

Ethnicity and Consumer Choice: A Study of Hispanic Decision Processes Across Different Acculturation Levels

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Abstract

This article examines the effects of the subcultural component and the degree of acculturation on consumer choice behavior. The choice behavior of Hispanics and non-Hispanics ("Anglos") are compared for high and low involvement products using the Single-Beta-Main Effect (SBM) hybrid conjoint model. The findings of the study suggest that the utilities of different product attributes for low acculturated Hispanics are different from those of high acculturated Hispanics and non-Hispanics.

Introduction

As the United States becomes a more multicultural market, cultural and ethnic factors create significant challenges and opportunities for marketers. It has been projected that the Hispanic subpopulation in the U.S. will grow in the future at a rate of six times that of any other ethnic group (Donthu and Cherian, 1992). Because of its size and tremendous growth opportunities, many scholars believe that research on Hispanic marketplace behavior is very important (Valencia, 1989; Hoyer and Deshpande, 1982; Deshpande, Hoyer and Donthu, 1986). However, research on Hispanics has generally been slow to develop in the U.S., and Hispanic consumer research has shown great disparity in the types of research and recommendations that are reported. One exception to the general dearth of cross-cultural marketing research on Hispanics is Valencia (1982; 1983; 1985; 1989). Valencia has focused on whether Hispanics differ from non-Hispanics ("Anglos") in important cultural values, beyond such manifestations as language, music, food, and folklore. He has also attempted to broaden cross-cultural research in the U.S. by investigating possible value differences among major Hispanic national subgroups living in the U.S. (New York Puerto Ricans, California and Texas Mexicans, Florida Cubans).

Several authors exhort that Hispanics do differ from non-Hispanics in attitude and behavior (Faber, O'Guinn and Meyer, 1987; Valencia, 1989; Soruco, 1985; Webster, 1991; Wilkes and Valencia, 1989; Donthu and Cherian, 1992). Some researchers, however, state that Hispanics may not be very different from Anglos in behavior (Minor, 1992; Palmeri, 1991; Saegert, Hoover and Hilger, 1985). A review of the literature indicated that although many researchers agreed that research on the Hispanic marketplace behavior was an important issue due to its size (Bellenger and Valencia, 1982; Hoyer and Deshpande, 1982), distinctiveness, and significant growth in income and purchasing power, there were some important research issues that remained unresolved. For instance, the degree to which Hispanics have become acculturated to the host (American) culture may be a more important predictor of consumer behavior than the country of birth. Significant differences have been reported in the literature between low acculturated and high acculturated Hispanics (Valencia, 1985; Faber, O'Guinn and Meyer, 1987). There is not sufficient literature investigating the differences between high-low acculturated Hispanics and non-Hispanic consumers in terms of their choice behavior and preferences for different products. The effects of

acculturation and ethnicity on the consumer choice behavior require additional research.

The purpose of this study is to investigate the differences between choice behavior of high-low acculturated Hispanic and Anglo consumers. This study assumes that Hispanic consumers' choice behavior may be different for different levels of acculturation. In this research, the high acculturated Hispanic is defined as the consumer that exhibit greater progression toward the attitudes and values of the host society (Anglos) whereas the low acculturated Hispanic is the consumer whose original (Hispanic) behavior and values are mostly maintained. Thus, the paper first identifies high and low acculturated Hispanic consumers, and then makes comparisons to Anglo consumers' choice behavior. In particular, differences in the utilities of product attributes for high-low acculturated Hispanics and Anglos for high-low involvement products are investigated.

Factors Underlying Subcultural Differences

It is well accepted in the consumer behavior literature that cultural differences affect consumer behavior through their influence on consumer values, which are known to affect consumption motives and individual choice criteria (Bozinoff and Cohen, 1982; Omura 1980; Valencia, 1989). Values, as pointed out by Valencia (1989), are prime determinants of consumer behavior. They are fundamental beliefs about what is important in life and reside deep in human psyche where they can exert a profound influence on behavior. Values help explain why people make sacrifices and what they are willing to give up to achieve their goals. Values serve as standards, promoting and guiding action toward specific ends via means or instrumentalities (Mitchell, 1983). After specific values or a value system have taken shape, they tend to direct the entire course of action in an individual's behavior. Specific patterns of behavior are characteristics of specific value systems. Common values held by group members give direction to the behavior of the group (Vinson, Scott, and Lamont, 1977). Thus, cultural value orientations of different subcultures play a fundamental role in consumer behavior. The individual who identifies closely with a certain subculture accepts the norms and values of that group. The most important subcultural entities in the U.S. are defined by ethnic origin. Since the early work of Weber (1961), the explication of the term "ethnicity" has implied several dimensions, which include a sense of common descent extending beyond kinship, political solidarity, common customs, language, religion, values, morality, and etiquette (Deshpande, Hoyer, and Donthu, 1986). Therefore, there are multiple factors that identify a subculture.

