Abstract

Even though the population of Puerto Rico includes a large percent of
residents with some knowledge of the English language (bilinguals), the
vast majority communicates using Spanish, which is their native language.
Not surprisingly, the majority of advertisements in Puerto Rican media use
the Spanish language. The common sense assumption that Spanish adver-
tising is significantly superior to English advertising when targeting Puerto
Rican Hispanics living in Puerto Rico is tested experimentally in this study.
The Social Value component of the Theory of Consumption Values was
used to generate several Hypotheses that would favor the use of English
language. The experiment used magazine-like printed illustrated adver-
tisements to test the hypotheses, all of them dealing with relative effective-
ness of Spanish versus English language advertisements. The results show
that Spanish advertisements and English advertisements were about the
same in terms of their persuasion effectiveness.

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Experimental Study of the Effect of Language (English and Spanish) on Advertisement Effectiveness with Puerto Rican Hispanic University Students

Introduction

It is not clear from the literature whether English language advertising is more or less persuasive than Spanish when advertising to US Hispanics. Implicitly or explicitly, some authors have shown their opinions about which language is more persuasive with US Hispanics (Guernica and Kasperuk. 1982; Hernández and Newman 1992; Jaffe, Cullen, and Boswell 1980; Koslow, Shamdasani, and Touchstone 1994; Minor 1992; O'Guinn and Meyer 1983; and Segal and Sosa. 1983) and it is relatively easy to find theories to support contradicting positions. However, the scientific evidence or experiments published in the literature about the effect of language is very scarce (Newton 1986 is a key exception).

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Two common problems in related literature are: ignoring differences among the major Hispanic groups, and another is concentrating the research in one Hispanic sub-segment, for example, Mexican-Americans, and then referring to the study as one of "Hispanics." Even though Mexicans, Cubans, Puerto Ricans, Salvadorans, Dominicans, among others, have the Spanish language as a common element, their cultures are quite distinct and research conclusions that apply to one group might not necessarily apply to other Hispanic groups.

When the US population is segmented by ethnicity, US Hispanics are one of the largest and fastest growing segments. According to the Bureau of the Census (1999), 11.4% of the US Population is Hispanic (30.5 million), but if the population in Puerto Rico is added then the Hispanic population is 34 million. US Hispanics growth from 1990 to 2000 was 40.2%, which is over eight times more than that of Non-Hispanic Whites (U.S. Bureau of the Census; 1999).

Puerto Rico is a territory of the US and all Puerto Ricans are US citizens. The socioeconomic level of non-Hispanic Whites in the US is substantially above that of Puerto Ricans living in Puerto Rico. Puerto Ricans generally have a favorable attitude toward the US and have a strong desire to have a positive association with the US. This has also been reflected in the political arena where the two main parties, Partido Nuevo Progresista (PNP) and Partido Popular Democrático (PPD), have a very strong focus in maintaining an association with the US. For example, general elections in recent decades show that the PNP and PPD parties together usually obtain close to 95% of the votes (Bayrón 1989; Álvarez-Rivera 2000). However, not even Puerto Rican Hispanics can be assumed as homogeneous when studying the effect of language and media. Puerto Ricans living in mainland US could be quite different from Puerto Ricans living in Puerto Rico, especially when dealing with language issues and their attitudes toward American and Puerto Rican cultural elements. Therefore, this study will concentrate on Puerto Ricans living in Puerto Rico and how language (English or Spanish) in printed advertising with illustrations affects its effectiveness.

Hypotheses

One of the most widely known multidisciplinary models of communication theory is the communication process. It consists of several elements or factors that relate communication effectiveness: source (or sender or communicator) of message, the message itself, the medium, and the receiver. The basic difficulty in the communication process occurs during encoding and decoding. Encoding is the source deciding what it wants to say and translating it into words or symbols that will have the same meaning to the receiver. Decoding is the receiver translating the message. Different audiences may see the same message in different ways or interpret the same words differently. Such differences are common in international marketing when cultural differences or translation are problems and become key barriers to communcation effectiveness.

Common sense and communication theory leads us to expect that Spanish language advertising should be more persuasive with Spanish speakers, such as Puerto Ricans living in Puerto Rico, because it is the language they understand best. In other words, it is more likely that Spanish speakers decode and understand the intended message better when using their mother tongue.

However, there is a host of research and theories that could lead to the opposite conclusion, that is, English language advertisements could be more persuasive with Spanish speakers (particularly those with visuals or illustrations because they help less bilingual Hispanics to have an idea of the intended message). Those theories are related to what Sheth, Newman, and Gross (1991b) refer to as social value in their Theory of Consumption Values.

