psychology of personality. J. Cross-Cult. Psychol. 29:63-87
- Maslow A. 1943. A theory of human motivation. Psychol. Rev. 50:370-96
- Mather JA, Anderson RC. 1993. Personalities of octopuses (Octopus rubescens). 7. Comp. Psychol. 107:336-40

McAdams DP. 1992. The five-factor model of personality: a critical appraisal. J. Personal. 60:329-61

McCrae RR. 2001. Trait psychology and culture: exploring intercultural comparisons. *J. Personal.* 69:819–46

- McCrae RR. 2002. NEO-PI-R data from 36 cultures: further intercultural comparisons. In *The Five-Factor Model of Personality Across Cultures*, ed. RR McCrae, J Allik, pp. 105–25. New York: Kluwer Acad./Plenum
- McCrae RR, Allik J, eds. 2002. The Five-Factor Model of Personality Across Cultures. New York: Kluwer Acad./Plenum
- McCrae RR, Costa PT Jr. 1987. Validation of the five-factor model of personality across instruments and observers. J. Personal. Soc. Psychol. 52:82–90
- McCrae RR, Terracciano A. 2006. National character and personality. Curr. Dir. Psychol. Sci. 15:156-61
- McCrae RR, Terracciano A, 79 members Personal. Profiles Cultures Proj. 2005. Personality profiles of cultures: aggregate personality traits. *J. Personal. Soc. Psychol.* 89:407–25

McGrath RE, Goldberg LR. 2006. How to measure national stereotypes? Science 311:776-77

Mesquita B, Karasawa M. 2002. Different emotional lives. Cogn. Emot. 17:127-41

Miller JG. 1984. Culture and the development of everyday social explanation. J. Personal. Soc. Psychol. 46:961–78

Mischel W. 1968. Personality and Assessment. New York: Wiley

- Mischel W, Shoda Y. 1995. A cognitive-affective system theory of personality: reconceptualizing the invariances in personality and the role of situations. *Psychol. Rev.* 102:246–68
- Miyamoto Y, Kitayama S. 2002. Cultural variation in correspondence bias: the critical role of attitude diagnosticity of socially constrained behavior. J. Personal. Soc. Psychol. 83:1239–48
- Molden DC, Dweck CS. 2006. Finding "meaning" in psychology: a lay theories approach to self-regulation, social perception, and social development. Am. Psychol. 61:192–203
- Montag L, Levin J. 1994. The five-factor personality model in applied settings. Eur. J. Personal. 8:1-11
- Morling B, Kitayama S, Miyamoto Y. 2002. Cultural practices emphasize influence in the United States and adjustment in Japan. Personal. Soc. Psychol. Bull. 28:311–23
- Morris MW, Peng K. 1994. Culture and cause: American and Chinese attributions for social and physical events. J. Personal. Soc. Psychol. 67:949–71
- Nathanson C, Paulhus DL, Williams KM. 2006. Predictors of a behavioral measure of scholastic cheating: personality and competence but not demographics. *Contemp. Educ. Psychol.* 31:97–122
- Norenzayan A, Choi I, Nisbett RE. 2002. Cultural similarities and differences in social inference: evidence from behavioral predictions and lay theories of behavior. *Personal. Soc. Psychol. Bull.* 28:109–20
- Norenzayan A, Heine SJ. 2005. Psychological universals: What are they and how can we know? Psychol. Bull. 131:763–84
- Oishi S, Diener E, Napa Scollon C, Biswas-Diener R. 2004. Cross-situational consistency of affective experiences across cultures. J. Personal. Soc. Psychol. 86:460–72
- Oishi S, Lun J, Sherman GD. 2007. Residential mobility, self-concept, and postive affect in social interactions. J. Personal. Soc. Psychol. 93:131–41
- Oyserman D, Coon HM, Kemmelmeier M. 2002. Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychol. Bull.* 128:3–72
- Paulhus DL. 1998. Interpersonal and intrapsychic adaptiveness of trait self-enhancement: a mixed blessing? J. Personal. Soc. Psychol. 74:1197–208
- Peng K, Nisbett RE. 1999. Culture, dialectics, and reasoning about contradiction. Am. Psychol. 54:741-54
- Peng K, Nisbett RE, Wong NYC. 1997. Validity problems comparing values across cultures and possible solutions. Psychol. Meth. 2:329–44

