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RELIGIOUS DIFFERENCES IN COGNITIONS CONCERNING SELECTED ASPECTS OF CONSUMER BEHAVIOR BETWEEN CATHOLIC AND JEWISH FAMILIES

by
NEJDET DELENER

A dissertation submitted to the
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This manuscript has been read and accepted for the Graduate Faculty in Business in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

9/21/87
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ABSTRACT

RELIGIOUS DIFFERENCES IN COGNITIONS CONCERNING SELECTED ASPECTS OF CONSUMER BEHAVIOR BETWEEN CATHOLIC AND JEWISH FAMILIES

by

Nejdet Delener

Adviser: Professor Leon G. Schiffman

This dissertation research had as its main objective the exploration of differences in the cognitive systems possessed by Catholic and Jewish families concerning major consumption dimensions: marital role orientations in automobile and microwave oven purchasing decisions, consumer innovativeness, information search, and perceived risk. Religion and religiosity -- religious orientation and perceived strength of religious affiliation -- should be viewed as variables having great potential influence on choice behavior and marketing. The analysis suggests that measures of religion and religious orientation are useful indicators of consumer-relevant role structure differences.

To examine the influence of religion and religiosity and to test a series of relevant hypotheses, a data base was secured, consisting of a sample of 349 families having an income of at least $50,000, with household heads age 35 and over with professional-managerial occupational status.

The selection of variables to serve as dependent variables for this dissertation research was derived from the prevailing consumer behavior

literature. The independent variables consisted of religion, religious orientation, and perceived strength of religious affiliation.

At the most general level, the findings suggested that Catholics had higher scores on religious orientation as well as perceived strength of religious affiliation scale. In Catholic families, husbands were the major influence in making automobile and microwave oven purchase decisions. They usually searched for information and were dominant in deciding what make to buy and how much to spend. On the other hand, in Jewish families husbands and wives were equally influential in making most of the decisions. The antireligious families were more prone to joint decision making than proreligious families, regarding the automobile purchase decisions, whereas proreligious families were more likely to be husband dominated.

Jewish families exhibited greater willingness to try new brands and innovativeness than Catholic families in all religiosity groups. Jews also searched for information more than Catholics. This difference was greater for the families with antireligious orientation. For the number of dealer/store visits, findings suggested that for families with antireligious orientation, Jews visited more dealers/stores than Catholics, whereas for families with proreligious orientation, Catholics visited more dealers/stores than Jews. Furthermore, Catholics were more likely to be sensitive to any potentially negative consequences of their purchase decisions, such as poorly functioning automobile or microwave oven. This was apparent for the families with proreligious orientation.

Recommendations as to the marketing implications of the findings of this research are offered.

ACKNOWLEDGEMENTS

I could not hope to mention all of the people who supported me in the process of conducting this dissertation research. It is, however, quite possible for me to acknowledge the contributions of those people without whose support this dissertation could not have been written.

First, my special thanks are extended to my dissertation chairman, Dr. Leon G. Schiffman. He, throughout all stages from conception through writing, given so much of his time and shared so much of his knowledge that I can find no words to significantly express my gratitude.

My sincere appreciation is also offered to Dr. Gary Soldow for his valuable advice and constant interest in my scholarly development. Throughout my studies, he has had a direct impact on me as a member of my position paper committee and dissertation committee.

I would also like to express my deep sense of obligation and appreciation to Dr. Shulamith Gross for taking a great deal of time from her busy schedule to share with me her knowledge and expertise in statistics and research design.

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I owe a very special debt of gratitude to Dean Sidney I. Lirtzman who as a teacher and adviser during all of my graduate work constantly supported and challenged me to strive for more than my original goals.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

Although researchers have long recognized the significance of a religious value system in sociology (e.g., Anderson 1970; Glock and Stark 1965; Greeley 1977; Lenski 1966; Lipset and Bendix 1966; Roof 1979) and in psychology (e.g., Allport 1961; Arieti 1976; Dittes 1971; Pargament, Steele, and Tyler 1979; Patai 1977; Smith, Weigert, and Thomas 1979), they have not yet acknowledged its role in consumer research.

Religion has been examined from a variety of theoretical perspectives due to its centrality to socioeconomic structure. Such diverse behavioral theorists as Allport (1957, 1967); Frankl (1967), and Jung (1938) suggest that religion may have a positive effect on behavioral (psychological) well-being by forming a basis of integration for different facets of life, thereby providing meaning and initiating greater emotional stability. An alternate position has been suggested by Freud (1953) and Jones (1923), who saw a relationship between religious behavior and psychoneurosis. Religious behavior is interpreted within an obsessive-compulsive paradigm and can be related to a delusional effort of wish fulfillment.

In some societies religion is a major cohesive force, if not the only one. Because it is sacred, its value system is accepted unquestioningly by all members of the society. The inevitability of punishment provides a powerful deterrent to potential deviants, and rituals maintain the salience of norms.

While core values providing social identity may well be secular in some societies, religion has frequently provided the value system around which groups in general and nations in particular have coalesced, and by which their members have identified themselves. This function of religion, both historical and contemporary, is well known and needs no further elaboration at this time.

An understanding of the value and attitude structures which characterize one's background culture may help to encourage the individual to work more effectively. Religion is one critical subsystem of this background culture which may provide a particularly fruitful focus in the search for the connective fibers of the elements of the value and attitude structure of a people.

The influence of religion on the value systems of the society and the effect of these value systems on consumer behavior cannot be underestimated (Lugmani, Quraeshi, and Delene 1980). In general, the religions practiced in a society influence the emphasis placed on material life and the attitudes toward owning and using goods and services. Religious traditions may prohibit the use of certain goods and services altogether (e.g. Kashruth laws of Judaism forbid the eating of pork). Religion also influences male-female roles, as well as societal institutions and customs, such as marriage and funeral rites (e.g., Catholicism emphasizes man's responsibility to obey legitimate authority). Religion affects the sanctity of different acts and rituals, for example, officially prohibiting the use of birth control devices.

Religious behavior is hereby proposed to be a useful conceptual vehicle for interpreting consumers' psychosocial symbolic behavior. As

a form of social symbolic behavior, ritual practices are performed for some target audience. Even the solitary rituals of prayer or personal grooming are commonly performed with significant others in mind. Ritual behaviors are symbolic expressions through which individuals articulate their social and metaphysical affiliations (Rook 1984). Religious behavior demands relatively punctilious observance and may be extremely resistant to innovation or deviation (e.g., Bossard and Ball 1950). Religious values serve to define the ways to do things and to provide a series of tools and techniques for social behavior (Bossard and Ball 1950). They crystallize customs (Weber 1958), fix public meanings (Douglas and Isherwood 1979), and define social order (Campbell 1972).

Religion, therefore, constitutes an important element of society in most cultures, greatly influencing lifestyle, which in turn affects marketing. Following this logic, religion could work out to be a viable criterion for grouping markets. Formal study of religious values will improve the understanding of the normative dimensions of consumption behavior; social symbolic aspects of market behavior have been largely neglected by the research community (Zaltman and Wallendorf 1977). The most promising areas for values research over the next decade will be the disclosure of normative differences between both the dominant culture and various subcultures as well as differences between subcultures (e.g., Munson 1984).

Purpose of the Study

One of the most productive areas for investigating differences among consumer segments is the cognitive structure underlying consumption processes (Bettman 1979). Consumers in various segments, for example, may possess more or less complexity concerning certain

consumption domains, may utilize different attributes to characterize a product, or may aggregate products into different categorical frameworks (Shocker, Day, and Srivastava 1979).

The purpose of this study is to examine Catholic and Jewish religions as cognitive systems that influence their members' consumption behavior. A cognitive system consists of a set of values, beliefs, and expectations which is shared by members of a group (Berger 1961). In this perspective, adherents to a particular religious creed (e.g., Catholicism, Judaism) are considered to possess an identifying cognitive system. It has been suggested that values are centrally held cognitive elements which motivate behavioral response. Centrally held and enduring beliefs guide actions and judgments across specific situations. These values form the central core of an individual's value system, which consists of closely held personal values which are highly salient to important evaluations and choices. This research concentrates on differences in the cognitive systems possessed by Catholic and Jewish families concerning major consumption dimensions: marital role orientations in automobile and microwave oven purchasing decisions, consumer innovativeness, information search, and perceived risk.

The Selection of Catholicism and Judaism

There is a relatively small number of studies on the consumption behaviors of minorities. Prior research concerning consumption behaviors of minorities may be characterized as primarily descriptive in nature, largely restricted to investigations of certain ethnic/race consumers. The ethnic group of interest in the great majority of studies has been black consumers (e.g., Bauer and Cunningham 1970; Larson and Wales 1973; Sexton 1972). Investigations have been directed

toward other ethnic groups such as Hispanics (e.g., Bellenger and Valancia 1982; Segal and Sosa 1983; Wallendorf and Reilly 1983) or Jews (e.g., Hirschman 1981). Much valuable information on consumption behavior may be obtained by examining groups that are differentiated from society on religious dimensions rather than race. This study, therefore, attempts to examine Catholic and Jewish religions as cognitive systems that influence their members' consumption behavior.

Catholicism and Judaism represent the important religious minority groups especially since they have been counterparts in terms of historical review. Three religious communities - Protestants, Catholics, and Jews, encompass almost the entire population of this country. As self-identified, approximately 66 percent of American people are Protestant, 26 percent are Catholic and 3.5 percent are Jewish. Protestants are not studied here because they have been considered a majority in prior research. Also, it is more feasible for research purposes to examine groups that are more homogeneous than Protestants, who are subdivided into many denominations.

These are the religions that exhibit high moral values affecting the behavior of their members. There appears to be general agreement, without any empirical support that one of the primary features of the Catholic family is its patriarchal structure (e.g., Alvirez and Bean 1976; Penalosa 1968), while the Jewish family tends to be more matriarchal (e.g., Gordon 1959; Loudon and Bitta 1979). Research is definitely needed for empirical assessment of the decision-making structure within these families to determine the validity of the assumption of matriarchy and patriarchy and how it relates to consumer behavior.

The Selection of Major Consumption Variables

These consumption areas have been selected because they are central to several important consumption processes: decision making, innovativeness, diffusion and adoption, opinion leadership, and interpersonal influence. All these variables are extensively reviewed in the literature in terms of high involvement perspective. Information search and decision making constitute the major components of the basic model of consumer behavior. Perceived risk and innovation are the predictive variables; findings have shown that these variables are highly correlated. Hence, if religious denominational differences are found in purchase decision making, consumer innovativeness, information search, and perceived risk, the utility of religion and religiosity as a relevant influence on consumer behavior will be lent major support.

It is important to note that in this dissertation research the automobile and microwave oven were selected because they have met the criteria used for selection of other products in previous family decision studies (e.g., Davis 1970, 1971). They usually involve substantial financial outlay, have an extended period of ownership, and are shared by several family members.

As stated earlier, the major objective of this study is to examine the consumption behavior of Catholic and Jewish families. The rationale for examining family consumption behavior rather than individual consumption behavior is that the relationship between family and religion has been supported by sociologists and psychologists. Perhaps no other societal institution has a closer link with religion than does the family (Hargrove 1979; D'Antonio and Aldous 1983). Yet recent

changes in family formation have challenged Judaeo-Christian ethics concerning family life (D'Antonio 1980).

Delayed marriage, rising divorce rate, and reduced family size all run counter to the traditional pronatal, pronuptial stance of most Christian religions. In light of these transformations in the typical family life-cycle events the average person can expect to experience, the persistence of the relationship between family and religion remains an important issue. In order to understand the role of religion in society, it will be necessary to continue monitoring the relationship between religion and family-oriented behavior.

The influence of religion begins when parents use religious values to socialize their children. Religious rites mark major events in the life cycle including puberty, marriage, birth of children, and death. Religion regulates premarital sexual behavior, mate selection, family size, and marital stability. Religious orthodoxy on issues such as sexual behavior and male authority may also be a source of stress in family relationships (Christensen 1972). Not only do people use religious teachings as a guide for behavior, but they sometimes select religions that are consistent with their personal preferences. Individuals with unconventional attitudes about family life may reject involvement in organized religion (Heaton and Goodman 1985). For example, the divorced or childless may feel out of place in family-oriented churches and decide to drop out. On the other hand, pronatalists may search for a religion where they can feel at ease with a larger family. Thus, the association between religion and family might more accurately be thought of as measured interdependence between institutions rather than as a causal relationship.

Religion and Decision Making

Catholicism emphasizes man's responsibility to obey legitimate authority. From a Biblical perspective, pressure for obedience to an authority must always be assessed in light of the effects such obedience would have on the persons involved. Religious believers have often placed primary emphasis on obedience and have relegated man's responsibility for the protection of his partner to a position clearly secondary (Bock and Warren 1972). For instance, within the religious structure children have been taught to obey authority unquestioningly; they have not been taught to critically assess the legitimacy of the authority's demands. Thus, individuals who are deeply embedded in this structure would be expected to obey authority to the exclusion of other values. The ability to make firm decisions has perhaps become part of their life style. Thus, those who are strongly committed to religion are both attitudinally and behaviorally capable of making decisions consistent with moral conscience (Bock and Warren 1972; Elms and Milgram 1966). At the same time, nonreligious extremists can become committed to an authoritarian structure of their own. They may find themselves caught in the web of excessive submission to the authority of their own value structure.

Religious moderates have their values more in balance; while they recognize the importance of obedience to authority, they evaluate that authority in light of their concern for other men. Religious moderates may be unaccustomed to firm decision making. There are also the "agnostics"-- those who "do not know for sure." In the presence of such indecision, they are willing to have the momentary decisions of life made for them. In the Bock and Warren (1972) study, these less decisive

individuals were compelled to surrender moral conscience to a seemingly knowledgeable and decisive person. Only those accustomed to independent decision making could resist. The Biblical position is that the man who is undecided about basic religious issues is unable to be decisive when confronted by an ethical dilemma. His tendency is to forfeit his choice to any impinging power. On the other hand, having taken a definite religious stance, one will act in accordance with his conscience.

When subjects make judgments on the likelihood that some event will occur, it is often the case that the occurrence of the event will have value for them, or that they will prefer the occurrence of one event over another. The consistency between the outcomes and values is of considerable theoretical importance in risky decision making. Deprivation theory maintains that religion serves as a source of compensation for persons suffering from economic and social, or other forms of deprivation (Demerath 1965; Glock and Stark 1965; Glock, Ringer, and Babbie 1967; Niebuhr 1929; Pope 1942; Stark 1972; Troeltsch 1931). If marketers want to understand true attitudes in order to motivate human beings, whether it be for the purchase of a product or for the pursuit of economically desirable goals, they cannot forego the analysis of moral and religious values. Human behavior is guided by many contradictions, positive and negative values, unconscious aspects, prejudices, hopes, and fears. Knowing what lies behind an expressed attitude can serve as a better guide in changing the basic values in the society.

Religion and Innovativeness

Since a religious group is a "plausibility structure" (Berger 1969)

which provides social integration for people who prefer traditional or theistic ideas, it is more likely that these people will be more religiously involved (Greeley 1972; Kelley 1972; McGaw 1980a, b). A theistic or traditional raison d'etre involves a predisposition to accept God as the primary force governing one's life and to reject other explanations or interpretations for life's events. While religious groups tend to stress traditional ideas ("external truths"), and often reject any others, a nontheistic or liberal raison d'etre predisposes one to question theistic and traditional ideas and to explore newer ones. Bossard and Ball (1950) stated that religious behavior demands punctilious observance and may be extremely resistant to innovation or deviation. It is possible that the acceptance or rejection of innovation reflects an attempt on the part of an individual to make his attitudes and beliefs consistent with his behavior, as the cognitive dissonance theory would suggest (Festinger 1957).