Social Value. According to Sheth, Newman, and Gross (1991a), market choices may be determined by the desire to acquire products that convey an image congruent with friends (or associates) or that convey the desired social image. A product or alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Their concept of social value was developed based on theories and research in social psychology, sociology and rural sociology,

communications, anthropology, economics, and marketing and consumer behavior. Social value is related to concepts such as reference groups, social class, symbolic value, and conspicuous and compensatory consumption, the normative component of attitude, and opinion leadership and diffusion of innovation (Sheth, Newman, and Gross 1991a). The social value component draws from research about social class from diverse authors (such as Marx 1966, Weber 1966, Warner and Lunt 1941, Coleman et al. 1978, Martineau 1957 and 1958, Caplovitz 1963, Levy 1966, among others) and it shows that social status, which is determined by honor and prestige, influence behavior. Research on symbolic value by diverse authors (Veblen 1899, Benedict 1934, Duesenberry 1949, Goffman 1951, Woods 1960, Blumberg 1974 and 1980, Douglas and Isherwood 1979, among others) has shown that things may posses symbolic value in excess of their functional utility that can impact evaluation and behavior. The literature related to reference groups (Duesenberry 1949, Bourne 1956, Hall 1959, Alexis 1962, Thibaut and Kelley 1959, Kelley 1966, French and Raven 1959, Bauer and Cunningham 1970, Williams 1970, Sturdivant 1973, Hetchter 1978, Tan and Farley 1987, McCracken 1986 and 1988, among others) has shown that they can have a strong influence on the behavior of an individual. Reference groups are the groups or people used by an individual as a model of desirable or undesirable behavior (Hyman 1942; Hyman and Singer 1968; Singer 1981).

Since the English language has the strongest association with the US in the mind of Hispanics, plus most Hispanics have a positive attitude toward the US, its products, and several other US economic and cultural elements, it is possible that products acquire social value with Hispanics (particularly those in Puerto Rico) when advertised using English. Although this can happen with TV, radio, and printed advertisements, this study narrowed the focus on advertisements with text and color illustrations like those found in magazines. Therefore, the main hypothesis to be tested relates to whether in the particular case of printed advertisements with illustrations, English might be more persuasive (in terms of the effect on product attitude) than using the native language of Puerto Ricans (which is Spanish).

ENG-H1 Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than to those advertised in Spanish

Social Value and Product Characteristics. Products that are highly visible, consumed publicly, or with differences that can easily be seen by sight (clothing, jewelry, sneakers, bicycles, etc.) and products that are shared with others (gifts, products used in entertaining, etc.) are often driven by social value (Sheth, Newman, and Gross 1991b). Social value concepts tie directly with the work of Bourne (1956) and Bearden and Etzel (1982) in which they indicate that reference group influence is higher with conspicuous products.

Conspicuous products include socially visible products (also called public products) and luxury products (Bourne 1958; Bearden and Etzel 1982). A socially visible product is one that other people (besides your family) are aware that you possess or use. This is the case with most products that can be seen or identified by others, or used outside a private location or home. Luxury products are those owned by a low percentage of the population with high status (or income). Usually they are high priced. High price can refer to a "high-ticket"/ "big-ticket" item (when the price of the product is over an arbitrary amount, for example $1,000) or to a product priced much higher than close substitutes (competitive products). Most expensive "high ticket" products and many durable products rank high in conspicuousness because of their social visibility and because a small percentage of the population own them.

Therefore, even if hypothesis ENG-H1 were not supported, Social Value points out special conditions (such as conspicuous products) that lead to the following related hypotheses.

VISIB-H2 Puerto Rican Hispanics will have a more positive attitude toward socially visible products advertised in English than to those advertised in Spanish.

LUX-H3 Puerto Rican Hispanics will have a more positive attitude toward luxury products advertised in English than to those advertised in Spanish.

If Puerto Ricans' positive attitude toward the US is mainly due to US higher socio-economic level, better economic conditions, and higher standard of living, then the wider the socio-economic gap, the more attractive and positive should be the attitude of Puerto Ricans toward the US. That is, Puerto Ricans with a lower socio-economic level might regard as more positive those elements strongly associated with the US, such as the English language. This leads to the following hypothesis:

LOWSTA-H4   *Lower socio-economic status Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than in Spanish.*

Besides the hypotheses above derived from applying social value concepts, the study also tested what would be a key hypothesis that can be derived from communication theory: that Puerto Ricans proficient in English should understand and be more persuaded by English messages than those less proficient in English. This interaction between the language used in persuasive message and the subject's competence in English might be supported even if none of the previous hypotheses are. Hence we arrive at the following hypothesis:

ENGPRF-H5   *English-language proficient Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than those less proficient with the English language.*

Methodology

Sample

The subjects of this experimental study were university students in three of the largest universities in the San Juan Metropolitan area (Puerto Rico). Regarding subjects, the main interest was to get first year students taking general courses in the humanities area to participate. Students in those first year humanities courses have di-

verse interests and most are not classified yet in any specialized area (business, education, science, etc.). Furthermore, they are more similar to the average education of Puerto Ricans.

Four products were used in this study:

1. new luxury car
2. large screen TV
3. wristwatch
4. toothpaste

They were used to represent different product classifications (or types) so as to make results more generalized. For each product, two identical full-page full-color ads were created, except for the language (one version was in English and another in Spanish). Therefore, eight advertisements were created. The questionnaires were designed for self-administration. After a brief introduction informing that we were interested in getting their opinions about some products, the assistant distributed the questionnaires (and advertisements) to all students in each classroom selected. Each student received a questionnaire and only one of eight advertisements. The package of advertisements was arranged previous to distribution so as to get an equal number of each of the 8 advertisements among the students in each classroom. The assistant waited until all students finished completing the questionnaires (approximately 20 minutes) and, as desired, noticed that students worked independently without looking or referring to the questionnaires or ads of nearby students. Therefore, they were unaware other students were getting advertisements of a different language or product. This lack of awareness about the purpose of the experiment was also later confirmed by the type of comments they made.

Although the sample was non-probabilistic (convenience sample) and had no quotas of any type, it can be considered suitable for this type of experimental study where the main concern is the internal validity (whether the language used in the ad made a difference in the responses).