Penke L, Denissen JJA, Miller GF. 2007. The evolutionary genetics of personality. Eur. 7. Personal. 21:549-87

Perugini M, Richetin J. 2007. In the land of the blind, the one-eyed man is king. Eur. J. Personal. 21: 977-81

- Piedmont RL, Chae JH. 1997. Cross-cultural generalizability of the five-factor model of personality. J. Cross-Cult. Psychol. 28:131–55
- Plomin R, DeFries JC, McClearn GE, McGuffin P. 2001. Behavioral Genetics. New York: Worth Publ.
- Poortinga YH, Van de Vijver FJR, Van Hemert DA. 2002. Cross-cultural equivalence of the Big Five: a tentative interpretation of the evidence. In *The Five-Factor Model of Personality Across Cultures*, ed. RR McCrae, J Allik, pp. 281–302. New York: Kluwer Acad./Plenum
- Quinones-Vidal E, Lopez-Garcia JJ, Penaranda-Ortega M, Tortosa-Gil F. 2004. The nature of social and personality psychology as reflected in *JPSP*, 1965–2000. *J. Personal. Soc. Psychol.* 86:435–52

- Rhee E, Uleman JS, Lee HK, Roman RJ. 1995. Spontaneous self-descriptions and ethnic identities in individualistic and collectivistic cultures. *J. Personal. Soc. Psychol.* 69:142–52
- Roberts BW, Kuncel NR, Shiner R, Caspi A, Goldberg LR. 2007. The power of personality: the comparative validity of personality traits, socio-economic status, and cognitive ability for predicting important life outcomes. *Perspect. Psychol. Sci.* 2:313–45
- Robins RW, Beer JS. 2001. Positive illusions about the self: short-term benefits and long-term costs. J. Personal. Soc. Psychol. 80:340–52
- Ross LD, Amabile TM, Steinmetz JL. 1977. Social roles, social control, and biases in social-perception processes. J. Personal. Soc. Psychol. 35:485–94
- Sato K, Yuki M, Oishi S. 2007. The influence of relational mobility on self-esteem. Presented at Conf. Asian Assoc. Soc. Psychol., 7th, Kota Kinabalu, Malaysia
- Saucier G, Georgiades S, Tsaousis I, Goldberg LR. 2005. The factor structure of Greek personality adjectives. J. Personal. Soc. Psychol. 88:856–75
- Schmitt DP, Allik J. 2005. Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: exploring the universal and culture-specific features of global self-esteem. *J. Personal. Soc. Psychol.* 89:623– 42
- Schmitt DP, Allik J, McCrae RR, Benet-Martinez V. 2007. The geographic distribution of Big Five personality traits: patterns and profiles of human self-description across 56 nations. J. Cross-Cult. Psychol. 38:173–212
- Sedikides C, Gaertner L, Vevea J. 2007a. Evaluating the evidence for pancultural self-enhancement. Asian J. Psychol. 10:201–3
- Sedikides C, Gaertner L, Vevea J. 2007b. Inclusion of theory-relevant moderators yield the same conclusions as Sedikides, Gaertner, and Vevea 2005: a meta-analytical reply to Heine, Kitayama, and Hamamura 2007. *Asian J. Soc. Psychol.* 10:59–67
- Shweder RA. 1990. Cultural psychology: What is it? In *Cultural Psychology: Essays on Comparative Human Development*, ed. JW Stigler, RA Shweder, G Herdt, pp. 1–43. London: Cambridge Univ. Press
- Shweder RA, Bourne EJ. 1982. Does the concept of the person vary cross-culturally? In *Cultural Conceptions* of *Mental Health and Therapy*, ed. AJ Marsella, GM White, pp. 158–99. New York: Kluwer Acad.
- Snibbe AC, Markus HR, Kitayama S, Suzuki T. 2003. "They saw a game": self and group enhancement in Japan and the U.S. J. Cross-Cult. Psychol. 34:581–95
- Somer O, Goldberg LR. 1999. The structure of Turkish trait-descriptive adjectives. J. Personal. Soc. Psychol. 76:431–50
- Spencer-Rodgers J, Boucher HC, Mori SC, Wang L, Peng K. 2008. The dialectical self-concept: contradiction, change, and holism in East Asian cultures. *Personal. Soc. Psychol. Bull.* In press
- Spencer-Rodgers J, Peng K, Wang L, Hou Y. 2004. Dialectical self-esteem and East-West differences in psychological well-being. *Personal. Soc. Psychol. Bull.* 30:1416–32
- Stevenson HW, Stigler JW. 1992. The Learning Gap. New York: Summit
- Suh EM. 2002. Culture, identity consistency, and subjective well-being. J. Personal. Soc. Psychol. 83:1378-91
- Suh EM, Diener E, Oishi S, Triandis HC. 1998. The shifting basis of life satisfaction judgments across cultures: emotions versus norms. J. Personal. Soc. Psychol. 74:482–93
- Tafarodi RW, Lo C, Yamaguchi S, Lee WW, Katsura H. 2004. The inner self in three countries. J. Cross-Cult. Psychol. 35:97–117
- Taylor SE, Armor DA. 1996. Positive illusions and coping with adversity. J. Personal. 64:873-98
- Taylor SE, Brown JD. 1988. Illusion and well-being: a social psychological perspective on mental health. Psychol. Bull. 103:193–210
- Taylor SE, Lerner JS, Sherman DK, Sage RM, McDowell NK. 2003. Portrait of the self-enhancer: well adjusted and well liked or maladjusted and friendless? J. Personal. Soc. Psychol. 84:165–76
- Terracciano A, Abdel-Khalek AM, Ádám N, Adamovová L, Ahn C-K, et al. 2005. National character does not reflect mean personality trait levels in 49 cultures. *Science* 310:96–100
- Tesser A. 1988. Toward a self-evaluation maintenance model of social behavior. In Advances in Experimental Social Psychology, ed. L Berkowitz, pp. 181–227. San Diego, CA: Academic
- Tomasello M. 1999. The Cultural Origins of Human Cognition. Cambridge, MA: Harvard Univ. Press
- Triandis HC. 1989. The self and social behavior in differing cultural contexts. Psychol. Rev. 96:506-20