Research conducted by Hirschman (1981) and Valencia (1985) explains the relationship between ethnic groups and consumption related factors. The research results suggest that ethnicity should be viewed as a variable having large potential influence on marketing and consumption behavior. Members of a subculture frequently buy the same brands and products and shop in the same kind of stores. Hence, subcultures represent definable target markets for certain products. Moreover, ethnic norms may influence consumer competence and the ability to arrive at informed choices (Hirschman, 1981). Marketers who want to understand consumers in a more predictive and comprehensive manner may find it useful to view ethnicity as a cause of potential consumption patterns.

Consumer Acculturation

Acculturation has become a prominent topic in the literature because of the diversity in the U.S. market. The term "consumer acculturation" is defined as the general process of movement and adaptation to the consumer cultural environment in one country by persons from another country (Penaloza, 1994). It is assumed that it occurs via the learning process and is sometimes called cultural assimilation (Kim, 1979). Subcultural group members are expected to hold norms and values somewhere between those of the culture of origin and the host society. The more acculturated the individual, the greater the progression toward the attitudes and values of the host society (Faber, O'Guinn, and Meyer, 1987).

There are many factors included in the concept of acculturation. Some of these factors are language, citizenship status, entry into the U.S., networks, intermarriage, identity, culture, religion, age, education, income, and neighborhood (Szapocznik, Scopetta, and Kurtines, 1978; Marin et al., 1987). Using combinations of the above factors, researchers have developed acculturation scales or Hispanicness scales. Among the factors mentioned, language, culture, age and entry into the U.S. have been discussed in the literature as the predominant factors determining the level of acculturation in an individual or group of individuals. Language, when relevant, is seen as one of the most important factors. Language based acculturation scales are the most widely used scales to measure acculturation. These scales usually contain questions addressing the language spoken at home, language spoken at work, written language, language used while thinking, and the language of the media used. It is argued that the level of acculturation is strongly predicted by the language usage and ethnic loyalty. The more frequently immigrants are exposed to their native language, the more ethnically loyal they become (Marin et al., 1987).

Culture is another predictor of acculturation. Every country, and even specific groups within a country, are distinguished by their particular culture (Marin et al., 1987). Culture is constituted by behaviors, beliefs, and attitudes. These factors incorporate such elements as food, dress, religious beliefs, and people with whom one associate. Immigrants are expected to be less acculturated if they associate themselves more with their native culture and less with the host culture.

Finally, age and entry into the U.S. are factors that have also been found that significantly moderate the level of acculturation. The amount of exposure to a culture is positively correlated to the level of acculturation to that culture. If the immigrant came to the U.S. as a child, not only is the individual more likely to become acculturated than an older immigrant, but also the individual is more likely to become acculturated more rapidly than an older immigrant (Szapocznik et al., 1978).

Some Characteristics of Hispanic Consumers

The Hispanic subpopulation in the U.S. is mainly composed of Mexicans, Cubans, and Puerto Ricans. The Hispanic subpopulation differs mainly in terms of demographics, religious aspects, and subcultural separation (Webster, 1991). The traditional nature of the Hispanic market is reflected by the importance placed on preserving their values and lifestyles. Hispanics as a subculture differ from non-Hispanics in their demographic characteristics. Hispanics tend to be younger (Watanabe, 1981; Donthu and Cherian, 1992), have more children, greater family stability, stronger father roles, and have relatively strong Latin-European and Roman Catholic roots (Sturdivant, 1969). Frequent use of Spanish helps to reinforce cultural values and beliefs (Greenberg, Burgoon, Burgoon, and Korzenny, 1983).