There was no compensation or incentive offered or given, but virtually all students answered the questionnaire. This resulted in

268 questionnaires, but after eliminating incomplete questionnaires, the sample size ended with 256 questionnaires. According to Tabachnick and Fidell (1989) it is desirable to have about 20 times more cases than independent variables when using multiple regression for data analysis. Given the experimental nature of this study and given that the key issue involved two groups (treatments: results when ads are given in Spanish and results when ads are given in English) the sample size is adequate for performing several types of subgroup analysis and allows for multiple regression data analysis for about 13 independent variables.

Questionnaire and Variables

The data collection form for this study consisted of a two-page questionnaire for self-administration. There are several methods that can be used to measure advertising effectiveness (such as recall or recognition measures). This study used the attitude-toward-the-product scale used by Deshpandé and Stayman (1994) as the measure of advertising effectiveness. *Product attitude* was measured using their same 6 bipolar descriptors: pleasant/ unpleasant, good/ bad, positive/ negative, useful/ useless, valuable/ worthless, high quality/ low quality. However, instead of using 7-point differential scales, each item was simplified to 3-point scale. This was necessary because the literature points out that many Hispanics, especially the less acculturated, find multipoint scales (for example a 5-point Likert scale) difficult to understand (Hernández and Kaufman 1990). Also, Brislin, Lonner, and Thorndike (1973) recommend minimizing the number of alternatives per question when dealing with cross-cultural research. To test *product conspicuousness*, four products were used to manipulate product visibility and luxuriousness. In the selection of the products to be tested a special effort was made to avoid selecting products heavily associated with a particular gender. In total, eight advertisements were tested. They covered the four products indicated, each with an English and Spanish version. (See Table1)

Table 1
Products and Classification

ADS\Classification	Luxury	Sociacially Visible
New Luxury Car	YES	YES
Large Screen TV	YES	NO
Wristwatch	NO	YES
Toothpaste	NO	NO

Data Analysis and Tables

Sample Characteristics

Most of the 256 subjects in the sample were first year university students registered in a general humanities course from three of the largest universities in Puerto Rico. Also, most of the students form the sample are from the San Juan Metropolitan area, which is the area with the largest population in Puerto Rico. Given that a convenience sample of students was used for this study, some of their characteristics are known to be different from the general population Puerto Rico. To begin with, according to the U.S. Department of Commerce (1990), 14.3% of the population of Puerto Rico (age 25 and over) completed a Bachelor's degree or higher education. Therefore, overall, the sample has more education than the general population. The median age of the sample was 19, which is younger than the general population. As would be expected, most are single (about 87%). Also, even though the general population is split almost 50% male and 50% female, the sample resulted in 64% females and 36% males (which is common in universities in Puerto Rico). In one of the universities 3% had full time jobs, the other two had 14% and 18%, which is common among university students but below the general level of employment in the adult population.

The sample average score for the College Entrance Examination Board (CEEB) was 2,626 (out of a maximum of 4,000). According to the College Entrance Examination Board (1998), the average CEE score among all students taking the test in Puerto Rico usually fluctuates between 2300 and 2400. We can also especulate that if the test scores were available for the general population of Puerto Rico, which would include a very large segment of the Puerto Rican population that never sought college degrees nor took the test, it would likely be below 2300. However, it could be noticed that this was one of the most sensitive questions and a relatively large percentage of students in the sample were reluctant to answer it (especially in two of the three universities in this study). The analysis showed that while 13% of sample students in one of the universities did not answer the question requesting their CEEB score, the other two universities had about 3 times more non-responses to that question (about 39% of their students did not answer it). The percent of sample students with a score of 3,000 or more in the CEEB was 37% in the university with the most complete answers (the other two universities had 22% and 7% of their students with a score over 3,000). Since students with a lower CEEB score are more likely not to report it, we could speculate that the average sample score is probably much lower than 2,626 and therefore closer to the average among those taking the test in Puerto Rico and to the general population of Puerto Rico.

Given that English is a required subject in all schools, most of the subjects have some knowledge of English. When the degree of bilingualism is measured using a four-point scale (0="Don't speak English at all" to 4="Speaks English Very Well") the average score of sample subjects was 2.59. As shown in Table 2 below, the English speaking ability of sample subjects is concentrated on the center of the scale (34% speaks English Well and 38% don't speak English Well). Statistics published by the US Department of Commerce (1990) for the general urban population of Puerto Rico report a much larger percentage of Puerto Ricans that do not speak English at all (47%). Apparently, those less proficient with the English language are less interested in higher education or find more difficult to be accepted in the major metropolitan universities included in this study.

Table 2
English Speaking Ability of Sample Subjects

Speaks English	Percent
Very Well	18%
Well	34%
Not Well	38%
Not at all	11%

In terms of households, the average size was 4 persons, 83% live in a house (17% in apartments or other), and the average monthly payment for mortgage or rent was $360. The households represented in the sample probably have a higher socioeconomic status than the general population, as shown in table 3 below.

Table 3

Selected Household Characteristics for Sample Subjects

Household Owns	Percent
Beeper	73%
Cellular phone	64%
Pet (dog, cat, etc.)	64%
Cable TV	57%
Exercise equipment	48%
Computer	47%
Email address	32%
Home Theater	30%
IRA account	10%

Results of Hypotheses

Product Attitude (PRODATT) is an intervally scaled variable used as dependent for all the hypotheses. The variables were analyzed simultaneously in a multivariate model to isolate the effect of spe-

cific independent variables and their interactions. The data was analyzed using multiple regression analysis with dummy variables for the nominal variables.

