Altruism and Global Product Choice
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Abstract
This paper reports research that examines the impact of three dimensions of altruism on consumer decision-making. Ethnocentrism, cognitive moral development, and prosocial behavior are tested in the context of a consumer's decision to purchase a domestic or foreign product. The results indicate that consumers with ethnocentric and prosocial behavior are more likely to prefer a domestic compared to a foreign product. Implications for policy makers and for the managers of global products are also presented.

Introduction
Consumer choice between a foreign product and a domestic offering has major strategic and economic implications that are important to the firms and countries involved. Although there are numerous factors that influence an individual to purchase a given product, an underlying motivating value is the impact of the purchase on other members of that person's society (Wolfe, 1992). Altruism, a construct that is being given increased attention in the literature (Henry, 2000; Webb, Green, and Brashear, 2000; Reick, 2000; Bendapudi, Singh, and Bendapudi, 1996; Price, Feick, and Guskey, 1995; Goolsby and Hunt, 1992; Goodhead, 1991; Guy and Patton, 1989), provides a useful basis for understanding this process. Altruism involves actions taken by an individual that voluntarily benefit another person without the expectation of reward from external sources (Berkowitz, 1972; Krebs, 1970; Bar-Tal, 1976, p. 7; Turner and Valentine 2001; Macaulay and Berkowitz, 1970).

Research on altruistic behavior in the context of product choice in the global marketplace represents a new and exciting application of this perspective (Federouch, 1990; Olsen, Granzin and Biswas, 1993). The framework used in this research examines the impact of consumer ethnocentrism, cognitive moral development, and prosocial behavior on consumer choice between a domestic versus a foreign automobile. A consumer's choice of a domestic or a foreign automobile represents a critical economic issue for both firms and the countries that they operate in. Automobile manufacturers are increasingly aggressive in marketing their products outside of their home markets (Smith, 1997) and substantial portion of trade deficits for countries such as the United States is in automobiles and automobile parts (Federal Reserve Bulletin, 1992).

This paper reports research that identifies the relationship between consumer ethnocentrism, cognitive moral development, prosocial behavior and automobile purchase behavior as they influence the purchase of a domestic or foreign product. In addition, the relationship between demographic variables (age, education, and income) and levels of consumer ethnocentrism, cognitive moral develop-
ment, and prosocial behavior are reported. The results of the research can be of interest to domestic manufacturers and retailers considering promotions with patriotic themes. In the following sections of the paper the literature is reviewed, the research method is described, and the results are presented and discussed.

**Review of the Literature**

August Comte (1875) is credited with first use of the term *altruism*. He maintained that some social behavior was unselfishly motivated to benefit others. Before his use of the term, authors described the phenomenon of helping others as benevolence (Hume, 1896), charity (Fathers of the English Dominican Province, 1917), compassion (Smith, 1853) and friendship (Cooper, 1932).


A review of the literature indicates that altruism can explain human behavior in terms of three dimensions: 1) ethnocentrism - the universal tendency for people to favor their own group over others (Rushton, 1989); 2) cognitive moral development - the way in which individuals acquire, through time, an increasingly accurate understanding of their moral obligations (Rest, 1979); and 3) prosocial behavior – that behavior which is carried out to benefit another without anticipation of external rewards and performed for its own end and restitution (Kohlberg, 1969; Bar-Tal, 1976, pp. 4, 14-37; Rushton, 1989). These three components of altruism explain the tendency for people to favor members of their own group over others, an increasingly accurate understanding of their moral obligations, and the characteristics of the benefactor, the recipient, and the situation that induces behavior carried out to benefit another’s welfare.

