

THANH V. TRAN, TAM H. NGUYEN,  
AND KEITH T. CHAN

# Developing Cross-Cultural Measurement in Social Work Research and Evaluation

Second Edition

 **POCKET GUIDES TO**  
**SOCIAL WORK RESEARCH METHODS**

THANH V. TRAN  
TAM H. NGUYEN  
KEITH T. CHAN

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## Preface

The United States historically has been a haven for immigrants and refugees from almost every corner of the globe. As a result, social workers have played a major role in helping newcomers settle and adjust into their newly found communities. Cross-cultural issues are not new among those of us who are trained as social workers or identify ourselves within the discipline. The profession of social work has a long tradition of advocating and serving clients from different cultural backgrounds (Lubove, 1965; Green, 1982). The impact of cultural differences in the implementation of services and the assessment of service outcomes across different social, economic, racial, and national groups is part of the stated mission in social work practice (NASW, 2015) and a core competency in education (CSWE, 2015). Yet, the extent to which social workers are concerned about this in research, education, and practice remains insufficient. This short guide attempts to articulate the process of cross-cultural research instrument development in order to address this gap in social work research and evaluation.

## MIGRATION AND CULTURAL DIFFERENCES

People migrate from place to place for different reasons, including but not limited to the economic downturns, political turmoil, religious persecution, war, and calamity. Immigration researchers often classify migration into two groups: the pulled and the pushed immigrants. Pulled immigrants migrate out of their country of origin by choice, and pushed immigrants migrate because of factors beyond their control. In addition, modern transportation technologies and the global economy have opened the borders of nations and continents, allowing more people to easily migrate across those borders. The United Nations report in 2016 that “the number of international migrants—persons living in a country other than where they were born—reached 244 million in 2015 for the world as a whole, a 41% increase compared to 2000” (<http://www.un.org/sustainabledevelopment/blog/2016/01/244-million-international-migrants-living-abroad-worldwide-new-un-statistics-reveal/>). This figure includes almost 20 million refugees. By the end of the twentieth century, with the explosion of information science and technology, people around the globe had been exposed to other cultures and were able to virtually and instantaneously connect with foreigners and strangers from every corner of the earth.

Changes in US immigration laws from 1965 to 1990 created opportunities for immigrants from diverse ethnic/racial backgrounds, in particular from Asian and Latin American countries, to arrive as green card holders and be eligible for citizenship.

Although the United States has modified its policy to make immigration more difficult after the historic and tragic 9/11 event (Martin, 2003), the US immigrant population has continued to grow despite these changes. The US foreign-born population has evolved and grown throughout the history of the nation. In 1850, the foreign-born population made up about 2.2% of the US population. This number had increased to 12.9% by 2010. As reported by Camarota & Zeigler (2014), “the nation’s immigrant population (legal and illegal) hit a record 41.3 million in July 2013, an increase of 1.4 million since July 2010. Since 2000 the immigrant population is up 10.2 million,” (p. 1). According to the Pew Research Center, the 2013 US immigrant population had increased more than four times compared to the immigration population in 1960 and 1970. Today, immigrants account for 29% of US

population growth since the beginning of the twenty-first century. With rapid growth since 1970, the share of foreign-born population in the overall US population has been rising from 4.7% in 1970 to 13.1% in 2013 and could rise to 18% by 2065 (Pew Research Center, 2015). Recent data from the Bureau of the Census revealed that there are 350 languages spoken at homes in the United States. Language diversity can be found in all large US metropolitan areas. The number of languages spoken at homes in large metropolitan areas varied from 126 in the Detroit metro area to 192 in the New York metro area (U.S. Census Bureau, 2015). If English language ability can be used as an indicator of acculturation and adaptation for non-English speaking foreign-born immigrants, only 50% had high English speaking ability. The remaining 50% spoke some or no English at all (Gambino, Acosta, & Grieco, 2014). Roughly speaking, 20 million immigrants in the United States could potentially face barriers to obtaining health and social services due to their limited English language ability. Indeed, US Census data also revealed that there were 11.9 million individuals considered “linguistically isolated,” (Shin & Bruno, 2003). Consequently, this is a challenge for health and social service providers and researchers. With demographic changes and the reality of cultural diversity in the United States and other parts of the world today, social work researchers are increasingly aware of the need to conduct cross-cultural research and evaluation, whether for hypothesis testing or outcome evaluation.

This book’s aims are twofold: to provide an overview of issues and techniques relevant to the development of cross-cultural measures, and to provide readers with a step-by-step approach to the assessment of cross-cultural equivalence of measurement properties. There is no discussion of statistical theory and principles underlying the statistical techniques presented in this book. Rather, this book is concerned with applied theories and principles of cross-cultural research, and draws information from existing work in the social sciences, public domain secondary data, and primary data from the authors’ research. In this second edition we made changes throughout the book and added a new chapter on item response theory. We also expanded the chapter on developing new cross-cultural instruments, with a concrete example.