Next is the basic equation model needed to test the hypotheses and a description of the variables. The first line has the main effects and the second line the interactions (subscripts one to five were chosen to correspond with the hypotheses).

$$PRODATT = B_0 + B_1*ENG + B_6*VISIB + B_7*LUX + B_8*STATU + B_9*ACC$$
$$+ B_2*(ENG*VISIB) + B_3*(ENG*LUX) + B_4*(ENG*STATU) + B_5*(ENG*ACC)$$

However, during preliminary data analysis it was found that the CEEB (score in the College Entrance Examination Board) improved significantly the R Squared. If CEEB is interpreted as some kind of mental ability or capacity (similar to Intelligence Quotient or IQ), the data itself suggested unexpectedly that it has a relatively strong negative association with product attitude. Perhaps there should have been another hypothesis to be incorporated in the model (such as: lower intelligence Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than those advertised in Spanish), but it did not follow clearly from the Communication Theory or from the Theory of Consumption Values. Therefore, the original model was modified to include CEEB, whether it was not answered (CEEBNA), and their interactions with language. The actual model used for data analysis follows.

$$PRODATT = B_0 + B_1*ENG + B_6*VISIB + B_7*LUX + B_8*STATU + B_9*ACC$$
$$+ B_{10}*CEEB + B_{11}*CEEBNA$$
$$+ B_2*(ENG*VISIB) + B_3*(ENG*LUX) + B_4*(ENG*STATU) + B_5*(ENG*ACC)$$
$$+ B_{12}*(ENG*CEEB) + B_{13}*(ENG*CEEBNA)$$

PRODATT   *Product Attitude* refers to the attitude toward the product advertised. Since the average of the 6 bipolar descriptors used to measure initially product attitude (pleasant/ unpleasant, good/ bad, positive/ negative, useful/ useless, valuable/ worthless, high quality/ low quality) resulted in a J-shaped distribution

(negative skewness) where values tended to pile in one end of the scale, several transformation were tried to improve the distribution and R-Squared. The only transformation that resulted in substantial improvements was recoding product attitude into low, medium, or hi (coded as 0, .5 or 1, respectively).

ENG — Whether the subject received the English language advertisement (coded as 1) or a Spanish language advertisement (coded as 0).

VISIB — Whether the product advertised is classified as a *Visible* product (coded as 1) or not (coded as 0).

LUX — Whether the product advertised is classified as a *Luxury* (coded as 1) or not (coded as 0).

STATU — *Socioeconomic status* was measured as the average of several indicators (whether the person or his family had: Cable TV, Home Theater System, Beeper, Cellular Telephone, IRA account, Personal computer, E-mail address, Exercise Equipment/Treadmill/etc.)

ACCULT — To keep consistency with other related studies, the English Speaking ability is referred to in this study as *Acculturation* and was measured using a four-point scale (0="Don't speak English at all" to 4="Speaks English Very Well").

CEEB — The score in the College Entrance Examination Board. The CEEB is the local version in Puerto Rico of what is known as the SAT in the US. However, the CEEB has a maximum of 4000 points. Those who did not answer the CEEB were coded with the average for the variable, but were identified in another variable (see next variable CEEBNA).

CEEBNA — A dummy variable used to identify those who did not answer the score in the CEEB.

ENG*VISIB — Interaction of ENG and VISIB variables.

ENG*LUX — Interaction of ENG and LUX variables.

ENG*STAT — Interaction of ENG and STATU variables.

ENG*ACCULT — Interaction of ENG and ACCULT variables.

ENG*CEEB — Interaction of ENG and CEEB variables.

ENG*CEEBNA   Interaction of ENG and CEEBNA variables.

Table 4 shows the results of the model regression equation along with the standardized coefficients and probability levels used to test the hypotheses.   As can be seen in the probability column, only CEEB was significant but none of the variables related to the original hypotheses resulted statistically significant.

Table 4
Multiple Regression Results

Hypothesis	Independent Variable	Standardized Coefficient	Regression Coefficient	Prob. Level
H1	ENG	0.072	0.060	0.856
H2	ENGxVIS	-0.106	-0.107	0.310
H3	ENGxLUX	0.133	0.130	0.223
H4	ENGxSTATU	0.001	0	0.995
H5	ENGxACCULT	-0.133	-0.038	0.577
	ACCULT	0.007	0.003	0.951
	CEEB	-0.222	0	0.020
	CEEBNA	0.063	0.058	0.471
	ENGxCEEB	0.153	0	0.701
	ENGxCEEBNA	-0.118	-0.145	0.219
	LUX	0.058	0.049	0.499
	STATU	0.009	0.005	0.930
	VIS	0.152	0.128	0.078
	Intercept	0	0.929	0

R-Squared is 0.088   P=.045
256 Observations
Dependent is ProdAtt

To help determine whether the results were not statistically significant due to the number of variables used, sample size, or other statistical problems (such as multicollinearity), a stepwise regression was also run with the data. Except for CEEB and ENG*LUX (which entered in stepwise regression), the stepwise regression confirmed the lack of statistical significance of the independent variables used in the multiple regression.

