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Theory, Not Cultural Context, Will Advance American Psychology

Gerald J. Haeffel
University of Notre Dame

Erik D. Thiessen
Carnegie Mellon University

Matthew W. Campbell
Emory University

Michael P. Kaschak
Florida State University

Nicole M. McNeil
University of Notre Dame

In his recent article, “The Neglected 95%: Why American Psychology Needs to Become Less American,” Arnett (October 2008) provided a thought-provoking analysis of the current state of psychology. He made two primary arguments: (a) Psychological research using American samples cannot generalize to the rest of the world, and (b) psychology’s emphasis on basic processes should be replaced by an emphasis on context and culture. We agree with the author’s call for greater attention to issues of context. However, we fundamentally disagree with his position on issues related to generalizability and basic research. The goal of this commentary is to provide a critical evaluation of Arnett’s primary arguments as well as to offer alternative strategies for facilitating scientific progress on cultural and diversity issues.

Generalizability

Arnett’s (2008) first argument is that American psychology does not represent people everywhere, and thus, its findings are not generalizable. This argument is a variation of the well-known “college sophomore problem.” The argument is as follows: Research findings from a select sample such as college sophomores (or Americans, in this case) will not apply to other samples. This is a valid concern, and clearly there are situations in which research on select samples may not generalize. However, the problem of generalizability is often overstated. Studies using one sample of humans (e.g., Americans) often generalize to other samples of humans (e.g., Spaniards), particularly when basic processes are being studied (e.g., Anderson, Lindsay, & Bushman, 1999). The results of studies investigating a wide range of psychological phenomena, including personality, information processing, aggression, and mental illness, tend to hold in a variety of contexts and with a variety of participant samples (see Stanovich, 2007, for review). The consistency of research findings across contexts and samples should not be surprising given that all humans, whether they live in America or a developing country, share a common genome, brain organization, and capacity for cognition, perception, and emotion.

The college sophomore problem is not new, and it is not clear that Arnett’s (2008) discussion advances our understanding of the issue. His case is based largely on “straw man” arguments. He provided numerous examples of when differences between Americans and other samples would be expected, including gender roles, marital relations, family structure, and the nature of formal education. Although subjectively compelling, these examples do not address the issue of the generalizability of research on basic processes. The existence of cultural variation does not imply that there are no universals worth studying. The same basic process can generate different products depending on the structure of the environment in which that process operates. It is not enough to show that American culture is different from other cultures. This fact is not disputed. The critical question is what these differences mean for human psychology. That is, what do cultural differences (e.g., gender roles, family structure, formal mathematical skills) say about the basic human processes (e.g., perception, cognition, emotion) that played a role in the development of those differences?

Basic Research

Arnett’s (2008) second argument is that psychological research should focus on culture and diversity rather than on basic processes. He went so far as to state, “At a time when there are numerous daunting international problems that psychological science could address, such as religious fundamentalism, terrorism, international ecological crises, war, the HIV pandemic, and growing poverty, the main thrust in American psychology continues to be a research focus on processes and principles that goes forward as if none of these issues existed” (p. 612). This statement demonstrates a fundamental misunderstanding about basic research. His statement is akin to asking why medical research continues to focus on growing stem cells when there are more daunting problems such as Alzheimer’s and Parkinson’s disease. Basic research in psychology has clear implications for real-world issues. For example, research on information processing and behavioral activation has led to the creation of highly effective treatments (e.g., cognitive behavior therapy) for disorders such as depression and anxiety. Similarly, research on early experience with binocular vision (e.g., Banks, Aslin, & Letson, 1975) demonstrated the critical need for early (as opposed to delayed) detection and treatment of conditions that cause abnormal binocular experience such as esotropia. In addition, research on obedience (e.g., the Milgram studies and Zimbardo’s prison experiment) have important implications for understanding the sometimes atrocious behavior of humans (e.g., Abu Ghraib, terrorism, Nazi war crimes). These are just a few of many examples that illustrate the critical role of basic research (both human and animal) in understanding, and creating solutions for, real-world issues.

Cultural Context—Where’s the Theory?

Arnett’s (2008) argument against basic research raises fundamental questions about how to define science (i.e., the problem of demarcation) and how to evaluate scientific progress. Following Arnett’s reasoning, science is defined by its applicability to real-world problems, sample representativeness, and the use of nonexperimental designs. Thus, he concluded that psychological science is “incomplete” because of its focus on basic processes, American samples, and experimental designs. In contrast to Arnett, we subscribe to a philosophy of science described by philosophers such as Popper and Mehl. According to Popper (1959), science is characterized by the falsification of theories. If a theory is falsifiable, it is by definition scientific. Popper’s definition of science does not depend on whether the work is basic or applied. It does not depend on the type of...
research design one uses (longitudinal, cross-sectional, experimental, quasi-experimental, etc). It does not depend on the sample (e.g., American or Nigerian). Science is characterized by testing and falsifying theories (Meehl, 1978).