Religion, Information Search, and Perceived Risk

From a review of the literature, anxiety has been suggested as a good measure of perceived risk and information search since it has been distinguished from the general concept of stress by Cattell and Scheier (1961), who suggest that like religion, it can be differentiated (Scheier and Cattell 1960). Low religiosity (extrinsic) appears to be associated with greater ego strength, more integrated social behavior, less paranoia and insecurity, less anxiety, and the ability to integrate anxiety into everyday life in an adaptive manner. (Dittes 1969; Kahoe 1974a). High religiosity (intrinsic) seems to operate in an opposite manner (Baker and Gorsuch 1982; Lovekin and Malony 1977).

Importance of the Study

Values have been subject to increased scrutiny in recent years as explanatory constructs for various dimensions of consumer behavior. They are generally accepted as a major influence on human behavior (Kluckhohn 1951; Rokeach 1960). The findings of Henry (1976), Lessig (1975), Scott and Lamont (1973), and Vinson, Munson, and Nakanishi (1977), among others, have demonstrated that values seem to play an important role in consumer buying patterns. Thus, values are a logical starting point for the investigation and understanding of consumer self-concept and its impact on the marketplace.

Even though the marketing literature reflects an emerging interest in the topic, religious values have not been used to investigate the underlying dimensions of family consumption behavior. This research will describe an application of an approach to consumption behavior of Catholic and Jewish families that relies on religious values as the key variable in the underlying prediction model. Religious values represent the most basic element of the consumer's cognitive world. As such, they structure the individual's perception and understanding of himself, of significant others, and of the objects and behaviors which constitute his psychological environment. Religion is an important value in this cognitive structure. While the fact is that religion can influence behavior (e.g., Engel and Blackwell 1982; Hirschman 1981; Zaltman and Wallendorf 1979) there is limited empirical research which focuses on the potential effectiveness of using religious value orientation as a theoretical framework for examining consumption behavior. The efficacy of the religious subculture as a device for differentiating consumers remains virtually unexplored yet logically would appear to possess

potential value.

A consumer's religious value orientation will provide an important basis for segmenting markets, positioning products, and developing promotional strategies. Religious values can be used as an important subcultural basis for consumer segmentation. The most common subcultural base presently used in consumer research are race, age, and sex (e.g., Zaltman and Wallendorf 1979). If the religious value differences are to be found in the patterns of purchasing decisions, consumer innovativeness, information search, and perceived risk, it is logical to speculate that they may be present in other aspects of consumption behavior as well. For example, consumers may vary in the criteria by which they evaluate products and in their shopping and product-use patterns, based upon the religious values by which they were raised. If larger market segments can be identified on the basis of religious value profiles, the marketing strategist could develop programs and policies that would maximally enhance the important values of the consumers in each market segment. Thus, religious values can be used as a tool to achieve greater precision and effectiveness in market segmentation.

The promotional messages for a product could be developed not only to refer to the desirable attributes of the product but also to enhance these consumption values associated with the product attributes. Religious values should also be connected to the media behavior of the consumer. By knowing the preferences of the large market segments, marketing strategists would be better able to select media appeals which would reach and enhance the important values of consumers. Assessment of the religious value orientations would allow the identification of

new product opportunities and the repositioning of existing products.

The assessment of religious value structures would also provide an explanation of the differential expectations related to product perception and/or performance held by consumers. Indeed, much of today's consumerism movement may be derived from inconsistencies between a firm's promised product offerings and the consumer's religious value structure.

Organization of the Remainder of the Dissertation

The second chapter presents an intensive review of the literature germane to theological values of Catholic and Jewish consumers, considering the religiosity. Literature relating to family decision making, consumer innovativeness, information search, perceived risk, and the development of the theoretical bases in these areas provide important information relating to this study.

The third chapter presents a detailed, step-by-step procedural examination of the methodology employed in this research. After a description of the sample there is a discussion of the questionnaire, the specific research variables, and the research hypotheses.

Data analysis and research findings are laid out in the fourth chapter. Chapter five summarizes the dimensions and conclusions of the empirical aspects of the dissertation research and also suggests implications for marketers and recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

This chapter begins with a discussion of religious values in general and those of Catholicism and Judaism in particular, explains the nature of the family decision-making process, and finally reviews the literature germane to determinants of family decision making. Marketing literature covering other dependent variables--consumer innovativeness, information search, and perceived risk--is presented. With the intent of trying the diverse literature reviewed in this chapter, a summary model is also presented.

Religious Values

Religious values may serve as criteria for evaluations, are central to human behaviors, and are powerful explanatory and predictive variables. Values restrain or canalize an individual's impulse toward culturally approved acts and attitudes. They guide the presentation of self and the evaluation and judging of both self and others. Values are standards that govern which beliefs and behaviors are worth preserving and trying to change (Kluckhohn and Stodtbeck 1961).

Rokeach (1973) distinguishes between two kinds of values, terminal and instrumental. The former refers to desirable end-states of existence and the latter, to modes of behavior. Terminal values are of two kinds--personal and social. Personal values (peace of mind, salvation) are self-centered and intrapersonal in nature, while social values (world peace, brotherhood) are society-centered and interpersonal in nature. Conceivably there may be a negative correlation between

personal values and social values--an emphasis on personal values could involve deemphasizing social values.

Instrumental values are of two kinds: moral and competence. Moral values, like social values, are interpersonal in focus (behaving honestly and lovingly). When moral values are violated, feelings of guilt or "pangs of conscience" arise. Competence values (imaginative, logical) are intrapersonal in focus and are self-actualizing.

In general, values that can be identified as being within the specialized concern of a particular institution should be the best predictors of the attitudes and behaviors that are also within that domain. Thus, religious values should be closely associated with religious attitudes and behavior.

In looking at the relationship between religious values and attitudes, it is pertinent to note that in a study of adult Americans who identified themselves nominally as Catholics, Jews, Protestants, or who professed no religion, Rokeach (1969) found the "religious," the "less religious," and the "non-religious" members of his sample possessed value systems that were significantly different from one another:

> The religious [member of the sample] typically ranked the moral values, forgiving and obedient, higher and the competence values, independent, intellectual and logical, lower than the less religious and non-religious (p. 25).

In a second study, designed "to examine the relation between adherence to distinctively Christian values and position on a large variety of contemporary social issues," Rokeach (1969) found that:

> Those who place a high value on salvation are conservative, are anxious to maintain the status quo and are generally more indifferent and unsympathetic (p. 31).

Lenski (1963) also found a significant correlation between the

relative ranking of obedience and intellectual autonomy and his indices of religiosity. Ringer (1956) found that, "The more strongly religious the member, the more he thinks the church should engage in the salvation of souls, as against social action" (p. 123).

Values: Catholicism and Judaism

When magnitude of value difference as well as statistical significance is taken into account, one terminal value, salvation, and one instrumental value, forgiving, emerge as the values that are the most distinctively Christian (Rokeach 1969a, p. 22; 1970, p. 120). While Jews ranked salvation last, Christian groups generally ranked it considerably higher (third on the average). Forgiving was low-ranked (fifteenth by Jews) but on the average somewhere between third and eighth by the Christians. Forgiving is clearly a moral value that is central within Christian theology; the findings of Rokeach's studies confirm that Christians do indeed place a considerably higher value on it than do non-Christians.

The findings showed that three other moral values besides forgiving also distinguished significantly between Catholics and Jews; these are clean, obedient, and polite. Christians ranked these values higher than Jews. The value of honest, showed a similar pattern but did not reach statistical significance. Several competence values also showed significant differences. Jews valued capable, independent, intellectual, and logical relatively more than Catholics, and these can therefore also be said to represent Jewish values along with the terminal values--accomplishment, equality, pleasure, family security, inner harmony, and wisdom (Rokeach 1969a, p. 7).

Rokeach (1969a, b) also stated that certain values do not

distinguish among the various groups. There are values that are clearly shared by the both groups. These include at least seven terminal values--a world at peace, happiness, inner harmony, mature love, self-respect, true friendship, and wisdom--and at least four instrumental values--cheerful, courageous, responsible, and self-controlled. These value differences are presented in Figure 2-1.

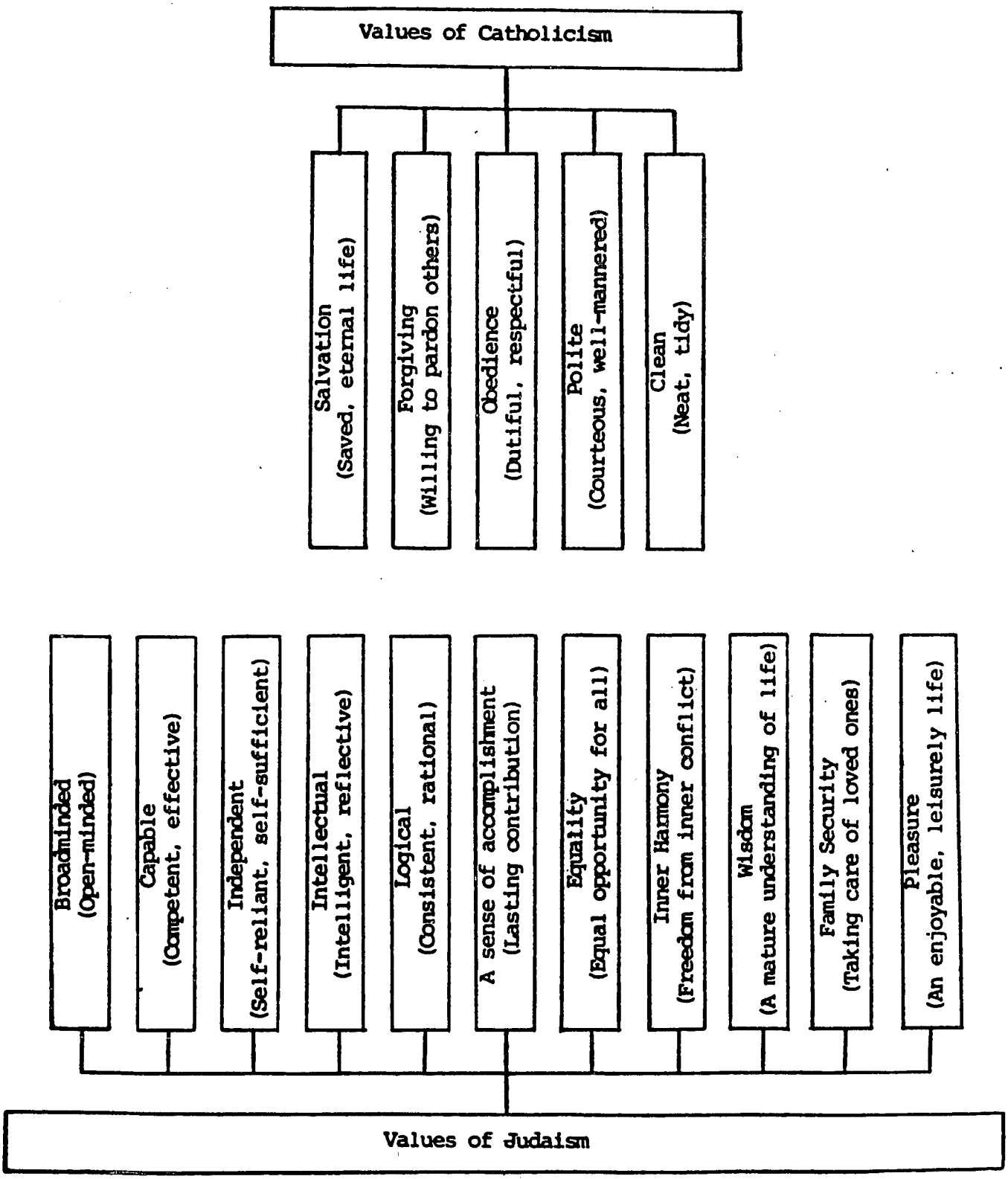
Religious Orientation

No approach to religiousness has had greater impact on empirical religious behavior than Allport's concepts of intrinsic (I) and extrinsic (E) religiousness (Meadow and Kahoe 1984). In order to provide a means of assessing the nature of religious involvement, Allport (1968) developed the Religious Orientation Scale (ROS), focusing on the intrinsic-extrinsic continuum. He assumed that intrinsic orientation characterizes the mature person who internalizes and lives by his religion, attends church frequently, and is more equalitarian and tolerant, while extrinsic orientation is found in the immature person who tends to use religion for his own needs, attends church infrequently, and is prejudiced toward groups.

Individuals who are religious out of extrinsic motivations may find their religion useful in a variety of ways, e.g., to provide security and comfort, sociability and distraction, or status and justification. These people may take their creeds lightly or else shape them to fit other needs. In contrast, those who are intrinsically motivated find their central stimulus in religion. However strong their other needs may be, these needs are perceived as having less significance than the need to live faithfully by their religious commitment. They seek to live their religion; they endeavor to internalize religious values and

FIGURE 2-1

VALUES OF CATHOLICISM AND JUDAISM



Source: Adapted from Rokeach (1969a). "Value Systems in Religion," Review of Religious Research, Vol. 11, pp. 3-23.

to follow them fully. I and E were probably best summed up by Allport and Ross (1967) when they stated that "the extrinsically motivated person uses his religion, whereas the intrinsically motivated lives his religion" (p. 434).

Empirical findings indicate that these two types of religiousness were originally considered to be ends of a bipolar continuum. But from the very beginning of the empirical research, doubt was cast on the appropriateness of characterizing I and E in this way. Feagin (1964) reported a factor analysis in which items from I and E scales are loaded on separate, orthogonal factors.

Allport (1966) began to take note of a group of "muddleheads" who refuse to conform to our neat religious logic (p. 6). These individuals agreed with items on both scales despite Allport's attempt to construct the scales to represent polar opposites. As a result of these findings, he expanded his original bipolar approach into a fourfold typology (see Table 2-1).

Intrinsic/Extrinsic Orientations: Theoretical Concerns

Allport's (1957) early work was concerned with understanding the cognitive and motivational forces behind religious behavior. Allport (1961, 1966; Allport and Ross 1967) became particularly interested in the motives behind religious beliefs and practices. Overall, Allport's intent seems clear: extrinsically oriented individuals find meaning and importance in their religion primarily in instrumental terms and use such beliefs in the interest of such "worldly" concerns as status, self-justification, security, and solace; intrinsically oriented individuals find meaning and importance in their religion as an ultimate, integrating concern, in and of itself. Importantly, Allport's

TABLE 2-1

FOUR PATTERNS OF RELIGIOUS ORIENTATION

	Agrees with intrinsic choice	Disagrees with intrinsic choice
Agrees with extrinsic choice	Indiscriminately proreligious	Consistently extrinsic in type
Disagrees with extrinsic choice	Consistently intrinsic in type	Indiscriminately antireligious or nonreligious

Source: Adapted from Allport and Ross (1967). "Personal Religious Orientation and Prejudice." Journal of Personality and Social Psychology, Vol. 5, No. 4, pp. 432-443.

conceptualizations imply both motivational concerns with respect to what activities and behaviors an individual will strive toward in terms of religious belief, and cognitive concerns in terms of what phenomena an individual will define as "religious" (Morris and Hood 1981).

This intrinsic/extrinsic dichotomy, with both cognitive and motivational concerns, is not unique to the psychology of religion. This dichotomy is also found in theories of work motivation as well as in cognitive theories of general motivation. The theories of Herzberg (Herzberg, Mausner, and Synderman 1959; Herzberg 1966) are particularly relevant. Herzberg has postulated the existence of two classes of work motivators--extrinsic factors and intrinsic factors. These factors are said to constitute a taxonomy of rewards or outcomes inherent in the context of work. The extrinsic factors relate to the functional aspects of work. The intrinsic factors relate to the aspects of work concerning self-fulfillment and psychological growth through the accomplishment of tasks. The intrinsic factors derive from the work itself while the extrinsic factors derive from the organizational context of the work.