**Consumer Ethnocentrism**

Consumer ethnocentrism is based on the concept of ethnocentrism or the universal tendency for people to favor their own group over others (Sumner, 1906; Levine and Campbell, 1972; Booth, 1979; Worcel and Cooper, 1979) and represents the beliefs held by consumers about the propriety of purchasing foreign products (Shimp and Sharma, 1987). Ethnocentric consumers regard the purchase of imported products as being wrong as such purchases negatively impact the domestic economy, increase unemployment, and are unpatriotic. Nonethnocentric consumers evaluate foreign products on their own merits without regard for the origin of their manufacture. Consumer ethnocentrism provides the individual with a sense of identity and an understanding of what purchases are acceptable or unacceptable (Shimp and Sharma, 1987).

Social scientists have considered similarity in demographic, physical, and psychological characteristics to be an important factor in marriage, attraction, friendship, altruism and group cohesion (Byrne, 1971). It has been reported that people are more likely to help members of their own race or country than they are to help members of other races or foreigners (Cunningham, 1981; Rushton, 1989).
Domestic products have historically provided the frame of reference for the evaluation of foreign products (Shimp and Sharma, 1987). Though large numbers of consumers now are willing to consider foreign products as alternatives to domestic items, some consumers staunchly refuse to buy imported products and chastise fellow consumers for doing this. They claim buying foreign goods puts domestic workers out of work, hurts the economy, or is unpatriotic. Other consumers are equally vocal in defending their right to buy whatever products they wish, regardless of place of manufacture.

**Cognitive Moral Development**

A relationship between moral development and altruistic behavior has been documented in the literature (Rubin and Schneider, 1973; Rushton, 1975). Cognitive moral development is defined as the way in which individuals acquire, through time, an increasingly accurate understanding of the nature of their moral obligations (Rest, 1979). Research has documented the process of moral development to warrant generalizing the progressive nature of moral development hypothesized by Kohlberg (1969) across many populations and cultures (for reviews, see Blasi, 1980; Brabec, 1984; Gibbs and Widaman, 1982; and Snarey, 1985). In developing his theory of moral development, Kohlberg (1969) regarded altruism as one aspect of the many that comprise morality (Krebs, 1978). He regarded cognitive moral development as a process of development through a maximum of six stages. In each stage moral reasoning becomes more complex as individual thought patterns and structures become increasingly complex. At the preconventional level (stages 1 and 2), simple immediate consequences to the individual (i.e., punishments and rewards) form the basis of moral judgment. Reasoning at the conventional level (stages 3 and 4) emphasizes compliance with the roles or norms of appropriate behavior established by peers, family, and society at large. At the principal level (stages 5 and 6), moral judgment criteria transcend group norms as the individual becomes decreasingly egocentric and develops an increasing strong personal commitment to self-selected universal principles.

**Prosocial Behavior**

Prosocial behavior is defined as voluntary behavior that is carried out to benefit another without anticipation of external rewards and is performed under two circumstances: for its own end and as an act of restitution (Bar-Tal, 1976, pp. 4). Researchers have tested independent variables linked to characteristics involving someone who helps, the benefactor, someone who receives, the recipient (Krebs, 1970) and the situation in which they find themselves (Rushton and Chrisjohn, 1981). This research is based on the assumption that characteristics of the benefactor, the recipient, and the situations that induce prosocial behavior. It has included four types of independent variables: 1) personality traits, 2) temporary psychological states, 3) social roles and demographic variables and 4) social norms. The first type of independent variable, make-up of the socially responsible person (Gough, McLosky and Meehl, 1952), is based on the discovery of a pattern of concern about broad ethical and moral problems.

A second class of variables affecting the motivation to help includes temporary psychological states such as the influence of positive (Isen and Simmonds,
1978; Clark and Isen, 1982) and negative emotions (Cialdini, et al., 1973; Kidd and Marshall, 1982; Berkowitz, 1983), role models, and interaction effects between characteristics of benefactors and recipients. The level of responsibility individuals and bystanders in a group assume when they intervene in an emergency (Darley and Latane, 1968; Latane and Darley, 1968) and the role of empathy in motivating witnesses to relieve the distress of another in need are also among the list of determinants (Batson and Coke, 1981; Batson, Duncan, Ackerman, Buckley, and K. Birch, 1981; Cialdini, Schaller, Houlihan, Arps, Fultz, and Beaman, 1987; Smith, Keating, and Stotland, 1989).