Hispanics have a strong tendency to marry other Hispanics. They are more geographically concentrated and urbanized in comparison to the general market (92% of Hispanic households reside in urban areas, as opposed to 75% of general market households). Although the annual median household income of Hispanics lags behind the non-Hispanics, the figures for Hispanics may be skewed somewhat by the temporary economic conditions of many new arrivals (Berman, 1991; Garcia, 1982). Also, this figure may be skewed due to the present majority of Mexicans residing in migrant camps. Hispanics are usually more brand loyal than their general market counterparts and tend to use nationally advertised brands (Guernicia and Kasperuk, 1982; Guernicia, 1980; Segal and Sosa, 1983). Hispanics demonstrate faith in the quality of the well-advertised national brands and are less likely to purchase private brands and generic products (see Webster

(1991) for some general characteristics of Hispanic consumers).

The younger Hispanic population reveals a high level of acculturation, and their consumer characteristics tend to resemble those of the Anglo population. However, the older generation of the Hispanic population reveals a lower level of acculturation, and exhibits different behavior patterns than those high acculturated Hispanics and Anglos. Hispanics with a low level of acculturation are more likely than Hispanics with a high level of acculturation to use the same products that their parents have used (Rosa, 1990). The present study sought to investigate choice behavior differences between high-low acculturated Hispanics and Anglos. Although the term "Hispanic" is used throughout this paper, the data was collected from one of the largest specific subset of Hispanics, namely, Cuban-Americans. The term Hispanic does not imply that all Hispanics exhibit the same behavior. Therefore, groups were defined on the basis of both ethnicity and level of acculturation.

Methodology

Although different researchers used several different measures (multiple or single measures) to identify Hispanics (Deshpande, Hoyer and Donthu, 1986; Hirschman, 1981; Schaffer and Carmone, 1992; Webster, 1991), this study relied on self-identification by the respondent. In other words, ethnicity was based on the individual's subjective self-perceptions, not on the perceptions of the researcher. In fact, this approach was deemed most appropriate by cross-cultural behavioral researchers, especially those in cultural anthropology and social psychology (Cohen, 1978; Ebmer, 1977; Jorgenson, 1979; Minor, 1992). Cohen argued that subjective self-labeling is the only valid measure of ethnicity since it represents the internal beliefs of the individual, hence, reflects the salience and reality of the ethnic affiliation that consumers experience.

A combination of language, behavioral, and demographic based scales were used to operationalize the level of acculturation within the Hispanic group. More specifically, four separate language measures (mother language, language spoken with children, language spoken with co-workers, and language spoken with parents), frequency of attendance at religious services, arrival in the U.S., family influence, and the countries that the respondent felt closest to were used in the analysis in order to determine the level of acculturation. These variables were submitted to a multiple correspondence analysis program to generate a two-dimensional configuration of respondents. Results of correspondence analysis are shown in Table 1.

Table 1
Decomposition of Inertia Among Acculturation Factors for the First Two Principal Axis*
 Summary Statistics for Column coordinates

Factors	Quality	Mass	Inertia	Dimension 1		Dimension 2	
				Squared Correlation	Contribution	Squared Correlation	Contribution
ATTEND	866	64	244	856	359	9	10
LANGUAGE	530	34	158	487	132	43	28
LANGC	777	28	71	739	90	37	11
LANGP	825	14	54	803	75	22	5
LANGW	844	14	50	810	70	33	7
INFLUEN	465	8	65	450	50	14	3
ARRIVUSA	998	740	133	911	207	87	48
FEELCLOS	997	94	220	35	13	961	885

* All values are multiplied by 1000 and decimal points are omitted.

Table 1 shows that the first two axes account 82.36 percent of the inertia. The contributions indicate that the first principal axis is defined by ATTEND, LANGUAGE, and ARRIVUSA. The second principal axis is defined primarily by FEELCLOS. Individuals close together, based on these dimensions, share similar levels of acculturation. Hence, to identify the individuals in different groups, row coordinates obtained from the correspondence analysis were cluster analyzed. The characteristics of the two clusters identified are illustrated in Table 2.

Table 2 shows the characteristics of the two clusters based on the eight variables used. The results indicated that Hispanics in Cluster 1 can be classified as "high" with respect to their acculturation level, while those in Cluster 2 can be classified as "low" with respect to their accultura-

tion level. Accordingly, all respondents were assigned of one of three mutually exclusive groups: Hispanics high in acculturation, Hispanics low in acculturation, and Anglos.