Triandis HC, Suh EM. 2002. Cultural influences on personality. Annu. Rev. Psychol. 53:133-60

- Tropp LR, Wright SC. 2003. Evaluations and perceptions of self, ingroup, and outgroup: comparisons between Mexican-American and European-American children. Self Identity 2:203–21
- Uleman JS. 1987. Consciousness and control: the case of spontaneous trait inferences. Personal. Soc. Psychol. Bull. 13:337–54
- Van Boven L, Kamada A, Gilovich T. 1999. The perceiver as perceived: everyday intuitions about the correspondence bias. J. Personal. Soc. Psychol. 77:1188–99
- Vohs KD, Heatherton TF. 2001. Self-esteem and threats to self: implications for self-construals and interpersonal perceptions. J. Personal. Soc. Psychol. 81:1103–18
- Wagar BM, Cohen D. 2003. Culture, memory, and the self: an analysis of the personal and collective self in long-term memory. J. Exp. Soc. Psychol. 39:468–75
- Wu S, Keysar B. 2007. The effect of culture on perspective taking. Psychol. Sci. 18:600-6
- Yik MSM, Russell JA, Ahn C, Fernandez-Dols JM, Suzuki N. 2002. Relating the five-factor model of personality to a circumplex model of affect: a five language study. In *The Five-Factor Model of Personality Across Cultures*, ed. RR McCrae, J Allik, pp. 79–104. New York: Kluwer Acad.
- Yuki M, Sato K, Schug JR, Horikawa H, Takemura K, Kaneko M. 2007a. The "openness" of a society and the relationship between self-esteem and subjective well-being. Presented at Conf. Asian Assoc. Soc. Psychol., 7th, Kota Kinabalu, Malaysia
- Yuki M, Schug JR, Horikawa H, Takemura K, Sato K, et al. 2007b. Development of a scale to measure perceptions of relational mobility in society. Work. pap., Hokkaido Univ., Sapporo, Japan
- Zarate MA, Uleman JS, Voils CI. 2001. Effects of culture and processing goals on the activation and binding of trait concepts. *Soc. Cogn.* 19:295–323