Chapter 1 provides the readers with an overview of the definitions of culture, a brief discussion of cross-cultural research backgrounds

in anthropology, psychology, sociology, and political science, and the influences of these fields on social work.

Chapter 2 describes the process of cross-cultural instrument development and discusses the preliminary tasks of a cross-cultural instrument development process. The chapter offers guides and recommendations for building a research support team for various critical tasks.

Chapter 3 addresses the issues of adopting and adapting existing research instruments. The processes and issues of cross-cultural translation and assessment are presented and discussed in detail.

Chapter 4 focuses on the analytical techniques to evaluate cross-cultural measurement equivalence. This chapter demonstrates the applications of item distribution analysis, internal consistency analysis, and exploratory factor analysis, and the application of confirmatory factor analysis and multisample confirmatory factor analysis to evaluate the factor structure and testing of cross-cultural measurement invariance. Students learn how to generate data for confirmatory factor analysis, present the results, and explain the statistical findings concerning measurement invariance.

Chapter 5 explains the basic concepts of item response theory (IRT) and its application in cross-cultural instrument development. Readers and students will learn how to apply IRT to evaluate the psychometric properties of a scale, especially in the process of selecting the right items for a newly developed scale.

Chapter 6 addresses the process of cross-cultural instrument construction. This chapter also demonstrates the process of the development of the Boston College Social Work Student Empathy (BCSWE) scale. This process involved all major steps of instrument construction, including pilot data collection and analysis of the validity and reliability of this empathy scale.

Chapter 7 emphasizes the importance of cross-cultural issues in social work research, evaluation, and practices, and provides a list of some online databases that can be useful for cross-cultural research.

As the world has become a global community through migration, travel, social media, and trade, the issues of cross-cultural measurement equivalence and assessment techniques are applicable beyond any specific geographical location and can be used with research across different disciplines in the applied professions.

## DATA SOURCES

Several datasets are used to provide examples throughout this book. The Chinese ( $n = 177$ ), Russian ( $n = 300$ ), and Vietnamese ( $n = 339$ ) data were collected in the Greater Boston area at various social service agencies and social and religious institutions. These self-administered surveys were conducted to study various aspects of health, mental health, and service utilization among these immigrant communities (Tran, Khatutsky, Aroian, Balsam & Convey, 2000; Wu, Tran & Amjad, 2004). This instrument was translated from English to Chinese, Russian, and Vietnamese by bilingual and bicultural social gerontologists, social service providers, and health and mental health professionals. The translations were also reviewed and evaluated by experts and prospective respondents to ensure cultural equivalence in the translations.

The Americans' Changing Lives Survey: Waves I, II, and III offers rich data for cross-cultural comparisons between African Americans and whites regarding important variables concerning physical health, psychological well-being, and cognitive functioning. This longitudinal survey contains information from 3,617 respondents ages 25 years and older in Wave I; 2,867 in Wave II; and 2,562 in Wave III (House, 2006).

The National Survey of Japanese Elderly (NSJE), 1987 has similar research variables to those used in the Americans' Changing Lives Survey. The purpose of this survey is to provide cross-cultural analyses of aging in the United States and Japan. The 1987 NSJE Survey contains data from 2,180 respondents ages 60 years and older (Liang, 1990). The 1988 National Survey of Hispanic Elderly people ages 65 years and older (Davis, 1997) was conducted to investigate specific problems including economic, health, and social status. This telephone survey was conducted in both Spanish and English. There were 937 Mexicans, 368 Puerto Rican-Americans, 714 Cuban-Americans, and 280 other Hispanics. In this edition we use two new datasets: Children of Immigrants longitudinal Study 1991–2006 (Portes & Rumbaut, 2012), and the Boston College Social Work Student Empathy scale pilot data (2014).

These datasets are used because they provide both micro- (within nation) and macro- (between nation) levels of cultural comparisons. The statistical results presented throughout the book are only for illustration. Readers should not interpret the findings beyond this purpose.

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# Overview of Culture and Cross-Cultural Research

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**T**his chapter discusses the concept of culture and reviews the basic principles of multidisciplinary cross-cultural research. The readers are introduced to cross-cultural research in anthropology, psychology, political science, and sociology. These cross-cultural research fields offer both theoretical and methodological resources to social work. Readers will find that all cross-cultural research fields share the same concern—that is, the equivalence of research instruments. One cannot draw meaningful comparisons of behavioral problems, social values, or psychological status between or across different cultural groups in the absence of cross-culturally equivalent research instruments.

## DEFINITIONS OF CULTURE

Different academic disciplines and schools of thought often have different definitions and categorizations of culture. In fact, no agreement

has ever been reached in defining culture. This has led to confusion and frustration for many researchers (Minkov & Hofstede, 2013).