Selection of Products

The product/service contexts used were job selection and toothpaste choice. They were selected so they would be meaningful to subjects and could be characterized by multiattributes. Day (1972) pointed out the problem of measuring preference judgments by subjects who do not use/consume the products to be evaluated or who are not involved in the study. Hence, the criteria used for the selection of products for this study are: (1) the respondents should have a good knowledge of the alternatives and attributes, (2) the product and purchase situations should be pertinent to the respondents' experience, and (3) the

Table 2
Results of Cluster Analysis

CLUSTER 1 (n=119)	CLUSTER 2 (n=32)
1. Mother language tends to be Spanish	1. Mother language is Spanish
2. Both English and Spanish are spoken equally at home	2. ONLY Spanish is spoken at home
3. Both English and Spanish are spoken equally at work	3. Majority speaks ONLY Spanish at work
4. Tend to speak Spanish with parents	4. ONLY Spanish is spoken with parents
5. The majority was either born in the U.S. or arrived to the U.S. at the early ages of childhood (early 1970s)	5. Born outside the U.S. and/or arrived in the U.S. after 1980s
6. Almost all of them feel closer to the U.S. than any other country	6. Not feel closer to the U.S. than another country
7. Tend to attend religious services regularly	7. Tend to attend religious services regularly

decision should be important enough for thoughtful consideration. These products also have been selected to represent high versus low involvement and familiarity. A 20-item involvement scale was used to test the involvement levels of the two products used (Zaichkowsky 1985). Totalling the 20 items gave a score from a low of 20 to a high of 140. The mean involvement scores were 124 and 92 for job and toothpaste choice respectively.

Product attributes were generated by a comprehensive literature review and by an open-ended questionnaire (Agarwal, 1988; Brookhouse, Guion, and Doherty, 1986; Schaffer, 1990). An orthogonal main effect fractional factorial design was used to come up with 32 job and 32 toothpaste profiles for calibration choice sets. Four subsets of eight profiles were drawn from that master set of 32 calibration profiles. Each respondent was shown eight profiles and asked to evaluate each profile; thus, each respondent evaluated only eight calibration profiles. Moreover, two validation choice sets of 16 profiles for job choice decision were also taken from an orthogonal array of fractional factorial design. Respondents were asked to evaluate the first validation profiles immediately after the calibration profile evaluations.

Operationalization of Choice

Decompositional and compositional methods typically take judgments as input. These judgments are often assumed to be intervally scaled measures of preferences or the importance of attributes. However, choice is the selection of one brand from a set of available alternatives. In this study, to predict toothpaste choice, actual toothpastes were used for the validation choice sets. Six toothpastes were selected with different attribute levels and used in both validation tasks. Actual products were displayed with their current retail prices. Subjects were given \$3.00 and told that they had to purchase one of the toothpastes displayed, and they could keep the money they had left over after the experiment. This was also considered an incentive for participating in the study. Each respondent's first choice was recorded, and then he was asked to rank order the remaining five toothpastes, assuming his first choice was not available. Kahn and Louie (1990) and Inman, McAlister, and Hoyer (1990) used a similar procedure in their experiment to simulate the actual choice environment.

In the second validation task, respondents evaluated the same six toothpastes on a 0 to 100 intentions to buy scale. The average number of attributes used by the respondents to make a job choice decision was 9 while this was 6 for the toothpaste decision. This was also confirmed using the Herfindahl index (Reibstein and Schmittlein 1987). Since the attributes and attribute levels were generated by using

open ended questions, most of the attributes were expected to be used in decision making for both products.

Questionnaires and Data Collection

A questionnaire was developed for the data collection. Each conjoint calibration questionnaire contained (1) attribute level rating, (2) relative importance of attributes, (3) profile evaluation information, and (4) a detailed demographic profile section. A convenience sample of 298 undergraduate and some graduate students were approached on a large state university campus in South Florida, and were invited to participate in this research project. In return, they were offered \$3.00 in cash. Approximately two weeks later, the second validation questionnaire was administered. Of those 298 respondents who participated the first part of the survey, only 206 participated and completed all phases of the study. The resultant sample consisted of 53% male and 47% female respondents. Their ages ranged from 18 to 45, with the average age being 24 years old. Fifty-four percent were seniors, 37 percent were juniors, 2 percent were pre-juniors and 6 percent were graduate students. Approximately 60 percent of the subjects had Hispanic origin while 35 percent were Caucasian and 4 percent were African-American. About 55% of them were looking for jobs or were evaluating job alternatives. Sixty two percent of the respondents indicated that they purchased their own toothpaste while 38 percent said someone else in the family purchased the toothpaste. Seventy percent said they purchased toothpaste at least twice a month and 93 percent of the respondents indicated that they brushed their teeth at least twice a day.