Figure 1 shows that English ads had a very small advantage over Spanish ads in the resulting product attitude, but it was not statistically significant (P(ENG)=.856).   Therefore, hypothesis ENG-H1 (*Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than to those advertised in Spanish*) is not supported.

Figure 1
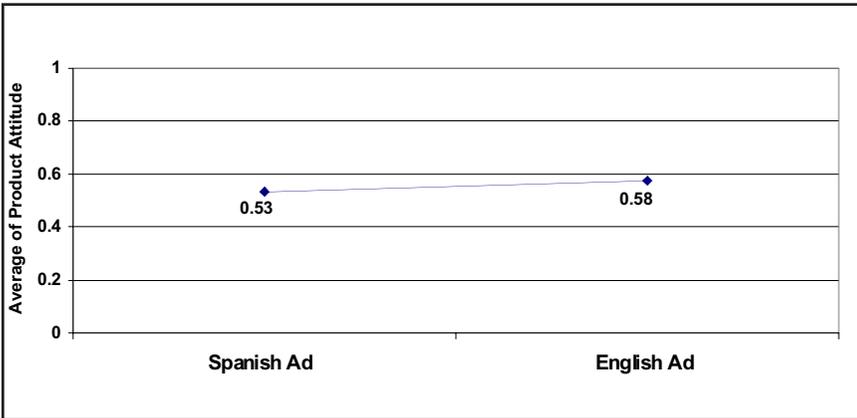**Product Attitude: English versus Spanish Ads**

Figure 2 shows that English advertisements resulted in a very small advantage in product attitude for both Low and High visibility products that was not statistically significant (P(ENG*VIS)=.31).   Therefore hypothesis VISIB-H2 (*Puerto Rican Hispanics will have a more positive attitude toward socially visible products advertised in English than to those advertised in Spanish*) is not supported.

Figure 2
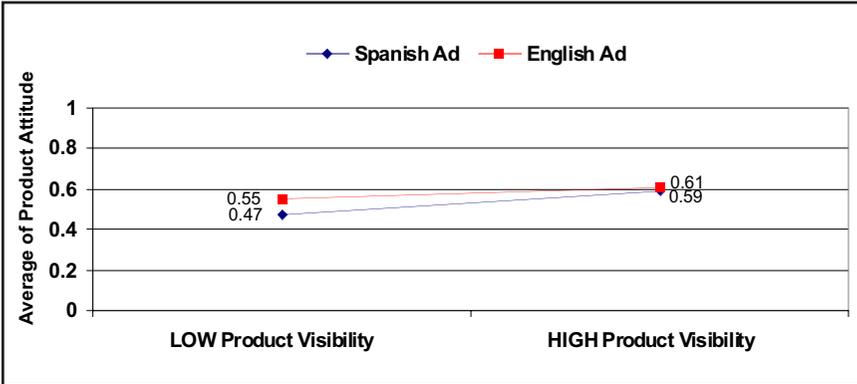**Product Attitude, Language, and Product Visibility**

Figure 3 shows that English language ads are superior in product attitude to Spanish ads when advertising luxury products, but it was not statistically significant (P(ENG*LUX)=.223). Therefore, hypothesis LUX-H3 (*Puerto Rican Hispanics will have a more positive attitude toward luxury products advertised in English language than to those advertised in Spanish*) is not supported.

Figure 3
Product Attitude, Language, and Product Luxury
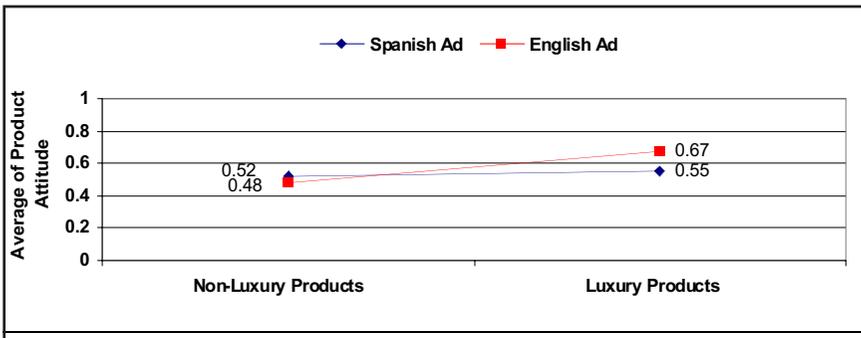
To create Figure 4, the continuous variable STATU was split into three groups (Low, Middle, and High status). It shows that although the English language advertisements had a very small edge over the Spanish ones, the interaction of socioeconomic status with the language used in the advertisement was not statistically significant (P(ENG*STATU)=.995). Therefore, hypothesis LOWSTA-H4 (*Lower socio-economic status Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than in Spanish*) is not supported.