Concerning general cognitive motivation theories, Deci (1971, 1972a, b, 1975a, b) has made an extensive investigation into the area of intrinsic motivation. Deci (1975a, b) views motivation in a cognitive framework, in which motives are cognitive representations of future states. Within this view, Deci states that individuals can be seen as seeking optimally challenging situations, where a challenge is defined as a discrepancy between some stimulus input and a standard of comparison. It is not inconsistent with Allport's views to suggest that intrinsically oriented persons continually view all "stimulus input" in terms of a religious comparison derived from their particular faith

commitment. Hence, Allport's conceptualization can be linked to Deci's by the effort to integrate one's personal life and hence become more self-competent within the boundaries defined by faith and seen to be continually relevant across all stimuli. In Allport's terms this is what it means to "live one's religion." On the other hand, the extrinsically oriented individual in both Allport's and Deci's conceptualizations uses a variety of comparison standards for differing stimuli input for what might be called a fragmented or compartmentalized religious life. In this sense, such individuals do not "live" their religion but "use" it only when relevant to enhance more purely instrumental activities (Morris and Hood 1981).

Correlates of Intrinsic and Extrinsic Religiousness

Perhaps the most important way to determine the types of religiousness that I and E are measuring is to relate them to other measures of religiousness. Allport's explanation of the functional relationship of extrinsic religious orientation and prejudice in terms of the utility of both religion and prejudice in fulfilling psychological needs for security, status, and social support is conceptually quite similar to Rokeach's (1960) descriptions of the closed belief system (closed-mindedness). Rokeach (1960) characterizes the dogmatic person as one who has such a strong need to ward off threats that his cognitive styles are rather undifferentiated, with a relative lack of communication among beliefs, and the coexistence of contradictions. In contrast, Allport's approach seems to imply that I should be related to open-mindedness. In the literature, Hoge and Carroll (1978), Kahoe (1974a), Kahoe and Dunn (1975), Paloutzian, Jackson, and Crandall (1978), and Thompson (1974) have correlated I and

E with Rokeach's (1960) dogmatism scale. Findings of these studies have shown that the correlation between I and dogmatism ranges between .22 and .04 and averages .06. The correlation between E and dogmatism ranges between .66 and .08 and averages .36.

The absence of a correlation between I and dogmatism seems to call into question the assertion by some that the intrinsic orientation is consistent with that of a "compulsive, conforming, and unquestioning true believer" (Batson 1976, p. 32). However, Kahoe (1975, 1977) examined the relationship between I and a concept related to dogmatism, that of authoritarianism (F). Although I was uncorrelated (.03) with F as reported by Kahoe (1974a), Kahoe (1977) examined the relation between I and Krug's (1961) dimensions of F. Results indicated that I was uncorrelated with the subscales of cynicism, aggression, projectivity, and good versus bad people, but was associated with conventionalism (.35) and superstition and stereotype (.31). Thus it may be that I is associated with portions of dogmatism rather than with the entire concept.

In summary, intrinsic or indiscriminately proreligious orientation serves as an excellent measure of religious commitment, as distinct from religious belief, church membership, liberal-conservative theological orientation, and related measures (Wimberley 1974). Its lack of doctrinal content and open-ended definition of religion makes it usable with virtually any Christian denomination, and perhaps even with non-Christian religions (Patrick 1979). It correlates well with other measures of religiousness, and even with such behaviors as preference for religious over nonreligious books (Hood 1978). Extrinsic or indiscriminately antireligious orientation on the other hand,

successfully measures the sort of religion that gives religion a bad name. It is negatively correlated with dogmatism (Allport 1967; Rokeach 1968; Thompson 1974). Evaluating these two measures simultaneously produces considerably greater explanatory power, however. Such variables as prejudice (Allport and Ross 1967), dogmatism (Thompson 1974), and a wide array of personality characteristics (McClain 1978; Wiebe and Fleck 1980) have been shown to display strong and meaningful relations when considered in the context of either the entire fourfold typology or two or more of its cells. Such an approach also casts considerable light on the results obtained in the unipolar research.

Family Decision Making

The complex nature of the family decision-making process and its role in consumer choice decisions has been an area of considerable interest for marketers in the last 25 years. Although early research focused on husband and wife family decisions for a specific product (Blood and Wolfe 1960), more recently attention has concentrated on factors influencing various stages in the process (Munsinger, Weber, and Hansen 1975). The scope of the investigation of the decision-making process needs to be broadened to include knowledge about the information search process as well as the dimensions of family interactions with respect to these role patterns, religious values, and religiosity.

Empirical research has investigated marital roles in the purchase of a wide variety of products including automobiles (e.g., Davis 1970, 1972; Cunningham and Green 1974; Haley, Overholser, and Associates 1975), home furnishings (e.g., Blood and Wolfe 1960; Davis and Rigaux 1974; Shuptrine and Samuelson 1976; Woodside 1975), and financial planning decisions (e.g., Ferber and Lee 1974).

A shortcoming of much of the literature stems from a focus on outcomes of the process rather than on the stages within the process itself. The notable exception was Davis and Rigaux (1974), who explored marital roles at three decision stages (problem recognition, search for information, and final decision) for 25 household decisions. Results suggest that husbands become the more dominant influence for most products as the decision stage progresses from problem recognition to information search. Moreover, when moving from information search to final decision, the patterns of influence become more equal.

The Influence and Determinants of Family Decision Making

Within the literature, general determinants of family decision making have ranged from marital role structure (which has been discussed) to such factors as social class, the family life cycle, perceived risk, social networks, and time constraints.[1] More product-specific determinants have dealt with the product itself and stages in the actual decision-making process for the product choice. General determinants of autonomous versus joint family decision making will be considered first.

Autonomous Versus Joint Decisions

Under what conditions are purchasing decisions likely to be made by an individual family member and under what conditions are they likely to be made jointly by the family?

According to Sheth (1974), joint decision making is more likely in the following situations:

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[1] Among many others too numerous to mention here.

(1) The perceived risk level in purchasing is high. In terms of the perceived risk in buying decisions, research by Granbois (1963), Komarovsky (1961), and Woodside (1972), has indicated that the greater the perceived risk of making a wrong decision for the family, the greater the amount of joint decision making across family members. Logically, the reasoning behind this lies with the fact that the family, when faced with the potential of adverse consequences from a poor decision choice, will tend to seek mutual guidance and support from one another. Hence, family buying decisions under high perceived risk logically should be joint.

(2) The purchasing decision is important to the family. Importance is closely related to risk. Decisions to purchase automobiles, houses, and major appliances are generally joint decisions because of their significance. Low involvement products are more likely to be purchased on an individual basis.

(3) There are few time pressures. Time constraints have been found to have an adverse effect upon the incidence of joint decision making within families today, encouraging one family member to make the purchase decision. According to Schiffman and Kanuk (1987), "The quicker a decision has to be made, the more likely that it will be an autonomous decision, since a joint decision generally requires more time." In addition, the recent trend of working wives[2] has added to the time pressure problem in the American family as the wife no longer can perform household tasks during the day, but in fact must perform these tasks during the evening hours which were formerly allotted to leisure activities. Hence, this trend hypothetically should lead to more

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[2]See Scanzoni (1978).

autonomous decision making within the American family.

(4) Certain demographic factors are considered. Joint decision making is less likely among upper and lower socioeconomic groups. Research within the area of social class has found a curvilinear relationship in family decision patterns when going from the lower to the upper social class. Specifically, it has been found by Komarovsky (1961) and Sheth (1974), among others, that joint decision making occurs more frequently in the middle social classes,[3] while both lower and upper class families tend to favor an autonomous or unilateral decision style.

Granbois (1963) concluded that joint decision making tends to decrease over the life cycle stages, confirming Wolgast's (1958) hypothesis that:

> as the material partners develop greater familiarity with each other's needs, and as family responsibilities mount, role specialization emerges with a consequent decrease in joint decision making (p. 154).

Moreover, the characteristics of a couple's social relationships have been hypothesized to be related to the type of decision making found within the family. According to Bott (1957) "joint decision making within the family is inversely related to the connectedness[4] of a family's social network." The absence of a connected social network leads to more joint decision making among married couples due to less outside influence from friends upon the decision choice.

The Product and Decision States: Husband and Wife Influence

The husband and wife are the dominant influences in family decision

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[3]Here, social class was measured by a combination of occupation and income.

[4]Connectedness is defined as the degree to which husband and wife have friends in common.

making. Most studies have focused on their roles in the decision processes and the dominance of one or the other spouse. The relative influence of the husband or wife is likely to vary according to: (1) the type of product being considered; (2) the stage in the decision process; (3) the characteristics of the family (Davis 1976); and (4) the purchase situations (Burns and DeVere 1981).

Husband and Wife Influence and Type of Product. Pioneering studies where research was performed to determine "who makes the purchasing decisions" for various products were reported by Sharp and Mott (1956) and Wolgast (1958). Both researchers used the relative self-perceived categorization of husband versus wife influence in data analysis (i.e., both the husbands' and wives' answers to husband more than wife, wife more than husband, or both had the same degree of influence, question modes were used).

It was the general conclusion of this early research that it was the husband who influenced purchasing decisions regarding cars and life insurance. The wife was seen to be the dominant influence in families concerning spending decisions on food and kitchen appliances in addition to the decision as to whether she herself should work. Joint family decisions seemed to involve the selection of a house or apartment and the decision as to where to go on a vacation.

In a study along the lines previously discussed, Kenkel (1961) concluded that the husband had a major influence in the product selection of fishing equipment and shotguns, while the wife had influence in the selection of jewelry. Joint influence categories classified were the purchase of furniture and the selection of a vacation area.

The Kenkel (1961) study, however, did not use the relative self-perceived categorization of husband/wife influence utilized by Sharp and Mott (1956) and by Wolgast (1958). Instead, influence was categorized through the use of the Bales system of interaction process analysis.[5] This procedure allowed the observer to categorize influence within the husband-wife dyad, and not of the spouses themselves. This avoided the need for direct questioning.

A study by Shuptrine and Samuelson (1976) replicated the work done by Davis (1970) and came up with similar findings. Using a mail questionnaire (instead of using direct questioning as did Davis) the authors concluded that:

> the husband was dominant in the decision of when to buy an automobile (69%), while the husband's dominance decreased to 16% in considering when to buy furniture (p. 89).

Probably the largest surveys of purchase influence to date were conducted by Haley, Overholser, and Associates, Inc., (1975, 1977), for Time magazine. In the more recent survey, 10 different product areas were studied (ranging from alcoholic beverages to tobacco products), consisting in sum of 87 different packaged products. In general, the results of this survey showed that the roles of family members in the decision process vary from product to product. However, in addition to this finding, and at least equally as important, the 1975 study indicated that the role structure in family decision making can be a function not only of the product on an overall basis but, moreover, of the product features themselves. Specifically, it was shown that within the automobile purchase decision the husband dominates the brand choice,

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[5] See Bales (1951).

performance features, size, price, dealer selection, and service decisions, while the wife was shown to dominate in the choice of style.

This finding was not novel as indeed Davis (1970, 1971) and Munsinger, Weber, and Hansen (1975), researching automobile, and furniture and housing decisions respectively, had concluded: the marital role structure in purchase decisions was a function of the variation in product features. The Haley, Overholser, and Associates survey was, indeed, a major breakthrough in that it indicated for the first time evidence of this result on such a grand scale (across so many different products).

Studies discussed in this section seem to point to the fact that advertising communications should be addressed to a specific spouse (or both spouses), as a function of both the product and the relevant product features or attributes. The relative influence of husbands and wives (and also children) must be determined for each product feature within each product category of interest.

Husband and Wife Influence and Stage in the Decision-Making Process. Within the last decade, empirical research in consumer behavior has directed itself to the question as to whether role structure in family decision making varies as a function of the stage in the decision process.

Davis and Rigaux (1974), were probably the first researchers to concern themselves with the marital role structure within the stages of the family decision process. Viewing the choice process as a trichotomy (problem recognition, internal and external search, and the final decision), the authors concluded that:

> Marital roles were found to vary through the three phases of the decision process. While no noticeable differences were apparent in average relative influence, the phase of information search was characterized by considerably more role specialization than either of the other two phases for almost all of the products studied (p. 59).

In addition, and as previously stated, the final stage in the decision process was predominated by more syncratic decisions.

Research investigating the stages of the decision-making process within the family decision-making area has continued since the study by Davis and Rigaux (1974). Hempel (1974) and Munsinger, Weber, and Hansen (1975) investigated housing decisions, while Woodside (1974) looked at eight various consumer products (such as lawn mowers and automobiles). Bonfield (1977) went so far as to replicate the Davis and Rigaux (1974) study, but additionally considered a greater specificity in describing decision items while trying to identify a significant difference between traditional couples and all couples.

All of the above studies lead to the conclusion that marital roles in consumer decision making differ according to the phase of the decision process. Hence, advertising strategy with regard to family decision making must be phase specific and thus not necessarily geared toward a specific spouse (or couple) for a particular product.

Husband and Wife Influence and Family Characteristics. Although husbands or wives tend to dominate decisions for different product categories, there is likely to be variation in the degree of dominance within each family. In certain families (matriarchal), the wife may be more dominant; in others (patriarchal), the husband may be more dominant regardless of the product being considered.

The results of the studies that have associated the characteristics of the family with the degree of husband or wife dominance can be

summarized as follows (Rigaux-Brichmont 1978): The husband would be more influential in the buying decision than the wife when: (a) the husband's education level is higher than that of the wife, (b) the husband's income and occupational status are higher than that of the wife, (c) the wife is unemployed, or (d) the family has a greater than average number of children.

Future research here is definitely needed to determine what the outcome would be if the wife had higher educational and income levels and occupational status.

The profile of the husband-dominant family suggests a family with traditional values and attitudes toward marital roles. Traditional views encourage greater male influence; contemporary views encourage greater female influence.

Green and Cunningham (1975) supported the traditional orientation of the husband-dominant family. The authors studied 257 married women and classified them as conservative, moderate, or liberal, regarding female roles. Results indicated that liberal women were much more likely to make the purchase decision than conservative women. They were more than twice as likely to make decisions regarding major appliances, savings, and vacation plans. Therefore, it seems that the one most important factor in defining the relative influence of husband versus wife is the nature of the attitude toward marital roles.

Husband and Wife Influence and Purchase Situations. It is common knowledge that distributions of influence vary across products, across stages in the decision-making process, and across families (Davis 1976). Although context has been largely ignored in family decision-making studies, there is reason to believe that variance will also be found

across the situations in which the interaction takes place (Burns and DeVere 1981). In terms of individual decision making, ample support for this contention comes from discussions by Belk (1975) and by Russell and Mehrabian (1976).

The family decision-making process would appear to be especially rich with regard to the opportunity for differences between situations inasmuch as the process necessarily occurs through interpersonal communication of thoughts and preferences. This interaction, the requisite for joint decision making, brings the process out into an observable realm.

One can envision situations in which the communication between husband and wife might be affected by the context. It is obvious that individuals would differ in their sensitivities to situational factors, but when the possibility of scrutiny of the conversation and social evaluation of roles by a third party enters the picture, it is conceivable that this would influence the purchase decision-making process (see Burns and DeVere 1981).

