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## A theory-based measure of acculturation: The shortened cultural life style inventory

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### Abstract

This paper describes a model of acculturation for classifying minority consumers into distinct categories depending on their attitudes and behaviors toward their minority culture and toward the majority culture. These categories are assimilation, segregation, and integration. The model differs from previous models of acculturation in consumer research in that it does not assume a linear progression toward assimilation. The acculturation categories identified by the model can be used to segment minority markets. A reduced version of a previous scale based on that acculturation model is developed and validated in two empirical studies in a consumer research setting. Our scale can be used by managers to segment minority populations.

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### 1. Introduction

Recent waves of immigration have increased the focus on acculturation as an important factor for understanding consumer behavior and segmenting minority markets (Gorney, 2007). Research suggests, for example, that acculturation has a moderating effect on attitudes toward advertising (Deshpande et al., 1986) and the models featured in advertising (Ueltschy and Krampf, 1997) as well as on the comparative persuasion of TV commercials in different languages (Roslow and Nicholls, 1996). Acculturation also appears to moderate a variety of subcultural influences on behavior, including spousal or family roles in consumer decision making (Ganesh, 1997; Ogden, 2005; Webster, 1994), the weights given to attributes in the choice process (Kara and Kara, 1996), coupon usage (Hernandez and Kaufman, 1991), brand loyalty (Podoshen, 2006), the purchase of prestige products (Deshpande et al., 1986) and

conspicuous consumption (Chen et al., 2005) as well as consumption patterns in general (Wallendorf and Reilly, 1983).

This abundance of research might suggest that the role of acculturation in consumer behavior has been firmly established in the literature. Instead, researchers have started to recognize the limitations of prior acculturation studies and the challenge of acculturation research in general (see, for example, Ogden et al., 2004). Chief among concerns is the issue of measurement. Instead of adopting a single measure of acculturation, researchers have relied on a variety of measures, which, while seemingly demonstrating a high level of external validity, are not strongly grounded in theory and have not been rigorously tested. These measures have included length of stay in the country, type and extent of interpersonal communications with members of the culture, media usage, language(s) spoken, reference group influences, extent or likelihood of intermarriage, and cultural identification, among others (see, for example, Kang and Kim, 1998; Laroche et al., 1998; Peñaloza, 1989; Valencia, 1985).

A solution for this problem may be found in the cross-cultural psychology literature or, more specifically, in the Cultural Life Style Inventory (CLSI), a measurement scale

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developed by [Mendoza \(1994\)](#) and inspired by [Berry's \(1980\)](#) model of acculturation. While the Berry model has been well recognized in the marketing literature (see, for example, [Askegaard et al., 2005](#); [Holland and Gentry, 1999](#); [Ogden et al., 2004](#); [Podoshen, 2006](#)), the CLSI has not been adopted by researchers. One reason may be its 28-item length. Shorter scales are normally preferred in consumer research as they allow researchers to include a wider variety of measures in their studies without adversely affecting response rates or inducing fatigue. This is particularly important for measures used as covariates, as most of the questionnaire is typically reserved for the main constructs of interest ([Richins, 2004](#)).

In this paper, we advocate using the CLSI as a segmentation tool in marketing, as it demonstrates a high level of reliability and validity and is based on a theoretically sound model of acculturation. We recognize, however, that the length of the scale makes it disadvantageous for use in many consumer studies. With this in mind, we have identified a highly reliable and valid short version of the CLSI, resulting in an easy-to-administer, theory-based measurement tool that has the potential to dramatically increase our understanding of the role of acculturation in consumer behavior and decision-making.

## 2. Acculturation and its measurement

### 2.1. The acculturation construct and current measurement tools

Consumer acculturation has been defined as the process of adapting to a different consumer cultural environment ([Maldonado and Tansuhaj, 2001](#); [Peñaloza, 1994](#)). This process can result in a variety of lifestyle patterns which have been acknowledged in the business press (e.g., [Grow, 2004](#)). Specifically, some immigrants meld into the dominant culture, some adapt while retaining much of their own culture, and some retain their own culture and do not interact with the dominant group. These non-linear patterns are also reflected in recent statistics. For example, although 90% of the children of U.S. Hispanic immigrants report that they speak English very well, 97% of Mexican-American children and 76% of children of other Hispanic origins also speak Spanish. Media patterns clearly reflect this trend, as the Spanish-language network Univision experienced 44% audience growth from 2001 to 2004 and 16% ad revenue growth in 2001 alone ([Grow, 2004](#)).

Membership in a specific ethnic subculture has long been recognized as a strong influence in shaping people's needs and wants, and can be predictive of several consumer behaviors ([Deshpande and Stayman, 1994](#)). The size and growth of minority communities are pressuring marketers to find segmentation tools to use in targeting and influencing consumer behavior in these markets. However, the diversity within these communities requires that such tools break down large ethnic subcultures into meaningful lifestyle distinctions. Only then will marketers be able to design targeted marketing programs to serve the diverse needs of such communities ([Gorney, 2007](#)).

There seems to be a divergence in researchers' understanding of how minority communities adjust to a different consumer cultural environment. Typical assimilation models assume that upon

moving to a new environment, individuals will lose their ethnic identity and become increasingly like the new culture. In contrast, acculturation models recognize that while changes may take place over time, individuals may not necessarily become more like the new culture. Studies of immigrant adaptation patterns indicate that while some later generations show a decline in some indigenous cultural practices, many ethnic group members retain a strong identification with and commitment to their ethnic group ([Berry, 1980](#); [Keefe and Padilla, 1987](#); [Phinney et al., 1992](#); [Rosenthal and Feldman, 1992](#)). Similarly, some members develop a strong and favorable relationship with the dominant society while others have little or no desire to interact with the dominant society. The resulting behaviors give rise to distinct adaptation or lifestyle patterns ([Phinney, 1990](#); [Phinney et al., 1992](#)). These distinct lifestyles or patterns are known as acculturation categories and represent different segments within an ethnic market.