Figure 4
Product Attitude, Language, and Socioeconomic Status
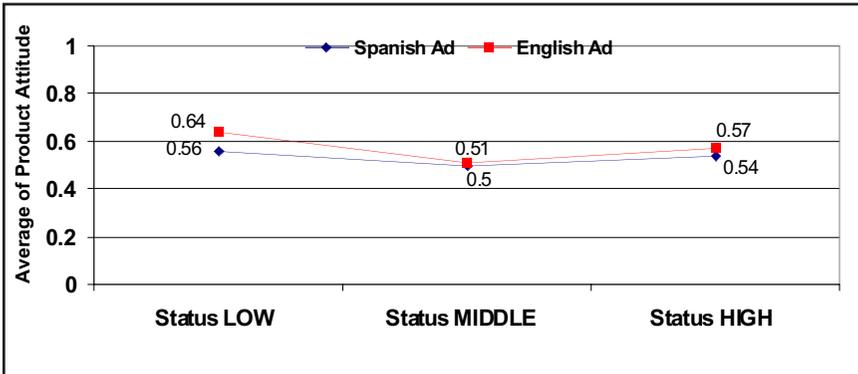

Figure 5 shows that the level of acculturation (specifically the ability to speak English) tend to have a slight negative influence in the attitude toward the products. However, the level of acculturation has very little interaction with the language treatment and therefore the hypothesis ENGPRF-H5 (*English-language proficient Puerto Rican Hispanics will have a more positive attitude toward products advertised in English than those less proficient with the English language*) is not supported (P(ENGxACCULT)=.577).

Figure 5
Product Attitude, Language, and Acculturation
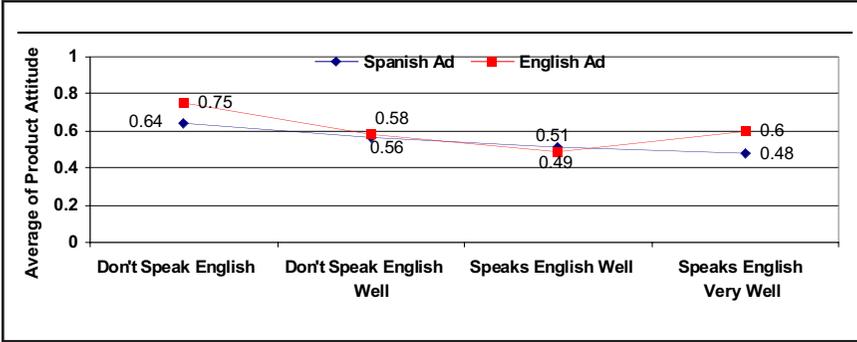
As in most of the previous figures, Figure 6 shows that, in general, English language advertisements resulted in more positive product attitudes. It can also be seen that the higher the score in the CEEB, the more likely that the subject had a negative attitude toward the products, especially if they were advertised in Spanish. However, the interaction of language with CEEB was not statistically significant (P(ENG*CEEB)=.701).

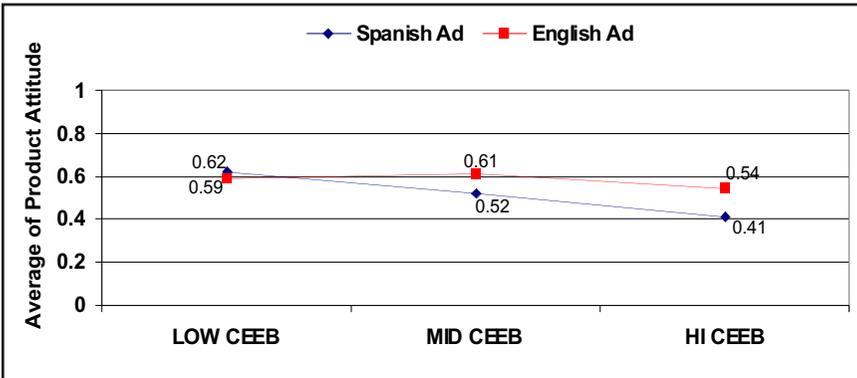**Figure 6**
**Product Attitude, Language, and CEEB**

Figure 7 shows that subjects who refused to answer the question requesting their score in the CEEB had a more negative attitude toward products advertised in the English language. However, this interaction was not statistically significant (P(ENGxCEEBNA)=.219).

Figure 7
Product Attitude, Language of Ad,
and Whether CEEB Was Not Answered
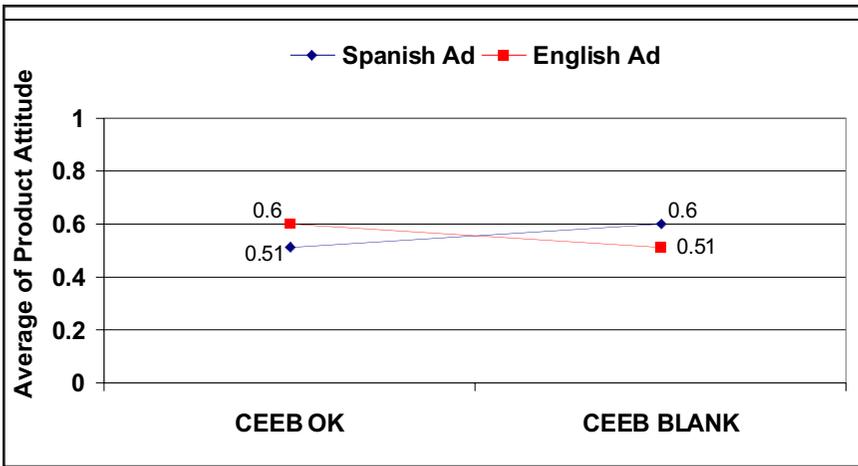
Conclutions and Implications

When compared to Communication Theory, the Theory of Consumption Values does have a merit because it leads to the counterintuitive hypothesis that English language advertisements could be more effective with a population that speaks another language (Spanish). Communication Theory can be used to explain why English-speaking US Americans (living in mainland US) have a significantly more favorable attitude toward products advertised in English versus products advertised in Spanish (Lebrón 1989). That study also helps to rule out the possibility that any country or population will have more favorable product attitude (unrelated to social value) if products are advertised in a foreign language.