Burns and DeVere (1981) studied the effects of five purchase decision-making settings (at home alone, at the store alone, at home with a salesman present, and at the store with a salesman present) on husbands' and wives' perceptions of three dependent variables: relative influence, discussion times, and resolution modes given disagreement. An equivalent group design was used with five subdecisions for each of four products.[6] Physical surroundings and social circumstances were

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[6]In this study, products are: vacuum cleaner, life insurance, encyclopedia, and pots and pans. Decisions are: the need to buy the item; what price to pay; how to pay for it; what brand to buy; what model or type.

found to affect estimated discussion times and disagreement resolutions, but no effects were evident for perceived shared influence.

Results have shown that spouses are sensitive to context. In particular, both husbands and wives believe that discussions held at home alone will last longer than those held in the store with a salesman present. Also, the character of the resolution of disagreements is affected by social circumstances. Joint resolution of a disagreement is believed to occur more often in the store and salesman situation. However, specification of the amount of shared influence seems independent of the physical or social surroundings in which it is envisioned to occur.

Burns and DeVere's (1981) study of situational influences has served to show the multidimensionality of the family decision-making process. It is clear that these and other dimensions deserve more research consideration with sensitivity for context.

Religious Values and Family Decision Making

It has long been argued that important relationships exist between religious institutions, the values they teach, and the family. While many studies show the mutually supportive bonds between religious institutions and family life and consumption behavior (e.g., Gallup Poll & Princeton Religion Research Center 1978; Lenski 1963; Marty, Rosenberg, and Greeley 1968; Sklare 1971; Wilson 1978), few of these studies examine the more subtle qualitative features of this relationship. The social support dimension of this relationship is demonstrated by studies of how religion provides norms for familial love (Blood 1969; D'Antonio 1980), family solidarity (Hargrove 1979; Lenski 1963), self-esteem (Smith, Weigart, and Thomas 1979), marital stability

(Blood 1969; Hunt and King 1978), marital satisfaction (Landis 1960; Wilson 1978) and family values and meanings (McGuire 1981). Regarding social control mode, religion constrains and sanctions deviant attitudes and behaviors perceived as threatening to culturally valued family patterns. This is shown by research in such areas as abortion (Clayton and Tolone 1973; Renzi 1975), divorce (Eshleman 1978; Greeley 1974) and interfaith marriage (Abramson 1973; Gordon 1964; Kenkel, Himler, and Cole 1965). However, while both dimensions of the relationship between religious institutions and family life have been investigated, contemporary research focuses disproportionately on the social control aspects of the religion-familial value system (e.g., D'Antonio, Newman, and Wright 1982; McGuire 1981). Regrettably, research in consumer behavior has neglected the impact of religious values upon family decision making.

Most studies of religion relevant to consumer behavior have been conducted within the fields of sociology, anthropology, and psychology. For example, Bahr (1982) compared the denominational differences in marital role definitions and role enactment among Utah Catholics, Protestants, and Mormons. In this study three areas of role behavior were considered: (1) role performance (the actual divisions of role tasks in the respondent's own family); (2) family power (the division of decision making); and (3) family conflict (degree of interspouse disagreement over selected roles).

The findings indicated that in child socialization roles, Catholics were more likely than the other groups to say that husbands and wives were equally responsible for teaching and disciplining children. A degree of male dominance in the settling of family disputes was apparent

among all groups. Thirty-nine percent of Catholic respondents stated that the husband had more influence than the wife in resolving recent family conflicts; the findings did not show any evidence of unusual patriarchal dominance in Catholic families.

Bahr (1982) carried the analysis of decision making for specific role activities one step further by dividing the denominational categories into males and females, as a check on whether wives' perceptions of family decision making were different from husbands' perceptions. In most cases they did not differ. The general pattern was that husbands' and wives' reports about how decision making was divided in their families were quite congruent, and neither the sex nor the religion of the respondent made much difference.

Catholicism and Family Decision Making

While Catholic families are frequently labeled patriarchal in structure, there have been few empirical studies in which the family was the primary focus. Several sociologists have reported that the depiction of Catholic families often focuses on a rigid and authoritarian structure by a macho male (Humphrey 1944; Penalosa 1968). Without empirical support the husband-father is reported to dominate conjugal decision making according to Alvirez and Bean (1976):

> The idea of male dominance and superiority is probably the characteristic (of family structure) most emphasized in the literature--the father is seen as the absolute head of the family with full authority over wife and children. All major decisions are his responsibility (p. 253).

Judaism and Family Decision Making

Jewish family structure tends to be more democratic and can best

be termed family-centered; decisions are arrived at jointly.[7]

Religious Values, Personality Traits, and Consumer Innovativeness

Marketing researchers have shown interest in the determinants of innovative behavior for basically two major reasons. Initially, there has been and will always be an interest in predicting whether one's new product will be adopted by the social system concerned. Secondly, there has been considerable concern as to how to influence the rate or spread of the diffusion process. This has led to a concentration upon determining which variables are correlated with new product adoption in terms of consumer characteristics (i.e., personality and attitudinal values).

Using the Riesman (1950) classification of social character (inner- versus other-directed), Donnelly (1970) concluded that innovators were more inner-directed in that they were able to make their own decisions to a greater degree than noninnovators.[8]

It has been found that in terms of a willingness to try new products (venturesomeness), innovators have exhibited this trait more widely than noninnovators.[9] Specifically, this result could be due to the fact that those consumers who are lower in perceived risk have been found empirically in the literature to be much more likely to purchase

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[7]This proposition is made without any empirical support (see Loudon and Bitta 1979; Strodtbeck 1958).

[8]The inner-directed person relies upon his own internal standards and values to guide his behavior, while the other-directed individual has a tendency to rely upon the values of his peers.

[9]See Robertson (1967, 1971), among other authors.

new products than those consumers who have been high in perceived risk. It is easily hypothesized that a highly negative correlation should be found between venturesomeness and perceived risk.

Several researchers have stated that the personality variable of dogmatism provides a sound theoretical and empirical foundation for predicting new product acceptance (e.g., Rokeach 1960; Vacchiano, Strauss, and Hochman 1969). Jacoby (1971) and Coney (1972) have indicated that innovators have been found to be less dogmatic than the noninnovators. Moreover, in a general fashion a review of the literature by Engel and Blackwell (1982) found the following attitudinal values as related to innovativeness: knowledgeability, attitude toward change, achievement motivation, aspirations for children, business orientation, empathy, and broader categorization. All relationships were found to be in the positive direction.

Some researchers have supported that intolerance of ambiguity is the common basis for the correlation between attitudes and religion (e.g., Adorno et al. 1950; Feather 1970; and Rokeach 1960). Also a generally consistent positive correlation exists between religious conservatism and authoritarianism (e.g., Putney and Middletown 1961; Stanley 1974).

Review of the literature has shown that indiscriminately proreligious individuals would be more dogmatic and exhibit conservative and traditional attitudes more than indiscriminately antireligious individuals (e.g., Allport 1967; Rokeach 1968; Thompson 1974). Bossard and Ball (1950) stated that religious behavior demands punctilious observance and may be extremely resistant to innovation. Responses concerning accepting or rejecting innovation reflect an attempt to make

attitudes and beliefs consistent with their behavior.

Religious Values, Personality Traits, and Information Search

For some choices, the information already at hand may not be sufficient, and the consumer may actively seek additional information. This information search may be internal, of information stored in memory, or external, of information available from advertisements, friends, salespeople, packages, etc.

Information search activity has been the focus of numerous research studies in the past. A review of the literature has failed to reveal an investigation of the search behavior of Catholic and Jewish consumers. Most studies concerned with external search have identified types of sources used by individuals, regardless of the main reliance of the study (e.g., Claxton, Fry, and Portis 1974; Hirschman and Mills 1980; Katona and Mueller 1955; Klippel and Sweeney 1974; Newman and Staelin 1973; Schiffman 1971; and Westbrook and Fornell 1979). In addition to determining the type and number of sources used, some studies have attempted to identify the importance of various information sources (e.g., Hempel 1974; Hirschman and Mills 1980; Katona and Mueller 1955; and Klippel and Sweeney 1974).

The review of the literature suggests that cognitive personality traits should influence information search and utilization. Perceived risk theory (Cox 1967), the Howard and Sheth (1969) model, and the Engel, Kollat, and Blackwell (1978) model all suggest individual cognitive differences in search and processing behavior.

Schaninger and Sciglimpaglia (1981) found that cognitive style

influenced depth of search in information display board tasks across products. Tolerance for ambiguity and self-esteem were positively related, and cognitive style (simplifier) and trait anxiety were negatively related. Tolerance for ambiguity is viewed by Bariff and Lusk (1977) as tapping the stress level at which individuals can effectively function in decision-making tasks. Horton (1979) concluded that general anxiety and self-confidence seemed to underlie the choice process for all products examined in a simulated shopping task. Rokeach (1960) stated that rigidity was negatively related to acceptance of new or discrepant information, and to the ability to structure information in problem solving.

Brody and Cunningham (1968) found measures of product-specific perceptions of performance risk and self-confidence enhanced the ability of personality tests to predict brand choice. Blake et al. (1973) indicated that tolerance for ambiguity (a general influence) interacted with perceived product newness (a product-specific influence) in partially determining purchase intention. Thus, personality traits might moderate the relationship between risk and information search.

Schaninger and Buss (1984) indicate that consumers high in cognitive capacity (low trait anxiety, high self-esteem, high tolerance for ambiguity, clarifier cognitive style, and low rigidity) are more likely to search information or select riskier new products when they perceive less confidence, more danger-risk or higher complexity for a specific decision. Low capacity consumers are more likely to behave in an opposite manner. Review of the literature has shown that indiscriminately antireligious individuals tend to have higher open-mindedness scores than indiscriminately proreligious individuals

(e.g., Adorno et al.1950; Feather 1970; Rokeach 1960); therefore, they are more likely to search for information.

Religious Values, Personality Traits and Perceived Risk

The approach to consumer decision making as a form of risk-taking behavior, outlined by Bauer (1967), received favorable empirical support by Cox and Rich (1967). Perceived risk, being a cognitive phenomenon, suggests that psychological research on cognition would have application in expanding the consumer risk-taking model. Bruner et al. (1956) demonstrated that subjects showed marked consistency in the range or width of their cognitive categories. That is, in selecting maximum and minimum values of various optical and auditory phenomena, subjects consistently tended to have either broad, medium, or narrow ranges of judgment. Pettigrew (1958) also showed that people handle risky decisions differently.

Popielarz (1967), for example, examined the relationship between category width and willingness to try new products. He found that broad categorizers, who allowed errors of inclusion, perceived themselves as more willing to try new products than narrow categorizers, who allowed errors of exclusion. The findings of Cunningham and Crissy (1972) demonstrated that homemakers who were broad categorizers were more likely to purchase genuinely new products (e.g., nonrefrigerated main dishes), while those who were narrow categorizers were more likely to purchase superficially new products (e.g., lime-scented dishwashing detergents).

Studies have shown that perceived risk has been closely identified

with innovativeness (e.g., Jacoby 1971; Lambert 1972; Schiffman 1972; Uhl, Andrus, and Poulsen 1970). Innovators tend to perceive less risk in product adoption than noninnovators. Schiffman (1972), for example, found that adopters of a new salt substitute were less likely to see a taste or health risk in using the product than nonadopters. The findings of Lambert (1972) demonstrated that innovators of eight fairly diverse products were less likely to see uncertainty in purchasing products. Uhl, Andrus, and Poulsen (1970) studied laggards rather than innovators for sixteen new grocery products and found that laggards avoid the risk of trying new products by remaining loyal to established brands. Cox (1967) has stated that brand switching usually entails some perceived risk which increases when switching to a new product or brand is contemplated. Because perceived risk can induce anxiety, consumers who are high in dogmatism should be less likely than consumers who are low in dogmatism to try new products (Jacoby 1971).

As high dogmatism is associated with religious orthodoxy (Rokeach 1960; Wahrman 1981), dogmatism may be the moderating variable which accounts for the previous divergent findings with regard to religious affiliation. Also, studies by Baker and Gorsuch (1982), Lovekin and Malony (1977), and others have shown that low religiosity appears to be associated with greater ego strength and less anxiety. High religiosity seems to operate in an opposite manner.

A Summary Model of the Relationship among Religious Values, Personality Traits, and Consumer Choice Behaviors

Values represent the most basic element of the individual consumer's cognitive world. Religion, as an important value in this cognitive structure, can influence an individual's behavior (e.g.,

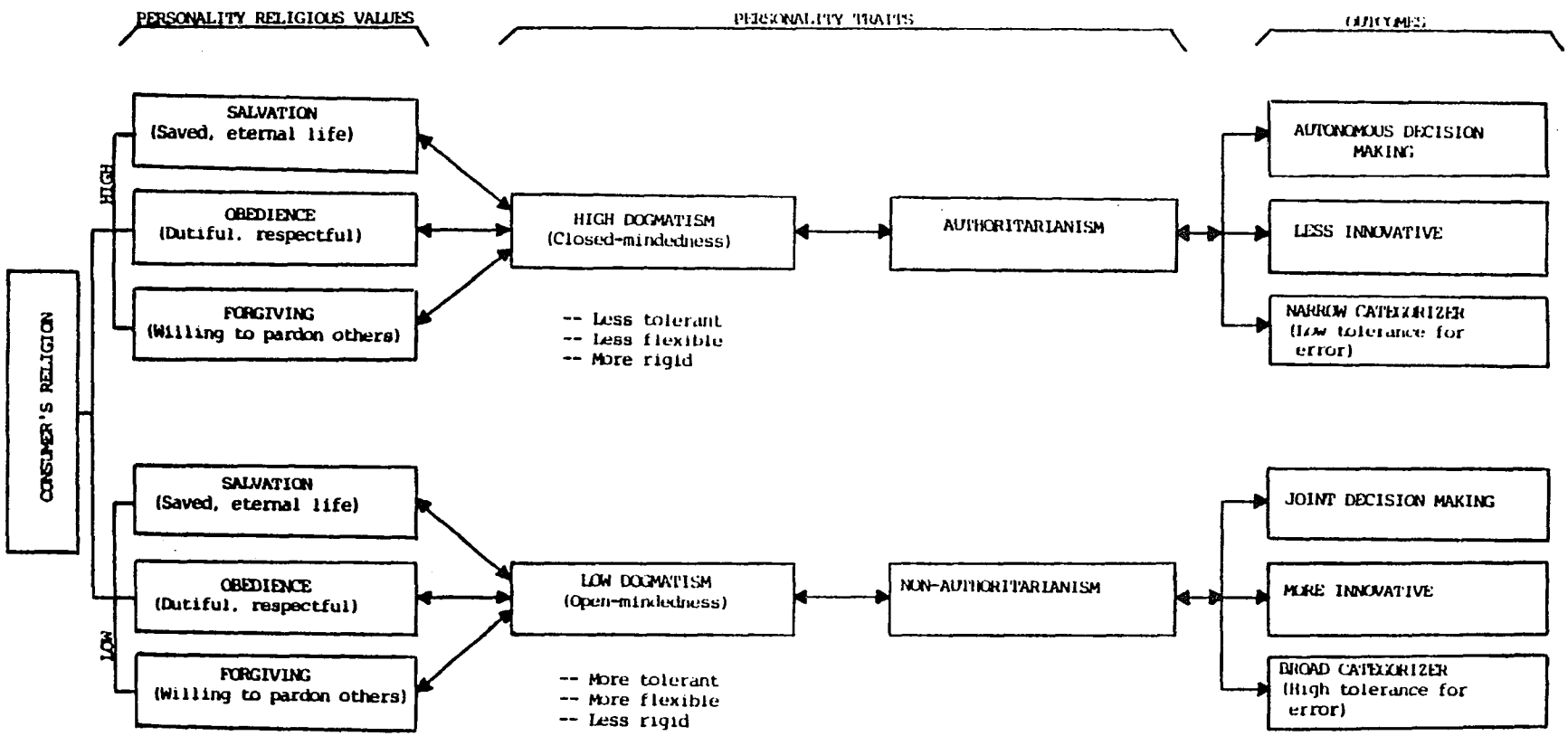
Engel and Blackwell 1982; Hirschman 1981). Religion, being an aspect of culture, is based in large part on social conditioning. In most cultures, the religious affiliation of the individual is strongly tied to "life changes" (Duncan, Featherman, and Duncan 1972). Through various connections, religion links us to a lifestyle that determines not only what and how we consume, but why we consume (Hirschman 1982). Composing this lifestyle are the socioeconomic status components (such as education, income, occupation) which are strongly related to religious identity and also a set of consumption values and beliefs that affect behavior. In light of the empirical findings in the literature, the following summary model is proposed to tie together the diverse literature reviewed in this chapter (see Figure 2-2).