Analysis and Results

Single-Beta-Main-Effect (SBM) hybrid conjoint (HC) model was used for the analysis. SBM has been one of the best performing HC models and its high accuracy in predictions has been reported by several researchers (Atwong, 1991; Kara, 1993; Schaffer, 1990). SBM can be illustrated as follows:

$$Y_h = a + bU_h + \sum_{j=1}^J \sum_{i=1}^I V_{ij} X_{ij} \quad U_h = \sum_{j=1}^J w_j u_{hj}$$

where:

- \cong = least square approximation
- i = attribute levels 1 to I
- j = attributes 1 to J ($J=1, 2, \dots, 13$ for job and $J=1, 2, \dots, 9$ for toothpaste)
- h = alternatives 1 to H ($H=1, 2, 3, \dots, 32$)
- a = intercept

- b = regression coefficient
 U_h = self-explicated utility for alternative h
 Y_h = overall ratings of alternative h in the profile evaluation task
 w_j = importance weight for attribute j
 u_{ij} = desirability rating for level i of attribute j that corresponds to alternative h
 V_{ij} = part-worth associated with level i of attribute j
 X_{ij} = dummy variable (0,1) representing level i of attribute j that corresponds to alternative h

The following three types of data have been input for the model calibrations: (1) attribute level desirability ratings, u , (2) relative importance ratings of attributes, w , and (3) full profile evaluations of a limited set (eight) complete (all-attribute) stimulus profiles, Y . Each respondent was shown sets of attribute levels and asked to evaluate the levels on a 10-point scale. After rating all attribute levels, the respondents were asked to rate the relative importance of attributes by distributing 100 points across the attributes. Respondents then evaluated each complete stimulus profile on a likelihood of purchase (for toothpaste) or intentions-to-consider (for job) scale. A two-stage estimation was used as suggested by Green (1984). In the first stage of estimation, Y is regressed only on U . Individual respondent's desirability and importance ratings were combined to give an overall utility of a stimulus profile U_h . OLS regression was used to estimate the extent to which self-explicated utility U_h explains the profiles' evaluations Y_h . In the second stage, residuals from this regression were computed and regressed on the

stimulus attribute level descriptions, X_{ij} (dummy coded variables), to obtain the respective part-worths, V_{ij} .

In general, there are some significant differences found between the demographic and socio-economic characteristics of Hispanics and Anglos. Supporting the arguments made in the literature, the majority of the respondents in the Hispanic sample were Catholic (90% as opposed to 51% for the non-Hispanic sample) who attended religious services regularly (77% as opposed to 41% for Anglos) and considered themselves as being conservative. A significant portion of Hispanic respondents said that they spoke both Spanish and English at home.

Table 3 shows the results of univariate ANOVA for the mean importance ratings of the 13 job attributes for the three groups. Advancement, starting salary, personal development, responsibility, and job security were the five most important attributes for all groups. No statistically significant differences were found between high-acculturated Hispanics and Anglos. The differences found were mainly due to the ratings of low-acculturated Hispanics in relation to high acculturated Hispanics and Anglos.

Table 4 shows the univariate ANOVA results for the mean importance of the 9 toothpaste attributes for the three groups. Some differences among the three groups were found on the importance of ADA Acceptance, Brand, Purpose of use, and Toothpaste type. Similar to the job attribute importance ratings, the statistically significant

Table 3
ANOVA Results: Mean Job Attribute Relative Importance[#]

Job Attributes	High Acculturated	Low Acculturated	Anglos	Significance
	Hispanics	Hispanics		
ADVANCEMENT	14.273	12.935	14.737	*
JOB SECURITY	9.484	12.212	9.925	*
LOCATION	6.907	7.194	7.500	
MEDICAL/VACATION BENEFITS	9.584	10.793	8.875	
NIGHTS AWAY FROM HOME	3.856	3.200	3.848	
PERSONAL DEVELOPMENT	7.975	11.419	9.861	***
PRESTIGE	5.847	6.233	6.138	
RECOGNITION	6.924	7.709	6.291	
RESPONSIBILITY	6.347	8.400	7.203	*
SOCIAL OPPORTUNITY	4.144	4.138	5.103	
STARTING SALARY	12.263	10.900	13.100	*
VARIETY	5.237	5.897	6.063	
WORK HOURS	6.667	6.433	6.684	

[#] A constant sum scale was used which subjects allocated 100 points across 13 job attributes.

