DEVELOPING AN APPROPRIATE PSYCHOLOGY THROUGH CULTURALLY SENSITIVE RESEARCH PRACTICES IN THE ARABIC-SPEAKING WORLD
A Content Analysis of Psychological Research Published Between 1950 and 2004

SAMAR ZEBIAN
RAYANE ALAMUDDIN
MARIANE MAALOUF
YASMINE CHATILA
American University of Beirut, Lebanon

Contemporary psychologists in the Arabic-speaking world remain deeply concerned with many of the same foundational issues that have impeded the development of sustainable research traditions since at least the 1950s. As a means of assessing historical and current trends in regional research practices, the project reported in this article employs a content analysis method to assess the cultural sensitivity of peer-reviewed English-language empirical studies conducted on peoples of the Arabic-speaking world. Results suggest that cultural sensitivity is quite low on many of the dimensions assessed, including whether/how findings are applied to everyday settings, validity of methodological procedures employed, the way cultural contributions to psychological processes are discussed, the local relevance of conclusions drawn from empirical findings, and how theories and concepts are transferred from mainstream (Western) psychology. The current findings are used to suggest some strategic and potentially controversial connections between culturally sensitive research and developing an appropriate psychology.

Keywords: indigenous psychology; Arab region; content analysis; culturally sensitive research

In the current investigation, we conducted a detailed content analysis of English-language peer-reviewed research articles about peoples of the Arabic-speaking world to assess the degree to which researchers have engaged in culturally sensitive research practices. To assess these practices, we are building on previous work by Adair, Puhan, and Vohra (1993), Khaleefa (1999), and Ongel and Smith (1999), each of whom have empirically assessed the degree of indigenization and cultural sensitivity in various national traditions, including India, Turkey, the former Soviet Union, and in the subfield of creativity and intelligence in the Arabic-speaking world. In this research tradition, some common dimensions have been shown and/or postulated to directly contribute to higher levels of cultural sensitivity: (a) citing local research or an awareness of the state of local research; (b) the degree to which

researchers acknowledge and address local research and human development needs; (c) an awareness of culturally significant processes and constructs; (d) showing a critical awareness of the applicability and transferability of existing methods, concepts, and theories to the sample under study; and (e) the degree to which research contributes to a greater understanding of individual functioning in the local context.

This framework for assessing research development is used to achieve the three main aims of the current study. First, it provides an objective means of assessing whether researchers in the Arabic-speaking world are transferring and extending knowledge from the established traditions in psychology in culturally sensitive ways. Second, it provides a suitable context for exploring whether historic and current research practices are contributing to higher order research goals, such as developing an appropriate psychology that embodies healthy forms of self-reliance and methodological validity and is responsive to the needs of the societies and peoples it attempts to study (Moghaddam & Taylor, 1986). Finally, the cultural-sensitivity framework provides a context for examining the nature of the relationship between regional psychology in the Arabic-speaking world, the established tradition in psychology, and other emerging national psychologies. Before we elaborate on the cultural-sensitivity framework, and how it may contribute to the development of an appropriate psychology and mutually beneficial relations with other psychologies, we provide some background on how Arab regional scholars have reflected on their field.

PSYCHOLOGISTS IN THE ARABIC-SPEAKING WORLD
REFLECTING ON THE DEVELOPMENT OF THEIR FIELD

During the past 60 years, a small but growing number of psychologists working in the Arabic-speaking region have offered commentaries and critiques on the development of psychological research and the regional discipline (Abou-Hatab, 1997; Ahmed, 2004; Ahmed & Gielen, 1998; Akil, 1965; Al-Soud, 2000; Diab, 1965; Melikian, 1984; Naboulsi, 1995a, 1995b; Prothro & Melikian, 1955). When referring to the field, many of these scholars have used the terms *Arab psychology* or *discipline of psychology in the Arab world*—terms that imply the existence of a homogeneous and autonomous perspective or field. With respect to the belief in a homogeneous field, there are prominent psychologists who assume that Egyptian psychology (historically the oldest and more prominent in the region) has been directly transplanted across the Arab region, especially in the Gulf (see Abou-Hatab, 1993; Ahmed & Gielen, 1998). Despite this assumption, there are several ways in which various national traditions differ, especially with respect to the following dimensions: the language used in scientific practice (Arabic, English, and French), the prominence and influence of different psychological traditions (British, French, and American), differences in psychology's role in national development, psychology's relation with the lay community, and the varying relations that psychology has with related disciplines such as psychiatry, sociology, education, anthropology, philosophy, or the natural sciences (Kazarian & Khoury, 2003; Naboulsi, 1995b). This diversity necessitates more fine-grained local research to counteract the view that there is one uniform perspective or field (not necessarily using the nation as the only unit of analysis); however, there is still value in looking more globally at regional research practices because all emerging national traditions must contend with issues related to methodological validity and the transfer of knowledge across cultures (or the lack thereof, see Abou-Hatab, 1997; Ahmed & Gielen, 1998; Alamuddin, 2005; Al-Soud, 2000; Gregg, 2005; Kagitcibasi, 1994; Moghaddam, 1993; Nsamenang, 2000; Sinha, 1997; Yang, 1997). As such, the current study offers a regional look at research practices.

The other assumption underlying the use of the term *Arab psychology* is that there is an autonomous publicly recognized discipline of psychology in the Arab world. Some scholars are hesitant to use the term *discipline* because it does not recognize that regional psychologists are struggling to secure recognition, relevance, and disciplinary autonomy (Galioun, 1997; Naboulsi, 1995b). These are legitimate concerns that require further examination. However, they are tangential to the current investigation because our aim is to directly assess the research practices of scholars and not the development of the discipline as a whole. As such, there is no need on our part to make premature claims about the development of the discipline in the Arab region. Because of the problematic nature of the terms *discipline* and *Arab psychology*, as it applies at this time in the development of the field, we use the terms only where authors have used it themselves.

Challenges identified by regional researchers. Returning to our discussion of the scholarship that reflects on the development of the field, it appears that many scholars have been puzzled by the field's curious history and interrupted progress (Abou-Hatab, 1997; Ahmed & Gielen, 1998; Al-Soud, 2000; Gregg, 2005; Naboulsi, 1995b). Current researchers remain deeply concerned with many of the basic issues that earlier pioneers identified and lamented about in the 1950s. Consider the following passage in an early overview of the field by Prothro and Melikian (1955):

> From this brief survey, it can be seen that psychology in the Arab Near East is essentially academic. Where the French academic tradition prevails, psychology is closely allied with philosophy. Where the British tradition prevails, psychology is allied with education, and there is a strong emphasis on testing and measurement. There is some concern for research in Egypt and Lebanon, but this activity is subordinate throughout the area to translation of important Western books and adaptation to local use of Western tests. (p. 309)

These views were clearly supported by other early scholars (Akil, 1965; Diab, 1965) and have been reiterated (and extended, as we discuss below) 43 years later in more recent commentaries. Although Prothro and Melikian's review reveals what we consider serious challenges, their overall "prognosis" (their term) is surprisingly favorable and optimistic. In fact, they perceived a "nourishing" relationship between regional psychology and Western psychology, a view that has been challenged by many scholars of their time and is continuing to be challenged today.

More recent self-reflexive observations and critiques, most of which discuss the regional development of the discipline as a whole (subfield and national differences are rarely discussed as noted above), have identified several persistent and steep challenges ahead. Many scholars have focused on the challenges of forming professional identities and professional associations. Others are concerned with the lack of financial and material resources, the absence of job opportunities, attitudes of the lay community toward psychology, the formation of professional regulating bodies, and the scarcity and underfunding of academic programs (Abou-Hatab, 1997; Ahmed & Gielen, 1998; Al-Soud, 2000; Galioun, 1997). These lists, literally speaking, go on and on much like lists of grievances. It is common for scholars to briefly describe each challenge without situating the issues in a conceptual or broader theoretical context and, notably, without providing empirical evidence (although see Khaleefa, 1999).

Indeed, one cannot deny the steepness of these challenges because they are a part of the larger challenges that confront all scientific disciplines in the Arab world, especially the

human sciences (United Nations Development Programme, 2002). According to the *World Science Report*, Arab countries have some of the lowest levels of research funding in the world (including the richest Arab countries), with research and development expenditures making up only 0.4% of the GDP (United Nations Educational, Scientific, and Cultural Organization, 1998; see also United Nations Development Programme, 2002). In addition to little financial support, the two main factors that seem to limit research output are the underdevelopment of national and regional science and technology systems and poor returns on past research and development investments (United Nations Development Programme, 2002). It is inevitable that this broader context has a great impact on psychological research. Although financial and material support is an essential ingredient for the development of research in any field, many scholars dismiss the importance of other factors over which psychologists have more immediate control. Given the steep challenges ahead, we believe that a focus on research and intellectual practices will lead to a better pay-off, both now and in the near future, especially because there is a long lag between the availability of financial resources and the development of a productive intellectual foundation for psychology (see also Adair, 1999; Galioun, 1997).

With respect to the intellectual challenges specifically, Abou-Hatab (1993, 1997) is probably the most visible modern regional scholar to write about them. Abou-Hatab (1997) used Egyptian psychology as a springboard for discussing regional psychology. His analysis is based on his life experiences in the field and personal reflections rather than a systematic review of the field. Abou-Hatab offered many possible points of departure. He argued that there is a one-way relationship between Arab and mainstream (Western) psychology. Using the import-export metaphor, Abou-Hatab argued that theories, concepts, and methods are imported in a random, uncritical, and unplanned way that serves the producer of knowledge and subsequently reinforces unhealthy forms of intellectual dependency in the consumer. It is interesting that Abou-Hatab is the only known scholar to discuss the psychological consequences of intellectual dependency, such as a lack of self-confidence, overestimation of the dominant culture, and an unrealistic de-evaluation of local indigenous achievements. These factors, he argued, contribute to the loss of professional identity, alienation from one's local context, and the inhibition of creativity. Finally, Abou-Hatab's most elaborated view concerns the relevance of imported research; he argued that much of the psychological research is obsolete and, therefore, irrelevant to the contemporary social problems facing Arab nations. Adding to this difficulty, he observed that much of the research is reactive and repetitive and not aimed at solving specific problems (see also Ahmed, 2004; Ahmed & Gielen, 1998).

In addition to the diverse challenges identified, researchers have offered divergent proposals for redress and change. For example, Abou-Hatab (1997) posited that a better understanding of the local intellectual heritage will empower psychologists and counteract beliefs about their inferiority as scientists. With respect to the loss of professional identity, some have suggested that it can be redressed with deliberate efforts to respond to the urgent social and cultural needs of society (Abou-Hatab, 1997; Ahmed & Gielen, 1998). Safwata (1996) recommended that psychologists become more specialized in their subfields (see Moghaddam 1989, 1997, for the concept of "appropriate" specialization). Ahmed and Gielen (1998) developed a preliminary proposal for an Institute of Arab Psychology that aims to address many of the problems noted above. The issue of cultural appropriateness and validity of empirical findings and theoretical approaches from mainstream psychology has been recognized by some who offered critiques of their subfields (Dwairy, 1998, 1999; Sayed, 2002, 2003). However, these issues have been set aside completely by many more scholars who aspire to various underelaborated and uncritical forms of universalism (Al-Soud, 2000;

Prothro & Melikian, 1955). Although we do not wish to underestimate the value of this early work, there is a clear need for more in-depth and systematic exploration of actual publications that will provide concrete and detailed examples of the challenges and how they manifest themselves in research practices. Without this kind of knowledge, it is difficult to attain a functional understanding of the real challenges and the appropriate level of analysis to describe them. It is also difficult to proceed with proposals to change the status quo. The extent of the challenges and their solutions cannot be understood without more systematic scholarship that gets beyond broad brush strokes and underelaborated lists of challenges.