As high dogmatism is associated with religious orthodoxy (Rokeach 1960; Wahrman 1981), dogmatism may be the moderating variable which accounts for the previous divergent findings with regard to the religious affiliation. Values--salvation or obedience or both--seem to be most associated with the high scores in dogmatism. Rokeach (1973) has stated that subjects high in dogmatism care less for being broad-minded, for equality and freedom; they care more for salvation and for being obedient (p. 114). Feather (1970) has also reported similar findings. He summarizes his findings by commenting that "there may be a cluster of values associated with dogmatism or 'close-mindedness,' a cluster in which salvation and obedience rank high in relative importance, and equality and broad-minded rank low in relative importance" (pp. 141-42).

From various kinds of data, there is considerable evidence that a generally consistent positive correlation exists between religious

FIGURE 2-2

A Summary Model of the Relationship Among Religious Values, Personality Traits, and Consumer Choice Behaviors



conservatism and authoritarianism (e.g., Putney and Middletown 1961; Stanley 1974). In examining this relationship, some theorists contend that because of the organized structure of religion and its place in childrearing, religious systems foster authoritarian persons (Frenkel-Brunswik 1954). Others, however, argue that given certain personality dispositions, certain religious content is usually more congenial (Photiadis and Biggar 1967). In any event, particular religious beliefs seem to fit more easily into authoritarian patterns, and the cognitive structure of authoritarianism seems to be more congenial with particular types of religion (Shils 1954). Thus, one finds considerable evidence of a high degree of authoritarianism among Catholics. Rokeach (1960) found that a group of Catholic students scored relatively high on the F Scale as well as on the dogmatism, opinionation, and ethnocentrism scales. Similarly, studies by Warshay, Goldman, and Biddle (1964) reported higher F Scale scores for Catholic samples. Jones (1958), in a study of Naval Aviation Cadets, also found that those scoring high on the F Scale were more likely to be Roman Catholic than to be Jewish.

Various attempts have been made to determine the personality correlates of authoritarianism. The general description of the authoritarian personality is one of a constricted ego marked by intolerance of ambiguity and a reliance on structure, either internal or external. One of the most recent studies based on the responses of 416 students at the University of Montana, found that those students who exhibited a high degree of conservatism (as measured by the F Scale and other indices) also exhibited a high need for achievement, cognitive structure, harm avoidance, order, succor, and social recognition, and a

low need for change, impulsiveness, play, sentience, intellectual curiosity, and understanding (Joe 1974). The findings of this study seemed to support an earlier study by Wilson and Patterson (1968), which defined the extremely conservative person as one who displays religious fundamentalism, right-wing political views, insistence on strict rules and punishments, intolerance of minority groups, preference for conventional fashions and institutions, an antihedonistic outlook, and superstitious resistance to science.

Dogmatism has been a fruitful concept, particularly as a generalized theory of authoritarianism (Vacchiano, Strauss, and Hochman 1969, p. 269). Some researchers have ventured the interpretation, as suggested by The Authoritarian Personality (Adorno et al. 1950), that the personality characteristic of intolerance of ambiguity is the common basis of the correlation between conservative attitudes and religion. Greeley (1963) reasoned that if differences in conservative attitudes between Catholics and Jews were attributable to religious influences, conservatism (traditionalism) should be greater among those who could be regarded as more religious with their tradition.

One study of values and dogmatism tentatively suggests that there may be a cluster of values associated with closed-mindedness. In a study of college freshmen concerning educational choice and student attitudes, which compared student responses on the Rokeach Dogmatism Scale and the Rokeach Value Survey, the data indicated that a cluster of values that included salvation and obedience ranked high in relative importance among those students who were more dogmatic and another cluster of values that included equality and broad-minded ranked low. Feather (1970) suggested:

> There may be other values in the cluster . . . [but] further research is needed to specify these and to discover whether a consistent pattern of values underlies the dogmatic style (pp. 141-42).

Other studies have also found cognitive rigidity and dogmatism to be correlates of the authoritarian personality (e.g., Photiadis and Johnson 1975; White, Alter, and Rardin 1975).

From these findings one might infer that persons who exhibit a high degree of authoritarianism would also place a high rank on values that encompass their need for order, conventionalism, religious fundamentalism, intolerance, etc., and a low rank on values that would encompass need for change, impulsivity, curiosity, and understanding. Studies by Allport (1967), Rokeach (1968), and Thompson (1974) have suggested that intrinsic or proreligiousness is positively and extrinsic or antireligiousness negatively correlated with dogmatism and authoritarianism.

A pervasive adherence to stereotypes has long been thought to be characteristic of the set of personality characteristics designated as authoritarianism (Adorno et al. 1950). In particular, Frenkel-Brunswik (1954) cites the authoritarian's tendency to rigid, exaggerated sex-role stereotypes that stress clearly defined roles of dominance and submission in husband-wife and general male-female relationships. Dichotomous sex-role conceptions within the authoritarian family emphasize exaggerated masculine and feminine characteristics (e.g., Siiter and Ellison 1984; Simas and McCarrey 1979). Johnson, Johnson, and Martin (1961) found that authoritarian subjects from entrepreneurial backgrounds were more restrictive than nonauthoritarians in the number of behaviors that they considered appropriate for children of both sexes.

Stones (1981) has argued that inherent in a garrison society is an integrative tendency (Koestler 1967) of individuals to place an emphasis on conformity, rigidity in attitudes, values, and behaviors, marked deference to authority, self-righteousness, and moral indignation. Such traits are characteristics of the authoritarian syndrome (Adorno et al. 1950), and so it could be expected that individuals who place higher values on dogmatism would generate authoritarian behavior.

As dogmatism and authoritarianism are positively correlated with religion and religiosity, it is therefore predicted that individuals with proreligious orientation are more likely to make autonomous decisions. The profile of the autonomous decision mode suggests a family with traditional values and attitudes toward marital roles. The power to make a decision is influenced by prescribed authority (e.g., Blood and Wolfe 1960; Davis 1976; Green and Cunningham 1975).

Summary

The stated purpose of this chapter was to provide an overview of religious values and family consumption behavior and to explore their possible relationships.

There is a general agreement that culture affects consumer behavior by means of values. According to Howard and Sheth (1969), values affect consumption motives and, therefore, individual choice criteria. Since cultural values lie at the core of culture, a prerequisite for examining the effects of culture on consumer behavior differences is to demonstrate differences in value orientations between cultures. Empirical studies have indicated that value orientations can be expected to vary by religion, age, education, and other demographics. Thus, values have been used to measure cultural differences and have also been

found to differ between groups on the basis of religion.

In the second part of this chapter, the nature of family purchasing decisions was discussed from five vantage points: (1) role structure of each family member, (2) the influence of each family member and the determinants of family decision making, (3) power relationships within the family and their ability to explain the dominance of husbands and wives in various purchase decisions, (4) the purchase decision stages and the varying roles and influences of husbands and wives at each stage in the process, and (5) the changing role structure of husbands and wives in the purchase decisions. Much of the work to date has taken an overly restrictive view of family-member roles. Most of the emphasis has been on who decides and shops within specific product categories. In behavioral science literature little is known about household roles in information gathering and product use and family-member roles across product domains and subcultural groups.

The remainder of this chapter has dealt with other dependent variables of this study: consumer innovativeness, information search, and perceived risk. Empirical research has demonstrated a number of consumer-related characteristics and personality traits that distinguish consumer innovators from later adopters, and broad categorizers from narrow categorizers. Consumer research has shown that values and personality traits influence information search and processing behavior. The chapter ends with a summary model that ties together the conclusions from the literature on religious values, personality traits, and consumer choice behaviors.

CHAPTER THREE

METHODOLOGY

This chapter considers the research design and methodological issues, including: (1) a description of the sample, (2) the questionnaire, (3) a discussion and measurement of the variables, (4) the hypotheses, and (5) the analysis procedures.

Description of the Sample

A list of Long Island (Nassau and Suffolk Counties) households with annual incomes of at least $50,000 and household heads age 35 and over with professional-managerial occupational status was obtained from Zeller and Letica, Inc.

A letter on university stationery describing the study and assuring respondents anonymity in any published results was mailed to each household in the sample. The questionnaires were then hand delivered (and later collected) by college seniors enrolled in a marketing research course. The self-administered questionnaire was necessitated by the length and complexity of the research instrument and by the wide range of other data required.

A total of 492 questionnaires was secured; of these, 349 were usable, yielding a response rate of 70.9%. Of the remaining, 78 questionnaires were excluded because of nonresponse to items or multiple responses, or because a screening question established that the microwave oven had been received as a gift. Sixty-five households refused to answer the questionnaire.

Questionnaire

The questionnaire consisted of eight major parts. Part one focused on areas of information dealing with family purchases of an automobile and microwave oven. The first basic area examined questions concerning the degree of influence of the respondent and other members of the family in the decision process. Wilkes's (1975) earlier study of process methodology, using problem recognition, search, alternative evaluation, and purchase or choice was expanded to include questions concerning what make, what model, what color, when and where to buy it, and how much to spend (Schiffman and Kanuk 1987).

Part two of the questionnaire comprised statements concerning consumer innovativeness. Parts three and four explored consumption behavior questions concerning sources of information used by the family including visits to the dealer/store before deciding on their purchase. Additionally, in part five attempts were made to assess perceptions among family members about their degree of risk concerning the decision-making process. Part six focused on questions concerning the "main users" of these two products. Part seven examined statements concerning religious ideas and social opinions. The last part of the questionnaire examined demographic information about all household members including sex, nationality, religion, age, education, occupation, income, and size of the household (see Table 3-1).

Discussion and Measurement of Variables

As reflected in the summary model presented in the literature review chapter, the independent variables consisted of religion, religious orientation, and perceived strength of religious affiliation. The dependent variables in the present study were influence and marital

TABLE 3-1

QUESTIONNAIRE STRUCTURE

PART	VARIABLE	INSTRUMENT TYPE	SCALE
I	Marital Role Orientation	A 5-point scale with responses: husband only (1), husband more than wife (2), husband and wife equally (3), wife more than husband (4), and wife only (5).	We are interested in the roles played by various family members in deciding about your most recently purchased automobile and/or microwave oven.
II	Consumer Innovativeness	A. A 5-point rating scale ranging from very great willingness (5) to very low willingness (1). B. A 5-point rating scale ranging from strongly agree (5) to strongly disagree (1).	A. How willing are you to try something new in each area listed below without first checking with others who have tried the product? B. Please indicate your agreement or disagreement with each of the following statements.
III	Information Search	A 5-point rating scale ranging from strongly agree (5) to strongly disagree (1).	To get information about what make of automobile/microwave oven to purchase would you:
IV	Dealer/Store Visits	If "yes" how many dealers/stores were visited?	Before your recent automobile/microwave oven purchase did you shop in any dealer/store for this automobile/microwave oven before deciding on your purchase?
V	Perceived Risk	A 9-point scale ranging from the lowest perceived risk (1) to the highest perceived risk (9).	In your opinion, what is the likelihood that there will be something wrong with an unfamiliar brand of each of the following items or that it will not work properly?
VI	Main users of the automobile and/or microwave oven	Response categories are husband, wife, both equally, and other.	Who in your household is the main user of the automobile/microwave oven?
VII	Religiosity	Statements are scored from 1 to 5 (3 being assigned to any item omitted by respondent).	The following items deal with various types of religious ideas and social opinions. We would like to find out how common they are.
VIII	Classification Questions	Sex Marital status Number of years married Size of household Number of children (11 years or less) Nationality Religion affiliation Age Education Occupation Income	

orientation, consumer innovativeness, information search, and perceived risk. A discussion of these variables follows.

Independent Variables

As already indicated, the main objective of this research is to explore differences in the cognitive systems of Catholic and Jewish families concerning major consumption behaviors. The independent variables are religion, perceived strength of religious affiliation, and religious orientation.

Religion: The following question was asked to measure the religious affiliation of the respondents:

1a. With which religion or denomination, if any, do you identify? Please indicate which one.

[1] Catholic	_____	[4] Islam	_____
[2] Jewish	_____	[5] Other	_____ [Specify] _____
[3] Protestant	_____	[6] None	_____

Perceived Strength of Religious Affiliation: Perceived strength of religious affiliation of the respondents was measured as follows:[10]

b. How would you rate the strength of your religious affiliation?

Very Strong				Very Weak
5	4	3	2	1

Measuring religious affiliation this way has certain advantages: it allows the individual to label himself/herself, and it permits the individual to express the strength of the religious identity he/she feels (e.g., Cohen 1978). This approach ensures that individuals who might have been "born into" a particular religious tradition, but no

[10] In the analysis, perceived strength of religious affiliation was collapsed into three categories due to increase sample sizes in each group.

longer feel any ties with it, are not judgmentally labeled by the researcher. In this study the perceived strength of affiliation measure is also important because it allows the researcher to determine if there are any significant differences in the level of identification among members of the Catholic and Jewish religious groups.

Additionally, four other statements were used to measure the attitudes of respondents toward religion (see Table A-1 in the Appendix). These statements were chosen because religious affiliation has consistently been associated with such attitudes as abortion, praying, and religious dietary laws. Researchers, for example, have regularly found an inverse relationship between religiosity and support for abortion (e.g., Ebaugh and Haney 1980; Clayton and Tolone 1973; Finner and Gamache 1969; Hedderson et al. 1974; Hedderson and Hodgson 1976; Peterson and Mauss 1976; Williams 1982). The relationship between religious affiliation and religiosity, and abortion is often thought to reflect the views of various faiths on the status of the fetus as a person (Bishop 1979). The official Catholic position is that human life begins at the moment of conception, when the soul or spirit enters the body (the doctrine of "immediate animation"), making abortion for any reason an act of murder. The Jewish position has always been very tolerant of abortion, considering life to begin at birth (Bishop 1979).

Religious Orientation: As shown in Part VII of the questionnaire the Intrinsic-Extrinsic Measure of Religious Orientation (Allport and Ross 1967) was used. The Religious Orientation Scale (ROS) is composed of 20 statements, 11 expressing extrinsic involvement and nine expressing intrinsic involvement. Statements are scored from 1 - 5, with 4 and 5 indicating an extrinsic orientation, 1 and 2 indicating an intrinsic orientation, and 3 being assigned to any items omitted by a

respondent. The total score is simply the sum of 20 item scores.

In studies by Feagin (1964), Allport and Ross (1967), and others (e.g., Baker and Gorsuch 1982; Batson and Ventis 1982; Hoge and Carroll 1973; and Meadow and Kahoe 1984), the Intrinsic-Extrinsic Scale appears to consistently demonstrate its construct validity. Reliability studies (e.g., Feagin 1964; Allport and Ross 1967) show item-to-scale correlations of .22 to .54.

The scoring procedure utilized by Allport and Ross (1967) does not allow for a fourth type of orientation -- indiscriminately antireligious.[11] Their 3-category scoring procedure might have been appropriate had the subjects constituting their sample been unanimously well-disposed toward religion.