Social class, affiliation, and friendship constitute the third type of independent variable that induces prosocial behavior. Although a benefactor or recipient shares similar attributes or social roles such as sex, age, ordinal position, social class and nationality, the resulting predisposition is not a guarantee that prosocial behavior will result. Social norms are the fourth and last type of independent variable affecting the motivation to help. Although their precise role in explaining and predicting human social behavior remains unsettled, social norms as a determinant of prosocial behavior have been upheld (Berkowitz, 1972; Fishbein and Ajzen; 1975, McKirnan, 1980; Pepitone, 1976).

**Demographic Influences on Altruism**

Several demographic variables influence the occurrence of prosocial behavior (Bryan and Test, 1967; Latane and Dabbs, 1975; Pilifavin, Rodin and Piliavin, 1969). Age has been positively reported to influence prosocial behavior (Urgurel-Semin, 1948; Handlon and Gross, 1959; Midlarsky and Bryan, 1967). As individuals mature and experience physiological, psychological and social change (Delucchi, 1995) their prosocial behavior tends to increase (Krebs, 1970). The relationship between prosocial behavior and household income (Park, 1997; Diaz-Gimenez, Quadrini, and Rios-Rull, 1997) remains subject to question. Smith, Kehoe and Cremer (1995) explored the role of a household’s income and history of giving to national charities. They found that household income played no role in the decision to give, however, it positively influenced the subsequent decision about the size of the donation.

The literature indicates that traits of generosity and consideration increase with education (Almond and Verba 1963), although there is a greater interest in the literature on the relationship of prosocial behavior and intelligence. Havighurst and Taba (1949) determined intelligence does not play as great a role as motivation in the development of a moral code in adolescents. Fischer (1963) found a strong relationship between intelligence and the rate at which preschool children learn to share. Unger (1964) reports that more intelligent subjects tend to react to experimental conditions with socially approved behavior.

**Research Framework and Method**

The research framework seen in Figure 1 identifies the relationship between consumer ethnocentrism, cognitive moral development, prosocial behavior and the choice between a domestic or foreign product. It also identifies the relationship between demographic variables (age, education, and income) and levels of con-
sumer ethnocentrism, cognitive moral development, and prosocial behavior. The specific hypotheses are:

$H_1$: There is a positive correlation between Consumer Ethnocentrism and Consumer Choice of a Domestic Product.

$H_2$: There is a positive correlation between Cognitive Moral Development and Consumer Choice of a Domestic Product.

$H_3$: There is a positive correlation between Prosocial Behavior and Consumer Choice of a Domestic Product.

$H_4$: There is a positive correlation between Age of the Head of Household and Consumer Ethnocentrism.

$H_5$: There is a positive correlation between Income of the Head of Household and Consumer Ethnocentrism.

$H_6$: There is a positive correlation between Education of the Head of Household and Consumer Ethnocentrism.

$H_7$: There is a positive correlation between Age of the Head of Household and Cognitive Moral Development.

$H_8$: There is a positive correlation between Income of the Head of Household and Cognitive Moral Development.

$H_9$: There is a positive correlation between Education of the Head of Household and Cognitive Moral Development.

$H_{10}$: There is a positive correlation between Age of the Head of Household and Prosocial Behavior.

$H_{11}$: There is a positive correlation between Income of the Head of Household and Prosocial Behavior.

$H_{12}$: There is a positive correlation between Education of the Head of Household and Prosocial Behavior.

**Sampling Frame and Measures**

The study population consisted of a multistage cluster sampling of households from six suburban towns, each with a relatively homogeneous population, coming from southwestern United States, specifically a primarily suburban metropolitan area of approximately one million households located in Maricopa County, Arizona. Six street intersections were randomly chosen from standard municipal maps available from local political jurisdictions and a 40-address sampling frame was devised, based upon the 40 addresses nearest the intersection. Thus, 1,440 (6 x 6 x 40) addresses made up the sampling frame. From this frame 18 addresses were randomly selected from each of the previously designated 36 intersections (Greene
and Plank, 1994). This resulted in 648 addresses being selected. The study utilized a drop and collect technique to collect survey data (Brown, 1987). This methodology provided the best opportunity to increase response rates attributable to personal contact with the lead author and to explain the nature of the survey at length.

