

PSYCHOMETRIC PROPERTIES OF A SCALE TO MEASURE ADAPTATION FOR  
IMMIGRANT POPULATIONS: THE CULTURAL BELIEFS, BEHAVIORS, AND  
ADAPTATION PROFILE (CBBAP)

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Abstract

The Cultural Beliefs, Behaviors, and Adaptation Profile (CBBAP), a new measure of independence and interdependence, acculturation-related constructs, has been developed and evaluated with a group of Chinese Americans and participants of European heritage (N=230). This study presents data supporting reliability (internal consistency) and validity (criterion and construct) of this multidimensional instrument. Results of a factor analysis indicated a five factor solution, including the following dimensions: Reciprocity, Family Integrity, Influence of Peers' Ideas, Values of Peers' and Family's Ideas, Self-Reliance, and Harmony at Work. These CBBAP factors demonstrated adequate internal consistency and correlations with established measures of acculturation (e.g., SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Virgil, 1987), and demographic variables (e.g., first or second generation in America). These findings are discussed in the context of their clinical utility.

Psychometric properties of a scale to measure adaptation for immigrant populations:  
The Cultural Beliefs, Behaviors, and Adaptation Profile (CBBAP)

Major advances have occurred in considering how to measure the process of culture change as groups of people move from one setting to another. The United States, a nation composed of many immigrant groups with differing values, is now facing the critical issue of how diverse ways of life can co-exist in a mutually respectful manner. Conflicts between people related to varying access to opportunities and power have fueled both negative and positive outcomes. Here we are interested in promoting further understanding of the process of psychological adjustment when a person moves from one culture to another. We suggest that the process of adaptation is complex and that individuals can, depending on the context, act in a proactive manner by picking and choosing some areas of their lives that show greater degrees of change whereas other areas of their lives show little change in values and practices. The Cultural Belief and Behavior Adaptation Profile attempts to show this variation between groups and within individual people. This paper will provide the psychometric properties of the instrument.

Although a number of studies addressing change in cultural values (often referred to as acculturation: add footnote 1) have been conducted in the U.S., the relationship between the level of culture change and specific psychosocial outcome has not been consistently established. This limited evidence may be due to the fact that most instruments designed to measure acculturation have generally focused on generating a single score (i.e., indicating a greater or a lesser extent of acculturation). We suggest that the existing measures of acculturation lack the ability to tap the complexity of the changes that people make as the result of transitions across cultures.

In recent years, the general construct of acculturation has been re-examined. First, the more traditional method of assessing culture change has employed a bi-directional construct where Western was at one end of the spectrum and non-Western (or

eastern) at the other end of the spectrum. In other words, a person was conceptualized to be able to be described as either more Western or more Eastern. There was also a value attached to this designation with being “more Western” as more “adapted.” This general bias toward the melting pot theory of the U.S. was important at one time but both clinicians and researchers now realize that this uni-dimensional construct does not adequately describe people’s experience in the process of moving to the U.S.

The study of the movement from one culture to another is complex for several reasons. Different levels of analyses which can be summarized in asking the following questions: What beliefs and behaviors of the culture of origin are retained? What beliefs and behaviors of the new culture of settlement are adopted? Of these, which are most adaptive in the new setting in a functional way? What aspects are retained and/or adopted that have an impact on self-definition and self-worth? It is essential to have tools that can capture the complexity of the change process and outcomes.

This study presents the development of a new instrument, the Cultural Beliefs, Behaviors, and Adaptation Profile (CBBAP). This measure was designed to differentiate individuals based on their adherence to beliefs and behaviors associated with interdependence (INT) and independence/autonomy (IND/AUT), that were assessed in different contexts (work, family, social, and daily activities). For example, the definition of the good moral self in IND/AUT cultures is defined as “doing my own thing whereas in interdependent cultures, the good moral self is “being responsible and acting in the best interests of the important group (Triandis 1995). Thus, the use of the theoretical constructs of INT and IND/AUT, as well as the differentiation between beliefs and behaviors were used to guide the development of this instrument. It was hypothesized that the resulting measure would be characterized as reliable and valid, and would ultimately serve a useful function in research and clinical settings because of its ability to explain and/or predict psychological adjustment for individuals from different cultural groups.