* Significant at $p < .05$ ** Significant at $p < .01$ *** Significant at $p < .001$

Table 4
ANOVA Results: Mean Toothpaste Attribute Relative Importance[#]

Toothpaste Attributes	High Acculturated Hispanics	Low Acculturated Hispanics	Anglos	Significance
ADA ACCEPTANCE	13.542	17.719	14.800	*
TOOTHPASTE BRAND	12.035	16.042	14.212	*
CONTAINER SIZE	6.050	7.750	6.600	
CONTAINER TYPE	6.381	6.225	6.700	
FLAVOR/COLOR	11.677	11.451	12.037	
INGREDIENTS	9.457	10.322	11.087	
PRICE PER OUNCE	8.194	9.343	9.775	
PURPOSE OF USE	18.296	13.161	15.275	*
TOOTHPASTE TYPE	11.132	9.177	10.500	*

A constant sum scale was used which subjects allocated 100 points across 9 toothpaste attributes.

* significant at $p < .05$

differences found were mainly due to the differences in ratings of the Hispanics with low level of acculturation in relation to the importance ratings given by high acculturated Hispanics and Anglos.

A summary of the stage-two derived utilities, which are simply regression coefficients (i.e., the v_s in equation [1]), for the job attribute levels are shown in Table 5. For ease of comparison across clusters, all the utilities in Table 5 have been scaled so the utility ranges for main effects across the 13 job attributes sum to 10.

Some of the group characteristics from Table 5 can be summarized as follows: (1) The Hispanic respondents with a low level of acculturation exhibit relatively high utility for life-time employment, moderate/considerable prestige, considerable recognition, few or moderate personal development opportunities, and early advancement. (2) The Hispanic respondents with a high level of acculturation place relatively high utility on medium/large size city location, better medical/vacation benefits, very friendly social environment, and above market level starting salary. (3) Anglos, much like the high-acculturated Hispanics, place relatively high utility on medium/large size city location, above market level starting salary, considerable personal development opportunities. In sum, it is illustrated that Anglos and Hispanics with high levels of acculturation placed relatively high utilities on similar attributes/levels while Hispanics with low levels of acculturation differed.

Similarly, Table 6 shows a summary of the stage-two derived utilities for the toothpaste attribute levels. We note the following group characteristics: (1) Anglos place

relatively high utility on ADA certification, Crest and Colgate brands, and mint/blue or neutral/multicolor flavors/colors. (2) Hispanics with a high level of acculturation place relatively high utility on Crest and Colgate brands and mint/blue or neutral/multicolor flavor/Colors. (3) Hispanics with a low level of acculturation place relatively high utility on Colgate and Close-up brands, cavity/tartar control or freshness purposes of use, and medium/small container sizes.

Choice Prediction

The SBM hybrid conjoint model was used to predict the choices made by the three groups. The percentage of correct first choice predictions and correlation between observed and predicted evaluations were used to assess the accuracy of the predictions. Table 7 summarizes these results for high-low acculturated Hispanic and non-Hispanic samples. There were no significant differences in terms of the model predictions for the three samples. Generally, predictions for toothpaste choice yielded marginally better results than the prediction of job choice. The SBM hybrid conjoint model was also very effective in predicting choices in the second validation set.

Conclusions and Discussions

In this paper, our primary goal has been to explore the differences in choice behavior of high-low acculturated Hispanics, and Anglos. Specifically, our objective was to explore the importance of product attributes and attribute levels for the three groups (i.e., Hispanics with a low level of acculturation, Hispanics with a high level of acculturation, and Anglos) to predict their choices for