$\mathbf{\hat{R}}$

Annual Review of Psychology

Contents

Volume 60, 2009

Prefatory
Emotion Theory and Research: Highlights, Unanswered Questions, and Emerging Issues <i>Carroll E. Izard</i>
Concepts and Categories
Concepts and Categories: A Cognitive Neuropsychological Perspective Bradford Z. Mahon and Alfonso Caramazza
Judgment and Decision Making
Mindful Judgment and Decision Making Elke U. Weber and Eric J. Johnson
Comparative Psychology
Comparative Social Cognition Nathan J. Emery and Nicola S. Clayton
Development: Learning, Cognition, and Perception
Learning from Others: Children's Construction of Concepts Susan A. Gelman
Early and Middle Childhood
Social Withdrawal in Childhood Kenneth H. Rubin, Robert J. Coplan, and Julie C. Bowker
Adulthood and Aging
The Adaptive Brain: Aging and Neurocognitive Scaffolding Denise C. Park and Patricia Reuter-Lorenz
Substance Abuse Disorders
A Tale of Two Systems: Co-Occurring Mental Health and Substance Abuse Disorders Treatment for Adolescents <i>Elizabeth H. Hawkins</i>

Therapy for Specific Problems

Therapy for Specific Problems: Youth Tobacco Cessation Susan J. Curry, Robin J. Mermelstein, and Amy K. Sporer
Adult Clinical Neuropsychology
Neuropsychological Assessment of Dementia David P. Salmon and Mark W. Bondi
Child Clinical Neuropsychology
Relations Among Speech, Language, and Reading Disorders Bruce F. Pennington and Dorothy V.M. Bishop
Attitude Structure
Political Ideology: Its Structure, Functions, and Elective Affinities John T. Jost, Christopher M. Federico, and Jaime L. Napier
Intergroup relations, stigma, stereotyping, prejudice, discrimination
Prejudice Reduction: What Works? A Review and Assessment of Research and Practice <i>Elizabeth Levy Paluck and Donald P. Green</i>
Cultural Influences
Personality: The Universal and the Culturally Specific Steven J. Heine and Emma E. Buchtel
Community Psychology
Community Psychology: Individuals and Interventions in Community Context Edison 7. Trickett
Leadership
Leadership: Current Theories, Research, and Future Directions
Bruce J. Avolio, Fred O. Walumbwa, and Todd J. Weber
Training and Development
Benefits of Training and Development for Individuals and Teams, Organizations, and Society <i>Herman Aguinis and Kurt Kraiger</i>
Marketing and Consumer Behavior
Conceptual Consumption Dan Ariely and Michael I. Norton

Psychobiological Mechanisms

Health Psychology: Developing Biologically Plausible Models Linking the Social World and Physical Health <i>Gregory E. Miller; Edith Chen, and Steve Cole</i>
Health and Social Systems
The Case for Cultural Competency in Psychotherapeutic Interventions Stanley Sue, Nolan Zane, Gordon C. Nagayama Hall, and Lauren K. Berger
Research Methodology
Missing Data Analysis: Making It Work in the Real World John W. Graham
Psychometrics: Analysis of Latent Variables and Hypothetical Constructs
Latent Variable Modeling of Differences and Changes with Longitudinal Data John J. McArdle
Evaluation
The Renaissance of Field Experimentation in Evaluating Interventions <i>William R. Shadish and Thomas D. Cook</i>
Timely Topics
Adolescent Romantic RelationshipsW. Andrew Collins, Deborah P. Welsh, and Wyndol Furman631
Imitation, Empathy, and Mirror Neurons Marco Iacoboni 653
Predicting Workplace Aggression and Violence Julian Barling, Kathryne E. Dupré, and E. Kevin Kelloway
The Social Brain: Neural Basis of Social Knowledge <i>Ralph Adolphs</i>
Workplace Victimization: Aggression from the Target's Perspective Karl Aquino and Stefan Thau 717
Indexes
Cumulative Index of Contributing Authors, Volumes 50–60
Cumulative Index of Chapter Titles, Volumes 50–60
Errata

An online log of corrections to *Annual Review of Psychology* articles may be found at http://psych.annualreviews.org/errata.shtml