Normally, however, researchers cannot assume that all subjects identified as members of a religious denomination are members by choice. Although Allport and Ross (1967) developed a scoring procedure (discussed above) that excluded the nonreligious category (on the assumption that there would be no nonreligious respondents in their sample of church membership), Hood (1970) proposed classifying the four groups on the basis of median splits (see Table 3-2). This procedure has since been followed by the majority of researchers using the typology. In this research, therefore, Hood's measurement was used.

Review of literature has also shown that for the religious variable, intrinsic and proreligious individuals are generally indistinguishable and both score higher than either the extrinsic and antireligious individuals (e.g., Donahue 1985; Hood 1970; Weibe and

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[11]The phrase "indiscriminately" will not be used for the rest of the dissertation.

TABLE 3-2

MEASUREMENT OF RELIGIOUS ORIENTATION

Group I:	Subjects below the median on both scales are antireligious
Group II:	Subjects above the extrinsic median but below the intrinsic median are extrinsic
Group III:	Subjects above the intrinsic median but below the extrinsic median are intrinsic
Group IV:	Subjects above the median on both scales are proreligious

Source: Adapted from Hood, R.W. Jr. (1970). "Religious orientation and the report of religious experience." Journal for the Scientific Study of Religion, 9, pp. 285-91.

Fleck 1980). Therefore, to examine the role of religiousness in consumer choice antireligious and proreligious groups were the focus of the current research.

Dependent Variables

The selection of the variables which served as the dependent variables for this research was derived from the consumer behavior literature already reviewed in an earlier chapter. The following discussions briefly explore how these dependent variables were measured in this study.

Influence and Marital Role Orientation: The questionnaires asked respondents to recall the manner in which various decisions had been made; the possible responses were that a decision was made by husband only, by husband more than wife, by husband and wife equally, by wife more than husband, or by wife only. These responses were assigned scale values 1 - 5 respectively.

The response categories used in this research were suggested by Herbst (1952) and were used by Davis (1970) to investigate the relative influence of husbands and wives in decisions to purchase an automobile and household furniture, and by Munsinger et al. (1975) to examine joint home purchasing decisions by husbands and wives.

Consumer Innovativeness: Two types of measures of innovativeness were used. The first was a "willingness to try new brands" scale for 15 different kinds of products (apparel, home furnishings, religious ideas, etc.) adapted from Hirschman (1981). A 5-point rating scale ranging from very great willingness (5) to very low willingness (1) was used to measure the respondent's tendency to be innovative in each product area. This consumption innovativeness measurement was used by Hirschman (1981)

in investigating the relationship between Jewish ethnicity and the consumption variables.

For a possibly more direct measure of innovativeness, respondents were also given eight lifestyle or activity, interest, and opinion (AIO) statements in which respondents indicated their level of agreement or disagreement on a 5-point scale. Measuring innovativeness this way helps marketers to learn the vivid and actionable consumer profiles. In its more general form, a psychographic instrument can be conceived of as a battery of statements designed to capture relevant aspects of a consumer's values (e.g., Schiffman and Kanuk 1987). Psychographics are useful because they tap different dimensions of a consumer's psychological and social nature.

Information Search: The following questions were used to measure information search behavior of Catholic and Jewish families.

To get ideas about what make automobile to purchase would you:

(1) visit the automobile dealers.
(2) visit the automobile shows.
(3) read automobile magazines.
(4) read newspaper advertisements.
(5) obtain information from sales personnel in the dealers.
(6) discuss with your friends/neighbors.
(7) listen to radio advertising.

To get ideas about what make microwave oven to purchase would you:

(1) visit the appliance stores.
(2) attend cooking seminars.
(3) read home/kitchen magazines.
(4) read newspaper advertisements.
(5) obtain information from sales personnel in the stores.
(6) discuss with your friends/neighbors.
(7) watch microwave oven advertising on television.
(8) listen to radio advertising.

Responses were arrayed on a 5-point rating scale ranging from "strongly agree" (5) to "strongly disagree" (1). Additionally, the dealer/store visit was tested by asking respondents the following

questions:

> Before your recent automobile/microwave oven purchase did you shop in any dealer/store for this automobile/microwave oven before deciding on your purchase? If "yes," how many dealers/stores did you visit?

Perceived Risk: Using the Jacoby and Kaplan (1972) methodology, respondents were asked to measure performance risk on a 9-point scale in which (1) is the lowest perceived risk and (9) is the highest perceived risk for the following purchase categories: automobile and microwave oven. The use of performance risk as an approximation of overall risk has received strong support in consumer behavior (e.g., Jacoby and Kaplan 1972; Kaplan, Szybillo, and Jacoby 1971).

Hypotheses

Based upon an extensive literature review of religious values, religiosity, family decision making, consumer innovativeness, information search, and perceived risk in Chapter Two, five hypotheses were developed for testing.

During the last two decades, there has been strong interest in family buying in the consumer research literature. In particular studies of marital roles in durable goods, purchasing represents a very active area of empirical research. Purchases of durable goods are often preceded by a progression of interrelated decisions and activities over time. Family members (husbands, wives, and children) have more opportunity to become involved at one or more steps in the process. One can assume that family members are also motivated to participate, since the purchase of the automobile, for example, often precludes other acquisitions, given budget constraints of families.

Specifically, the roles of initiator (who brings up the decision),

information gatherer (who has the greatest expertise and knowledge regarding the decision criteria), influencer (who influences that manner in which alternative brands are evaluated), decider (who makes the final decision), purchaser (who actually purchases the product), and consumer (the user of the product) have been identified by many marketing researchers (e.g., Davis 1971; Davis and Rigaux 1974; Sheth 1974). The amount of husband-dominant, wife-dominant, and joint decision making behavior displayed in each role provides the marketer with direction on how to reach and persuade the family.

The involvement of a husband and wife for any consumer decision is more likely to indicate considerable variability among families. Specifically, the power, authority, and task responsibility are inscribed into the roles of husband and wife due to existing cultural values and norms (e.g., Davis 1976). Religion in a cultural system may provide a fruitful focus in the search for connective fiber to understand some of the elements of the value and attitude structure of the individuals.

Greeley (1963) stated that if differences in conservative attitudes between Catholics and Jews were attributable to religious influences, conservatism should be greater among those who could be regarded as more religious within their tradition. The terminal value salvation, and instrumental values forgiving and obedience have been found to be the most distinctively Christian values, associated with the high scores on dogmatism (Rokeach 1973) and authoritarianism (Feather 1970) scales. Allport's approach seems to imply that intrinsic or proreligious orientation should be related to closed-mindedness and extrinsic or antireligious orientation to open-mindedness. In five studies Hoge and Carroll (1973), Kahoe (1974a), Kahoe and Dunn (1975), Paloutzian,

Jackson, and Crandall (1978), and Thompson (1974) have correlated intrinsic and extrinsic religious orientation with Rokeach's (1960) dogmatism scale. Photiadis and Johnson (1975) and White, Alter, and Rardin (1965) have reported dogmatism and cognitive rigidity to be correlates of the authoritarian personality. Frenkel-Brunswik (1954) cites the authoritarian's tendency to rigid, exaggerated sex role stereotypes that stress clearly defined roles of dominance and submission in husband-wife relationships. Siiter and Ellison (1984) and Simas and McCarrey (1979) have also shown that dichotomous sex role conceptions within the authoritarian family emphasize exaggerated masculine and feminine characteristics.

Within the religious structure, individuals have been taught to obey authority unquestioningly. Individuals who are deeply embedded in this structure can be expected to obey authority to the exclusion of other values (Bock and Warren 1972; Elms and Milgram 1966). Nonreligious extremes can become committed to an authoritarian structure of their own. Religious moderates recognize the importance of obedience to authority; they evaluate that authority in light of their concern for other men. Individuals with high religious orientation are both attitudinally and behaviorally capable of making decisions. Based upon a theoretical rationale and the weight of related empirical evidence, it is suggested that individuals with proreligious orientation and higher perceived strength of religious affiliation are more likely to make autonomous decisions. It is therefore the following hypotheses are proposed:

Hypothesis 1a

Jewish families are more prone to joint consumer decision making than Catholic families.

Hypothesis 1b

For each of these two types of families, the lower the religious orientation, the greater the use of joint consumer decisions.

Hypothesis 1c

For each of these two types of families, the lower the perceived religious affiliation, the greater the use of joint consumer decisions.

A number of personality characteristics have been related to innovativeness. The results of Jacoby (1971) and of Coney (1972) have shown that innovators have been found to be less dogmatic than noninnovators. Dogmatism is positively related to religious orthodoxy (Rokeach 1960, 1969a, b; Rim 1970) and is related to perceived threat and anxiety, resulting in a closed mind toward change. Low dogmatists are more likely to accept change in a variety of situations (Ehrlich and Lee 1969). Jacoby (1971) hypothesized that consumers who buy new products are less likely to be dogmatic (narrow-minded, risk-averse). He asked 60 young women to select 1 of 5 items in a product category. One of the items was more innovative (Virginia Slims was placed next to four older cigarette brands). Respondents lower in dogmatism were considerably more likely to select new brands. Coney (1972) replicated Jacoby's study among men and came up with the same results.

Both Allport (1967) and Rokeach (1968) have pointed out the theoretical similarity between extrinsic or antireligious orientation and dogmatism. Thompson (1974), using the Rokeach Dogmatism Scale, showed the antireligious to be more open-minded than the proreligious. The findings of Greeley (1972), Kelley (1972), and McGaw (1980a, b) have demonstrated that religious groups tend to stress traditional ideas and often reject new ones. Bossard and Ball (1950) suggest that religious

behavior demands punctilious observance and may be extremely resistant to innovation.

These findings lead to the following hypotheses:

Hypothesis 2a

Jewish families are more likely consumer innovators than Catholic families.

Hypothesis 2b

For each of these two types of families, the lower the religious orientation, the greater the consumer innovativeness.

Hypothesis 2c

For each of these two types of families, the lower the perceived religious affiliation, the greater the consumer innovativeness.

The review of the literature has shown that cognitive personality traits should influence information search and utilization. Perceived risk theory (Cox 1967), the Howard and Sheth (1969) model, and the Engel, Kollat, and Blackwell (1978) model all suggest individual cognitive differences in search and processing behavior. Rokeach (1960) reported that rigidity was negatively related to ability to structure information in problem solving. Findings of Rokeach and Kemp (1960), Argyle and Beit-Hallahmi (1975), Dittes (1969), and Baker and Gorsuch (1982) have demonstrated that religion is positively related to anxiety. On the other hand, anxiety has been suggested as a good measure of information search by several researchers (e.g., Cattell and Scheier 1961; Cox 1967; Jacoby 1971).

The proreligious individuals are reported to be more sensitive, empathetic and to exhibit greater anxiety, more conservative and traditional attitudes than antireligious individuals. Schaninger and Buss (1984) have shown that consumers with low trait anxiety, high self-esteem, high tolerance for ambiguity, and low rigidity are more

likely to search out more information. Consumers high in trait anxiety are more likely to behave in the opposite manner. Thus, antireligiousness is associated with the ability to integrate anxiety into everyday life in an adaptive manner, while proreligiousness is associated with the inability to do so.

Since Catholics place higher values on salvation and obedience, which seem to be correlated with high scores on religious orthodoxy (Rokeach 1960, 1969a, b; Rim 1970) it is predicted that individuals with proreligious orientation, and higher perceived strength of religious affiliation are less likely to search for information. The following hypotheses are therefore proposed:

Hypothesis 3a

Jewish families are more likely to expose themselves to a greater quantity of information search than Catholic families.

Hypothesis 3b

For each of these two types of families, the lower the religious orientation, the greater the consumer information search.

Hypothesis 3c

For each of these two types of families, the lower the perceived religious affiliation, the greater the consumer information search.

Hypothesis 4a

Jewish families will visit more dealers/stores before deciding on their purchase than Catholic families.

Hypothesis 4b

For each of these two types of families, the lower the religious orientation, the greater number of dealer/store visits.

Hypothesis 4c

For each of these two types of families, the lower the perceived religious affiliation, the greater number of dealer/store visits.

Since risk was first proposed by Bauer (1967) as a means of explaining consumer choice decisions, numerous empirical studies have examined various aspects of the construct.

Perceived risk as an influence on choices may be defined as the expectation of losses associated with purchase, and as such, acts as an inhibitor to purchase behavior (Peter and Ryan 1976). Risk can be conceptualized as a dual-component, multifaceted phenomenon involving both a chance aspect reflecting the likelihood of various losses and a severity measure associated with each loss (Bettman 1975; Peter and Tarpey 1975). These factors have been hypothesized to involve losses over six dimensions: financial, social, performance, psychological, physical, and convenience.

The use of performance risk as an approximation of overall perceived risk has received strong support in consumer behavior (e.g., Jacoby and Kaplan 1972; Kaplan, Szybillo, and Jacoby 1974). According to Jacoby, performance risk refers to the perceived consequences of an action and has a correlation coefficient of .79 with overall perceived risk.

Allport's approach seems to imply that extrinsic or antireligious orientation is negatively correlated with trait anxiety and dogmatism. Intrinsic or proreligiousness on the other hand, seems to operate in an opposite manner (e.g., Argyle and Beit-Hallahmi 1975; Baker and Gorsuch 1982; Dittes 1969; Rokeach and Kemp 1960). Research has indicated that individuals high in tolerance for ambiguity, low in trait anxiety, and low in rigidity select riskier products (e.g., Jacoby 1971; Schaninger and Buss 1984). Catholics place higher values on salvation and obedience, which seem to be most associated with the high scores on

dogmatism that represent a cognitive-psychodynamic network of defenses against anxiety (Rokeach 1960). Since high dogmatism is associated with religious orthodoxy (Rokeach 1960, 1969a, b; Rim 1970), individuals with proreligious orientation, and higher perceived strength of religious affiliation are more likely to perceive higher risks in their purchasing decisions. The following hypotheses are therefore suggested:

Hypothesis 5a

Jewish families will perceive lower risk in their purchasing decisions than Catholic families.

Hypothesis 5b

For each of these two types of families, the lower the religious orientation, the lower the perceived risk.

Hypothesis 5c

For each of these two types of families, the lower the perceived religious affiliation, the lower the perceived risk.

Analysis Procedures

A variety of analysis procedures was employed in this dissertation research. First, during the initial exploratory investigation, cross-tabulation, analysis of variance (ANOVA), and Kruskal Wallis statistics were performed on each question using the Statistical Package for the Social Sciences Program-X Version ($SPSS^X$). Then, in order to test the specific hypotheses established as part of this dissertation research, the data were analyzed using multivariate analysis of variance (MANOVA), factor analysis, and path analysis.

A discussion of each statistical procedure employed, including the reasons for its use, is considered in the next chapter.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH FINDINGS

In this chapter attention is directed toward the data analysis and research findings. It opens with a brief consideration of the use of multivariate analysis of variance (MANOVA), as well as a statement about the employment of factor analysis and path analysis--the primary data analysis procedures used to test the hypotheses proposed in the last chapter.

The remainder of the chapter focuses on the reliability of the scales used in this dissertation research, then presents the findings of the analysis in a form designed to enable the testing of the established hypotheses and to allow informal explorations of additional interests.

The implications of the findings as well as a summary, conclusions, and suggestions for future research will be considered in the fifth and final chapter.

Analytical Procedures

In order to determine whether the groups differ with respect to marital role orientations, consumer innovativeness, information search, and perceived risk, multivariate analysis of variance (MANOVA), and path analysis were used. Multivariate analysis of variance is a useful technique where there are multiple-interval scaled criterion variables and one categorical predictor variable (Green 1978). In principle, MANOVA is similar to univariate analysis of variance, and is concerned with the differences among the population (group) centroids (Cooley and Lohnes 1971). Application of MANOVA technique in consumer behavior has

been discussed and illustrated by several researchers (Darden and Perreault 1975; Darden and Rao 1979; Wind and Denny 1974).