EMPIRICAL RESEARCH ABOUT THE RESEARCH
PRACTICES OF PSYCHOLOGISTS IN THE REGION

The only known empirical support for some of the claims reviewed thus far is available in Khaleefa's (1999) content analysis of Arabic publications on creativity, intelligence, and giftedness in the Arabic-speaking world. Khaleefa used a pared-down and adapted version of the content analysis originally developed by Adair et al. (1993) to assess levels of indigenization in Indian research. Khaleefa did not describe how the method of analysis was adapted, although it is important to know how he adapted it and why. One might wonder whether the method of Adair et al. is less relevant for or is incongruent with the Arabic research practices and writing norms studied by Khaleefa. If this is the case, it would be difficult to use the same coding scheme to assess some aspects of cultural sensitivity in Arabic publications, and it would be very important to know how Khaleefa adjusted the method of analysis. Despite these missing details, Khaleefa's findings show for the first time that the majority of creativity and intelligence research borrows concepts and theories from mainstream psychology without critique or adaptation. A minority of studies (6%) employed local conceptual-theoretical frameworks. With respect to the references cited, 24% of the authors never cited local references, whereas 52% cited only a few local publications. Furthermore, 70% of authors did not use cross-cultural or cross-indigenous approaches, although Khaleefa did not specify how this was assessed. The final notable result shows that most of the psychological tests used were designed and constructed in the United States, translated with slight modifications, and used without standardization or norming. Only a few tests/surveys were constructed locally. Khaleefa's study provides the first empirical assessment of psychological research practices in the Arabic-speaking region and reveals that a minority of authors in the field of intelligence and giftedness engaged in culturally sensitive research practices.

THE BROADER IMPLICATIONS OF ENGAGING IN
CULTURALLY SENSITIVE RESEARCH PRACTICES

The development of a field of study in a region as complex and diverse as the Arab world will inevitably generate wide-ranging theorizing and debate. However, the daunting and long-enduring challenges require something that will catapult scholarship in a strategic direction. The institutional factors discussed above will take considerable time to develop and as such, we have become convinced that building a self-reflective intellectual foundation will productively fill this time gap and prepare the way for progressive inquiry and debate. The view advocated in this article is that culturally sensitive research will contribute to higher order goals such as the development of an appropriate psychology for the Arab world, which involves healthy forms of self-reliance and methodological validity, and is responsive to the

needs of the societies and peoples it attempts to study (Moghaddam & Taylor, 1986). We also illustrate how this structure provides a good framework for joining and extending the rich dialogue on the development of national psychologies and their relation to mainstream psychology (Adair, 1999; Birashk, 2004; Kagitcibasi, 1994; Moghaddam, 1993; Ongel & Smith, 1999; Yang, 1997).

Cultural sensitivity and developing an appropriate psychology. It is not self-evident to claim that the development of psychology in the Arab world requires culturally sensitive research practices, although cultural and indigenous psychologists may not question the claim. We wish to argue why we see this connection. The main reason concerns the potential that culturally sensitive research practices have for developing an appropriate psychology.

The concept of an appropriate psychology was proposed by Moghaddam and Taylor (1986) to assess critically the nature and consequences of an uncritical transfer of knowledge from Western psychology to emerging psychologies. Moghaddam and Taylor used six criteria to assess an appropriate psychology: (a) healthy self-reliance, (b) needs responsiveness, (c) methodological validity, (d) institutional feasibility, (e) economic suitability, and (f) political practicality. We are mainly concerned with the first three criteria, as defined by Moghaddam and Taylor, because they most directly relate to the intellectual commitments that are explored in the content analysis.

Undoubtedly, further discussion is needed to examine what constitutes various forms of healthy self-reliance, methodological validity, and needs responsiveness in different psychological traditions; however, this discussion is beyond the scope of the current article. Instead, the appropriate psychology framework, in whatever specific form it eventually takes, is being invoked because it parsimoniously brings together many factors that other researchers have argued and empirically shown to promote the development of research and the discipline in general (Adair, 1995, 1998; Adair & Kagitcibasi, 1995; Hutz & Adair, 1996; Moghaddam, 1993). Furthermore, the framework does not marginalize international psychology by artificially separating it from the theoretical issues currently debated in mainstream psychology. For example, a few issues jointly debated in mainstream and international psychology are as follows: an interest in cultural diversity and its implications for understanding universal mechanisms, critiques of experimental methods and empiricism, the relationship between the participant and researcher, power inequalities between mainstream and more peripheral traditions, the role of psychology in national and human development, the overrepresentation of certain segments of the population in psychological research, and the balance between specialization and interdisciplinary approaches. In addition, the appropriate psychology framework treats both international and mainstream psychology as forms of indigenous psychologies and goes as far as positing that mainstream psychology has a significant role in creating a healthy and balanced relationship with emerging world psychologies, a role that it mostly has not taken up (see also Connolly, 1986; Greenfield; 2000; Moghaddam, Bianchi, Daniels, Apter, & Harré, 2000; Shweder, 2000). Our proposal is the following: The most direct and effective means of developing an appropriate psychology that is self-reliant, responsive to societal needs, and methodologically valid is for researchers and scholars to engage in culturally sensitive research practices.

To get a sense of what it means to privilege culturally sensitive research practices and their contribution to an appropriate psychology, we consider a few concrete examples of two broad categories of practices assessed in the content analysis that contribute to methodological validity and self-reliance. Several culturally sensitive research practices have the potential to improve the validity of research conducted on a local sample, such as studying diverse participant

samples that approximate the actual cultural diversity in a society. Moreover, culturally sensitive research practices involve making appropriate generalizations from the research sample to other populations, which in turn requires knowledge of within- and between-culture diversity. Another main dimension concerns how decisions are made to adopt, adapt, and norm stimuli/measures/surveys/tasks that have been developed for other, possibly culturally distinct, samples. Because the majority of research conducted on Arabic-speaking peoples involves self-report measures normed for North American samples, these dimensions are especially important for assessing cultural sensitivity and methodological validity.

Self-reliance is another aspect of an appropriate psychology that is assessed in the content analysis by examining whether researchers critically apply borrowed methods, concepts, and theories. This minimally requires a discussion about the transferability and validity of theories and concepts. Higher levels of healthy self-reliance involve extending or developing new theories or concepts and/or having an awareness of how these develop and are shaped by sociopolitical contexts and needs. Self-reliance is also assessed, albeit indirectly, by the number of local references cited in a published article. In the current study, we use only these few but highly diagnostic indicators of self-reliance. They are not attained effortlessly, especially for researchers that have been trained in programs that do not seriously take up cultural diversity and are not cognizant of the needs of developing psychological traditions.

Critical considerations for the cultural-sensitivity framework. We wish to consider challenges and alternative approaches to the views advocated above concerning the role of cultural sensitivity in developing an appropriate regional psychology. First, one might argue that researchers in emerging traditions should focus on research quality as a means of developing an appropriate psychology and its various dimensions. Although this is a legitimate position to take, there are several reasons to question it. There is no independent standard of quality by which to establish whether one form of research is of a higher quality than another. Positivists, for example, emphasize different aspects of quality compared to contextualists and radical constructivists (Elliott, Fisher, & Rennie, 1999; Madill, Jordan, & Shirley, 2000). Moreover, we wish to separate the issue of research quality from culturally sensitive research because the latter may or may not necessarily be research of a higher quality—especially if high-quality research is narrowly defined according to the positivist tradition (Smith, Harré, & Langenhove, 1995; Todd, Nerlich, McKeown, & Clarke, 2004). Certain types of "rigorous" research valued in the positivist tradition may not be appropriate for emerging research programs that must contend with different research challenges. These challenges include the scarcity of empirical findings from culturally related samples, fundamental issues related to instrument/task validity, how to collect data from participants unaccustomed to the norms of psychological research, how to deal with culturally biased theoretical frameworks, and so forth. For these reasons, we wish to avoid conflating culturally sensitive practices and particular definitions of research quality.

A second challenge to the framework we offer concerns the value and role of culturally ambivalent or culturally insensitive research in the development of an appropriate psychology. Taking one example, we argue that researchers whose main aim is to contribute to the development of mainstream psychology, rather than to the more immediate needs of the local society and research communities, are engaging in less culturally sensitive research. This is the position taken in this article, although we know that internationally focused research is not necessarily research of less value. Internationally focused research may be deemed valuable for the development of another national tradition or it may indirectly support local research. Nevertheless, it does not have a direct impact on the development of culturally

sensitive research practices because the established traditions and/or the international scientific community generally have different needs than the local community. One could imagine a discipline of psychology where there are more points of reciprocal contact between the mainstream and emerging traditions. However, this does not seem to be the case in the history of Western psychology. These statements may be problematic for researchers who predominantly engage in internationally focused research or those who are unaware of the challenges of emerging psychologies. A counterchallenge, however, would require an explanation of how internationally focused research programs can address the realities and pressures of emerging world psychology and contribute to the development of self-reliance, methodological validity, and needs responsiveness (see also Boski, 1993, 2005; Enriquez, 1977a; Holdstock, 2000; Nsamenang, 1992, 2000; Sinha, 1997; Yang, 1997).

In summary, we posit that the cultural-sensitivity framework, which includes all the dimensions discussed above and more detailed in the Method section, is an especially significant means of establishing methodological validity and self-reliance and, broader, is a means of developing an appropriate psychology in emerging nations as well as supporting healthy and scientifically rich relations between national and international psychologies (Bond & Tedeschi, 2001; Fish, 2000; Greenfield, 2000; Miller, 1997).

METHOD

A randomly selected sample of studies was drawn from a newly developed database of psychological studies conducted on Arabic-speaking samples in the Middle East and North Africa published in English between 1950 and 2004 (Alamuddin & Zebian, 2004). The database was developed anew because the existing regional databases were not publicly accessible, the method and criteria for including studies was often not known, or they were subfield or country-specific (see Ahmed & Gielen, 1998; Arab PsyNet, n.d.; Institute for Development Research and Applied Care, n.d.). Several criteria were used to select but also limit the publications included in the database. Publications were identified through electronic and offline academic databases, local libraries, the reference lists of published articles, and with the cooperation of regional researchers. Although the number of articles procured did not represent all the English-language publications, it also did not systematically overrepresent or underrepresent articles from certain Arab countries or particular subfields, topics, or authors. In total, the database contained more than 500 references at the time of sampling, April 2004 (Alamuddin & Zebian, 2005). The criteria used to ensure a systematic and unbiased search and selection process is described below.

Peer-reviewed journal articles. Only peer-reviewed journal articles were included because they were the most widely accessible sources of scholarly work.

Empirical studies. Only empirical studies were included in the database because the content analysis was designed to assess empirical research practices such as the validity of the methods and measures employed, the sampling techniques used, and the applicability of empirical results to applied settings. Although both theoretical and nonempirical articles certainly have direct implications for culturally sensitive research, they require a more specialized content analysis that examines issues that are not of focal significance to empirical papers, such as what motivates the development of theoretical frameworks and the relationship between empirical data and theory formation.

Research of a psychological nature. All peer-reviewed research of a psychological nature was included in the database regardless of the authors' field of specialization because the aim of the current study was to examine psychological research rather than what professional psychologists per se are doing. This resulted in a very diverse database consisting of articles published mostly in psychology journals but also in some journals from the following fields: psychiatry, nursing, health sciences, and political science.

Language of publication. Although a sizable number of psychological studies conducted on Arab samples are published in Arabic and French, only those published in English were included in the current study. In addition to being exceedingly difficult to access, studies published in Arabic differ dramatically from English publications in their methodological practices, writing norms and conventions. It was, thus, impossible to analyze them using the same content analysis technique (for more details about the research published in Arabic, see Ahmed & Gielen, 1998; Alamuddin, 2005). French publications were not included because of limited linguistic proficiency among some raters (however, see Alamuddin, 2005).

Location of research samples. Only articles conducted on Arabic-speaking samples residing in the Middle East and North Africa were included. Emigrant Arab populations residing outside the Middle East and North Africa region were not included. It is not clear at this time in our research program how much research has been done on emigrant Arab populations and the cultural sensitivity of this work.

Publication date. Articles published between January 1950 and June 2004 and those that met the above criteria were included in the database to assess trends and developments.