Acculturation category determination depends on whether one's behavior reflects the cultural traits and characteristics of one's culture of origin and/or those of the dominant or host culture. In other words, acculturation outcome depends on the extent to which one participates in dominant society and/or in ethnic-related behaviors. Several overlapping dimensions of ethnic identity and acculturation have been studied, the most popular of which is language use ([Quester and Chong, 2001](#)). This includes how well ethnic members speak the dominant language, how often their ethnic language is spoken at home, and in which language they prefer to speak if given a choice ([Valencia, 1985](#)). Other language use situations include language used at work, in school, while shopping, and when speaking with relatives, or the language of preferred media ([Hui et al., 1992](#)).

Language has been shown to have good validity as a behavioral measure ([Laroche et al., 1991](#)), but language measures alone may not be appropriate for all acculturating groups and should be combined with other behaviors. Examples of other behavioral areas include place of residency (ethnicity of neighborhood), celebration of holidays and special events, social interaction activities, ethnicity of friends, intermarriage and spousal ethnic identification, and the amount of direct versus indirect dominant culture contact ([Gentry et al., 1995](#); [Jun et al., 1993](#); [Laroche et al., 1991](#); [Lee, 1994](#); [Valencia, 1985](#)).

### 2.2. A theoretical model of acculturation

Berry offers a particularly useful model with which to investigate consumer acculturation ([Berry and Kim, 1988](#)) by categorizing people based on the value they place both on maintaining their minority cultural identity and on developing a relationship with mainstream society. The traditional view of immigrant assimilation into the dominant culture is represented in this model, but the model also recognizes three other possible outcomes of the acculturation process: segregation, integration, and marginalization.

#### 2.2.1. Assimilation

Individuals in this category relinquish their cultural identity and opt to move into the larger society ([Berry, 1980](#); [Berry and Kim, 1988](#)). As a result, they typically engage in dominant

culture behaviors, including the purchase of products from that culture (Peñaloza, 1994), and exhibit few characteristics of their culture of origin.

### 2.2.2. Segregation

In direct contrast, segregated individuals highly value their cultural characteristics and consider it important to maintain relationships only with their ethnic group (Berry, 1980). As a result, they typically exhibit few dominant cultural behaviors and participate in more ethnic behaviors. As an example, Mexican-Americans in this category exhibit a strong Mexican culture and participate in “a thriving Latino consumer culture, situated apart from mainstream U.S. culture” (Peñaloza, 1994, p. 50).

### 2.2.3. Integration

Individuals in this category represent a compromise of sorts. They value their minority cultural identity and maintain ethnic group relationships while simultaneously developing relationships with the dominant society (Berry and Kim, 1988). They become an integral part of a larger societal framework, yet do so in a way that retains and/or enables their minority cultural integrity (Berry and Kim, 1988). Within a consumer context, this may mean adopting American cultural products but using them in ways that paradoxically maintain ties to another culture (Peñaloza, 1994).

### 2.2.4. Marginalization

Marginalized individuals lose the essential features of their culture, but do not replace them by adopting those of the dominant society (Berry and Kim, 1988). Instead, they are characterized as resisting the pulls of both the dominant and their ethnic culture (Peñaloza, 1994). As a result, these individuals may not exhibit behavior acceptable to either group and often feel alienated.

Individuals are likely to exhibit different buyer behavior across acculturation categories and therefore may require different marketing strategies. Thus, each acculturation category becomes a market segment with unique needs. For instance, a canned soup brand may use acculturation categories to differentiate among Hispanic individuals. The assimilated segment could be targeted with the same products marketed to the Anglo majority population (e.g., tomato soup), the segregated segment could be targeted with a traditional Mexican product like *pozole*, and the integrated segment could be targeted with either or both of the two products, possibly depending on the occasion (Mexican holidays vs. Anglo holidays), or the shopping environment (stocking *pozole* in the ethnic/Mexican section of the stores and tomato soup in with mainstream soup products).

## 3. A theory-based measure of acculturation

In order to use Berry's taxonomy as a segmentation tool, marketers must have a way of identifying an individual's acculturation category. One such opportunity exists through the use of the Cultural Life Style Inventory (CLSI; Mendoza, 1994). Unlike most acculturation measures which are linear in nature, this 28-item scale is specifically designed to categorize individuals based on the maintenance or retention of their culture of origin and the acquisition of a host or dominant culture.

Although Mendoza uses different labels, his category descriptions match those in Berry's taxonomy. Specifically, Mendoza's measure uses the terms *cultural resistance*, *cultural shift*, and *cultural incorporation* for Berry's segregation, assimilation, and integration categories respectively. One critique of Mendoza's scale is that it does not allow categorization of Berry's marginalization outcome. Since individuals in this category are largely inaccessible, they are not likely to be part of most marketing sample frames. Therefore, the lack of this category is not a major detriment in using the CLSI as a segmentation tool in consumer research.