Scholarly interests in cross-culture studies have their roots in Greece beginning in the Middle Ages (see Jahoda & Krewer, 1997; Marsella, Dubanoski, Hamada, & Morse, 2000). However, systematic studies of cultures originated from the field of anthropology. Edward Burnet Tyler (1832–1917) has been honored as the father of anthropology, and his well-known definition of culture has been quoted numerous times in almost every major book and paper on studies of cultures. He views culture as a “complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society” (Tyler, Radin, & Tyler, 1958). Since Tyler’s definition of culture, there have been hundreds of other definitions of culture by writers and scholars from different disciplines and fields. As noted by Chao and Moon (2005), *culture* is considered to be one of the more difficult and complex terms in the English language. This is also probably true in other languages.

Kluckhohn (1954) defined culture as “the memory of a society.” There have also been attempts to define culture by categorizing it into different types. As suggested by Barkow, Cosmides, and Tooby (1992), there are three types of cultures: metaculture, evoked culture, and epidemiological culture. Metaculture can be viewed as what makes human species different from other species. Evoked culture refers to the ways people live under different ecological conditions, and these ecology-based living conditions lead to differences within and between cultures known as *epidemiological culture*. The conceptualization of this cultural typology suggests reciprocal relationships between psychology and biology in the development of culture and society.

Wedeen (2002) suggested a useful way to conceptualize culture as semiotic practices or the processes of meaning-making. Cultural symbols are inscribed in practices among societal members, and they influence how people behave in various social situations. For example, elder caregiving may have different symbolic meanings in different cultures, and how members of a specific culture practice their caregiving behaviors may have different consequences on the quality of life of the recipients. Generally, culture can be viewed as a combination of values, norms, institutions, and artifacts. Social *values* are desirable behaviors, manners, and attitudes that are for all members of a group or society to

follow or share. *Norms* are social controls that regulate group members' behaviors. *Institutions* provide structures for society or community to function. *Artifacts* include all material products of human societies or groups. Minkov and Hofstede (2013) noted that there are some cultural artifacts that are culturally specific or unique and thus not feasible or meaningful for a comparative study across societies or cultures. However, there are universal elements of culture such as social values, beliefs, behavioral intentions, social attitudes, and concrete and observable phenomena such as birth rate, crime rate, and such like that can be documented and compared across cultures, groups, and societies.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has defined culture as the "set of distinctive spiritual, material, intellectual, and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs." Moreover, Article 5 of its *Universal Declaration of Cultural Diversity* declares, "Cultural rights are an integral part of human rights, which are universal, indivisible and interdependent." (UNESCO). This implies that in cross-cultural research, health, and psychological and social interventions, the respect of linguistic heritage is crucially important. Thus clients or research participants must have the opportunity to communicate in their own languages. Hence cross-cultural translation is undoubtedly an important element in the conduct of cross-cultural research.

All things considered, culture can be viewed as social markers that make people unique and distinct from each other based on their country of origin, race, or mother tongue. Although people are different because of their cultures, languages, races, religions, and other aspects, there are universal values and norms across human societies. The challenges of social work research are to investigate the similarities in the midst of obvious differences and diversity.

## MULTIDISCIPLINARY PERSPECTIVES OF CROSS-CULTURAL RESEARCH

### Cultural Anthropology

Cultural anthropologists are pioneers in cross-cultural research and have influenced other cross-cultural research disciplines in the social sciences. Burton and White have suggested that cross-cultural research

offers a fundamental component of meaningful generalizations about human societies (Burton & White, 1987). Cross-cultural anthropological research has encompassed several key variables or focuses across cultures or societies such as the roles of markets and labor, division of labor and production, warfare and conflicts, socialization and gender identity, reproductive rituals, households and polygyny, gender beliefs and behaviors, expressive behavior, technology, settlement pattern and demography, social and kinship organization, spirits and shamanism, and others (Burton & White, 1987; Jorgensen, 1979). The field of social anthropology can be divided into two schools: social anthropology studies involved in the comparative study of social structures and ethnology and comparative or historical cultural anthropology study cultures (Singer, 1968, p. 527). Two classic theories that have dominated the field of anthropology in the first half of the twentieth century are process-pattern theory (which emphasizes the analysis of cultural pattern) and structural-functional theory (which focuses on the study of cultural structure). Salzman (2001) reviewed and discussed four major theories that have guided cultural anthropology research, including functionalism, which emphasizes interconnection and mutual dependence among societal institutions or customs, and processualism, which focuses on the assumption that members of a society have the power to change the structures and institutions with which they lived or that people are agents of their own actions and behaviors. *Materialism theory* suggests that economic conditions are the determinant factors of cultural transformation. *Cultural patterns theory* emphasizes that different cultures have different principles that provide the framework for their unique values. This theory assumes that one can only understand a culture through its own values and perspectives. *Culture evolution theory* assumes that people, society, and culture change over time. Today, anthropology has become a discipline with several specializations, as Nader (2000, p. 609) noted "For most of the twentieth century, anthropology was marked by increased specialization." She emphasizes the new direction for anthropology in the twenty-first century as "an anthropology that is inclusive of all humankind, reconnecting the particular with the universal, the local and the global, nature and culture." She also stressed that culture must be viewed as "part of nature and the changing nature of nature is a subject for all of us" (p. 615).