Culturally sensitive research. Special emphasis was placed on searching for research that might loosely fit into the category of culturally sensitive research.

CURRENT SAMPLE FOR CONTENT ANALYSIS

A stratified time-blocked random sample of 99 articles was selected from the database for the content analysis. To avoid overrepresenting any authors, no article by the same author or coauthors was selected more than twice in the same time block. Of the articles, 6 were removed from the sample and replaced through random selection as 4 revealed themselves to be nonempirical and 2 empirical studies did not include enough information about the method and measures to enable a reliable analysis. The research represented in our final sample of 99 articles fell roughly under the subfields listed in Table 1. The articles were published in 64 different journals, the majority of which were American (48%) followed by European (25%), international (14%), and Arab regional journals that publish in English (11%).

CULTURAL-SENSITIVITY MEASURE FOR PUBLISHED RESEARCH (CSMPR)

The primary purpose of the content analysis was to document various types of research practices that actively and most directly promote the development of culturally sensitive research. Our framework, which is largely inspired and grounded in the traditions of cultural and indigenous psychology as well as some elements of cross-cultural psychology, starts with clear and definite assumptions about the factors that promote culturally sensitive

TABLE 1
General Background Characteristics of the Sampled Articles

Background Characteristic	Frequency (N = 99)	Percentage
Main subfield of research represented		
Clinical	13	13
Cognition	4	4
Developmental	8	8
Education	11	11
Organizational	6	6
Personality	7	7
Political	7	7
Psychometric	13	13
Social	30	31
Total	99	100
Primary method employed in single and mixed methods studies		
Survey	19	19
Tests/Scales	62	63
Experimental	3	3
Quasi-experimental/Field methods	1	1
Qualitative[a]	12	12
Archival	2	2
Total	99	100

NOTE: Percentages are rounded up to the nearest whole number.
a. A frequency of 12 in this category represents those studies that use only qualitative methods ($n = 8$) and mixed methods studies that use qualitative methods with quantitative ($n = 4$).

research. Some of these factors have been empirically shown to be related to research productivity and development, whereas other factors have their origins in theoretical and conceptual frameworks that promote the development of appropriate international and national psychologies. We describe these factors and the way they were measured shortly; however, we first offer some background on the development of the content analysis method.

The content analysis was conducted using the CSMPR (see Alamuddin & Zebian, 2004), which was based on a measure originally developed by Adair et al. (1993) to assess the levels of indigenization in Indian psychological research. Using its structure as a starting point, the current measure was modified in three major ways. First, a cluster of items was added to assess whether the concept of culture was employed in the articles and how it was conceptualized and used to understand psychological functioning. A second cluster of items was added to assess qualitative research methods. The third modification involved the development of a quantitative scoring scheme whereby the 53 items (including old and new items) that make up the measure were assigned quantitative values and grouped into four different composites: Main Measure of Cultural Sensitivity, Methods, Research Application, and Cultural Conceptualization composites. Each composite received a separate score and the sum of all composite scores yielded the total cultural-sensitivity score for each article. The quantitative scoring scheme allowed us to summarize scores across categories of items rather than being restricted to reporting the frequencies of each of the 53 items in the analysis. Furthermore, the quantification scheme allowed us to directly compare the level of cultural sensitivity across the clusters of items and to perform various inferential analyses to identify which clusters significantly

contributed to higher levels of cultural sensitivity. Finally, the quantification scheme will enable other researchers to easily compare our findings with the findings of future studies.

It is important to note that the scoring scheme was developed in a way to identify the practices that positively and directly contributed to more sensitive research rather than penalize articles for engaging in less culturally sensitive practices. It is also important to note that it was our aim to develop a highly detailed and diagnostic coding scheme that has high construct validity and is derived from empirical findings and theory. As such, many items where included to capture the many different research practices that support culturally sensitive research. This resulted in a highly detailed measure. It is entirely possible that certain items might be rejected by various researchers, whereas other items might be added as the method of analysis comes to be used by other researchers. This is a natural process of instrument development that we welcome. In the meantime, however, it is necessary to get on with the process of systematically examining the pervasive trends in regional research. The rationale for grouping items into the four composites is described next.

Main Measure of Cultural Sensitivity composite. This composite assesses the main elements of cultural sensitivity as they have been suggested and investigated in other research (discussed above). The following categories of research practices were assessed: (a) justifying the purpose of the study, (b) level of attention directed toward local research, and (c) critical approaches to existing methods, concepts, and theories.

In the first category, motivating and justifying research practices, several items identified the type of justifications provided for conducting the study (i.e., whether research was conducted to exclusively contribute to international research). In the second category, several diverse practices were considered: the degree to which the hypotheses or research questions were grounded in the local context, the degree to which individuals were examined in their cultural context, whether examples of culturally significant behaviors or thought processes were given, whether the research attempts to explain behaviors observed in the local culture, whether ideas grounded in the local culture are guiding research or its interpretation, whether any cross-national comparisons were made using the results, and the percentage of references to Arab authors or sources. Finally, the third category included four items that assessed whether researchers explicitly advocated indigenous research developments, challenged the generalizability of mainstream theory and findings, recognized mainstream psychology as a form of indigenous psychology, or advocated for the replacement of mainstream concepts with more culturally sensitive concepts. The items in these three categories made up the Main Measure of Cultural Sensitivity composite, which has an overall score ranging between 1 and 30.5.

Methods composite. Methodological practices are a major decisive factor in supporting culturally sensitive research and generating findings that have the potential to be applied to real-life settings, to be used to make conclusions about the local context, or to be used to develop new culturally grounded hypotheses (Abou-Hatab, 1997; Moghaddam & Taylor, 1986; Moghaddam, Walker, & Harré, 2003; Sinha, 1993). The methodology composite is broken down into two parts: one for quantitative methods and the other for qualitative methods. The quantitative methods composite assesses the extent to which measures/stimuli/tasks were adapted for the research sample. Additional items assessed the procedures or steps taken to ensure, or provide evidence for, the measures' applicability to the local sample and whether special methods were adopted for culturally unique samples. These items have an overall score ranging between 1 and 16.

Turning to the qualitative methods composite, it is admittedly rudimentary because it was developed completely anew. Its items assessed the types of qualitative methods employed, language used, the type of population sampled, the type and origin of the data analysis techniques, and whether special methods were adopted for culturally unique samples. The overall score for this composite ranged between 1 and 16.

Research Application composite. According to Adair et al. (1993), the application of research results to real-life settings facilitates the cultural appropriateness of research and has an impact on the visibility and relevance of the discipline as a whole. Applied research affords the opportunity to focus on and address issues within the local culture and to bring researchers closer to real-life problems and issues related to social development. Consequently, the Research Application composite was used to assess whether researchers did the following: aimed to understand real-life settings, used findings to promote an understanding of social problems and or issues of national concern, used results to motivate a better understanding of behavior in an applied context, and used results to make recommendations for real-life settings. The overall Research Application composite score ranged between 1 and 7.

Cultural Conceptualization composite. This composite was developed anew to document how and whether the term *culture* was being used and how the author conceptualized the relationship between cultural processes and psychological functioning. There are two clusters of items in this composite. The first cluster assessed how the term or concept of *culture* was used. In increasing depth, we assessed whether there was mention of culture at all, whether culture was described as a grouping/independent variable, and whether it was conceptualized as a process or a practice. The remaining items in the second cluster of the composite assessed whether the authors discussed one or more of the following: cultural change, when and what cultural processes affect what levels or types of psychological processes, the degree and form of interaction between internal psychological processes and cultural processes, the generalizability of their findings across different groups, challenging the concept of a bounded culture that has clear physical and social demarcations that distinguish it from another culture, and so on. These items were developed on the basis of current theorizing and empirical work that aims to understand the relationship between psychological processes and cultural processes (Cole, 1996; Greenfield, 2000; Henze, 1992; Hutchins, 1995; Ratner, 1999; Shweder & Sullivan, 1993; Tomasello, 1999). The overall score of the Cultural Conceptualization composite ranged between 1 and 21.

One may argue, with respect to the Cultural Conceptualization composite, that the way in which the concept of culture is used and the way authors conceptualize the relationship between cultural and psychological processes might be irrelevant to some research projects that neither require nor benefit from employing a cultural framework. This statement needs to be considered from a number of perspectives. Some scholars might argue that a cultural framework is irrelevant for primate research (although see Tomasello, 1999) or that cultural processes are irrelevant to neuroscientific research on basic emotions, or that cognitive microprocesses are not influenced by cultural processes, and, therefore, this type of research should not be assessed in this manner. Even if one were to accept these controversial positions that have been shown to be empirically improbable, it needs to be made clear that all the authors in the current sample studied humans and psychological processes at a functional level and not at a neurological or microprocessing level. Furthermore, the majority of the psychological processes examined have been clearly shown to have cultural influences, such as the psychological consequences of polygamous families on social development in children, the effects of war on family functioning, the influences of Qur'anic schooling on memory and

reading skills, and the influences of religiosity on death anxiety. Finally, the cultural framework is especially relevant to the methodological procedures and the diverse samples investigated, especially because empirical psychological research on the region is particularly sparse.

Interrater reliability. Because of the complexity of the measure and the degree of interpretation required, interrater reliability was assessed for 42 (42%) randomly selected articles. The interrater reliability procedure was very stringent because there were two different interraters and two different main raters, thereby increasing the probability of divergent interpretations. Prior to the actual content analysis, interraters were issued a coding instruction sheet and briefed about each item, after which all raters collectively rated and discussed three articles from outside the sample. Furthermore, some articles (not from the current sample) were co-analyzed and discussed throughout the content analysis process to ensure more reliable analyses. Interrater reliability was calculated for each item and averaged across the entire measure and resulted in a score of .81. The interrater reliabilities for the four composites were also calculated: Main Measure of Cultural Sensitivity composite (.84), Methods (quantitative and qualitative) composite (.82); Research Application composite (.89); and Cultural Conceptualization composite (.84). Composite scores were considered in agreement if the two raters assigned scores within ± 10% of the range of the particular composite. For example, if a composite's scores had a total range of 20 points, interrater scores were considered in agreement if they were within 2 points from each other. The following three items received lower interrater reliability scores and, thus, should be elaborated or broken down into subitems in future content analyses: how the author justified his or her research, how participants were examined, and whether the employed measure was normed for the local sample. When these items are taken out of the interrater analysis, the interrater reliability scores for some composites increased slightly as follows: Main Measure Cultural Sensitivity composite became .88 and the reliability of the Methods composite became .85. The new total cultural-sensitivity interrater score became .86. All the interrater scores are acceptable, especially for such a complex measure.

RESULTS

GENERAL CHARACTERISTICS OF THE SAMPLED ARTICLES

Table 1 presents background information about the 99 sampled articles. A large majority of the authors (88%) used quantitative methods as the only method employed, relying predominantly on test and scale administration. Qualitative methods or mixed method designs were used in 19 articles, most of which consisted of interview methods. The total sample of articles included 154 different participant samples (see Table 2 for a breakdown by country). The size of the samples was relatively large, ranging from 60 to 3,477 participants/cases ($M = 351l$, $SD = 458.6$, $MD = 205$). This finding should not be surprising considering the prevalence of survey, test, and scale methods that require large N studies. It is also interesting to note that comparative research with regional samples was slightly less typical than single-sample studies. International nonregional comparative research was much less typical with only 19 international samples.

MAIN MEASURE OF CULTURAL-SENSITIVITY COMPOSITE

The average mean score of the Main Measure of Cultural-Sensitivity composite was 8.88 ($SD = 4.19$). The range of scores varied from 1 to 24.0, with a median of 8.0. The

TABLE 2
Nationality of Research Samples

Nationality	Frequency
Algerian	1
Arab (unspecified)	25
Bahraini	3
Egyptian	13
Emirati	8
Iraqi	4
Israeli Arab[a]	9
Jordanian	6
Kuwaiti	10
Lebanese	20
Libyan	1
Moroccan	1
Palestinian	18
Saudi Arabian	6
Sudanese	4
Syrian	6
Other (non-Arab)	19
Total	154

NOTE: The total frequencies reflect the total number of different nationalities of the 141 research samples represented in the 99 sampled articles
a. Although there is a lot of research on Israelis in Israel, these studies were not included in our data set unless they included samples from Arabic-speaking countries. In addition, English peer-reviewed research from the following Arab countries was not included because it was unavailable when the original database was being developed: Djibouti, Algeria, and Yemen. Other Arab samples, which are not represented in the table, were represented in the original data set but were not randomly selected for our sample.

most frequent scores ranged at the low end of the scale between 5 and 11.5, and only six articles received a score between 16.5 and 24.0 (see Table 3).