Rather than bipolar or linear responses, each of the items in the CLSI has response options corresponding to the three acculturation categories. In most items, response options (a) and (b) would be coded as segregation, (c) and (d) as assimilation and (e) as integration. For example, the response options for the item asking about what kind of newspapers and magazines respondents read are: (a) Spanish only, (b) mostly in Spanish, (c) English only, (d) mostly in English, or (e) both in English and Spanish about equally. An individual's acculturation category is determined by summing the number of responses in each category and dividing by the total number of responses. For example, a respondent answering all 28 items may have 17 responses of “a” or “b”, three of “e” and nine of either “c” or “d.” Therefore, this respondent would have percentages of 60% in the segregation category, 11% in the integration category, and 32% in the assimilation category and would be categorized as belonging in the segregation category.

Researchers have had good success categorizing individuals using the CLSI and it has been shown to successfully predict brand choice within and across segments (Maldonado and Tansuhaj, 2001). However, the scale is quite lengthy, taking up to three or four pages by itself. When combined with other consumer measures, respondents tend to get discouraged and leave large portions of their surveys unanswered. This problem is compounded when sampling from populations with low literacy levels (Wallendorf, 2001). Thus, in Study 1, we identify a reduced yet highly reliable and valid theory-based version of the CLSI acculturation scale that will allow marketers to include it along with other consumer measures without causing respondent burnout. This is followed by a second study that offers further evidence of the reduced scale's validity.

## 4. Study 1

### 4.1. Method and sample

Two hundred eighty-nine Hispanics of Mexican origin residing in the United States responded to a survey. Forty-six percent of respondents were male and 54% were female. Ages ranged from 15 to 68 with a mean of 34 years.

### 4.2. Measures

#### 4.2.1. Acculturation scale

The questionnaire included the 28-item CLSI (Mendoza, 1994) as a measure of degree and type of acculturation. An

earlier version of the scale items appears in Appendix A (Mendoza, 1989). The final scale published by Mendoza in 1994 has a few adaptations as indicated by the notes in Appendix A.

#### 4.2.2. Measure of convergent validity

The full CLSI scale was used to test the revised CLSI's convergent validity.

#### 4.2.3. Measure of discriminant validity

As is the case for many acculturation scales (Wallen et al., 2002), language-related items comprise a significant portion of the CLSI scale. These language-related items seek to determine a consumer's preference for one language over another. An ability to act on that preference requires a certain level of proficiency in the preferred language, thereby suggesting some correlation between proficiency and preference. However, language proficiency is neither a sufficient nor necessary condition for language preference (or vice versa). It may be the case, for example, that although consumers have learned to speak English, they choose to use Spanish whenever and wherever possible. Thus, we expected that language proficiency and language preference would be separate constructs.

Given that language-related items comprise 13 of the 28 items on the CLSI and were expected to account for a significant portion of the items in the reduced scale, we included Luna and Peracchio's (2001) language proficiency measures for the purposes of assessing discriminant validity. Ethnic self-classification served as an additional measure of discriminant validity. Specifically, we asked respondents: "How do you prefer to be identified?" Response options ranged from "Most definitely as a Mexican or Mexican-American" to "Most definitely as an Anglo-American, Caucasian, or American," scored from 1 to 5, where higher scores meant a higher level of identification with the Anglo culture. We expected acculturation to be a different construct than ethnic self-classification. The CLSI includes a variety of behavioral and attitudinal measures that, when combined, provide a fuller picture of individuals' acculturation level. Ethnic self-classification, as typically measured, lacks this multidimensionality and may be influenced by social desirability or the accessibility of a particular aspect of the self at the time respondents fill out the questionnaire (Aaker, 2000; Aaker and Lee, 2001).

#### 4.2.4. Measure of predictive validity

As in Netemeyer et al. (2004), brand preference served to assess the predictive validity of the reduced CLSI. Respondents were asked to indicate whether they would prefer a Mexican or an American brand in six product categories, assuming the prices were the same (see Table 1). Two 0–6 indices were developed indicating how likely respondents were to choose American and Mexican brands.

#### 4.2.5. Other measures

In addition, the survey included standard demographic questions such as sex, age, and ethnicity as well as questions requesting the respondents' length of residence in the U.S. and ethnic information about household members.

Table 1  
Brands used in analysis of predictive validity

Product category	American brand	Mexican brand
Orange soft drink	Slice	Jarritos
Animal cookie	Mother's	Gamesa
Instant chocolate drink	Swiss Mix	Chocomilk
Hot sauce	Tabasco	Tapatio
Gelatin	Jello	Royal
Beer	Budweiser	Carta Blanca

### 4.3. Results

Reduction of the CLSI involved assessment of reliability, inter-item and item-to-total correlations, and factor patterns. For the purpose of scale reduction, each of the CLSI items was considered a 5-point interval scale where higher scores meant higher integration into the dominant majority (Anglo) culture. The reduction process resulted in a much shorter but highly reliable ( $\alpha=.93$ ) 10-item scale. These 10 items load on a single factor explaining 93.0% of the variance (see Table 2 for factor loadings).

Consistent with previous scales measuring acculturation (Wallen, et al., 2002), items relating to language preference dominate the reduced scale. The scale also includes media usage and social networking, two categories also recommended in previous acculturation studies (Laroche et al., 1997; Laroche et al., 1998).

#### 4.3.1. Convergent and discriminant validity

To test convergent validity, we obtained the correlation between the reduced 10-item scale and the full scale ( $r=.96$ ). To test discriminant validity, we obtained the correlation between the reduced scale and English language proficiency ( $r=.65$ ,  $p<.001$ ), and the correlation between the reduced scale and Spanish language proficiency ( $r=.54$ ,  $p<.001$ ). As demonstrated, the coefficient between the two acculturation measures is higher than that between the shortened acculturation scale and the language proficiency measures. This pattern is to be expected from measures intended to provide evidence of convergent validity and discriminant validity respectively (Churchill, 1979).