If Spanish advertisements had been as clearly superior with Puerto Rican Hispanics as English has been shown with English-speaking US Americans living in mainland US then it could had been interpreted as more evidence supporting Communication Theory (and common sense). It would had also meant that the current study did not support the Theory of Consumption Values. However, even if the study and hypotheses had been stated in the direction of Communication Theory (such as: *Puerto Rican Hispanics will have a more positive attitude toward products advertised in Spanish than to those advertised in English*), the results would surprisingly show lack statistical significance to support Communication Theory with Puerto Rican Hispanics. If Communication Theory works with English-speaking US Americans and not with Puerto Rican Hispanics, it does not necessarily mean that Communication Theory is weak. Perhaps the social value of the Theory of Consumption Values had such a strong influence with Puerto Rican Hispanics that it was capable of working against the expected effects of Communication Theory. It is surprising that in most of the charts English language advertisements had a slight advantage in product attitude over the Spanish language advertisements with Puerto Rican Hispanics (which goes in line with the Theory of Consumption Values).

Besides finding that the obvious does not seem to be true with Puerto Rican Hispanics and besides opening several avenues of future research possibilities, it is also important that this study is among the very few that shows empirical evidence in the form of an experiment, regarding the effectiveness of either language with respect to this segment of Hispanics. In other words, the study tested *directly* the assumption of several previous researchers that Spanish advertising is more effective with Hispanics. It would had been difficult to publish a study testing Communication Theory and that basically stated that Spanish advertising is more effective with Puerto Rican Hispanics (which live in a Spanish speaking country). However, the Theory of Consumption Values opened for study opposite hypotheses that now let us know so far that neither language is clearly superior to the other in terms of advertising effectiveness and that more research is needed.

The strong association of the English language with US Americans and the positive attitude that Puerto Ricans have toward US

Americans apparently added social value to the products advertised using English. This advantage can be of practical importance, especially when advertising luxury products to Puerto Rican Hispanics living in Puerto Rico.

References

Alexis, Marcus (1962). Some Negro-White Differences in Consumption. *American Journal of Economics and Sociology*, 21 (January), 11-28.

Álvarez-Rivera, Manuel J. (May 29, 2000). *Resumen Estadístico de las Elecciones Generales del 5 de noviembre de 1996* [Online]. Available: http://eleccionespuertorico.org/1996/cuadros.html [June 9, 2000].

Bauer, R. A., S. M. Cunningham, and L. H. Wortzel (1970). The Marketing Dilemma of Negroes. *Journal of Marketing*, 29(July): 1-6.

Bayrón Toro, Fernando (1989). *Elecciones y partidos políticos de Puerto Rico* (4th ed.), Mayagüez, Puerto Rico: Edición Isla.

Bearden, William O., and Michael J. Etzel (1982). Reference Group Influence on Product and Brand Purchase Decisions. *Journal of Consumer Research*, 9 (September): 183-194.

Benedict, Ruth (1934). *Patterns of Culture*. Boston: Houghton Mifflin.

Blumberg, Paul (1974). The Decline and Fall of the Status Symbol: Some Thoughts on Status in a Post-Industrial Society. *Social Problems*, 21 (April), 480-498.

Blumberg, Paul (1980). *Inequality in an Age of Decline*. New York: Oxford University Press.

Bourne, Francis S. (1956). Group Influences in Marketing and Public Relations. In, *Some Applications of Behavioral Research*, ed. R. Likert and S.P. Hayes. Basel: Switzerland: UNESCO.

Brislin, Richard W., W.J. Lonner, and R.M. Thorndike (1973). *Cross-cultural Research Methods*, New York: John Wiley.

Caplovitz, David (1963). *The Poor Pay More: Consumer Practices of Low-Income Families*. New York: The Free Press.

Coleman, Richard P., Lee Rainwater, and Kent A. McClelland (1978). *Social Standing in America: New Dimentions of Class*. New York: Basic Books.

College Board (1998). *Informe sobre los estudiantes examinados mediante el Programa de Evaluación y Admisión Universitaria: Clase 1996*, Oficina de Puerto Rico y de Actividades Latinoamericanas, San Juan, Puerto Rico.

Deshpandé, Rohit and Douglas M. Stayman (1994). A Tale of Two Cities: Distinctiveness Theory and Advertising Effectiveness. *Journal of Marketing Research*, 31 (February): 57-64.

Douglas, Mary, and Baron Isherwood (1979). *The World of Goods*. New York: Basic Books, 1979.

Duesenberry, James. 1949. *Income, Savings and the Theory of Consumer Behavior*, Cambridge, Mass.: Harvard University Press.

French, J.R.P. and Raven, B. (1959). The Bases of Social Power. In *Studies In Social Power*, ed. D. Cartwright. Ann Arbor, MI: Institute For Social Research.

Goffman, Erving (1951). Symbols of Social Status. *British Journal of Sociology*, 2 (December), 294-304.

Guernica, Antonio, and Irene Kasperuk (1982). *Reaching the Hispanic Market Effectively*, New York: McGraw-Hill.

Hall, Edward T. (1959). *The Silent Language*. New York: Doubleday.

Hechter, Michael (1978). Group Formation and the Cultural Division of Labor. *American Journal of Sociology*, 84 (September), 293-318.