Consumer ethnocentrism was measured using the CETSCALE (Shimp and Sharma, 1987). The scale contains 17 items relevant to the beliefs held by American consumers about the appropriateness or morality of purchasing foreign products. Respondents were instructed to respond to a 5-point Likert-type scale format addressing seven facets of consumers' orientations toward foreign products: (1) consumer ethnocentric tendencies, (2) price-value perceptions, (3) self-interest concerns, (4) reciprocity norms, (5) rationalization-of-choice, (6) restriction-mentality, and (7) freedom-of-choice views.
Rest's (1986) Defining Issues Test was used to measure cognitive moral development. The DIT has been used in over 100 studies involving 5,000 subjects (Rest, 1976). Subjects were presented six social problems and were asked to select a course of action and rate twelve issue statements on a five-point scale of importance determined to be the most important in each ethical judgment. At the end they were asked to rank order four issue statements in the order of their importance. The primary index from the DIT used in analysis of the subject response was the P% score representing the relative importance given to principled considerations in determining ethical judgment. The P% score represented the percentage of total possible scores (0 to 95) assigned to statements, with higher scores indicating a higher level of cognitive moral development.

The Self-Report Altruism Scale (SRAS), a 20-item test developed by Rushton, Chrisjohn and Fekken (1981) was used to measure prosocial behavior. This scale lists 20 everyday prosocial behaviors (e.g., making donations to charity, giving directions to a stranger) and asks its respondents to rate the frequency with which one has engaged in these prosocial behaviors by specifying either never, once, more than once, often or very often. Age, income, and education level of the respondent heads of household were also measured.

Respondent heads of household were instructed to choose between an American or Japanese automobile product. Japanese products were selected as the foreign purchase option, as they are a commonly accepted foreign product in the United States. The definition of “foreign” for the purpose of this research was based on the location of the parent company. Automobile products were chosen as they represent a very important economic sector and historically account for a large portion of trade deficits between the United States and Japan (Baily, 1993). After being presented with the hypothetical problem that one of the cars they drive is no longer suitable for their needs and wants and that they are about to purchase a new car, respondents were asked to choose one of the two previously described outcomes in a self-administered questionnaire.

The self-selected outcomes (Kerlinger, 1986), the choice between an American or Japanese product, were then coded as either 0 or 1, and the data were analyzed using logistic regression. Researchers have used this dichotomy in prior, related studies to segment populations and subject the segments to analysis. Bucklin and Gupta (1992), in assessing the impact of marketing variables, on consumers' buying decisions, developed an approach that segmented consumers along the dimensions of both brand choice and category purchase incidence. In another approach, Simonson (1992) asked subjects to self-select themselves into segments choosing between two alternatives: a well-known brand that was more expensive and a lesser-known brand that was less expensive.

Results and Findings

A total of 252 questionnaires (38.9%) were returned and 212 responses were determined to be usable for an effective response rate of 32.7%. The response rate was considered acceptable and is consistent with previous studies using the drop and return survey procedure (Brown, 1987). A comparison of the demographic profiles
(age, education, and household income) of the respondents revealed no difference between the sample and the general population from which it was drawn.