Ethnic self-categorization offered a second test of discriminant validity. The correlation between acculturation as measured by the reduced scale and ethnic self-categorization (i.e., identification with ethnic versus dominant culture) is  $r=.44$  ( $p<.001$ ). As before, this correlation coefficient is lower than the correlation between the two acculturation scales (i.e., convergent validity), thus providing further evidence of validity.

#### 4.3.2. Predictive validity

Acculturation is of interest to marketers to the degree that it helps understand consumer experiences and choices. Indeed, research has uncovered the effect of acculturation on attitudes toward advertising (Ueltschy and Krampf, 1997; Khairullah and Khairullah, 1999a) as well as on decision-making processes and outcomes (Kara and Kara, 1996; Quester et al., 2001). Thus, we compared brand choices within and across levels of acculturation to test for predictive validity.

Table 2  
Revised CLSI

Item	Factor loading
1. Language spoken with siblings	.70
2. Language spoken with friends	.85
3. Language of radio stations listened to	.73
4. Language of television programs watched	.78
5. Language of newspapers and magazines read	.79
6. Language used in prayer	.83
7. Language of jokes familiar with	.82
8. Ethnicity of friendship ties	.73
9. Ethnicity of people with whom subject attends social functions	.73
10. Ethnic holidays subject observes	.70

Initial evidence was obtained by examining the correlation between acculturation scores and purchase intentions for both American and Mexican brands. As expected, high preference for the Anglo culture is associated with higher likelihood of American brand purchase ( $r=.54$ ,  $p<.001$ ) and lower likelihood of Mexican brand purchase ( $r=-.53$ ,  $p<.001$ ).

For the purposes of further testing, respondents were assigned to one of three acculturation categories: assimilated, integrated, or segregated following Mendoza's (Magana et al., 1996; Mendoza, 1994) recommended categorization method. Thus, for each individual, we added the number of responses corresponding to each of the acculturation categories and then assigned each individual to the category most often represented by their answers. Assimilated individuals were expected to indicate a preference for American brands, segregated individuals were expected to prefer Mexican brands, and integrated individuals, who can function in both the dominant and the minority cultures equally well, were expected not to prefer one type over another.

Confirming our expectations, paired  $t$ -tests among a subset of the sample revealed that Assimilated respondents chose American brands more often ( $M_{Amer}=3.65$ ,  $M_{Mex}=1.86$ ,  $t(76)=5.27$ ,  $p<.05$ ) whereas Segregated respondents chose Mexican brands more often ( $M_{Amer}=1.69$ ,  $M_{Mex}=3.88$ ,  $t(15)=4.00$ ,  $p<.05$ ). There was no difference in brand choice among Integrated respondents ( $M_{Amer}=2.60$ ,  $M_{Mex}=2.60$ ,  $t(14)=0.00$ ,  $p>.05$ ).

Finally, ANOVA was used to compare brand choice across acculturation categories. As expected, the results revealed significant differences between groups in the number of times they chose American brands ( $F(2, 105)=11.50$ ,  $p<.05$ ). Specifically, those in the Assimilated group chose more American brands than those in the Segregated group ( $M_{Assim}=3.65$ ,  $M_{Seg}=1.69$ ,  $p<.05$ ). However, there were no differences in choice of brands between the Integrated group and either the Segregated group ( $M_{Int}=2.60$ ,  $M_{Seg}=1.69$ ,  $p>.05$ ) or the Assimilated group ( $M_{Int}=2.60$ ,  $M_{Assim}=3.65$ ,  $p>.05$ ).

Consistent with the results for American brands, significant differences exist between groups in the number of times they chose Mexican brands ( $F(2, 105)=13.31$ ,  $p<.05$ ). Specifically, those in the Segregated group chose more Mexican brands than those in Assimilated group ( $M_{Assim}=1.86$ ,  $M_{Seg}=3.88$ ,  $p<.05$ ). As before, there was no difference between those in the Integrated and Segregated groups ( $M_{Int}=2.60$ ,  $M_{Seg}=3.88$ ,

$p>.05$ ). Interestingly, however, those in the Integrated group chose more Mexican brands than did those in the Assimilated group ( $M_{Int}=2.60$ ,  $M_{Assim}=1.86$ ,  $p<.05$ ). This could be due to the limited availability of Mexican products in some geographical areas of the study, making the brands symbolic of ethnic identity and pride.

#### 4.3.3. Additional analyses

Prior research has suggested a relationship between assimilation and a host of demographic variables including time spent in the United States (Barry, 2001; Kang and Kim, 1998; Valencia, 1985; Wallen et al., 2002), education level (Hoyer and Deshpande, 1982; Khairullah and Khairullah, 1999b), and extent of interpersonal relations with members of both the native and new culture (Kang and Kim, 1998; Neto, 1995). We tested these same relationships using a subset of data from the current study in order to provide further evidence of validity.

Consistent with prior research, a regression of time spent in the United States (as a percentage of the respondents' age) on response scores indicates that the longer respondents have lived in the United States, the greater their assimilation ( $t(74)=9.35$ ,  $p<.001$ ,  $r=.74$ ). A regression of education on response scores demonstrated a similar effect. More specifically, the higher one's education level, the greater his/her adoption of dominant (non-ethnic) cultural traits ( $t(83)=3.82$ ,  $p<.001$ ,  $r=.39$ ). Finally, the number of Hispanic family members appears to have a negative effect on assimilation. In other words, the more Hispanic family members a respondent has, the less likely he or she is to adopt dominant cultural traits and behaviors ( $t(88)=-5.22$ ,  $p<.001$ ,  $r=.49$ ).