Turning to the individual items in the Main Measure composite, there are many items in this composite and as such, they were grouped into the following categories: (a) justifying and motivating research, (b) degree of attention to local research and its relevance, and (c) critical approaches to mainstream methods, concepts, and theories.

Justifying and motivating research. Looking at the justifications provided for the research, authors in 47% of the articles stated that their primary aim was to replicate an international (nonregional) study or to contribute to the mainstream literature on the topic (47%). For these articles, there was no focus on contributing to regional research, and the authors' justifications did not typically involve theoretical motivations or critical discussions (as we discuss below). Although these authors aimed to contribute to international scholarship, only 6.5% actually employed international samples for comparative purposes. This suggests an emphasis on replication rather than on cross-cultural research per se.

In comparison to the authors with an international focus, authors of 53% of the articles expressed their desire to conduct locally relevant research in different ways. Approximately half of these authors reported that there was a special need to conduct their research on regional samples. Twelve authors explicitly stated that their research attempts to explain behaviors observed in the local context, and 13 authors claimed or implied that their research

TABLE 3
Descriptive Statistics for the Total Cultural-Sensitivity Measure for
Published Research (CSMPR) and its Composites ($N = 99$)

	Mean (Standard Deviation)	Median	Minimum	Maximum	Full Range
Main Measure of Cultural Sensitivity composite	8.88 (4.19)	8.0	1	24.0	1 to 30.5
Methods composite	7.12 (2.64)	7.5	1	14.0	1 to 16
Quantitative methods section	7.13 (2.62)	7.5	1	12.0	1 to 16
Qualitative methods section	6.10 (3.35)	4.0	1	14.0	1 to 16
Application of Research composite	1.56 (.94)	1.0	1	5.0	1 to 7
Cultural Complexity composite	2.52 (2.23)	1.0	1	12.0	1 to 21
Total CSMPR score	17.1 (6.92)	15.5	4	42.5	1 to 71.5

ideas were grounded in the local culture. For example, one author attempted to develop research to explain why Kuwaiti students showed high levels of religiosity, an apparent characteristic of adolescent life. Of authors in this subsample, 30 offered examples of culturally significant behaviors or psychological processes. A smaller number of these authors (4%) explicitly stated that their research addressed an issue of national concern (i.e., the psychosocial status of youth living in extreme poverty). Thus far, these findings suggest that many authors intended to conduct locally relevant research that has a potential to be culturally sensitive. Nevertheless, when we probe further, far fewer than the 53% who intended to conduct locally relevant research actually engaged in specific research practices that would have supported their intentions. We consider some of these practices next.

Of the hypotheses formulated, 44% do not include sociocultural considerations at all. On the other hand, 25% of the hypotheses contain specific culturally/locally relevant considerations. For example, in a study on the cognitive consequences of literacy among students, the authors hypothesized that the effect of schooling on memory and reading comprehension will differ between urban and rural populations where literacy and educational ecologies varied dramatically (Wagner & Spratt, 1987). We also took into account hypotheses that include minimal cultural considerations. Authors in 31% of the articles posited hypotheses that allude to cultural influences but offer no elaboration as to the nature or role of these influences for the phenomena studied (e.g., the Stroop effect will be more disrupting for English speakers compared to Arabic speakers).

Turning to other research practices, 23% of the authors included considerations for how individual participants are connected to, or shaped by, their social context. This was typically done by presenting extensive background information about the research sample, which was more elaborate than simply offering background variables such as age, gender, and so forth. In addition, research results were used in an attempt to explain behaviors or processes observed in the local context in 12% of the articles (e.g., the conflicting nature of acculturation pressures within families, such as the encouragement of Western business values and the discouragement of alienation from social obligations).

Degree of attention to local research and its relevance. Two distinct categories were used to assess the degree to which authors attended to local research. First, we looked at the research samples under investigation. The majority (68%) of authors conducted single-sample regional studies, and 19% included more than one sample from the Arab region. Far fewer authors (15%) included nonregional samples. These findings, together with the clear emphasis on contributing comparative findings, may suggest that the research networks necessary for cross-cultural and comparative research are not well established among regional researchers and between regional and international researchers.

Another important indicator of commitment to local research is the amount of regional citations referenced by authors. Our findings show that on average, 19.4% of all the citations referenced in the sampled articles are regional. A reference was considered regional if it was published by an author of Arab origins or if it was related to the Arab region and published by an Arab source (e.g., United Nations or governmental reports). Of the articles, 35% either do not include a single regional reference (12%) or include less than 10% regional references (23%). For almost half of the articles, however, regional references constitute from 11% to 30% of the reference lists. Although some authors cited empirical articles, many more cited general books by nonpsychologists and limited circulation reports such as dissertations, grant reports, and publications in nonspecialized journals.

Our findings suggest higher levels of citing local research than that observed in the research on Indian publications of Adair et al. (1993). Adair et al. argued that citing local references is one indication of self-reliance and should effectively strengthen regional networking. Although this may be true in some national psychologies, we question whether it is characteristic of emerging traditions that show minimal levels of self-reliance. We feel that a more diagnostic indicator is whether researchers follow up on previous local research. To examine this, a follow-up analysis was conducted with a new randomly selected sample of articles ($n = 70$) from Alamuddin and Zebian's (2005) database. We found that 2% of the studies in our subsample were followed up by the same author, 1% of the studies were followed up by other regional researchers, and 1% of the studies were followed up by researchers working outside the Arab region. It is clear from these patterns, spanning the 1950s to 2004, that although regional researchers are citing local research, this practice is not leading to the development of sustained research programs that extend beyond the first original study (see Gregg, 2005, for some explanations). Further research is needed to understand the reasons for these enduring trends that continue to limit regional networking and increased levels of dualism between locally focused researchers and those more focused on contributing to the international community (Moghaddam & Taylor, 1986).

Critical approaches to mainstream methods, concepts, and theories. The final cluster of items in the Main Measure of Cultural-Sensitivity composite assessed whether authors adopted a critical approach to mainstream methods, concepts, and theories. Our findings suggest that 6% of the authors discussed and/or challenged the appropriateness of applying mainstream measures that were normed and piloted in another culture. The infrequency of this practice is very surprising, especially considering that surveys and scales were the predominant methods employed. Furthermore, only 4% of the authors discussed or challenged the validity of mainstream concepts or theories. The large majority of the authors (90%) adopted theories, concepts, and measures wholesale, without critique or adaptation. The final item in this section shows that 4% of the authors recognized Western science from its own indigenous perspective. These few authors showed awareness that theories, concepts, or measures are often developed in specific social contexts and for specific populations. For

example, the transactional stress theory was recognized as strongly emphasizing individualist forms of coping that completely overlooked how political conditions affect an individual's appraisal of life events.

METHODS COMPOSITE

The Methods composite score was calculated for each article depending on the method employed—quantitative methods ($N = 80$), qualitative methods ($N = 8$), or mixed methods ($N = 11$). The mean of the Methods composite, when collapsed across the type of method used, fell below the middle of its range ($M = 7.12$, $SD = 2.64$, $MD = 7.5$). The modal score was 8 ($N = 11$), and the other two most frequent scores were 4 ($N = 7$) and 6 ($N = 6$). Looking at the scores for the quantitative methods section of this composite, we observed low levels of cultural sensitivity ($M = 7.13$, $SD = 2.62$, $MD = 7.5$; see Table 3). The highest score received in this section was a 12 out of a maximum possible value of 16, and the modal score was 8 ($N = 8$). The other two most frequent scores were 6.0 ($N = 5$) and 10.0 ($n = 5$). Turning to the qualitative and mixed methods score, the articles had a mean of 6.10 (3.35) and a median of 4.0. The score ranged from 1 to14, with 16 being the highest possible score, and 4 was the modal score ($N = 8$). It is difficult to make strong claims about the levels of cultural sensitivity for each type of method because the qualitative methods sample is small and the content analysis scheme is much less elaborated and probably less diagnostic than the analysis used for the quantitative methods. Instead of comparing levels of cultural sensitivity, it will be more useful to examine the items in each section.

Quantitative methods section. A total of 89 articles (88%) employed quantitative methods, and of these articles, 92% employed paper-and-pencil self-report measures or surveys. Very low frequencies of the remaining quantitative methods were observed, including experimental, quasi-experimental, and archival methods (see Table 1). The frequency of the methods employed is an important context for interpreting the rest of the items in the quantitative methods section. Starting with the samples researched in the articles, 35 samples were university students, and of these samples, 11 authors uncritically generalized their findings from university samples to national samples and/or to the regional population. This is a problematic practice especially for regional populations who are in the midst of rapid developments that result in very large socioeconomic status gaps between university students and the general population. Of the articles that include university samples, 24 authors generalized to other university samples only, which if done uncritically is also problematic because there may be steep divergences in socioeconomic status even among university students (i.e., public vs. private universities). The majority of the research samples studied ($N = 64$) were nonuniversity student samples, such as child war victims, clients in clinical therapy, and average working-class people. This factor alone increases the relevance of engaging in culturally sensitive research practices. We found, however, that only 6% of all authors adopted any special methods for their samples. Given the dearth of regional data and the diversity of the research samples studied, we would have expected more adaptation, extension, and/or new developments rather than a pervasive emphasis on wholesale application of measures and methods.

A total of 198 surveys/measures/stimuli were employed in these articles, clearly showing that several studies employed multiple measures. A total of 133 measures (67%) were nonlocal measures. Only 29% of these nonlocal measures were subjected to some changes beyond translation, whereas 38% were not subjected to any kind of changes or adaptations whatsoever (e.g., word changes or measure translation). In comparison, locally developed

measures constituted a smaller percentage of all measures employed (33%). Although one might predict local measures to be more culturally sensitive, this does not appear to be the case because a large majority of the local measures (72%) were not normed for Arab populations. Furthermore, a very small number of authors (7%) discussed the validity of the local and nonlocal measure(s) they used and only 11% made any attempts to ensure the cultural appropriateness of the employed measures. It appears that validity concerns such as construct and divergent validity as well as cross-cultural equivalence (see Harkness, van de Vijver, & Mohler, 2003) were dismissed, whereas statistical techniques such as interitem reliability were common (54% of articles).

In summary, it is abundantly clear that the employed scales, measures, tests, and stimuli were largely borrowed without adaptation and with little concern for issues of validity. Furthermore, locally developed measures were methodologically underdescribed and issues of validity were rarely considered. This made it difficult to assess cultural sensitivity, while also raising questions about the validity of basic methodological practices.

Qualitative methods section. A total of 19 articles included qualitative methods, 11 of which employed quantitative methods as well (mixed methods). The most prevalent qualitative method employed was that of interviews (63%). Participant observation (10.5%), textual analysis (16%), and case studies (10.5%) were employed by some authors. In marked comparison with the quantitative design studies, only 10.5% of the qualitative studies included university samples. The remaining 89.5% included other samples (e.g., rural children, adolescents that witnessed civil wars and invasions, depressed adults, Bedouin Arabs in Israel, urban school children). In a manner similar to the findings observed in the quantitative methods section, very few authors (5%) adapted the methods to their sample or adapted the method of analysis to fit the nature of the data. In a similar vein, 58% of the authors did not consider or discuss the cultural context and social milieu of their research participants. These findings are somewhat unexpected because qualitative and mixed methods usually involve many culturally sensitive practices, such as an emphasis on in-depth understanding of smaller samples, an emphasis on how the social context shapes data collection, and the generating of thick description and rich data that can be analyzed in diverse ways. Furthermore, qualitative methods are a means to reevaluate and reconceptualize constructs and analytical frameworks (Henwood, 2004; Nerlich, 2004). It would seem that the authors neither used the full potential of qualitative methods nor did what their quantitative colleagues did—use existing methods without adaptation.