Hernández, Sigfredo A., and Carol J. Kaufman (1990). Marketing Research in Hispanic Barrios: A Guide to Survey Research. *Marketing Research*, (March): 11-27.

Hernández, Sigfredo A., and Larry M. Newman (1992). Choice of English vs. Spanish Language in Advertising to Hispanics. *Journal of Current Issues and Research in Advertising*, 14(No. 2, Fall): 1-11.

Hyman, H. H. (1942). The Psychology of Status. *Archives of Psychology*, 269.

Hyman, H. H., and E. Singer (Eds.) (1968). *Readings in Reference Group Theory and Research*, New York: The Free Press.

Jaffe, A. J., Ruth M. Cullen, and Thomas D. Boswell (1980). *The Changing Demography of Spanish Americans*, NY: Academic Press.

Kelley, Harold H. (1966). Two Functions of Reference Groups. In *Basic Studies in Social Psychology*, edited by Harold Proshansky, and Bernard Seidenberg, 210-214. New York: Holt Rinehart and Winston.

Koslow, Scott, Prem N. Shamdasani, and Ellen E. Touchstone (1994). Exploring Language Effects in Ethnic Advertising: A Sociolinguistic Perspective. *Journal of Consumer Research*, 20 (March): 575-585.

Lebrón, Carlos J. (1989). *Spanish Language Advertising and Hispanics*, unpublished paper.

Levy, Sidney J. (1966). Social Class and Consumer Behavior. In *On Knowing the Consumer*, edited by Joseph W. Newman, 146-160. New York: John Wiley and Sons.

Martineau, Pierre (1957). *Motivation in Advertising: Motives that Make People Buy*. New York: McGraw-Hill.

Martineau, Pierre (1958). Social Classes and Spending Behavior. *Journal of Marketing*, 23 (October), 121-130.

Marx, Karl (1966). "A note on Classes." In *Class, Status, and Power: Social Stratification in Comparative Perspective*. Second edition, edited by Reinhard Bendix, and Seymour Martin Lipset, 5-6. New York: The Free Press.

McCracken, Grant (1986). Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods. *Journal of Consumer Research*, 13 (June), 71-84.

McCracken, Grant (1988). *Culture and Consumption: New Approaches to the Symbolic Character of Consumer Goods and Activities*. Bloomington: Indiana Univeristy Press.

Minor, Michael (1992). Comparing the Hispanic and Non-Hispanic Markets: How Different Are They?. *The Journal of Services Marketing*, 6, No. 2 (spring): 29-32.

Newton, Julia Gantt (1986). A Study of the Importance of Spanish vs. English-Language Radio Commercials—An Experiment. Ph.D. dissertation, The University of Texas at Austin.

O'Guinn, Thomas C. and Timothy P. Meyer (1983). Segmenting the Hispanic Market: The Use of Spanish Language Radio. *Journal of Advertising Research*, 23 (i6): 9-16.

Sheth, Jagdish N., Bruce I. Newman, and Barbara L. Gross (1991a). Why We Buy What We Buy: A Theory of Consumption Values. *Journal of Business Research*, 22: 159-170.

Sheth, Jagdish N., Bruce I. Newman, and Barbara L. Gross (1991b). *Consumption Values and Market Choices: Theory and Applications*, Cincinnati, Ohio: South-Western Publishing Co..

Singer, E. (1981). Reference Groups and Social Evaluations. In *Social Psychology: Sociological Perspectives*, ed. M. Rosenberg and R. H. Turner, 66-93. New York: Basic Books.

Segal, Madhav N., and Lionel Sosa (1983). Marketing to the Hispanic Community. *California Management Review*, 26 (1): 120-134.

Sturdivant, Frederick D. (1973). Subculture Theory: Poverty, Minorities, and Marketing. In *Consumer Behavior: Theoretical Sources*, ed. Scott Ward and Thomas S. Robertson. Englewood Cliffs, New Jersey: Prentice-Hall.

Tabachnick, Barbara G., and Linda S. Fidell (1989). *Using Multivariate Statistics* (second edition). NY: Harper & Row.

Tan, Chin Tiong, and John U. Farley (1987). The Impact of Cultural Patterns on Cognition and Intention in Singapore. *Journal of Consumer Research*, 13 (March), 540-544.

Thibaut, John W. and Harold H. Kelley (1959). *The Social Psychology of Groups*. New York: John Wiley and Sons.

U.S. Bureau of the Census, *Statistical Abstract of the United States: 1999*, (119th edition.), Washington, DC, 1999.

U.S. Department of Commerce – Economics and Statistics Administration, Bureau of the Census (1990). *1990 Census of Population: Social and Economic Characteristics – Puerto Rico*.

Veblen, Thorstein (1899). *The Theory of the Leisure Class*. New York: The Macmillan Co.

Warner, W. Lloyd, and Paul S. Lunt (1941). *The Social Life of a Modern Community*. New Haven, Conn.: Yale University Press.

Weber, Max (1966). Class Status and Party. In *Class, Status, and Power: Social Stratification in Comparative Perspective* (second edition). Edited by Reinhard Bendix and Seymour Martin Lipset, 21-28. New York: The Free Press.

Williams, Margaret Aasterud (1970). Reference Groups: A Review and Commentary. *Sociological Quarterly*, 11 (Fall), 545-554.

Woods, Walter A. (1960). Psychological Dimensions of Consumer Decision. *Journal of Marketing*, 24 (January), 15-19.