**Reliability and Validity**

Reliability of the scales used in this study was tested using coefficient alpha and the split-half method. The internal consistency reliability of the 17-item CETSCALE was .9534 consistent with the .94 to .96 range reported by Shimp and Sharma (1987) in the development of their scale. Split-half coefficients yielded a correlation of .8318. These coefficients exceed the 0.65 reliability coefficient that Mehrens and Lehmann (1973) reported suggesting acceptable reliability. The internal consistency reliability of the DIT's six social problems was .7886, consistent with Rest (1986). Split-half coefficients yielded a correlation of .6280. Although the split-half coefficient was slightly less than .65 suggested by Mehrens and Lehmann (1973), the marginal difference between them was not expected to jeopardize the reliability of this instrument, given its widespread use (Rest, 1976) and its reputation for reliability (Goolsby and Hunt, 1992). The coefficient alpha of the 20-item Self-Report Altruism Scale (SRAS) was .8518, consistent with the .78 to .87 range for internal consistency reliability reported by Rushton et al. (1981). Split-half coefficients yielded a correlation of .6770. Both of these coefficients exceeded the 0.65 reliability coefficient that Mehrens and Lehmann (1973, p. 122) suggest as acceptable reliability.

Validity of the scales used in this study was established with Pearson product moment correlation coefficients computed using factor analysis. Estimates of the initial factors for the items, their loadings, and eigenvalues within the scales were obtained from principal component analysis. Factor analysis confirmed the multidimensional composition of consumer ethnocentrism. Over 57.7% of the total variance of the CETSCALE was attributable to the first item. The remaining 16 items together accounted for 42.3% of the variance. Factor analysis, as expected, indicated factor 1 loaded heavily, i.e., the scores were greater than 0.6, in three clusters addressing orientations toward consumer ethnocentrism and self-interest concerns. Correlation coefficients generated for the DIT confirmed the multidimensional composition of moral development. Factor analysis, as expected, indicated heavy and moderate loading against the related constructs of general aptitude, comprehension of moral issues, law and order orientation, and political tolerance with moral development. The resultant loadings reinforce the validity of Rest’s test as an objective measurement instrument for levels of cognitive moral development. Examination of variables comprising these factors indicates heavy and moderate loads against constructs of moral reasoning, nurturance, sensitive-attitude, social responsibility, empathy and prosocial values. The resultant loadings reinforce the discriminant validity of the SRAS as means for demonstrating the broad base of the prosocial behavior trait.

The data were analyzed using logistic and linear regression analysis performed to test the hypotheses that address the various relationships of constructs in the research framework (Figure 1). Logistic regression, the standard method for regression analysis of dichotomous data, most reasonably reflects a model describing the relationship between a set of independent variables (consumer ethnocentrism, cognitive moral development and prosocial behavior) and a dependent,
binary variable, choice between an American or Japanese automobile product (Hosmer and Lemeshow, 1989). The odds ratio, an estimate derived from the logistic regression coefficient, provided the foundation for interpreting logistic regression results obtained in this analysis. Linear regression, the standard method for correlation analysis, measures the extent, if any, of a linear relationship between two continuous variables in a population (Hanke and Reitsch, 1994). The F statistic, a statistic used to test the null hypothesis and explain variable variance, provided the basis for interpreting all linear regression results.

Results by Hypothesis

_Hypothesis One: Correlation between Consumer Ethnocentrism and Choice of Domestic Product._ Hypothesis one was supported. The -2 log likelihood statistic indicated that the simple logistic regression model fit the data (model \(X^2 = 21.169, p = .0000; \) Table 1). The data analysis model indicated a positive, statistically significant relationship between consumer ethnocentrism and choice of a domestic product and does a fairly good job (better than 70% accuracy) of predicting the classification of the cases.

_Hypothesis Two: Correlation between Cognitive Moral Development and Choice of a Domestic Product._ The results failed to support the hypothesis. The -2 log likelihood statistic indicated that the model did not fit the data (model \(X^2 = .823, p = .3643; \) Table 1). The analysis indicated no statistically significant relationship between the cognitive moral development and the choice of a domestic product. Nevertheless, the prediction table indicated fairly good accuracy of prediction (better than 70% accuracy).