## 5. Study 2

The purpose of Study 2 was to replicate the results of Study 1 with a different sample and to further test the predictive validity of the shortened scale.

### 5.1. Methodology and sample

A marketing research company in San Antonio, Texas recruited a total of 150 Hispanic adults (39% male) for the study, 80% of whom were born in the United States. The remaining respondents were born in one of a number of Latin American countries and at the time of data collection, had been in the United States anywhere from 1 to 50 years with a mean of 18.8 years. Ages ranged from 18 to 79 with a mean of 33.7 years.

### 5.2. Measures

#### 5.2.1. Acculturation scale

The questionnaire included the shortened 10-item CLSI from Study 1. As in Study 1, the scale demonstrated a high level of reliability ( $\alpha=.92$ ). Responses to the individual acculturation items were used to segment respondents into one of three acculturation categories using the method described in Study 1.

### 5.2.2. Measures of predictive validity

As in Study 1, respondents were asked their preference for Mexican versus American brands. We also asked respondents to list up to three famous people whom they most admire. Based on research indicating a positive correlation between relatedness, or connection with similar others, and celebrity attachment (Thomson, 2006), we expected segregated consumers to list mostly Hispanic celebrities and acculturated consumers to list mostly non-Hispanic celebrities. Finally, we told respondents that “an advertising firm has been requested to develop advertising campaigns for three different companies” and asked them to provide the names of up to two famous people whom they think would be most influential in advertisements for each of the following: a car, a computer, and a furniture store. Again, we expected differences in the Hispanic versus non-Hispanic celebrity ratio with respondents in the acculturated category listing more non-Hispanics. This expectation is consistent with research by Deshpande et al. (1986) that found that strong Hispanic identifiers are more likely than weak identifiers to buy brands specifically targeted to their ethnic group.

## 5.3. Results

### 5.3.1. Brand choice

Paired *t*-tests revealed that both Assimilated and Integrated respondents chose American brands more often than Mexican brands (Assimilated:  $M_{Am}=4.50$ ,  $M_{Mex}=1.46$ ,  $p<.0001$ ; Integrated:  $M_{Am}=4.04$ ,  $M_{Mex}=1.96$ ,  $p<.0001$ ). For Segregated respondents, the pattern was reversed ( $M_{Am}=2.52$ ,  $M_{Mex}=3.48$ ,  $p<.05$ ).

ANOVA revealed significant differences between groups in the number of American ( $F(2,149)=26.74$ ,  $p<.0001$ ) and Mexican brands chosen ( $F(2,149)=27.17$ ,  $p<.0001$ ). Segregated consumers chose fewer American brands than did those in either the Integrated ( $M_{Seg}=2.52$ ,  $M_{Int}=4.21$ ,  $p<.0001$ ) or Assimilated groups ( $M_{Seg}=2.52$ ,  $M_{Ass}=4.58$ ,  $p<.0001$ ). There was no difference between Integrated and Assimilated ( $M_{Int}=4.21$ ,  $M_{Ass}=4.58$ ,  $p>.10$ ) respondents in the number of American brands chosen. However, the difference between Integrated and Assimilated respondents in the number of Mexican brands chosen was marginally significant with Integrated respondents choosing more Mexican brands ( $M_{Int}=1.79$ ,  $M_{Ass}=1.40$ ,  $p<.10$ ). As expected, Segregated respondents chose more Mexican brands than did Integrated ( $M_{Seg}=3.48$ ,  $M_{Int}=1.79$ ,  $p<.0001$ ) or Assimilated ( $M_{Seg}=3.48$ ,  $M_{Ass}=1.40$ ,  $p<.0001$ ) respondents.

### 5.3.2. Celebrity admiration

Paired *t*-tests revealed that Assimilated respondents admire more American than Hispanic celebrities ( $M_{Am}=2.08$ ,  $M_{Mex}=0.91$ ,  $p<.0001$ ). There was no difference in admiration among Integrated or Segregated respondents (Int:  $M_{Am}=1.56$ ,  $M_{Hsp}=1.33$ ,  $p>.05$ ; Seg:  $M_{Am}=1.56$ ,  $M_{Hsp}=1.30$ ,  $p>.05$ ).

ANOVA revealed significant differences between groups in the number of American ( $F(2,149)=7.68$ ,  $p<.001$ ) and Hispanic celebrities admired ( $F(2,149)=5.45$ ,  $p<.01$ ). Assimilated respondents admire more American celebrities than do

other respondents (Int:  $M_{Ass}=2.25$ ,  $M_{Int}=1.53$ ,  $p<.001$ ; Seg:  $M_{Ass}=2.25$ ,  $M_{Seg}=1.56$ ,  $p<.01$ ). There was no difference between Integrated and Segregated respondents in this regard ( $M_{Int}=1.53$ ,  $M_{Seg}=1.56$ ,  $p>.10$ ). These groups also did not differ in the number of Hispanic celebrities admired ( $M_{Int}=1.36$ ,  $M_{Seg}=1.30$ ,  $p<.10$ ). However, Assimilated respondents admire fewer Hispanic celebrities than both Segregated ( $M_{Ass}=0.72$ ,  $M_{Seg}=1.30$ ,  $p<.05$ ) and Integrated ( $M_{Ass}=0.72$ ,  $M_{Int}=1.36$ ,  $p<.005$ ) respondents.