RESEARCH APPLICATION COMPOSITE

The Research Application composite score reveals very low levels of cultural sensitivity ($M = 1.56$, $SD = 0.94$; see Table 3). One of the main reasons for this is that only 26% of authors aimed to conduct applied research or used their findings to appreciate behaviors in everyday settings. Some of these authors (12%) stated that they aimed to study issues of social concern, and 12% claimed that they were conducting applied research. A smaller percentage (2%) reported researching issues of primary national concern. Turning to how research results were used, 5% of the authors used their results to understand specific behaviors and/or functioning in applied contexts, and 20% used their results to make broad recommendations for applied contexts. These authors typically offered generalized recommendations that were loosely and often remotely linked to the empirical results they generated, and often times the methods employed did not match the research objectives stated. Finally, few authors (4%) suggested changes to local practices, policies, or programs. These findings clearly reveal that the majority of research

conducted is not directed to social or applied issues and as such, few studies have empirically grounded implications for practice and everyday life.

CULTURAL CONCEPTUALIZATION COMPOSITE

Considering that the Cultural Conceptualization composite has a possible range from 1 to 21, the level of cultural sensitivity was very low (M = 2.52, SD = 2.23). No article received a score above 12. Turning to the items in this composite, we examine whether and how the concept of culture was used. Table 4 lists all the items of this composite because it is used for the first time to assess cultural sensitivity in a content analysis.

The Cultural Conceptualization composite documents two main ways in which the concept of culture is used and conceptualized. For the first cluster, which assessed the way in which the term was used, results show that 22% of the articles do not include any mention of the concept of culture or social context at all, and 23% do so but in a very abstract and nontechnical way. When culture was mentioned and discussed, it was often treated by authors as an independent variable by conceptualizing it as the group to which one belongs (13%), a geographical location (4%), or the language one speaks (1%). Some authors used process-orientated conceptualizations, such as culture is a shared meaning system (8%), sociohistoric patterns (9%), or everyday social interaction or practices (8%). Culture was not conceptualized in any of the articles as a process of engaging in rituals, the use of artifacts, or as being embodied in the ecological context. Our findings reveal that although some authors used the concept of culture, 87% of these authors did not discuss the nature of the relationship between cultural and psychological processes. For these articles, culture was used in a very superficial way to describe the broad contexts or multiple factors that could influence the psychological construct in question.

The second cluster of items in the Cultural Conceptualization composite assessed whether authors elaborated on the relationship between cultural and psychological processes. Many of the items in this section assessed fundamental issues related to research on non–North American samples or culturally unique samples that have been taken up in all subfields in psychology for the past 20 to 30 years. In this analysis, it is possible for an article to receive a score on many items if the author used or discussed more than one type of conceptualization or relationship. The results show that the frequency with which these discussions were made was rather low. The most common discussions were of cultural relativism (16%) and the nature of the cultural processes that affect psychological processes (13%). Fewer authors (8%) discussed culture as a dynamic process that changes with time. Even fewer authors discussed the limitations of generalizing findings from culturally distinct samples (7%) and the complexities of making universalistic claims (2%). One author critically discussed the idea that culture was bounded (geographically located) and that it is difficult to identify an individual's "culture." All of the items assessed have been prominently and broadly discussed for the past 30 years (at least) in the field of psychology and, thus, should not be unknown to the researchers in our sample, especially because they are studying samples in the Arab world.

**TOTAL CULTURAL-SENSITIVITY SCORE COLLAPSED ACROSS
COMPOSITE SCORE AND TIME**

The mean of the total cultural-sensitivity score on the CSMPR for all composites combined was 17.07 (MD = 15.50, SD = 6.92), with a minimum score of 4 and a maximum score of 42.5 (see Table 3). The interquartile range spanned from 12.5 to 21.0. Although there are no data to judge the relative level of cultural sensitivity in the current sample, the

TABLE 4
Descriptive Statistics for the Cultural Conceptualization Composite

	Frequency (N = 99)	Percentage
Use and conceptualization of the term *culture*		
No mention of culture throughout article	23[a]	23
Concept of "culture" is used abstractly	24	24
Culture is operationalized but not related to psychological processes	9	9
Culture is the language you speak	1	1
Culture is group affiliation	13	13
Culture is geographical location	4	4
Culture is shared meaning systems	8	8
Culture is the use and the development of cultural artifacts	0	0
Culture has its origins in sociohistorical patterns	9	9
Culture is patterns of everyday social interactions and practices	8	8
Culture is rituals	0	0
Culture is embodied in the physical environmental context	0	0
Total	99	~100
Conceptual issues concerning the relationship between cultural and psychological processes[a]		
Cultural change is discussed	8	8
Cultural reproduction enactment is discussed	2	2
Culture is conceptualized as a dynamic process	9	9
The notion of a bounded culture is challenged	1	1
Cultural relativism is discussed	16	16
Cultural universalism is critically discussed	2	2
The limitations of generalizing from one sample to another are discussed	7	7
When and what cultural processes affect what levels or type of psychological processes is discussed	13	13
The relationship between specific behavior, thought, and cultural processes is discussed	4	4
The multiple functions of cultural processes and how they affect normative systems, knowledge acquisition, social representation, and meaning systems (concrete and abstract) are discussed	18	18
Other	2	2
Total	99	100

NOTE: Percentages are rounded off to the nearest whole number.
a. In this analysis, it is possible for an article to be counted more than once if there is evidence of more than one type of category.

raw scores show low levels because the majority of the articles received low cultural-sensitivity scores across all the composites. Moreover, very few researchers engaged in culturally sensitive practices, and those practices that were observed were a small proportion of the full range of culturally sensitive practices.

LEVELS OF CULTURAL SENSITIVITY

Uncovering potential changes in levels of cultural sensitivity can have important implications for understanding the development of culturally sensitive research practices. To test these

TABLE 5
Level of Cultural Sensitivity for Each Composite Across the Five Time Frames

	Mean (Standard Deviation)				
	Up to 1979 (N = 17)	1980 to 1989 (N = 16)	1990 to 1996 (N = 16)	1997 to 1999 (N = 24)	2000 to 2004 (N = 26)
Main Measure of Indigenization composite	8.41 (3.51)	9.08 (5.41)	8.56 (4.15)	8.71 (4.26)	9.42 (3.96)
Methods composite	5.71 (2.62)	7.62 (3.23)	7.47 (2.58)	6.61 (2.34)	7.97 (2.24)
Cultural Conceptualization composite	2.88 (1.73)	2.25 (2.18)	1.63 (1.15)	2.83 (2.63)	2.69 (2.60)
Research Application composite	1.18 (.39)	1.19 (.54)	1.44 (.81)	2.04 (1.37)	1.65 (.80)
Total CSMPR score	15.18 (5.26)	17.13 (9.22)	16.10 (5.85)	17.20 (7.64)	18.76 (6.23)

NOTE: CSMPR = Cultural-Sensitivity Measure for Published Research.

differences, an ANOVA was conducted to test whether the total cultural-sensitivity scores of the sampled articles varied across the following time frames: (a) 1950 to 1979 ($N = 17$), (b) 1980 to 1989 ($N = 16$), (c) 1990 to 1996 ($N = 16$), (d) 1997 to 1999 ($N = 24$), and (e) 2000 to 2004 ($N = 26$). Descriptive information for each composite is broken down by time frame in Table 5. Results indicate that the total cultural-sensitivity scores did not significantly change with time, $F(4, 98) = 0.78$, $p = .54$, clearly attesting to the depth of the challenges facing regional researchers. As a further check on developmental changes, we conducted a one-way MANOVA with time frame (as described above) as the independent variable and the composites as the dependent variables. The Research Application composite was excluded from the MANOVA because it violated the assumption of homogeneity and was problematic even after being subjected to log and square root transformations. The Cultural Conceptualization composite was skewed and subsequently subjected to a logarithmic transformation prior to the analysis. The transformation worked and, therefore, this composite, together with the Main Measure and Methods composites, was retained in subsequent inferential analyses. The results indicated no significant overall differences across time when all composites were entered separately, $F(4, 98) = 1.30$, $p = .22$.

A COMPARISON OF ARTICLES THAT SCORED IN THE 20TH AND 80TH PERCENTILE ON THE TOTAL CULTURAL-SENSITIVITY SCORE

Despite the generally low total CSMPR scores, we conducted a MANOVA to examine whether the three composite scores (Main Measure of Cultural Sensitivity, Methods, and Cultural Conceptualization) varied among articles that scored in the 20th percentile compared to those that scored in the 80th percentile. A one-way MANOVA was conducted to compare the three composite scores, high-scoring articles in the 80th percentile, and low-scoring articles in the 20th percentile. As expected, articles scoring in the 80th percentile ($M = 27.56$, $SD = 5.2$) received significantly higher scores than the 20th percentile articles ($M = 9.18$, $SD = 2.3$), $F(3, 37) = 70.85$, $p < .001$. Looking at each F test for each composite, the F test for the Main Measure of Cultural Sensitivity composite showed a significant difference $F(1, 39) = 79.1$, $p < .001$, with the 80th percentile articles showing higher scores ($M = 14.40$, $SD = 3.96$) than the 20th percentile articles ($M = 5.23$, $SD = 2.41$). It was also significant for the Methods composite, $F(1, 39) = 30.60$, $p < .001$, with the following means

TABLE 6
Results of the Stepwise Regression Analysis ($N = 99$)

	F	p	R²	β
Main Measure of Cultural Sensitivity composite	368.06	.001	.791	.65
Cultural Conceptualization composite	142.36	.001	.125	.38
Methods composite	400.28	.001	.068	.33

for the 80th and 20th percentile, respectively, 8.78 ($SD = 2.72$) and 4.54 ($SD = 2.14$). Finally, significance was also observed for the Cultural Conceptualization composite, $F(1, 39) = 96.3$, $p < .001$, with the 80th percentile group scoring higher ($M = .68$, $SD = .21$) than the 20th percentile group ($M = .09$, $SD = .17$). These results show that all three measures contributed to higher total cultural-sensitivity scores.

In light of these significant findings, a stepwise regression analysis was run to examine which of the three composites accounted for most variance in the total score. The results, provided in Table 6, show that the model significantly predicted the total CSMPR score with each of the three independent variables significantly contributing to the equation. The Main Measure of Cultural Sensitivity composite accounted for the most amount of variance (79%) of the total CSMPR score; followed by the Cultural Conceptualization composite, which accounted for 12.5% of the variance; and finally the Methods composite (6.8%).

OVERALL DISCUSSION

METHODOLOGICAL PRACTICES

The current findings suggest that regional researchers do not engage in high levels of culturally sensitive research practices and that these levels have not significantly changed with time. Even studies with cultural-sensitivity scores in the 80th percentile show low levels of culturally sensitive methodological practices. Moreover, low levels of cultural sensitivity were observed in both qualitative and quantitative studies, and especially for studies that employ borrowed measures, scales, and forms of analyses that were adopted with little modification, usually limited to translation and word substitutions (see also Khaleefa, 1999). When authors did adopt scales, issues of validity were very rarely discussed (7%). New items were rarely added and there were minimal attempts to make scales more culturally appropriate. To put this into perspective, recall that 82% of the studies in our data set involve tests, surveys, and scales. A total of 198 measures were employed, approximately 67% of them were not developed for Arab samples or even culturally related samples. These findings have additional significance because 56% of the research samples were nonuniversity students, which may have further necessitated the adaptation of measures and methods. This is especially true because the majority of the subjects were participating in psychological studies for the first time and were likely to have had unexpected beliefs about how to be a "participant," what confidentiality means in psychological research, how to interpret complex instructions, or how to perform task demands in the expected way (Lave, 1997).