The primary analytical technique employed for comparing consumer innovativeness and information search of the religious subcultures was factor analysis. The theoretical assumptions underlying factor analysis render it quite appropriate for cross-subcultural cognitive comparisons, such as those undertaken in this dissertation research (c.f. Acito, Anderson, and Engledow 1980; Anderson and Engledow 1977; Kim and Mueller 1978). Factor analysis was used in the present research to test the hypothesis that the cognitive structures underlying information search and consumer innovativeness are dissimilar between the religious subcultures examined. If discrepancies are found in cognitive structures of religious subcultures, then the researcher's ability to generalize findings from one subculture to another may be much more circumscribed than was previously assumed. Each religious group may constitute a distinct segment in a cognitive sense.

Furthermore, research hypotheses for this study were developed based on previous empirical and theoretical work establishing correlations between various characteristics. Path analysis, therefore, was also used for each hypothesis to illuminate the findings. Path analysis, or causal analysis, is a special application of regression analysis in which questions involving the minimum number of paths (causal influences) and their directions are asked by observing the sizes of regression coefficients with and without certain variables entered into the equation.

As stated in the preceding chapter, during the initial exploratory investigation, the Kruskal-Wallis test was performed. This test is

usually more powerful and is preferred when the available data are measured on at least the ordinal scale and the variable of interest is continuous. The Kruskal-Wallis test findings demonstrated similar group variances; therefore, this measurement was dropped.

Reliability Testing

In the case of multiple item scales, reliability can be thought of as the extent of internal consistency existing among the set of items forming each particular scale. In this study Cronbach's (1951) popular unidimensional Coefficient Alpha was used to test reliability. It is an estimate of the correlation between random samples of items from a universe of items and is an appropriate index of equivalence. This measurement, in effect, produces the mean of all possible split-half coefficients resulting from different splittings of the measurement instrument (Anastasi 1976). Alpha does not only yield an index of item consistency, but it may also be applied to the question of subtest consistency. The general formula can be shown as follows:

$$\alpha = \frac{n}{n-1}\left[1 - \frac{\sum V_i}{V_t}\right]$$

where V_i is the variance of item scores after weighting,

V_t is the variance of test scores,

n is the number of subtests (when applied to the battery of tests).

For this study the reliabilities can be compared to Nunnally's criteria. According to Nunnally (1967):

> What a satisfactory level of reliability is depends on how a measure is being used. In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of .60 or .50 will suffice (p. 226).

Measuring reliability this way is appropriate for consumer behavior research and has been used by several researchers (e.g., Peter and Ryan 1976).

Table 4-1 shows the results of the reliability testing. It is important to note that the scales reliabilities are very large in magnitude. This indicates a high degree of internal consistency.

Sample Findings

The sample consisted of 220 (63%) men and 129 (37%) women. To qualify for selection, potential respondents were required to be married, from households with annual incomes of $50,000 or more, headed by individuals 35 years of age or older, who had professional or managerial occupational status. The household must have purchased an automobile and/or microwave oven within the past year.

Salient demographic characteristics are presented in Table 4-2. In terms of religious affiliation, the sample consisted of 204 (58.5%) Catholics and 145 (41.5%) Jews. In the sample 112 (32.1%) were "antireligious," and 95 (27.2%) were "proreligious."

There was no association between the religiosity and sex of the respondents, number of years married, and number of children. There is a slight indication that the larger the family size, the greater the religiosity. The largest family size of six had the largest mean (2.593), followed by family size of five (2.462), of three (2.453), and of two (1.914). Catholics had larger family sizes than Jews--16.2% of the Catholic families had six or more family members compared to 1.4% of the Jewish families. In the Catholic families 18.6% had five members, compared to 9.7% of the Jewish families.

Most religious ethnic families were Jewish (2.704), followed by

TABLE 4-1

CRONBACH ALPHA RELIABILITY COEFFICIENTS FOR SCALES

SCALES	α	$\bar{X}$
Religious Orientation		
Part A	.6674	29.5640
Part B	.8424	27.4767
Purchase Decisions		
Automobile	.8904	20.8140
Microwave Oven	.9005	19.3198
Consumer Innovativeness		
Willingness	.8216	52.0000
Innovativeness	.8140	26.3140
Information Search		
Automobile	.6714	28.0872
Microwave Oven	.5865	27.2558
Dealer/Store Visit	.5511	6.6221
Risk	.6006	8.2500

TABLE 4-2
SAMPLE DEMOGRAPHIC CHARACTERISTICS

	Number	Percentage
Sex		
Husband	220	63.0%
Wife	129	37.0
Number of years married		
1 - 10 years	99	26.7
11 - 20 years	60	17.2
21 - 30 years	147	42.1
31 - 40 years	38	12.6
41 and over	5	1.4
Number of family members		
1	--	---
2	86	24.6
3	71	20.3
4	105	30.1
5	52	14.9
6	35	10.0
Number of Children (11 years or less)		
1	43	12.3
2	32	9.2
3 or more	14	4.0
no children	260	74.5
Nationality		
Irish	70	20.1
Italian	72	20.6
Jewish	132	37.8
Polish	10	2.9
Spanish	18	5.2
Other (i.e., Dutch, French, German)	47	13.5
Religion		
Catholic	204	58.5
Jewish	145	41.5
Religious Orientation		
Antireligious	112	32.1
Extrinsic	68	19.5
Intrinsic	74	21.2
Proreligious	95	27.2
Perceived Strength of Religious Affiliation (N=207)		
Strong	44	21.2
Moderate	68	32.9
Weak	95	45.9

	Husband		Wife	
Age	Number	Percentage	Number	Percentage
Under 35 years	--	--	63	18.1%
35 - 44 years	142	40.7%	107	30.7
45 - 54 years	127	36.4	135	38.7
55 - 64 years	70	20.1	39	11.2
Over 65 years	10	2.9	5	1.4
	Husband		Wife	
Education	Number	Percentage	Number	Percentage
High school	--	--	41	11.7%
Some college	58	16.6%	96	27.5
College graduate	126	36.1	109	31.2
Some graduate work	36	10.3	31	8.9
Master's or doctorate degree	129	37.0	72	20.6
	Husband		Wife	
Occupation	Number	Percentage	Number	Percentage
Professionals (dentist, lawyer, physician, professor, scientist, teacher)	92	26.4%	99	28.4%
Managers (accountant, executive, head of large firm)	197	56.4	106	30.4
Engineers	51	14.6	10	2.9
Service Workers (nurse, policeman)	6	1.7	21	6.0
Other (small business owner, secretary)	3	0.9	37	10.6
Housewives	--	--	76	21.8

Household Income		
$50,000 to $59,999	102	29.2%
$60,000 to $69,999	69	19.8
$70,000 to $79,999	59	16.9
$80,000 to $89,999	37	10.6
$90,000 to $99,999	17	4.9
$100,000 and over	65	18.6

Spanish (2.611), Irish (2.301), other (i.e., Dutch, French, German) (2,231), Italian (2.151), and Polish (1.900). For the strength of religious affiliation, the association was significant. The Kendall tau, which shows direction and strength of the relationship was (.16077).

Findings also suggested that families with proreligious orientation were more likely to have higher perceived strength of religious affiliation scores than antireligious families. As indicated in Table 4-3, in proreligious orientation, 78.9% of Catholic families and 72% of Jewish families showed strong perceived religious affiliation. Whereas in antireligious orientation, 77% of Catholic families and 47.6% of Jewish families showed weak perceived religious affiliation. Although the same pattern was found in both groups, Chi-Square findings were not significant for Jews. This might be due to small sample size for Jewish families.

Since the sample is homogeneous, individual characteristics such as the respondent's age, education, occupation, and income are not statistically significant; hence they have not been included in the analysis.

To test the attitudes of respondents toward religious and social issues, multiple logistic regression analysis was performed. Table A-2 (in the Appendix), demonstrates that both religion and religiosity were significant in predicting responses to the first statement "praying has no place in the classrooms/schools." Catholic families (44.1%) were more likely to disagree, whereas Jewish families (53.8%) agreed. The antireligious families (67.9%) tended to agree with this statement. As indicated in Table A-2, religion was a more influential variable in

TABLE 4-3

CROSS TABULATION FINDINGS FOR RELIGION, PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION AND RELIGIOUS ORIENTATION

Religion		CATHOLIC (N=131)			JEWISH (N=76)		
Perceived Strength of Religious Affiliation / Religious Orientation		Strong	Moderate	Weak	Strong	Moderate	Weak
Proreligious	NO	15	14	17	18	20	11
	%	78.9	36.8	23.0	72.0	66.7	52.4
Antireligious	NO	4	24	57	7	10	10
	%	21.1	63.2	77.0	28.0	33.3	47.6
Chi-Square		20.85976			2.02196		
DF		2			2		
Significance		0.0000*			0.3639		

*Significant at the .05 level

predicting the response to this statement than the religiosity variable.

Religion, religiosity, and interaction were included in the model. Between these two independent variables the only significant term was the interaction. As shown in Table A-3 (see Appendix), when the model was run without interaction, both religion and religiosity were significant. However, religiosity was more important than religion in predicting the response for the attitudes toward religious dietary laws. The antireligious families (60.7%) were more likely to disagree with the statement "I would not consider purchasing any food products that do not conform to my religious dietary laws." Overall, Catholic families (5.9%) were less likely to strongly agree than Jewish families (13.8%).

As indicated in Table A-4 (in the Appendix), when the full model (religion, religiosity, and interaction) was run, religion was more important than religiosity, and interaction was not significant. When the interaction was eliminated, both independent variables were significant, but religion was more important than religiosity. Catholic families (33.8%) were more likely to agree with the statement "abortion is a sin against mankind" than Jewish families (4.1%). The proreligious families (47.1%) were more likely to agree than antireligious (10.8%).

When the full model was run, the interaction was significant. As shown in Table A-5 (see Appendix), without the interaction both independent variables were significant, but the religiosity was more important than religion. Jewish families (58.6%) were more likely to agree strongly with the statement "nonessential business should not be permitted to operate on the Sabbath" than Catholic families (31.9%). The proreligious families (75%) tended to strongly agree more than antireligious families (21.4%).

Preliminary Analysis

The role dimension and other components of family decision making were examined by a series of statistical procedures. In the preliminary stage univariate and bivariate analyses were conducted to determine who were perceived to be the most important influences in various consumption roles. Cross tabulation ($p < .05$) and frequencies were conducted. Significant differences will be explored in the following discussion.

Religion

Hypothesis 1a: Influence and Marital Role Orientation

> Jewish families are more prone to joint consumer decision making than Catholic families.

For the automobile, hypothesis 1 was tested in terms of eight subdecisions: problem recognition, search for information, what make, what model, what color, when, where to buy, and how much to spend. As indicated in Table 4-4, the decision concerning how much to spend on an automobile was significant at the .05 level. In the majority of Jewish families (55.2%), husbands and wives jointly decided how much to spend on an automobile. This was the category demonstrating syncratic decision making. Whereas only 42% of the Catholic families jointly decided how much to spend on an automobile, Catholic husbands played a more dominant role in deciding how much to spend, with 47% of the families citing "husband more than wife" and "husband only."

Although six subdecisions were tested for the microwave oven only three of them, search for information, make, and how much to spend, were statistically significant. As shown in Table 4-5, wives in Jewish families obtained more information than their husbands (56.1%) and their

TABLE 4-4

CROSS TABULATION FINDINGS FOR MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS AND RELIGION

Marital Roles		Influenced How Much Money Spent	
Response Categories \ Religion		CATHOLIC	JEWISH
Wife Only	NO	7	9
	%	3.4	6.2
Wife More Than Husband	NO	17	4
	%	8.3	2.8
Husband and Wife Equally	NO	85	80
	%	41.7	55.2
Husband More Than Wife	NO	51	26
	%	25.0	17.9
Husband Only	NO	44	26
	%	21.6	17.9
Chi-Square		11.55048	
DF		4	
Significance		0.0210*	

*Significant at the .05 level

TABLE 4-5

CROSS TABULATION FINDINGS FOR MARITAL ROLES IN MICROWAVE OVEN PURCHASE DECISIONS AND RELIGION

Marital Roles		Obtained Information		Influenced Make of Microwave Oven		Influenced How Much Money Spent	
Religion / Response Categories		CATHOLIC	JEWISH	CATHOLIC	JEWISH	CATHOLIC	JEWISH
Wife Only	NO	35	17	27	23	21	18
	%	20.2	14.9	15.6	20.2	12.1	15.8
Wife More Than Husband	NO	43	47	40	32	31	20
	%	24.9	41.2	23.1	28.1	17.9	17.5
Husband and Wife Equally	NO	32	22	51	44	64	55
	%	18.5	19.3	29.5	38.6	37.0	48.2
Husband More Than Wife	NO	31	13	25	9	27	14
	%	17.9	11.4	14.5	7.9	15.6	12.3
Husband Only	NO	32	15	30	6	30	7
	%	18.5	13.2	17.3	5.3	17.3	6.1
Chi-Square		10.06960		13.70433		9.99679	
DF		4		4		4	
Significance		0.0393*		0.0083*		0.0405*	

*Significant at the .05 level

Catholic counterparts (45.1%). Husbands in Catholic families (17.3%) exerted greater influence in deciding what make of microwave oven to purchase than husbands in Jewish families (5.3%). In Jewish families 38.6% of the husbands and wives jointly decided what make of microwave oven to purchase compared to 29.5% of Catholic families. More Jewish families (48.2%) than Catholic families (37%) decided jointly how much to spend on a microwave oven.

The results suggest that for these two product categories, in Catholic families husbands were the major influence in making most of the decisions. They usually searched for information and were dominant in deciding what make to buy and how much to spend. On the other hand, in Jewish families husbands and wives were equally influential in making most of the decisions.

Hypothesis 2a: Consumer Innovativeness

> Jewish families are more likely consumer innovators than Catholic families.

Chi-Square analysis was also used to determine the relationships between religion and consumer innovativeness. Both variables were found statistically significantly related at the .05 level. As Table 4-6 reveals, overall Jewish families tended to exhibit more willingness to innovative with regard to new movies (51%) and new magazines (46.2%) than Catholic families. Similarly, Jewish families strongly agreed to try a new brand before their friends (13.1%) more than Catholic families (4.4%) did. Furthermore, Jewish families strongly disagreed to wait for others to try a new product (6.9%) and did not consider it a waste of time to try new products (4.1%) more than Catholic families (10.3% and 6.9% respectively) (see Table 4-7).