### 5.3.3. Celebrities in advertising

Paired *t*-tests revealed that both Assimilated and Integrated respondents expect more American than Hispanic celebrities to be influential in advertising (Assimilated:  $M_{Am}=3.91$ ,  $M_{Mex}=1.63$ ,  $p<.01$ ; Integrated:  $M_{Am}=3.70$ ,  $M_{Hsp}=1.52$ ,  $p<.005$ ). In contrast, Segregated respondents expect American and Hispanic celebrities to be equally influential ( $M_{Am}=2.96$ ,  $M_{Mex}=2.56$ ,  $p>.05$ ).

ANOVA revealed significant differences between groups in expected celebrity influence in advertising (American celebrities:  $F(2,149)=4.81$ ,  $p<.01$ ; Hispanic celebrities:  $F(2,149)=8.75$ ,  $p<.001$ ). Segregated respondents cited fewer Americans than did those in either the Assimilated ( $M_{Seg}=2.96$ ,  $M_{Ass}=4.26$ ,  $p<.005$ ) or Integrated groups ( $M_{Seg}=2.96$ ,  $M_{Int}=3.83$ , marginal at  $p=.06$ ). There was no difference between Integrated and Assimilated respondents in this regard ( $M_{Int}=3.83$ ,  $M_{Ass}=4.26$ ,  $p>.10$ ). However, these groups did differ marginally in the number of Hispanic celebrities cited ( $M_{Int}=1.55$ ,  $M_{Ass}=0.97$ ,  $p<.10$ ). As expected, Segregated respondents deemed a larger number of Hispanic celebrities to be influential than did either Integrated ( $M_{Seg}=2.56$ ,  $M_{Int}=1.55$ ,  $p<.05$ ) or Assimilated ( $M_{Seg}=2.56$ ,  $M_{Ass}=0.97$ ,  $p<.0001$ ) respondents.

## 6. Discussion

This paper provides a theoretical model of acculturation and a measurement instrument that is based on that model. The scale presented here is a reduced version of the Cultural Life Style Inventory (Mendoza, 1994) and adjusts to Berry's (1980) model of acculturation. The model describes how behaviors reflecting the relative value of maintaining ethnic identity versus forging relationships with the dominant culture result in different acculturation categories. When individuals indicate such preferences on the CLSI, they can be assigned to one of several different acculturation categories or segments.

Recent reports indicate that advertising agencies are creating similar tools in order to better serve their clients targeting the Hispanic market in the United States (Gorney, 2007). Such tools attempt to segment the Hispanic population according to different acculturation categories and have been helpful to companies like Home Depot in developing ad campaigns for consumers based on acculturation category (Elliot, 2007). Of course, such tools are proprietary, in that agencies do not share their research methods or the application of these methods with non-clients. We provide a scale that can supplement such segmentation techniques or be used in place of such proprietary tools. With our reduced scale, smaller companies that might not

be able to afford the services of a specialized agency and/or those companies that conduct most of their research in-house now have an alternative. Such companies can include the reduced CLSI on questionnaires used in their own research, much in the same way that an agency would use its proprietary measurement tools when evaluating various advertising concepts.

Another option is to draw on insights arising from our predictive validity tests, as the test results have implications for how marketers might want to adapt the marketing mix for consumers with different acculturation patterns. In Study 1, for example, we found that consumers from large Hispanic families are less likely to adopt dominant cultural traits and behaviors than are those from smaller families. Assuming that marketers have access to family size information from census data, for example, being aware of this relationship can help guide them as they seek to determine the likelihood that consumers will choose a particular brand, estimate the resources needed to induce trial, and/or decide which brands to feature in-store. Hispanic brands, for example, will likely outperform non-Hispanic brands in regions where Hispanic families are large.

The results of Study 2 also offer insight as to how marketers might effectively target consumers with different acculturation lifestyles. The results of this study offer guidance for choosing celebrities in advertisements intended to target Assimilated, Segregated and Integrated consumers. Whereas Segregated consumers expect a greater number of Hispanic celebrities to be influential in advertising than do Assimilated and Integrated consumers, they appear not to admire Hispanic celebrities any more or any less than non-Hispanic American celebrities. This might suggest that marketers should consider using non-Hispanic American celebrities in order to appeal to Assimilated, Integrated, Segregated consumers alike. After all, according to our results, Assimilated respondents admire more American than Hispanic celebrities and among Integrated and Segregated respondents there was no difference in celebrity admiration based on ethnicity. Looking more closely, however, Assimilated consumers appear to admire far more American celebrities than do Integrated and Segregated consumers, suggesting that marketers must choose celebrity endorsers very carefully if they intend to target Hispanics at large. Alternatively, marketers might consider hiring an American celebrity to target Assimilated Hispanics and a Hispanic celebrity to target Integrated and Segregated Hispanics.

We recommend that consumer researchers include the revised CLSI as a measure in their studies on ethnicity and behavior, both to expand our theoretical understanding of acculturation and help guide marketers as they target ever-growing immigrant communities. Differentiating acculturation outcomes or categories may help us to understand unexplained differences in behaviors related to price sensitivity, level, and type of media exposure, media preferences and effectiveness, brand loyalty, shopping orientation, consumer satisfaction, customer service expectations, susceptibility to interpersonal influence, and the consumer decision making process. As such, the revised CLSI can provide great value to researchers and managers alike.