_Hypothesis Three: Correlation between Prosocial Behavior and Choice of a Domestic Product._ The -2 log likelihood statistic indicated that the data analysis did not fit the data (model \(X^2 = 1.796, p = .1802; \) Table 1). The data analysis again indicated no relationship between the prosocial behavior and choice of a domestic product. The prediction table, however, again indicates a fairly good accuracy of prediction (better than 70% accuracy). The beta coefficient, although positive, was statistically insignificant.

In order to examine the combined effect of consumer ethnocentrism, cognitive moral development, and prosocial behavior on choice of a domestic product a multiple logistic regression was performed. The -2 log likelihood statistic again indicated that the multiple logistic regression model fit the data (model \(X^2 = 25.64, p = .0000; \) Table 2) a moderately strong relationship between the predictor variables and the dependent variable, and a fairly good job (better than 70% accuracy) of predicting the classification of the cases. The beta coefficients for consumer ethnocentrism and cognitive moral development were consistent with the results reported for hypotheses one and two; however, the coefficient for prosocial behavior, although positive, was now significant (.0403). This result indicated a significant, positive relationship between consumer choice, consumer ethnocentrism and prosocial behavior, and no relationship between consumer choice and cognitive moral development.
### TABLE 1
RESULTS FOR HYPOTHESIS 1-3

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### TABLE 2
COMBINED EFFECT OF CONSUMER ETHNOCENTRISM, COGNITIVE MORAL DEVELOPMENT AND PROSOCIAL BEHAVIOR

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<td>1</td>
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<td>Prosocial Behavior (Self-Report Altruism Scale)</td>
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<td>.0164</td>
<td>4.2046</td>
<td>1</td>
<td>.0403</td>
<td>.0941</td>
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<td>7.1454</td>
<td>1</td>
<td>.0075</td>
<td></td>
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**Hypothesis Four: Correlation between Age of the Head of Household and Consumer Ethnocentrism.** Hypothesis four was supported. The F value (3.93897, p = .0485; Table 3) calculated for the 212 cases in this simple linear regression is larger than the critical F value indicating the sample regression equation explains a significant percentage of the variance between age of the head of household and consumer ethnocentrism.

**Hypothesis Five: Correlation between Income of the Head of Household and Consumer Ethnocentrism.** Hypothesis five was supported. The calculated F value (4.64997, p = .0322; Table 3) is larger than the critical F value indicating a positive, statistically significant relationship between income of the head of household and consumer ethnocentrism.
consumer ethnocentrism. Thus the regression equation explains a significant percentage of the variance.

**Hypothesis Six: Correlation between Education of the Head of Household and Consumer Ethnocentrism.** Hypothesis six was supported. The calculated F value (24.14599, \( p = .0000 \); Table 3) is larger than the critical F value indicating a positive, statistically significant relationship between education of the head of household and consumer ethnocentrism. Thus the regression equation explains a significant percentage of the variance. However, the beta coefficient resulting from this calculation is negative (-3.676130).

**Hypothesis Seven: Correlation between Age of the Head of Household and Cognitive Moral Development.** Hypothesis seven was supported. The calculated F value (13.09980, \( p = .0004 \); Table 3) is larger than the critical F value indicating a positive, statistically significant relationship between age of the head of household and cognitive moral development. Thus the regression equation explains a significant percentage of the variance. However, the beta coefficient resulting from this calculation is negative (-.017620).

**Hypothesis Eight: Correlation between Income of the Head of Household and Cognitive Moral Development.** Hypothesis eight was not supported. The calculated F value (1.69048, \( p = .1950 \); Table 3) is less than the critical F value indicating a positive, statistically insignificant relationship between income of the head of household and cognitive moral development. The regression equation resulting from this calculation fails to explain a significant percentage of the variance.

**Hypothesis Nine: Correlation between Education of the Head of Household and Cognitive Moral Development.** Hypothesis nine was supported. The calculated F value (15.66653, \( p = .0001 \); Table 3) is larger than the critical F value indicating a positive, statistically significant relationship between education of the head of household and cognitive moral development. The regression equation explains a significant percentage of the variance.