Turning to locally developed measures, we do not have specific data about the methodological practices. However, we suspect that they are also problematic for locally developed

tests and scales because issues or validity and norming were rarely discussed in the entire data set. This is one further indication, among others, revealing the depth of the challenges for developing methodologically valid, culturally sensitive research practices in regional research.

The observed predominant use of tests and scales on regional samples without modification may be of some value to scholars who want to validate their scales across cultures. However, a predominant reliance on this type of psychological science will not substantively contribute to culturally sensitive research or an appropriate psychology and will (in the long term) hinder mainstream and international psychology. Researchers in emerging nations, as well as in general, should not be so heavily dependent on any one methodology, especially tests and scales that have been primarily constructed to be useful tools for categorizing and comparing individuals or groups rather than for the purpose of understanding psychosocial processes per se. It is questionable whether such a heavy reliance on survey methods will promote a better understanding of universal psychological processes and causal mechanisms because the comparisons have little substance from which to build causal models and generate empirically and theoretically rich observations (see also Cole, 1996; Greenfield, 1997a; Shweder, 2003).

It is difficult at this stage to explain the reasons for these pervasive and enduring trends in the methodological practices, especially considering our limited knowledge of indigenous scientific practices, the deeper intellectual commitments that underlie these practices, and the regional institutional contexts that support them, as well as how these practices are supported (directly or indirectly) by the international and the mainstream discipline. The depth of the challenges suggested by our findings do not seem to have been taken up by scholars in the Arabic-speaking world, although similar issues have received considerable attention by cultural psychologists, international scholars, and critics of positivism (Bruner, 1987; Cole, 1996; Enriquez, 1993; Greenfield, 1997b; Kim & Berry, 1993; Moghaddam & Taylor, 1986; Smith, Harré, & Langenhove, 1995; Tashakkori & Teddlie, 2003; Todd et al., 2004; Willig, 2001). Reflecting on this cited body of work, it is clear that various epistemological positions and institutional pressures motivate the uncritical transfer of methodological practices. A follow-up study in our lab will involve interviewing prominent researchers in the region to examine the factors that underlie regional research practices. However, even in the absence of this type of research, we feel that at least one recommendation can be made at this time, especially considering the depth of the methodological challenges ahead. We recommend that regional scholars consider ways of achieving more appropriate methodological practices and take up this endeavor boldly, as proposed by Moghaddam and Taylor (1986):

> We believe that attention should be given to establishing criteria for appropriate methodology for the developing world, irrespective of whether or not such methodology is appropriate for the developed world. This constitutes a fundamental shift in goals and approach. (p. 260)

Developing more appropriate methods should not simply be about deciding whether to accept or reject Western or "developed" methods, or any other methodological tradition for that matter, although this is implied in the quote. Uncritical rejection of developed methods is as detrimental as uncritical acceptance, to both regional and international psychology (Enriquez, 1993, p. 158). Other reasons to resist this "West versus the rest" framework is that it wrongly assumes that psychological research in the Western tradition is homogenous, that methods developed outside this tradition are completely foreign and irrelevant to it, and that mainstream practices are uncontested. On all points, scientific practices in the Western tradition are not easily described in this way. This is evident in the Western tradition's methodological

diversity and its challenges to the positivist tradition, which have notably taken root in the fields of cultural and indigenous psychology and have been debated more widely by advocates of qualitative and mixed methods (Smith et al., 1995; Tashakkori & Teddlie, 2003; Todd et al., 2004; see also Bruner, 1990; Greenfield, 1997a; Ratner, 1999; Shweder, 1995, 2000). Developing appropriate methods can build on this critical tradition because many of the challenges posed are the same challenges that concern indigenous and emerging world psychologists. For example, they are concerned with developing tasks and research tools that allow for valid comparisons across groups or culturally distinct samples without requiring one group (typically the non-Western group) to engage in novel, nonintuitive, or even awkward tasks. Although novel tasks are important for some research questions, a sole reliance on them is problematic because processes that are highly contextualized and ecologically based are rarely tapped. We agree with Greenfield (1997a) and Enriquez's (1977b, 1993) view that a more productive way to develop appropriate methods across groups (within or across cultures) is to ensure that they are conceptually valid rather than directly comparable and replicable. Both Greenfield and Enriquez provided examples of methods that have been developed with this aim (for other examples see P. Miller, Wang, Sandel, & Cho, 2002; Vann & Cole, 2004). A related issue is diversifying the methods used to include naturalistic methodologies, methods that study material contexts and resources, as well as methods that examine cultural, historical, and developmental trajectories (Greenfield, 1997a). Another important way to develop appropriate methods, which was very rarely observed in our data set, is to engage in smaller scale research on subjectivity and shared cultural meaning before going on to quantify and aggregate data (Greenfield, 1997a). This approach promotes reflexivity between the researcher and the participant and helps reduce the cultural distance between them, which in turn contributes to the quality and validity of the data (see Moghaddam et al., 2003). Another issue is how to make methodological use of the cultural insider and outsider perspective, as well as the naïve psychologist or the expert perspective. Although much has been written about psychology from "within" and from "without," little of this work has translated into methodological procedures that could contribute to the development of appropriate methods (however, see Tobin, Wu, & Davidson, 1989). This brief discussion only begins to map out various aspects of developing appropriate methods. There is much more to examine, especially with respect to the material and institutional contexts that shape what types of methods are feasible in the Arab context. It is clear that there is much to be done in terms of methodology; however, the shared concerns of indigenous scholars, cultural psychologists, and critics of positivism can be a fertile group for genuine collaboration and development.

INTELLECTUAL DEPENDENCE

The current findings also extend empirical support and more nuanced and detailed observations to more than 60 years of scholarly commentaries that describe high levels of uncritical acceptance of theories and findings from mainstream psychology. Many have argued, as reviewed above, that this intellectual climate has resulted in three main conditions: a one-way relationship with mainstream psychology, the irrelevance of research to social problems in the region, and the reactive and repetitive nature of research (Abou-Hatab, 1993, 1997; Ahmed & Gielen, 1998; Akil, 1965; Diab, 1965; Galioun, 1997).

Beginning with the one-way nonreciprocal relationship with mainstream psychology, several findings offer a more complete and grounded picture of Abou-Hatab's (1993, 1997) observations that there is no zeitgeist of critiquing the applicability of imported ideas and measures. The current findings support this and show how it is related to other research

practices. Let us begin with the most direct evidence. Only six authors critiqued main-stream measures, whereas four studies (by three different authors) challenge or critically assessed existing concepts or theories. It is interesting that all three authors discussed how psychological theories from Western cultures are themselves forms of indigenous scientific practices that were developed in specific social contexts and require critical adaptation to Arab societies. We take this finding to indicate a healthy and mutually beneficial form of self-reliance among these authors.

There are other dimensions that contribute to our understanding of this uncritical zeitgeist. Close to half of the authors in the data set (47%) explicitly stated that their aim was to either replicate research conducted abroad or to contribute cross-cultural data to already developed research programs. For these authors, the focus was on cross-culturally validating existing findings rather than engaging in the fuller sense of cross-cultural research. These findings resonate with Abou-Hatab's (1997) view that a great deal of research is reactive and repetitive. Historical trends in our findings suggest that regional research involves a disproportionate percentage of strict replication studies with minimal extensions rather than research that is locally grounded.

A slightly higher number of authors (53%) stated that they aimed to be locally relevant and 30% offered examples of culturally significant behaviors or psychological processes, which further suggests that there is a desire or rather an attempt to be relevant to local social realities. It was hoped that these intentions would have resulted in more culturally sensitive practices. However, these authors did little to support their stated aims, such as developing hypotheses with culturally relevant considerations (13%), developing research questions that are motivated by considerations from the local culture (13%), or commenting on how participants' expectations and social knowledge affected their task performance. Furthermore, only 12% of the authors attempted to examine behaviors observed in a local context. This interpretation is further supported by the findings from the Research Application composite revealing that although 12% of the researchers aimed to address and contribute to the resolution of social problems, many fewer examined issues of national concern (2%) or used their results to better understand specific behaviors in applied contexts (5%). Instead, more authors than those who aimed to conduct applied research (20%) used their results to make broad recommendations that were not supported by their empirical results. The primary problem, as we see it, is that applied research is used to make nonspecific recommendations that are not clearly tied to the empirical findings and are not often grounded in detailed and systematic knowledge of the applied setting. To improve this situation, more observational, field, or ethnographic research is needed to complement basic research. For this, psychologists in the Arab world are fortunate to have well-developed fields in anthropology, political science, and sociology to draw on for descriptive accounts of naturalistic behavior and for basic empirical data that can serve as background knowledge for understanding macro influences on psychosocial phenomena. Moreover, the rising acceptance of qualitative methods in psychology, if used to its potential, will contribute to this desire to make research more relevant to applied domains.

To assess levels of intellectual dependency and self-reliance, we can also look at how regional research is consumed and used. The current findings suggest that researchers, regardless of their subfield of specialization, tended to cite more local publications than researchers in Khaleefa's (1999) sample. Only 12 authors did not cite any local studies. The majority of the reference lists ($N = 61$) contained between 11% and 60% local references. Adair et al. (1993) argued that this practice contributes to more culturally sensitive research. However, our findings suggest that this interpretation be treated with caution for two reasons. Many of the

cited publications were not publicly accessible documents and, thus, will inevitably have a limited impact on the research community (such as in-house project reports and unpublished dissertations). Others were not peer reviewed (i.e., magazine and newspaper articles). Furthermore, our follow-up analysis (reported above) clearly suggests that although authors are citing one another, a very small proportion of researchers (1%) actually critique, elaborate, or follow up on published local research. It is also interesting and relevant to note that researchers are often silent about the problematic research practices observed with such high frequency in our content analysis.

Together, these converging findings show specific forms of intellectual dependency, especially in the formulation of research questions and the building of sustainable research programs, theory adoption and development, and the way in which local research is used. Although there is a desire or an awareness to contribute culturally sensitive research and there is some awareness of regional scholarship, these efforts alone are not sufficient. This is especially true considering the clear emphasis on doing research for the sole aim of contributing cross-cultural data to the international literature or replicating research in mainstream journals.

LEVELS OF CULTURAL SENSITIVITY FOR RESEARCH
PUBLISHED REGIONALLY OR INTERNATIONALLY

The current findings suggest other extensions on previous scholarship. Motivated by findings from Adair et al. (1993) showing that Indian foreign publications involve a greater focus on culture, we asked whether our results support this conclusion. Our findings clearly show that the mean overall cultural-sensitivity score was low and that this was mostly driven by foreign publications that constituted 89.1% of the sampled articles. Further probing the issue, it is interesting to note that there was approximately the same ratio of foreign to regional publications in the 20th and 80th percentile groups. Adding to this emerging picture, the mean total sensitivity score for publications in Arab regional journals ($M = 23.9$, $SD = 7.8$) was slightly higher than the score for the entire data set (recall, however, that the number of studies in Arab journals was very small). Together, these findings suggest that research published in international journals is not necessarily more culturally sensitive compared to research published regionally, at least in the Arab region. As such, the suggestion by Adair et al. that foreign (nonregional) journals, which they argued seek cross-cultural data and publish higher quality research, are contributing to culturally sensitive research is questionable. In fact, some researchers working in emerging national traditions, including the first author of this article, have had to substantively modify and make their publications less culturally sensitive because various locally relevant research questions and findings are deemed less palatable or irrelevant to international audiences (for similar personal accounts see Bond, 1997). We raise these issues to provide a critical perspective on the role of international journals in the development of culturally sensitive research and not necessarily to advocate certain publication venues. In some emerging research traditions, especially ones that have caught the attention of mainstream psychology, international publications are an opportunity to engage in diverse and reciprocal forms of culturally sensitive research, whereas for other traditions, international journals will serve to only reestablish hegemonic approaches to psychological science. What works for one emerging tradition may not work in the same way in another tradition. Ongel and Smith (1999) made this point beautifully in their content analysis of research from the former Soviet Union, which shows how cultural sensitivity can be achieved with a strong emphasis on theoretical scholarship versus the more conventional view that empirical research is needed to develop scholarly traditions. A further indication that high levels of

cultural sensitivity can be achieved in different ways was revealed in our first attempt to ana-lyze the cultural sensitivity of Arabic-language publications (Alamuddin, 2005; Zebian, 2006). Using the cultural-sensitivity framework described in this project, we discovered that this intellectual history, which makes culture an object of study and which is indigenous to the Western intellectual tradition, is not reflected in Arabic publications. As such, it is not jus-tified to use the current content analysis method, which assumes this intellectual history, with publications that are influenced by very different intellectual traditions. It is hard to know, at this stage in our research, whether an analysis of Arabic publications will give rise to a new understanding of cultural sensitivity and its relation to an appropriate psychology. However, it is clear that Arabic language research will reveal unique characteristics to those observed in regional English publications and, therefore, such an analysis is needed to more fully understand the regional field.