Table 5
Job Part-Worths (Regression Coefficients), By Groups

Job Attributes/Levels	High Acculturated Hispanics¹	Low Acculturated Hispanics²	Anglos³
Advancement			
First pay raise and/or promotion is:			
- within six months	0.057	0.124	0.051
- 6 to 12 months	0.123	0.290	-0.032
- 12 to 18 months	-0.071	0.019	-0.319
- 18 to 24 months	0.000	0.000	0.000
Job Security			
- Life-time employment is NOT a company policy	0.119	-0.324	-0.074
- Life-time employment is a company policy	0.000	0.000	0.000
Location			
Company/job located:			
- in the rural area	0.409	-0.281	0.828
- in a medium sized city	0.815	0.087	1.650
- in a major city such as LA, NY.	0.545	0.041	1.144
- outside the U.S.A.	0.000	0.000	0.000
Medical/Vacation Benefits			
- below average for the industry	-0.701	-0.317	-0.415
- average for the industry	-0.038	-0.203	-0.110
- considerably better than industry average	0.000	0.000	0.000
Nights away from home			
- about twice a month	-0.112	-0.161	-0.203
- about six nights a month	-0.388	-0.388	-0.632
- none	0.000	0.000	0.000
Personal Development			
Company/job offers:			
- almost no opportunities	-0.336	-0.365	-0.519
- a few opportunities	-0.072	0.237	-0.089
- moderate opportunities	-0.265	0.008	-0.049
- Considerable opportunities	0.000	0.000	0.000
Prestige			
The organization/job has:			
- almost no prestige	-0.069	-1.789	-0.063
- a little prestige	0.091	-1.333	0.111
- moderate prestige	0.676	1.603	-0.182
- considerable prestige	0.000	0.000	0.000
Recognition			
- very little recognition received	-0.078	-0.228	-0.041
- considerable recognition received	0.000	0.000	0.000
Responsibility			
Job demands:			
- almost no responsibility	-0.092	-0.007	-0.566
- a little responsibility	0.008	0.083	0.082
- moderate responsibility	0.134	0.715	-0.411
- considerable responsibility	0.000	0.000	0.000
Social Opportunity			
People in the organization are:			
- unfriendly	-0.833	-0.166	-0.386
- indifferent	-0.157	-0.161	-0.046
- somewhat friendly	-0.072	-0.015	0.248
- very friendly	0.000	0.000	0.000
Starting Salary			
- 15% below market level	-1.689	-0.662	-0.781
- at the market level	-0.975	-0.185	-0.325
- 15% above market level	0.499	-0.031	0.475
- 25% above market level	0.000	0.000	0.000
Variety			
- some variety	-0.096	-0.094	-0.061
- considerable variety	0.000	0.000	0.000
Work hours			
- Fixed hours (8:00 AM to 5:00 PM)	0.326	0.117	0.334
- Flexible working hours	0.000	0.000	0.000

¹ Overall calibration model adjusted R² = .324

² Overall calibration model adjusted R² = .306

³ Overall calibration model adjusted R² = .341

Table 6
Toothpaste Part-Worths (Regression Coefficients), By Groups

Toothpaste Attributes/Levels	High Acculturated Hispanics ¹	Low Acculturated Hispanics ²	Anglos ³
ADA Certification			
- ADA accepted	0.246	0.167	0.686
- Not ADA accepted	0.000	0.000	0.000
Brand Name			
- Crest	1.437	0.584	1.646
- Colgate	1.522	1.611	1.409
- Close-up	1.011	0.876	1.178
- Arm & Hammer	0.737	0.709	0.846
- Sensodyne	0.693	0.457	0.660
- Generic brands	0.000	0.000	0.000
Container Size			
- below 1.5 oz.	0.138	0.205	0.112
- 1.5--4.5 oz.	0.461	0.678	0.414
- 4.6--6.0 oz.	-0.062	-0.024	0.057
- above 6.0 oz.	0.000	0.000	0.000
Container Type			
- regular tube	0.189	0.121	-0.054
- flip-cap tube	0.212	0.216	0.288
- dispenser	0.053	0.235	0.079
- decorator pump	0.000	0.000	0.000
Flavor/Color			
- Neutral/white	-0.507	-0.014	-0.307
- Neutral/red	-0.539	0.247	-0.349
- Mint/blue	0.340	-0.218	0.372
- Neutral/multicolor	0.000	0.000	0.000
Ingredients			
- baking soda	-0.117	-0.418	-0.102
- regular	0.000	0.000	0.000
Price			
- below 30¢	0.184	0.013	0.106
- 31-60¢	0.187	0.397	0.125
- 61-90¢	0.176	0.004	0.154
- above 90¢	0.000	0.000	0.000
Purpose of Use			
- fresh breath	-0.363	0.703	-0.246
- tartar control	0.234	0.792	0.222
- cavity fighting	0.097	1.054	0.337
- white teeth	0.000	0.000	0.000
Toothpaste type			
- gel	-0.307	-0.253	-0.286
- paste	0.000	0.000	0.000