**Hypothesis Ten: Correlation between Age of the Head of Household and Prosocial Behavior.** Hypothesis ten was not supported. The calculated F value (0.10954, \( p = .7410 \); Table 3) is less than the critical F value indicating a positive, statistically insignificant relationship between age of the head of household and prosocial behavior. The regression equation resulting from this calculation fails to explain a significant percentage of the variance.

**Hypothesis Eleven: Correlation between Income of the Head of Household and Prosocial Behavior.** Hypothesis eleven was not supported. The calculated F value (1.49462, \( p = .2229 \); Table 3) is smaller than the critical F value indicating a positive, insignificant relationship between income of the head of household and prosocial behavior. The regression equation resulting from this calculation fails to explain a significant percentage of variance.

**Hypothesis Twelve: Correlation between Education of the Head of Household and Prosocial Behavior.** Hypothesis twelve was not supported. The calculated F value (1.83882, \( p = .1765 \); Table 3) is smaller than the critical F value indicating the sample regression equation inadequately explains a significant percentage of the vari-
<table>
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<th>H</th>
<th></th>
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<td>-4.914</td>
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ance. The data analysis model indicates a positive, statistically insignificant relationship between education of the head of household and prosocial behavior.

**Discussion**

Support was found for the prosocial behavior model and the correlation between consumer ethnocentrism and purchase choice. As consumer ethnocentrism increases, there is a greater likelihood that the consumer will prefer a domestic automobile product. One explanation for this result is that consumers may scrutinize their product choice to identify its country of origin, in addition to evaluating it on its own merit and value. For this reason, "made-in" labeling, promotions, and product literature identifying the product’s source of manufacture can enable manufacturers to effectively appeal to a consumer’s sense of patriotism. The present study found that tendencies toward prosocial behavior and higher levels of cognitive moral development, by themselves, have no correlation with purchase choice. This finding has the potential of diminishing the role played by cognitive and behavioral determinants in triggering an individual’s prosocial behavior response.

The analysis examining the combined effect of consumer ethnocentrism, cognitive moral development, and prosocial behavior on choice of a domestic product resulted in a significant, positive relationship between consumer ethnocentrism, prosocial behavior and consumer choice and portrayed cognitive moral development as less important to consumer product choice than originally expected. The absence of a significant correlation between cognitive moral development and consumer product choice indicates that consumers either eliminate or minimize moral considerations in preferring products of domestic versus foreign manufacture. This result may also imply that a consumer with strong, combined tendencies toward ethnocentrism and prosocial behavior is likely to prefer a product of domestic manufacture. Individuals belonging to this class of consumers may have a strong sense of their national identity and may resent the intrusion or dominance of foreign products in some market segments.

An interesting finding of the study was the result that higher levels of prosocial behavior and cognitive moral development, by themselves, have no significant correlation with purchase domestic choice. The absence of a significant correlation between cognitive moral development, prosocial behavior and consumer product choice may indicate that consumers either eliminate or minimize moral considerations in choosing between domestic and foreign products.

The examination of the impacts of demographic factors and consumer ethnocentrism, cognitive moral development, and prosocial behavior sheds further light on the overall findings as well as the segmentation possibilities that exist. It was found that age, income, and education of the head of household are positively related to consumer ethnocentrism. Recalling that consumer ethnocentrism was found to be significantly related to the choice of a domestic product, the possible markets that are oriented in this manner become very clear. Targeting older, educated, and higher income individuals with messages that are designed to reinforce the buy domestic message could prove to be a very effective approach based on the results reported here. It also becomes evident that younger, less educated, and lower income individuals may be more difficult to target with this type of appeal.
Age and education of the head of household were positively related to cognitive moral development, whereas income of the head of household was not. Although age and education of the head of household were positively related to cognitive moral development, inasmuch as cognitive moral development did not influence product choice, these results become secondary in importance. They do reinforce, however, the notion that people acquire through time and learning an increasingly accurate understanding of their moral obligations. These obligations do not influence the purchase of a domestic product, however. Income of the head of household, which can be independent of age and education of the head of household, did not impact cognitive moral development. We found, on the other hand, that age, income, and education of the head of household did not impact prosocial behavior. These results tend to confirm that prosocial behavior is a distinct construct apart from consumer ethnocentrism and cognitive moral development.