RESEARCH PRACTICES THAT CONTRIBUTE TO AN APPROPRIATE REGIONAL PSYCHOLOGY

As a means of summarizing and bringing some closure to our discussion, we will con-sider whether some regional research practices are contributing to the development of an appropriate psychology. A few positive signs were observed and some strategic points of departure were discovered.

One positive sign is that almost half of the authors aimed to conduct research that was of some relevance to the local context, either by stating that their research aimed to contribute to local research or by addressing national concerns and special needs within a society. Although this suggests that the majority of authors aimed to conduct research that was more responsive, as opposed to the more traditional goal of contributing data to the international scientific community, these objectives were rarely supported by research practices that can help researchers actualize these intentions (as discussed above and in the results section).

Another positive sign is the diversity of the samples researched in these studies. This is a very important characteristic in regional research, especially when contrasted to the historic overuse of university student samples in Western research, which is estimated to be as large as from 70% to 85% in social psychological and cross-cultural research (Moghaddam & Lee, in press; Sears, 1986). This characteristic has the potential to substantively contribute to the development of appropriate research if researchers accept the challenges of developing cul-turally sensitive methods and instruments that fit their samples. The challenges that these opportunities pose are being addressed in some bold psychology movements that we are aware of: liberation psychology (Lira, 2000; Montero, 1994), critical psychology (Sloan, 2000), indigenous psychology (Enriquez, 1977a; Nsamenang, 1992; Yang, Hwang, Pederson, & Diabo, 2003), and strong forms of culturalism (Bruner, 2005; Harré, 2005; Hutchins, 1995; Ilyendov as cited in Bakhurst, 2001, 2005; Latour, 1996; Shweder, 2003).

One final positive trend observed is the recent use of mixed methods designs. Mixed methods designs have some main characteristics that support the development of culturally sensitive research. They have the potential to reduce the cultural distance between researchers and participants and they afford a more focused examination of behavior in its natural context (Moghaddam et al., 2003). Furthermore, in mixed methods designs, there is potential to observe the same phenomena at different levels of analysis within the same study, subsequently revealing tensions between different epistemological positions (see readings in Tashakkori & Teddlie, 2003). These research practices contribute to the development of culturally sensitive research in ways that are often overlooked in strictly quantitative designs

grounded in positivism. Although our discussion here is brief, it may serve as the springboard for a more in-depth exploration of the potential contributions of mixed methods to culturally sensitive research practices.

Strategic directions for increasing cultural sensitivity. Beyond the observed positive trends discussed above, we wish to bring together the empirical findings of this study and the critical issues raised throughout the article to suggest some strategic directions for increasing the level of cultural sensitivity in research and subsequently contributing to the development of an appropriate psychology that has substantive relations with other national psychologies.

The Main Measure of Cultural Sensitivity composite accounted for more variance than any other composite (notably the Methods composite). This suggests that cultural sensitivity involves conceptual and epistemological issues, in addition to the accepted view that the development of emerging psychologies primarily depends on employing correct and valid methodological procedures for generating empirical data. Unfortunately, the conceptual and epistemological positions raised above are rarely discussed in Arab regional scholarship. If progress is desired, our findings suggest that self-reflective and theoretically informed scholarship is required. There are several conditions that would facilitate this process, including stronger connections between researchers and institutions in the Arabic-speaking world. Moreover, scholars might benefit from becoming more familiar with scholarship in other emerging psychologies, such as critical psychology, other indigenous psychologies, cultural psychology, and in the traditions that critique positivism in psychological science. It is notable that there is considerable overlap in the issues raised in these scholarly traditions and the issues raised in our cultural-sensitivity framework, especially with respect to how cultural processes influence psychological functioning. This gives us further confidence that scholarship and empirical work that focuses on the relationship between cultural and psychological processes offers a practical and enriching framework for developing diverse regional research traditions. This conclusion is further supported by the regression findings that showed the Cultural Conceptualization composite accounted for the second highest amount of variance in the total cultural-sensitivity score, higher than the Methods composite score.

In addition to the epistemological and conceptual issues identified, sustained attention is needed to develop culturally sensitive methods that address the specific needs of regional research and publication practices. This is a long-term endeavor that will inevitably require some difficult discussions about what counts as validity, objectivity, and reliability in psychological research. Regional scholars in emerging traditions may need to explore how these fundamental concepts shape research and its appropriateness. The success of this endeavor may be facilitated if we have a better understanding of indigenous and more intuitive forms of regional scientific practice, especially because methods from mainstream psychology have been transferred with little success. In our lab, we have begun to conduct semistructured interviews with prominent regional researchers to examine the underlying meaning systems that motivate complex research practices. Alternatively, ethnographies of science in practice are an effective way of understanding what motivates research practices. Although these methods are time-consuming and are rarely used to examine the development of emerging national traditions in psychology (although they are common in sociology), they overcome the main limitations of content analyses that can say little about the subjective experiences of researchers, the social nature of research practices, and the institutional contexts that promote or impede research development.

In this article, we have offered specific ways in which to systematically gauge the cultural sensitivity of research in one emerging regional psychology. The cultural-sensitivity framework offered in this article is a modest starting point for assessing some historically persistent characteristics that have impeded the development of research in the Arabic-speaking world. It certainly is not an end point, as we have made clear throughout this article by raising several critical issues that require further research and discussion. The findings and issues explored in this article elaborate our view that psychology in the Arabic-speaking world, especially during this stage of its development, requires focused attention on culturally sensitive research in all subfields.

REFERENCES

Abou-Hatab, F. (1993). Psychology in the Arab world: Case study from developing nations [in Arabic]. *Egyptian Journal of Psychological Studies*, *2*, 1-27.

Abou-Hatab, F. (1997). Psychology from Egyptian, Arab, and Islamic perspectives: Unfulfilled hopes and hopeful fulfillment. *European Psychologist*, *2*, 356-365.

Adair, J. (1995). The research environment in developing countries: Contributions to the national development of the discipline. *International Journal of Psychology*, *30*, 643-662.

Adair, J. (1998). Factors facilitating and impeding psychology's contribution to national development. *InterAmerican Journal of Psychology*, *32*, 13-32.

Adair, J. (1999). Indigenization of psychology: The concept and its practical implementation. *Applied Psychology: An International Review*, *48*, 403-418.

Adair, J., & Kagitcibasi, C. (1995). Development of psychology in developing countries: Factors facilitating and impeding its progress. *International Journal of Psychology*, *30*, 633-641.

Adair, J. G., Puhan, B. N., & Vohra, N. (1993). Indigenization of psychology: Empirical assessment of progress in Indian research. *International Journal of Psychology*, *28*(2), 149-169.

Ahmed, R. (2004). Psychology in Egypt. In M. Stevens & D. Wedding (Eds.), *The handbook of international psychology* (pp. 387-403). New York: Brunner-Routledge.

Ahmed, R., & Gielen, U. (1998). *Psychology in the Arab countries*. Cairo, Egypt: Menoufia Press.

Akil, F. (1965). One hundred years of Arab scholarship in the human sciences: Syria [in Arabic]. In A. Al-Hafid, M. Dajani, A. Al-Musaan, K. Haseeb, L. Diab, F. Akil, et al. (Eds.), *One hundred years of Arab scholarship in the human sciences* (pp. 306-330). Beirut, Lebanon: American University of Beirut Press.

Alamuddin, R. (2005). *An empirical investigation of the degree of cultural grounding in psychological research and the factors that impede and promote such research: The case of Lebanon*. Unpublished master's thesis, American University of Beirut, Lebanon.

Alamuddin, R., & Zebian, S. (2004). *Coding manual for the Cultural Sensitivity Measure for Published Research (CSMPR)*. Beirut, Lebanon: American University of Beirut.

Alamuddin, R., & Zebian, S. (2005). *Psychology in the Arab world* [A working annotated bibliography]. American University of Beirut, Lebanon.

Al-Soud, N. (2000). The progress of the science of psychology in the Arab world and its prospective development [in Arabic]. *Intellectual Studies Magazine*, *1*, 155-183.

Arab PsyNet. (n.d.). *ArabPsy reviews guide*. Retrieved from http://www.arabpsynet.com/HomePage/Psy-Reviews.htm

Bakhurst, D. (2001). Memory, identity, and the future of cultural psychology. In D. Bakhurst & S. Shanker (Eds.), *Jerome Bruner: Language, culture, and self* (pp. 184-198). London: Sage.

Bakhurst, D. (2005). Strong culturalism. In C. Erneling & D. M. Johnson (Eds.), *The mind as a scientific object: Between brain and culture* (pp. 413-430). New York: Oxford University Press.

Birashk, B. (2004). Psychology in Iran. In M. Stevens & D. Wedding (Eds.), *The handbook of international psychology* (pp. 405-418). New York: Brunner-Routledge.

Bond, M. (Ed.). (1997). *Working at the interface of cultures: Eighteen lives in social science*. London: Routledge.

Bond, M., & Tedeschi, J. (2001). Polishing the Jade: A modest proposal for improving the study of social psychology across cultures. In D. Matsumoto (Ed.), *The handbook of culture and psychology* (pp. 309-324). New York: Oxford University Press.

Boski, P. (1993). Between West and East: Humanistic values and concerns in Polish psychology. In K. Uichol & J. Berry (Eds.), *Indigenous psychologies: Research and experience in cultural context* (pp. 79-103). Newbury Park, CA: Sage.

Boski, P. (2005). Humanism-materialism: Polish cultural origins and cross-cultural comparisons. In U. Kim & K. Yang (Eds.), *Scientific advances in indigenous psychologies* (pp. 373-402). New York: Kluwer/Plenum.

Bruner, J. (1987). Life as narrative. *Social Research*, *54*, 11-32.

Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.

Bruner, J. (2005). Ignace Meyerson and cultural psychology. In C. Erneling & D. M. Johnson (Eds.), *The mind as a scientific object: Between brain and culture* (pp. 402-412). New York: Oxford University Press.

Cole, M. (1996). *Cultural psychology*. Cambridge, MA: Harvard University Press.

Connolly, K. (1986). Psychology and the Third World: A commentary on Moghaddam & Taylor. *Bulletin of the British Psychological Society*, *39*, 8-11.

Diab, L. (1965). One hundred years of Arab scholarship in the human sciences: Lebanon [in Arabic]. In A. Al-Hafid, M. Dajani, A. Al-Musaan, K. Haseeb, L. Diab, F. Akil, et al. (Eds.), *One hundred years of Arab scholarship in the human sciences* (pp. 330-345). Beirut, Lebanon: American University of Beirut Press.

Dwairy, M. (1998). *Cross-cultural counseling: The Arab Palestinian case*. New York: Haworth.

Dwairy, M. (1999). Toward psycho-cultural approach in Middle Eastern societies. *Clinical Psychology Review*, *19*, 909-915.

Elliott, R., Fischer, C., & Rennie, D. (1999). Evolving guidelines for publication of qualitative research studies in psychology and related fields. *British Journal of Clinical Psychology*, *38*, 214-229.

Enriquez, V. (1977a). Filipino psychology in the Third World. *Philippine Journal of Psychology*, *10*, 3-18.