#### Method

Participants. This study attempted to provide evidence addressing reliability and validity of the CBBAP, examining responses provided by a sample of Chinese-Americans and participants of European descent. The Chinese-American sample was selected because the Chinese have migrated from a culture with an established interdependent (INT) orientation, whereas individuals with European heritage residing in the U.S. have been described as individualistic-autonomous (AUT) in their orientation (Triandis, 1995). Data were collected from 230 adults living in the U.S. Majority of this sample identified with Chinese heritage (N=180); the remaining participants were of European heritage (N=50).

Measures. A number of instruments were included in order to demonstrate concurrent and construct validity of the CBBAP. The Self-Construal Scale (Singelis, 1994) provides measures of the Interdependent (INT) and Independent (IND) constructs, and was included in order to address convergent validity of the CBBAP. The SCS included 16 questions addressing IND, and 15 that tap INT, and its reliability and validity have been demonstrated (Singelis, 1994; Singelis et al, 1995). The SCS can also be scored to yield a type of strategy (0 - no strategy; 1- high independent/low independent; 2 - bicultural; 3 - high interdependent/low independent (Bissiri, 1998). The Suinn-Lew Asian Scale for Identity and Acculturation (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Virgil, 1987) was also included. Higher scores on this measure are indicative of a greater degree of acculturation. The demographic form addressed a number of variables

including generational status (i.e., first or second generation in the U.S.), number of years in the U.S., ethnicity, and age.

Procedure. First, a bottom-up approach (Bentancourt and Lopez, 1993) was used in an attempt to generate items for the instrument by reviewing in-depth interviews with elderly Chinese and their adult children (N = 117) living in the U.S. The content of these interviews was coded and evaluated for the purpose of item development. The items were subsequently generated based on their frequency and salience in the interviews, as well as their ability to differentiate INT and IND/AUT constructs. Second, an extensive review of the existing instruments was conducted, and a yielded a number of additional items. Third, the list of items generated based on the interviews and the existing measures was evaluated in a pilot project, which led to some modifications. Finally, reliability and validity for the resulting CBBAP were further evaluated in the context of the present study.

The participants completed the CBBAP, along with The Suinn-Lew Asian Scale for Identity and Acculturation (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Virgil, 1987); the Self-Construal Scale (SCS; Singelis, 1994), which measures independence and interdependence; and a demographic questionnaire. SL-ASIA was completed only by the Chinese-American participants.

Analytic Strategy. Hypotheses related to the structure of the CBBAP were addressed using factor analysis, and those related to internal consistency were addressed with Chronbach alphas. Criterion and concurrent validity hypotheses were evaluated using two-tailed correlation coefficients.

### Results

The CBBAP items were evaluated with a principal components analysis, using a varimax rotation. Six factors including Reciprocity, Family Integrity, Influence of Peer's Ideas, Values of Peers' and Family's Ideas, Self-Reliance, and Harmony at Work accounted for 49.7% of the variance (items with loadings of at least .30). These factors were based on beliefs and behaviors sampled across several contexts, consistent with the theoretical framework of IND/AUT (Table 1). Internal consistency was adequate for all five factors (Table 2). Correlations with additional indicators included in this study (e.g., SCS, SL-ASIA), provided initial evidence of criterion and construct validity (Table 3).

### Discussion

Results of the factor analysis indicated that the CBBAP represents a multidimensional instrument, addressing multiple aspects of independence and interdependence: Reciprocity, Family Integrity, Influence of Peers' Ideas, Values of Peers' and Family's Ideas, Self-Reliance, and Harmony at Work. In addition, the findings provide evidence for adequate internal consistency, as well as for criterion and construct validity for the CBBAP.

This work was limited with respect to its sample, both in terms of size and composition. Nonetheless, this work provides support for the use of CBBAP in measuring constructs related to independence/ interdependence. Future research will need to address the relationship between the CBBAP indicators and measures of psychological distress (e.g., depression).

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