Managerial and Policy Implications

The results of this study have several important implications for marketing executives, interest groups, and firms in the consumer goods industry. The present study found that marketers may have mixed results using "Buy-Domestic" marketing campaign strategies. This outcome suggests the need to develop a new approach incorporating the results of this study. An understanding of the significant findings identified by this study should enable those in the market segments most affected by international competition to restructure their buy-domestic marketing campaign strategy. As a result they should achieve a better return on their marketing dollars.

A major finding of the study was that as consumer tendencies toward consumer ethnocentrism increase, the greater is the likelihood that these consumers will choose an automobile of domestic over foreign manufacture. Marketers can adopt targeted marketing as a means of managing marketing and sales promotions on a market-by-market basis based on the level of consumer ethnocentrism present. This process can also include regular use of Shimp and Sharma’s (1987) CETSCALE. This measurement instrument was specifically developed to measure the strength of consumer tendencies toward purchasing foreign- versus domestic products. The strength of consumer ethnocentric data trends can narrow the focus on market segments and consumer groups at which these marketing communication programs should be directed.

We found that tendencies toward prosocial behavior and higher levels of cognitive moral development, by themselves, have no significant correlation with purchase choice. It follows that for the success of buy national campaigns those promotions based solely on the help provided national workers and moral themes be avoided. Based on the evidence, relying on such themes may decrease the likelihood of consumers purchasing goods of domestic manufacture.

Last and most important was the finding of a significant, positive relationship between consumer ethnocentrism, prosocial behavior and consumer choice. This finding has major implications for the marketer. In addition to using Shimp and Sharma’s (1987) CETSCALE, marketers could make simultaneous regular use of the Self-Report Altruism Scale (Rushton et al., 1981). Using this measurement instrument will enable marketers to identify and measure any consistent patterns of
individual differences in prosocial behavior. When used in conjunction with a marketing database, consistent patterns in prosocial behavior and consumer ethnocentric data trends identified with these tools should enable marketers to identify and retain top prospects for their products.

Limitations of the Research

Increasingly global products, and particularly those in the automobile industry, have a mixed pedigree. For the purpose of this research, the differentiation between "domestic" and "foreign" was based on the location of the parent company. Hence, a Honda, while manufactured in the United States, would be considered a "foreign product," whereas a Ford produced with parts made throughout the world, would be considered a "domestic" product. This obviously creates a limitation to the research, although it is based on the reality of the marketplace as perceived by the consumer. In addition, there are other dimensions of a foreign or domestic brand image that may impact the consumer's choice besides altruistic influences. For example, Japanese products, in general, may be seen as superior in quality to the point that it outweighs any altruistic influence on the choice of a domestic product. Future research is suggested to control for this influence.

Summary and Conclusions

The present study applied a research framework for understanding altruistic influence on consumer choice. It focused on identifying correlations between consumer ethnocentrism, cognitive moral development and prosocial behavior and the choice of consumers between domestic or foreign products. It has extended the work on altruistic behavior to an international product choice context and serves as an initial investigation into this area.

There are several directions for future research that should be noted. First, additional studies need to be conducted applying the model of altruistic behavior in other industries. Applying the model in the context of another industry would determine whether the findings of the present study are consistent across product lines or if they are product specific. An application of the model to purchase choice for industrial products should also prove to be useful. Lastly, it would be valuable to undertake research to verify the findings of this study. This is especially true with respect to the finding that tendencies toward prosocial behavior and higher levels of cognitive moral development, by themselves, have no correlation with purchase choice.
References


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Havighurst, R. J. and H. Taba (Eds.), (1949), "Adolescent Character and Personality," Committee on Human Development, the University of Chicago, New York: Wiley