Enriquez, V. (1977b). Toward cross-cultural knowledge through cross-indigenous methods and perspectives. *Philippine Journal of Psychology*, *12*, 9-16.

Enriquez, V. (1993). Developing a Filipino psychology. In U. Kim & J. Berry (Eds.), *Indigenous psychologies: Research and experience in a cultural context* (pp. 152-169). Newbury Park, CA: Sage.

Fish, J. (2000). What anthropology can do for psychology: Facing physics envy, ethnocentrism, and a belief in "race." *American Anthropologist*, *102*, 552-563.

Galioun, B. (1997). The reasons for impeded progress in general scientific research in the Arab world [in Arabic]. *Bahithat*, *3*, 320-335.

Greenfield, P. M. (1997a). Culture as a process: Empirical methods for cultural psychology. In J. W. Berry, Y. Poortinga, & J. Pandely (Eds.), *Handbook of cross-cultural psychology: Theory and method* (pp. 301-346). Boston: Allyn & Bacon.

Greenfield, P. M. (1997b). You can't take it with you: Why ability assessments don't cross cultures. *American Psychologist*, *52*, 1115-1124.

Greenfield, P. M. (2000). What psychology can do for anthropology, or why anthropology took postmodernism on the chin. *American Anthropologist*, *102*, 564-576.

Gregg, G. (2005). *The Middle East: A cultural psychology*. Cambridge, UK: Oxford University Press.

Harkness, J., van de Vijver, F., & Mohler, P. (2003). *Cross-cultural survey methods*. Hoboken, NJ: John Wiley.

Harré, R. (2005). The relevance of the philosophy of psychology to a science of psychology. In C. Erneling & D. M. Johnson (Eds.), *The mind as a scientific object: Between brain and culture* (pp. 20-33). New York: Oxford University Press.

Henwood, K. (2004). Reinventing validity: Reflections on principles and practices from beyond the quality-quantity divide. In Z. Todd, B. Nerlich, S. McKeown, & D. Clark (Eds.), *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice* (pp. 37-57). Sussex, UK: Psychology Press.

Henze, R. (1992). *Informal teaching and learning: A study of everyday cognition in a Greek community*. Hillsdale, NJ: Lawrence Erlbaum.

Holdstock, L. (2000). *Re-examining psychology: Cultural perspectives and African insights*. London: Routledge.

Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: MIT Press.

Hutz, C. S., & Adair, J. G. (1996). The use of references in Brazilian psychology journals reveals trends in thought and research. *International Journal of Psychology*, *31*(2), 145-149.

Institute for Development, Research, Advocacy and Applied Care. (n.d.). *Search engine of Arab research*. Retrieved from http://www.idrac.org.lb/sub.aspx?ID=169&MID=50&PID=46&SECID=46

Kagitcibasi, C. (1994). Psychology in Turkey. *International Journal of Psychology*, *29*, 729-738.

Kazarian, S., & Khoury, B. (2003, December). *Psychology in Lebanon: Challenges and prospects*. Paper presented at the Middle East and North Africa Regional Conference in Psychology, Dubai, United Arab Emirates.

Khaleefa, O. (1999). Research on creativity, intelligence, and giftedness: The case of the Arab world. *Gifted and Talented International*, *14*, 21-29.

Kim, U., & Berry, J. W. (Eds.). (1993). *Indigenous psychologies: Research and experience in cultural context*. London: Sage.

Latour, B. (1996). A review of Ed Hutchins' "Cognition in the wild." *Mind, Culture, and Activity*, *3*, 54-63.

Lave, J. (1997). What's special about experiments as contexts for thinking? In M. Cole, Y. Engestrom, & O. Vasquez (Eds.), *Mind, culture, and activity: Seminal papers from the Laboratory of Comparative Human Cognition* (pp. 57-69). Cambridge, UK: Cambridge University Press.

Lira, E. (2000). Reflections on critical psychology: The psychology of memory and forgetting. In T. Sloan (Ed.), *Critical psychology: Voices for change* (pp. 82-90). New York: St. Martin's.

Madill, A., Jordan, A., & Shirley, C. (2000). Objectivity and reliability in qualitative analysis: Realist, contextualist and radical constructionist epistemologies. *British Journal of Psychology*, *91*, 1-20.

Melikian, L. (1984). The transfer of psychological knowledge to the Third World countries and its impact on development: The case of five Arab Gulf oil-producing states. *International Journal of Psychology*, *19*, 65-77.

Miller, J. (1997). Theoretical issues in cultural psychology. In J. W. Berry, Y. Poortinga, & J. Pandey (Eds.), *Handbook of cross-cultural psychology* (pp. 87-128). Boston: Allyn & Bacon.

Miller, P., Wang, S., Sandel, T., & Cho, G. (2002). Self-esteem as folk theory: A comparison of European American, and Taiwanese mother's beliefs. *Parenting: Science and Practice*, *2*, 209-239.

Moghaddam, F. (1989). Specialization and despecialization in psychology: Divergent processes in the three worlds. *International Journal of Psychology*, *24*, 103-116.

Moghaddam, F. (1993). Traditional and modern psychologies in competing cultural systems: Lessons from Iran 1978-1981. In J. Berry & U. Kim (Eds.), *Indigenous psychologies: Research and experience in cultural context* (pp. 118-132). Newbury Park: Sage.

Moghaddam, F. (1997). *The specialized society: The plight of the individual in an age of individualism*. Westport, CT: Praeger.

Moghaddam, F., Bianchi, C., Daniels, K., Apter, M., & Harré, R. (2000). Psychology and national development. *Psychology and Developing Societies*, *11*(2), 119-141.

Moghaddam, F., & Lee, N. (in press). Double reification: The process of universalizing psychology in the three worlds. In. A. Brock (Ed.), *Internationalizing the history of psychology*. New York: New York University Press.

Moghaddam, F., & Taylor, D. (1986). What constitutes an appropriate psychology for the developing world? *International Journal of Psychology*, *21*, 253-267.

Moghaddam, F., Walker, B., & Harré, R. (2003). Cultural distance, levels of abstraction, and the advantages of mixed methods. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioural research* (pp.111-134). Thousand Oaks, CA: Sage.

Montero, M. (1994). Consciousness raising, conversion, and de-ideologization in community psychosocial work. *Journal of Community Psychology*, *22*, 3-11.

Naboulsi, M. A. (1995a). *The reality of psychiatry in the Arab world* [in Arabic]. Paper presented at the Arab Association of Psychology, Lebanon, Beirut.

Naboulsi, M. A. (1995b). *Toward an Arab psychology* [in Arabic]. Beirut, Lebanon: Dar Al-Taleea.

Nerlich, B. (2004). Coming full hermeneutical circle. In Z. Todd, B. Nerlich, S. McKeown, & D. Clark (Eds.), *Mixing methods* (pp. 17-36). Sussex, UK: Psychology Press.

Nsamenang, A, (1992). *Human development in a cultural context: A third world perspective*. Newbury Park, CA: Sage.

Nsamenang, A. (2000). Issues in indigenous approaches to developmental research in sub-Saharan Africa. *International Society for the Study of Behavioural Development Newsletter*, *1*(37), 1-4.

Ongel, U., & Smith, P. B. (1999). The search for indigenous psychologies: Data from Turkey and the former USSR. *Applied Psychology: An International Review*, *48*(4), 465-479.

Prothro, E. T., & Melikian, L. H. (1955). Psychology in the Arab Near East. *Psychological Bulletin*, *52*(4), 303-310.

Ratner, C. (1999). *Cultural psychology*. New York: Kluwer.

Safwata, A. (1996). Psychology in the Arab nations and its challenges in the future century [in Arabic]. *Psychological Studies*, *6*, 1-4.

Sayed, M. (2002). Arabic psychiatry and psychology: The physician who is a philosopher and the physician who is not a philosopher: Some cultural considerations. *Social Behaviour and Personality*, *30*, 235-242.

Sayed, M. (2003). Conceptualization of mental illness within Arab cultures: Meeting challenges in cross-cultural settings. *Social Behaviour and Personality*, *31*, 333-342.

Sears, D. O. (1986). College sophomores in the laboratory: Influences of narrow data base on social psychology's view of human nature. *Journal of Personality and Social Psychology*, *51*, 515-530.

Shweder, R. (1995). The confessions of a methodological individualist: Comment. *Culture & Psychology*, *1*, 115-122.

Shweder, R. (2000). The psychology of practice and the practice of the three psychologies. *Asian Journal of Social Psychology*, *3*, 207-222.

Shweder, R. (2003). *Why do men barbeque? Recipes for cultural psychology*. Cambridge, MA: Harvard University Press.

Shweder, R., & Sullivan, M. (1993). Cultural psychology: Who needs it? *Annual Review of Psychology*, *44*, 497-535.

Sinha, J. (1993). The bulk and the front of psychology in India. *Psychology & Developing Societies*, *5*, 135-150.

Sinha, D. (1997). Indigenizing psychology. In J. W. Berry, Y. H. Poortinga, & J. Pandey (Eds.), *Handbook of cross-cultural psychology: Vol. 1. Theory and method* (2nd ed., pp. 129-169). Boston: Allyn & Bacon.

Sloan, T. (Ed.). (2000). *Critical psychology: Voices for change*. Hampshire, UK: Macmillan.

Smith, J. A., Harré, R., & Langenhove, L. (1995). *Rethinking methods in psychology*. London: Sage.

Tashakkori, A., & Teddlie, C. (Eds.). (2003). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage.

Tobin, J., Wu, D., & Davidson, D. (1989). *Preschool in three cultures*. New Haven, CT: Harvard University Press.

Todd, Z., Nerlich, B., McKeown, S., & Clarke, D. (2004). *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice*. New York: Psychology Press.

Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.

United Nations Development Programme. (2002). *Arab human development report 2002: Creating opportunities for future generations*. Oxford, UK: Oxford University Press.

United Nations Educational, Scientific, and Cultural Organization. (1998). *World science report*. Paris: Elsevier

Vann, K., & Cole, M (2004). Method and methodology in interpretive studies of cognitive life. In Z. Todd, B. Nerlich, S. McKeown, & D. Clarke (Eds.), *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice* (pp. 149-168). New York: Psychology Press.

Wagner, D., & Spratt, J. (1987). Cognitive consequences of contrasting pedagogies: The effects of Quranic preschooling in Morroco. *Child Development*, *58*, 1207-1219.

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham, UK: Open University Press.

Yang, K. (1997). Indigenizing Westernized Chinese psychology. In M. Bond (Ed.), *Working at the interface of cultures* (pp. 62-76). London: Routledge.

Yang, K. S., Hwang, K. K., Pederson, P. B., & Diabo, I. (Eds.). (2003). *Progress in Asian social psychology: Conceptual and empirical contributions*. Westport, CT.: Praeger.

Zebian, S. (2006). *Scientific research practices in Arabic-language publications and their relation to other emerging psychological traditions in the region*. Manuscript in preparation, American University of Beirut, Lebanon.

Samar Zebian is an assistant professor of psychology in the Department of Social and Behavioral Sciences at the American University of Beirut, Lebanon. She received a PhD in cognitive science with an emphasis in cultural cognition from the University of Western Ontario, Canada. Her research investigates the cultural origins of human cognition in the following domains: numeric cognition, everyday mathematics, the development of higher order critical thinking in school mathematics, and cross-cultural/sub-cultural differences in thought styles. More recently, she began research on the development of Arab psychology. She is the recipient of the 2002 Triandis dissertation award and is an executive member of the Lebanese Psychological Association.

Rayane Alamuddin received her MA in psychology from the American University of Beirut, Lebanon, and is currently an instructor of psychology. Her research interests include youth issues in developing nations, the development of emerging national psychologies, and applying psychological research to post-conflict human development efforts.

Mariane Maalouf received an MSc in addictive behaviors from the University of Liverpool, United Kingdom. Her current interests lie in the areas of biological and cultural psychology.

Yasmine Chatila, BA, is a research assistant working with several institutions. Her research interests include a variety of topics covering mental health in Lebanon.