In light of this philosophy, it is unclear why research on cultural context should be considered more scientifically progressive than research on basic processes. In fact, Arnett’s (2008) description of cultural research raises concerns that it could actually slow progress in psychology. His vision of cultural psychology does not invoke theory or the importance of having testable hypotheses. Rather, cultural psychology appears to be exploratory and descriptive in nature. Will cultural psychology simply be an anecdotal record of cultural differences or a collection of replication studies? Will 100% of the world’s population have to be studied before psychology can be considered a “complete science?” Arnett failed to provide any information about how cultural psychology will progress as a science.

From a philosophy of science perspective, Arnett’s (2008) distinction between cultural context and basic processes is a false dichotomy. The problem with human psychology is not its focus on basic processes rather than cultural context; it is the lack of strong falsifiable theories (Meehl, 1978). Cultural context cannot exist in a vacuum isolated from basic processes such as cognition, perception, language, and so forth. If cultural research is to take hold in psychology, then it must be theory driven and integrated into work on basic processes. It is not enough to surmise that different cultures may lead to different outcomes. Researchers need to specify the conditions for when they would and would not expect culture to affect basic processes and behaviors.

Cultural context can serve an important purpose in psychological science: It will enable us to test hypotheses about which features of human behavior are acquired through experience and which are basic (or innate). Basic processes are mechanisms via which humans—and other animals—are able to respond adaptively to typical environments; however, these processes can be distinguished from another kind of adaptation, acquired associations or strategies (such as learning), which vary across situations and cultures. Within this framework, cultural adaptations can be thought to arise from the operation of basic processes, such as learning. For example, at one time it was thought that language was acquired solely through imitation of and reinforcement by models within one’s sociocultural context (e.g., Skinner’s, 1957, *Verbal Behavior*), until Chomsky’s synthesis of cross-cultural linguistic variation revealed important similarities across cultures, suggesting that language acquisition also depends on a more basic structure or process that all humans share. Similarly, conventional wisdom suggests that abstract mathematical concepts are learned through years of formal education and training; however, studies of hunter-gatherer cultures (e.g., the Pirahã; Gordon, 2004) and even of nonhuman animals (e.g., monkeys, rats, pigeons; Gallistel & Gelman, 2000) have shown that we all share a common system for representing the abstract concept of number. In clinical psychology, many assume that eating disorders such as anorexia nervosa and bulimia nervosa share a common genetic etiology. However, recent research suggests that the genetic diathesis for bulimia nervosa may exhibit greater pathoplasticity cross-culturally than the diathesis for anorexia nervosa; this finding indicates distinct etiologies for these disorders (Keel & Klump, 2003). These examples highlight the importance of using cultural context to test theories about basic and acquired human behavior.

**Conclusion**

Focusing on cultural context rather than basic processes is not going to advance American psychology, or psychology in general. Neither are having students travel abroad or take anthropology classes (as recommended by Arnett), in and of themselves. Rather, science will advance by developing and testing theories. We believe that psychological science can benefit most by using differences in culture and context to develop and test novel hypotheses about basic human processes.

Note that this formulation of the purpose of cross-cultural psychology differs markedly from Arnett’s (2008), which espouses cultural representativeness as a goal unto itself.

**REFERENCES**


Correspondence concerning this comment should be addressed to Gerald J. Haeffel, Department of Psychology, 108 Haggard Hall, University of Notre Dame, Notre Dame, IN 46556. E-mail: ghaeffel@nd.edu

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**The Neglected 95%, a Challenge to Psychology’s Philosophy of Science**

Jeffrey Jensen Arnett  
Clark University

My goal in writing “The Neglected 95%: Why American Psychology Needs to Become Less American” (Arnett, October 2008) was to fuel a conversation in psychology about whether American psychological research should become more reflective of how human beings in different cultures around the world experience their lives. I am pleased to see that many of my colleagues have taken up this conversation, as represented in the four comments *American Psychologist* is publishing in this issue. The four comments were well chosen in that they represent quite different reactions to my article. Two of the comments were generally in support of my thesis that American psychology is too narrow culturally, and sought to provide additional information on the issues I raised. The other two comments were in opposition to my thesis and presented the grounds for their