## Appendix A. Adapted CLSI

1. Language spoken with grandparents
2. Language spoken with parents<sup>1</sup>
3. Language spoken with siblings
4. Language spoken with spouse
5. Language spoken with children
6. Language used in prayer
7. Language spoken with friends
8. Language of newspapers and magazines read
9. Language of music listened to
10. Language of radio stations listened to
11. Language of television programs watched
12. Language of jokes familiar with
13. Ethnicity of friendship ties
14. Ethnicity of dates
15. Ethnicity of people with whom respondent attends social functions
16. Ethnicity of employees in stores at which respondent shops<sup>2</sup>
17. Marriage partner preference
18. Ethnic holidays respondent observes
19. Ethnic foods respondent eats
20. Ethnicity of restaurants frequented by respondent<sup>2</sup>
21. Language(s) respondent would teach/has taught his or her children
22. National anthem respondent knows<sup>2</sup>
23. Culture respondent feels most proud of
24. Culture respondent criticizes the most
25. Culture respondent feels has had the most positive impact on his or her life
26. Ethnic background of individuals respondent admires the most
27. Ethnic composition of community respondent would most want to live
28. Ethnic names respondent would use for his or her children

## References

- Aaker JL. Accessibility or diagnosticity? Disentangling the influence of culture on persuasion processes and attitudes. *J Consum Res* 2000;26(4):45–57.
- Aaker JL, Lee A. “I” seek pleasure and “we” avoid pains: the role of self-regulatory goals in information processing and persuasion. *J Consum Res* 2001;28(1):33–49.
- Askegaard S, Arnould EJ, Kjeldgaard D. Postassimilationist ethnic consumer research: qualifications and extensions. *J Consum Res* 2005;32(1):160–70.
- Barry DT. Development of a new scale for measuring acculturation: the east Asian acculturation measure. *J Immigr Health* 2001;3(4):193–7.
- Berry JW. Acculturation as varieties of adaptation. In: Padilla Amado M, editor. *Acculturation: Theory, Models and Some New Findings*. Boulder, CO: Westview Press, Inc.; 1980. pp. 9–27.
- Berry JW, Kim U. Acculturation and mental health. In: Dasen PR, Berry JW, Sartorius N, editors. *Health and Cross-Cultural Psychology: Toward Applications*, vol. 10. Beverly Hills, CA: Sage Publications; 1988. pp. 207–36.

<sup>1</sup> Item adapted from original.

<sup>2</sup> New item.