¹ Overall calibration model adjusted R² = .312

² Overall calibration model adjusted R² = .389

³ Overall calibration model adjusted R² = .404

Table 7
Summary of SBM Results

			Mean First Choice Predictions	Mean Rank Predictions
High Acculturated Hispanics	Job Selection	First Validation	.3231	.5318
		Second Validation	.3014	.5554
	Toothpaste Selection	First Validation	.4378	.5299
		Second Validation	.5617	.3373
Low Acculturated Hispanics	Job Selection	First Validation	.3039	.5009
		Second Validation	.2920	.5183
	Toothpaste Selection	First Validation	.4672	.5322
		Second Validation	.5543	.3638
Anglos	Job Selection	First Validation	.3487	.5111
		Second validation	.3323	.5844
	Toothpaste Selection	First Validation	.4715	.5312
		Second Validation	.5782	.3710

n=119 for high-acculturated Hispanic sample, 32 for Low-acculturated Hispanic sample, and 55 for Anglos.

different products/services (high and low involvement products). The use of hybrid conjoint analysis showed that product attribute importance (part-worths) for the three subcultural categories defined by ethnicity and level of acculturation were different.

The results of this study indicated that Hispanics with a high level of acculturation and Anglos were very similar to each other but different from Hispanics with a low level of acculturation in terms of the utilities placed on the product attributes of jobs and toothpaste. The differences in the case of job selection choice were on attributes like Location (i.e., Hispanics with a high level of acculturation and Anglos placed high utilities on a medium-sized city or major city for the company location while Hispanics with a low level of acculturation placed relatively high utility on a location outside the U.S.), Prestige (Hispanics with a low level of acculturation placed one of the highest utilities on this attribute), Recognition (Hispanics with a low level of acculturation placed the highest negative utility on low recognition level), and Personal development (Hispanics with a low level of acculturation did not value "a few personal development opportunities" as did the other two groups). In the case of toothpaste choice, the differences

were mainly on attributes such as Brand (Hispanics with both low and high level of acculturation placed the highest utility on Colgate, a well-known and well-advertised brand in Latin countries, while Anglos placed high utility on Crest), ADA certification (Anglos placed the highest utility), and Purpose of use (Hispanics with low level of acculturation placed relatively high utility on cavity fighting level).

These results largely confirmed the literature on the differences between Hispanics and Anglos in terms of the importance of some product attributes and levels but, some product attributes and levels (i.e., Nights away and Variety for job choice; Toothpaste type for toothpaste choice) used in this study were considered equally important by all groups.

The findings of this study offer important implications for marketing managers who seek to target the Hispanic market in the U.S. There is enough evidence to conclude that the degree of acculturation is a critically important segmentation variable for both high and low involvement products. To target the Hispanics with a low level of acculturation, using communication media, marketers


might emphasize the attributes that were placed on high utility by this group. On the other hand, to target the Hispanics with a high level of acculturation, marketing strategies similar to those for Anglos may be used. These adjustments of subcultural domains offer marketers attractive opportunities, yet present serious challenges to consumer researchers. While marketers may benefit from tailoring products or services to a particular group of people on the basis of their unique characteristics, consumer researchers should investigate the impact of these marketing strategies on market structure (Penaloza, 1994).

Limitations and Future Research

The use of a hybrid conjoint analysis is the major strength of this study. The SBM predicted consumer choice quite accurately, which also shows its appropriateness for the purposes of the study. Also, the methodology applied to measure the acculturation level of Hispanics should be noted as the strength of this study.

However, some limitations of this study should be noted. First, because the sample was limited to Hispanics living in the South Florida area at the time of this study (mostly Cuban-American), caution should be taken when drawing general conclusions about the Hispanic subculture in the U.S. Several studies have found differences among Hispanic subcultures. Therefore, the generalizability of this study to the entire Hispanic ethnic group is limited.

Second, college students were used in this study might have effected the findings. The respondents included in the sample was young and in the process of completing their college education. The data were collected through a questionnaire written in English only. Although both products (job choice and toothpaste) used in this study were directly related to or consumed by the respondents in the sample, a non-student sample would enhance the interpretations of the findings of this study.

Despite this caveat, the results of this study appear to be particularly significant in terms of future research directions of ethnicity research. There are several issues to which researchers need to direct their attention. The criteria used to define "Hispanic" remains an important factor. It is unclear whether a researcher should use single measures, like self-identification, to define a subculture or multiple measures to come up with a continuum of Hispanicness. Ethnicity alone may not result in significant differences in the choice behavior unless it is coupled with other factors (level of acculturation, strength of ethnicity). Therefore, the possibility of some confounding factors needs to be studied carefully in future studies. 

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