- Chen J, Aung M, Zhou L, Kanetkar V. Chinese ethnic identification and conspicuous consumption: are there moderators of mediators effect of acculturation dimensions? *J Intl Consum Mark* 2005;17(2/3):117–36.
- Churchill GA. A paradigm for developing better measures of marketing constructs. *J Mark Res* 1979;16(1):64–73.
- Deshpande R, Stayman DM. A tale of two cities: distinctiveness theory and advertising effectiveness. *J Mark Res* 1994;31(1):57–64.
- Deshpande R, Hoyer WD, Donthu N. The intensity of ethnic affiliation: a study of the sociology of Hispanic consumption. *J Consum Res* 1986;13(2): 214–20.
- Elliot, S. 1,200 Marketers Can't Be Wrong: The Future Is in Consumer Behavior. *NY Times* 2007; October 15.
- Ganesh G. Spousal influence in consumer decisions: a study of cultural assimilation. *J Consum Mark* 1997;14(2):132–55.
- Gentry JW, Jun S, Tansuhaj P. Consumer acculturation processes and cultural conflict: how generalizable is a North American model for marketing globally? *J Bus Res* 1995;32(2):129–39.
- Gorney, C. How Do You Say 'Got Milk' en Espanol? *NY Times Magazine* 2007; September 23: 58–63.
- Grow, B. Hispanic Nation. *BusinessWeek* 2004; March 15: 59–70.
- Hernandez SA, Kaufman CJ. Measuring consumer acculturation: coupon usage among 'Barrio' Hispanics. In: Elizabeth Hirschman, editor. *Res Consum Behav*, vol. 5. Greenwich, CT: JAI Press, Inc.; 1991. pp. 61–82.
- Holland J, Gentry JW. Ethnic consumer reaction to targeted marketing: a theory of intercultural accommodation. *J Adv* 1999;28(1):65–78.
- Hoyer W, Deshpande R. Cross-cultural influences on buyer behavior: the impact of Hispanic ethnicity. In: Walker BJ, et al, editor. *Proceedings of the 1982 AMA Educators' Conference*. Chicago, IL: Amer Mark Assoc; 1982. pp. 89–92.
- Hui MK, Joy A, Kim C, Laroche M. Acculturation as a determinant of consumer behavior: conceptual and methodological issues. In: Allen Chris T, et al, editor. *AMA Winter Educators' Conference*, vol. 3. Chicago, IL: Amer Mark Assoc; 1992. pp. 466–73.
- Jun S, Ball AD, Gentry JW. Modes of consumer acculturation. In: McAlister Leigh, Rothschild Michael L, editors. *Adv Consum Res*, vol. 20. Provo, UT: Assoc Consum Res; 1993. pp. 76–82.
- Kang J, Kim Y. Ethnicity and acculturation: influences on Asian American consumers' purchase decision making for social clothes. *Sci Res J* 1998;27:91–117 (September).
- Kara A, Kara NR. Ethnicity and consumer choice: a study of Hispanic decision processes across different acculturation levels. *J Appl Bus Res*, 1996;12(2): 22–35.
- Keefe S, Padilla AM. *Chicano Ethnicity*. Albuquerque: University of New Mexico Press; 1987.
- Khairullah DZ, Khairullah ZY. Relationships between acculturation, attitude toward the advertisement, and purchase intentions of Asian-Indian immigrants. *Intl J Commer & Manag* 1999a;9(3/4):46–66.
- Khairullah DZ, Khairullah ZY. Behavioural acculturation and demographic characteristics of Asian-Indian immigrants in the United States of America. *Intl J Sociol Social Pol* 1999b;19(1/2):57–81.
- Laroche M, Joy A, Hui M, Kim C. An examination of ethnicity measures: convergent validity and cross-cultural equivalence. In: Holman Rebecca H, Solomon Michael R, editors. *Adv Consum Res*, vol. 18. Provo, UT: Association of Consumer Research; 1991. pp. 150–7.
- Laroche M, Kim C, Hui M, Tomiuk MA. A multidimensional perspective on acculturation and its relative impact on consumption of convenience foods. *J Intl Consum Mark* 1997;10(1/2):33–58.
- Laroche M, Kim C, Tomiuk MA. Italian ethnic identity and its relative impact on the consumption of convenience and traditional foods. *J Consum Mark* 1998;15(2):125–51.
- Lee W. Changing media consumption in a new home: acculturation patterns among Hong Kong immigrants to Canada. *J Adv* 1994;23(1):57–70.
- Luna D, Peracchio LA. Moderators of language effects in advertising to bilinguals: a psycholinguistic approach. *J Consum Res* 2001;28:284–95 (September).
- Magana JR, de la Rocha O, Amsel J, Fernandez MI, Rulnick S. Revisiting the dimensions of acculturation: cultural theory and psychometric practice. *Hispan J Behav Sci* 1996;18(4):444–68.
- Maldonado R, Tansuhaj P. Segmenting a local Latino market using Berry's acculturation taxonomy. In: Broniarczyk Susan, Nakamoto Kent, editors. *Adv Consum Res*, vol. 29. Provo, UT: Association of Consumer Research; 2001. pp. 414–20.
- Mendoza RH. An empirical scale to measure type and degree of acculturation in Mexican-American adolescents and adults. *J Cross-Cult Psychol* 1989;20(4): 372–85.
- Mendoza RH. *Cultural Life Style Inventory*. Alhambra, CA: California School of Professional Psychology; 1994.
- Netemeyer RG, Krishnan B, Pullig C, Wang G, Yagci M, Dean, D, et al. Developing and validating measures of facets of customer-based brand equity. *J Bus Res* 2004;57(2):209–24.
- Neto F. Predictors of satisfaction with life among second generation migrants. *Soc Indic Res* 1995;35:93–116 (May).
- Ogden DT. Hispanic versus Anglo male dominance in purchase decisions. *J Prod Brand Manag* 2005;14(2/3):98–105.
- Ogden DT, Ogden JR, Schau HJ. Exploring the impact of culture and acculturation on consumer purchase decisions: toward a microcultural perspective. *Acad Mark Sci Rev* 2004;3:1–22.
- Peñaloza LN. Immigrant consumer acculturation. *Adv Consum Res* 1989;16:110–8.
- Peñaloza LN. Atravesando fronteras/border crossings: a critical ethnographic exploration of the consumer acculturation of Mexican immigrants. *J Consum Res* 1994;21:32–54 (June).
- Phinney JS. Ethnic identity in adolescents and adults: review of research. *Psychol Bull* 1990;108(3):499–514.
- Phinney JS, Chavira V, Williamson L. Acculturation attitudes and self-esteem among high school and college students. *Youth Soc* 1992;23:299–312 (Mar).
- Podoshen JS. Word of mouth, brand loyalty, acculturation and the American Jewish consumer. *J Consum Mark* 2006;23(5):266–82.
- Quester PG, Chong I. Validating acculturation models: the case of the Australian-Chinese consumers. *J Consum Mark* 2001;18(3):203–18.
- Quester PG, Karunaratna A, Chong I. Australian Chinese: does acculturation affect consumer decision making? *J Intl Consum Mark* 2001;13(3):7–28.
- Richins ML. The material values scale: measurement properties and development of a short form. *J Consum Res* 2004;31(1):209–19.
- Rosenthal DA, Feldman SS. The nature and stability of ethnic identity in Chinese youth: effects of length of residence in two cultural contexts. *J Cross-Cult Psychol* 1992;23(2):214–31.
- Roslow P, Nicholls JAF. Targeting the Hispanic market: comparative persuasion of TV commercials in Spanish and English. *J Adv Res* 1996;36(3):67–77.
- Thomson M. Human brands: investigating antecedents to consumers' strong attachments to celebrities. *J Mark* 2006;70:104–19 (July).
- Ueltschy LC, Krampf RF. The influence of acculturation on advertising effectiveness to the Hispanic market. *J Appl Bus Res* 1997;3(2):87–102.
- Valencia H. Developing an index to measure "Hispanicness". In: Hirschman Elizabeth C, Holbrook Morris B, editors. *Adv Consum Res*, vol. 12. Provo, UT: Association of Consumer Research; 1985. pp. 118–21.
- Wallen GR, Feldman RH, Anliker J. Measuring acculturation among Central American women with the use of a brief language scale. *J Immigr Health* 2002;4(2):95–102.
- Wallendorf M. Literally literacy. *J Consum Res* 2001;27(4):505–12.
- Wallendorf M, Reilly MD. Ethnic migration, assimilation and consumption. *J Consum Res* 1983;10(3):292–302.
- Webster C. Effects of Hispanic ethnic identification on marital roles in the purchase decision process. *J Consum Res* 1994;21(2):319–31.