TABLE 4-6

CROSS TABULATION FINDINGS FOR WILLINGNESS
TO TRY SOMETHING AND RELIGION

Variables		New Movies		New Magazines	
Religion / Response Categories		CATHOLIC	JEWISH	CATHOLIC	JEWISH
5 Very Great Willingness	NO	48	74	60	67
	%	23.5	51.0	29.4	46.2
4	NO	58	31	52	26
	%	28.4	21.4	25.5	17.9
3	NO	61	22	53	32
	%	29.9	15.2	26.0	22.1
2	NO	20	13	30	13
	%	9.8	9.0	14.7	9.0
1 Very Little Willingness	NO	17	5	9	7
	%	8.3	3.4	4.4	4.8
Chi-Square		30.99933		11.56805	
DF		4		4	
Significance		0.0000*		0.0209*	

*Significant at the .05 level

TABLE 4-7

CROSS TABULATION FINDINGS FOR INNOVATIVENESS AND RELIGION

Variables		Wait For Others to Try New Products		Waste of Time to Try New Brands		Try New Brands Before Friends	
Religion / Response Categories		CATHOLIC	JEWISH	CATHOLIC	JEWISH	CATHOLIC	JEWISH
Strongly Agree	NO	7	13	2	5	9	19
	%	3.4	9.0	1.0	3.4	4.4	13.1
Agree	NO	52	37	11	17	50	38
	%	25.5	25.5	5.4	11.7	24.5	26.2
Neither Agree Nor Disagree	NO	69	32	70	34	89	49
	%	33.8	22.1	34.3	23.4	43.6	33.8
Disagree	NO	55	53	99	66	42	33
	%	27.0	36.6	48.5	45.5	20.6	22.8
Strongly Disagree	NO	21	10	22	23	14	6
	%	10.3	6.9	10.8	15.9	6.9	4.1
Chi-Square		12.19718		12.02463		11.43458	
DF		4		4		4	
Significance		0.0159*		0.0172*		0.0221*	

*Significant at the .05 level

Hypothesis 3a: Information Search

> Jewish families are more likely to expose themselves to a greater quantity of information search than Catholic families.

Jewish and Catholic families were found to use different sources of information (see Table 4-8). Specifically, Jewish families visited automobile dealers and used other sources (i.e., Consumer Reports) more than Catholic families. For the microwave oven, Jewish families attended cooking seminars (21.9%) more than Catholic families. Overall, these differences suggest a greater amount of information search among Jewish families.

Hypothesis 4a: Dealer/Store Visits

> Jewish families will visit more dealers/stores before deciding on their purchase than Catholic families.

Respondents from both religious groups actively visited dealers/stores to evaluate automobiles and microwave ovens; therefore, the hypothesized relationship is not significant. This was evident from the fact that 85.3% of Catholic and 98.7% of Jewish families reported visiting automobile dealers. Furthermore, findings also suggested that Catholic families (51.5%) visited stores for microwave ovens more than Jewish families (41.3%). More than half of Catholic (59.7%) and Jewish (62.3%) families visited at least three car dealers (see Table A-6, in the Appendix). Findings also suggested that 79% of Catholic and 81% of Jewish families visited at least three stores. Although these findings were not statistically significant, overall Jewish families visited more car dealers whereas Catholic families visited more stores for microwave ovens.

TABLE 4-8

CROSS TABULATION FINDINGS FOR INFORMATION SEARCH ON AUTOMOBILE & MICROWAVE OVEN AND RELIGION

		Automobile					Microwave Oven	
Variables		Visit Automobile Dealers			Other (Consumer Reports)		Attend Cooking Seminars	
Religion / Response Categories		CATHOLIC	JEWISH		CATHOLIC	JEWISH	CATHOLIC	JEWISH
Strongly Agree	NO	90	79	NO	173	109	3	2
	%	44.1	54.5		84.8	75.2	1.7	1.8
Agree	NO	83	48	NO	31	36	15	25
	%	40.7	33.1	YES %	15.2	24.8	8.7	21.9
Neither Agree Nor Disagree	NO	19	4				51	29
	%	9.3	2.8				29.5	25.4
Disagree	NO	9	8				57	33
	%	4.4	5.5				32.9	28.9
Strongly Disagree	NO	3	6				47	25
	%	1.5	4.1				27.2	21.9
Chi-Square		11.25603			4.46672		10.17323	
DF		4			1		4	
Significance		0.0238*			0.0346*		0.0376*	

*Significant at the .05 level

Hypothesis 5a: Perceived Risk

> Jewish families will perceive lower risk in their purchasing decisions than Catholic families.

Although the difference was not statistically significant, as shown in Table A-7 (see Appendix), a larger proportion of the Catholic families (38.7%) selected "50-50 chance" (4-6 range) response category, indicating neither high nor low perceived risk for their automobile purchase decisions compared to 35.2% of the Jewish families. About 43% of Jewish families answered with would "work fine" (1-3 range), indicating very low perceived risk compared to 34.8% of Catholic families.

Regarding microwave ovens, most of the respondents in both religious groups selected "50-50 chance" (4-6 range) category. Thirty-one percent of the Catholic families chose "50-50 chance" whereas only 28.1% of the Jewish families did. As indicated in Table A-7 (see Appendix), about 61% of Jewish families responded with would "work fine" (1-3 range) whereas 50.3% of Catholics responded with the same response category. From these findings it can be inferred that although the results are not statistically significant, Catholic families appear to perceive somewhat higher risks in their purchasing decisions than Jewish families.

Religious Orientation

Hypothesis 1b: Influence and Marital Role Orientation

> For each of these two types of families, the lower the religious orientation, the greater the use of joint consumer decisions.

One of the central issues of this research is the relationship between religious orientation and marital role influence at different

stages of the decision process. Cross-tabulations with Chi-Square analysis were performed and significant differences were found for the relationship between religious orientation and marital roles.

As presented in Table 4-9, a larger proportion of the antireligious families (41.1%) jointly decided what model automobile to purchase compared to the proreligious families (22.1%). Within proreligious families, husbands exerted more influence in deciding what model automobile to purchase.

Furthermore, families with antireligious orientation (50.9%) were more likely to decide jointly how much to spend on automobile compared to proreligious families (40.0%). The antireligious families were less likely to state "husband more" (17.9%) than proreligious families (34.7%). Still further, a larger proportion of the antireligious families responded with "wife more" (7.1%) than proreligious families (1.1%). These findings suggest that husbands in proreligious families were the more dominant influence in deciding what model to purchase and how much to spend on an automobile.

For the microwave oven, cross-tabulations with Chi-Square analysis indicated no significance between religious orientation and marital roles.

Hypothesis 2b: Consumer Innovativeness

> For each of these two types of families, the lower the religious orientation, the greater the consumer innovativeness.

Table 4-10 indicates that antireligious families were more willing to try new dances (28.6%), new books (48.2%), and new sports activities (31.3%).

Furthermore, antireligious families enjoyed buying unfamiliar

TABLE 4-9

CROSS TABULATION FINDINGS FOR MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS AND RELIGIOUS ORIENTATION

Marital Roles		Influenced Model of Automobile		Influenced How Much Money Spent	
Religious Orientation / Response Categories		Antireligious	Proreligious	Antireligious	Proreligious
Wife Only	NO	5	4	3	2
	%	4.5	4.2	2.7	2.1
Wife More Than Husband	NO	21	15	8	1
	%	18.8	15.8	7.1	1.1
Husband & Wife Equally	NO	46	21	57	38
	%	41.1	22.1	50.9	40.0
Husband More Than Wife	NO	19	29	20	33
	%	17.0	30.5	17.9	34.7
Husband Only	NO	21	26	24	21
	%	18.8	27.4	21.4	22.1
Chi-Square		11.73775		11.51465	
DF		4		4	
Significance		0.0194*		0.0214*	

*Significant at the .05 level

TABLE 4-10

CROSS TABULATION FINDINGS FOR WILLINGNESS TO TRY SOMETHING AND RELIGIOUS ORIENTATION

Variables	New Dances		New Books		New Sports Activities	
Religious Orientation / Response Categories	Antireligious	Proreligious	Antireligious	Proreligious	Antireligious	Proreligious
5 Very Great Willingness NO	32	11	54	33	35	14
5 Very Great Willingness %	28.6	11.6	48.2	34.7	31.3	14.7
4 NO	22	13	24	10	24	26
4 %	19.6	13.7	21.4	10.5	21.4	27.4
3 NO	25	35	22	29	27	36
3 %	22.3	36.8	19.6	30.5	24.1	37.9
2 NO	9	14	9	19	11	9
2 %	8.0	14.7	8.0	20.0	9.8	9.5
1 Very Little Willingness NO	24	22	3	4	15	10
1 Very Little Willingness %	21.4	23.2	2.7	4.2	13.4	10.5
Chi-Square	14.10971		14.20844		10.23863	
DF	4		4		4	
Significance	0.0070*		0.0067*		0.0366*	

*Significant at the .05 level

brands (27.6%), and tried new brands before their friends (14.3%). On the other hand, proreligious families tended to be indifferent for buying unfamiliar brands (42.1%) (see Table 4-11). Overall, the findings suggest that antireligious families exhibit a greater willingness to try new items and are more innovative than proreligious families.

Hypothesis 3b: Information Search

> For each of these two types of families, the lower the religious orientation, the greater the consumer information search.

To obtain information about what make of automobile to purchase, antireligious families (35.7%) tended to have more discussions with their friends/neighbors than proreligious families (18.9%).

For microwave ovens, antireligious families (60.5%) read home/kitchen magazines more than proreligious families (41.2%). Furthermore, antireligious families discussed what make microwave oven to purchase with their friends/neighbors (45.1%), and watched microwave oven advertisements (28.6%) more than proreligious families (see Table 4-12). Overall, findings suggest that antireligious families search for information more than proreligious families.

Hypothesis 4b: Dealer/Store Visits

> For each of these two types of families, the lower the religious orientation, the greater number of dealer/store visits.

Although the findings were not statistically significant, antireligious families visited more dealers than proreligious families. As shown in Table A-8 (see Appendix), 11.3% of the antireligious families visited seven or more dealers compared to 3.5% of the

TABLE 4-11

CROSS TABULATION FINDINGS FOR INNOVATIVENESS AND RELIGIOUS ORIENTATION

Variables		Enjoy Buying Unfamiliar Brands		Try New Brands Before Friends	
Religious Orientation / Response Categories		Antireligious	Proreligious	Antireligious	Proreligious
Strongly Agree	NO	8	3	16	2
	%	7.1	3.2	14.3	2.1
Agree	NO	23	16	21	29
	%	20.5	16.8	18.8	30.5
Neither Agree Nor Disagree	NO	24	40	46	39
	%	21.4	42.1	41.1	41.1
Disagree	NO	44	29	22	21
	%	39.3	30.5	19.6	22.1
Strongly Disagree	NO	13	7	7	4
	%	11.6	7.4	6.3	4.2
Chi-Square		11.08999		12.27344	
DF		4		4	
Significance		0.0256*		0.0154*	

*Significant at the .05 level

TABLE 4-12

CROSS TABULATION FINDINGS FOR INFORMATION SEARCH ON AUTOMOBILE & MICROWAVE OVEN AND RELIGIOUS ORIENTATION

Variables	Automobile: Discuss With Friends		Microwave Oven: Read Home/Kitchen Magazines		Microwave Oven: Discuss With Friends		Microwave Oven: Watch Microwave Ads on TV	
Religious Orientation / Response Categories	Antireligious	Proreligious	Antireligious	Proreligious	Antireligious	Proreligious	Antireligious	Proreligious
Strongly Agree NO	40	18	18	8	41	21	13	5
Strongly Agree %	35.7	18.9	19.8	9.4	45.1	24.7	14.3	5.9
Agree NO	51	43	37	27	37	46	16	22
Agree %	45.5	45.3	40.7	31.8	40.7	54.1	17.6	25.9
Neither Agree Nor Disagree NO	12	24	20	22	9	15	26	37
Neither Agree Nor Disagree %	10.7	25.3	22.0	25.9	9.9	17.6	28.6	43.5
Disagree NO	5	8	5	18	1	2	24	13
Disagree %	4.5	8.4	5.5	21.2	1.1	2.4	26.4	15.3
Strongly Disagree NO	4	2	11	10	3	2	12	8
Strongly Disagree %	3.6	2.1	12.1	11.8	3.3	1.2	13.2	3.4
Chi-Square	13.07671		12.70956		10.06800		10.30126	
DF	4		4		4		4	
Significance	0.0109*		0.0128*		0.0393*		0.0356*	

*Significant at the .05 level

proreligious families. The antireligious and proreligious families exhibited similar pattern in terms of store visits. A large proportion of all the families (64.2%) visited two or more stores. No significant difference was found between these two religious orientation groups.

Hypothesis 5b: Perceived Risk

> For each of these two types of families, the lower the religious orientation, the lower the perceived risk.

For the automobile, the findings were not statistically significant. As shown in Table 4-13, 56.5% of the families responded with "50-50 chance" (4-6 range), indicating neither high nor low perceived risk.

For the microwave oven, proreligious families tended to perceive higher risk than antireligious families. Overall, 14.7% of the proreligious families responded with "won't work" (7-9 range) indicating very high perceived risk, compared to 6.3% of the antireligious families. This was statistically significant at the .05 level.

Perceived Strength of Religious Affiliation

Cross-tabulation with Chi-Square analysis did not show any significant difference between the perceived strength of religious affiliation and marital role orientation, consumer innovativeness, information search, dealer/store visits, and perceived risk.

MANOVA Analysis

Parsimonious multivariate analysis of variance was used to test research hypotheses. The following discussions will explore these statistical analyses.

TABLE 4-13

CROSS TABULATION FINDINGS FOR PERCEIVED RISK IN AUTOMOBILE & MICROWAVE OVEN PURCHASE DECISIONS AND RELIGIOUS ORIENTATION

Variables		Automobile		Microwave Oven	
Religious Orientation / Response Categories		Anti religious	Pro religious	Anti religious	Pro religious
Will Probably not Work or Will Have Somehting Wrong (7,8,9)	NO	16	23	7	14
	%	14.3	24.2	6.3	14.7
50-50 Chance (4,5,6)	NO	64	53	38	40
	%	57.1	55.8	33.9	42.1
Probably Work Fine, Probably Nothing Wrong (1,2,3)	NO	32	19	67	41
	%	28.6	20.0	59.9	43.1
Chi-Square		4.23677		7.86684	
DF		2		2	
Significance		0.1202		0.0488*	

*Significant at the .05 level

Influence and Marital Role Orientation

As indicated in Table 4-14, religious orientation effect and religion by religious orientation interaction were significant in determining marital roles in automobile purchase decisions. For the religious orientation, MANOVA findings were significant for questions concerning where, and what model to purchase and how much to spend on an automobile (see Table 4-15). The antireligious families decided jointly where to purchase the automobile (2.5000) compared to proreligious families where husbands were the dominant influence in deciding where to purchase an automobile (2.1684).

A similar pattern was also found with regard to the questions concerning what model automobile to purchase and how much to spend. The antireligious families were more likely to decide jointly what model automobile to purchase (2.7321), and how much to spend on an automobile (2.5179) compared to proreligious families where husbands decided what model automobile to purchase (2.3895) and how much to spend on an automobile (2.2632).

Furthermore, the findings suggest that religion by religious orientation interact for the questions concerning where and what color automobile to purchase (see Table 4-16). Within the context of the antireligious orientation, Jewish families were more likely to decide jointly where to purchase an automobile (3.0370) compared to Catholic families which tended to be husband dominated (2.3294). In contrast, for the proreligious orientation, Catholic families were more likely to decide jointly where to purchase an automobile (2.3913) compared to Jewish families which were more likely to be husband dominated (1.9592). The findings also suggest an interaction between religion and religious orientation for the decision of what color automobile to purchase. For

TABLE 4-14

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.02418	.59248	.783
Religious Orientation	.08310	2.03587	.044
Religion by Religious Orientation	.13653	3.34495	.001

TABLE 4-15

SIGNIFICANT FINDINGS FOR RELIGIOUS ORIENTATION ON MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS

MARITAL ROLES	F	SIGNIFICANCE	R^2
Influenced where to purchase	4.75314	.030 *	.0229
Influenced what model to purchase	4.62623	.033 *	.0223
Influenced how much money spent	4.67905	.032 *	.0226

* Significant at $p < .05$

TABLE 4-16

SIGNIFICANT FINDINGS FOR RELIGION BY RELIGIOUS ORIENTATION INTERACTION ON MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS

MARITAL ROLES	F	SIGNIFICANCE	R^2
Influenced where to purchase	11.21144	.001 **	.0524
Influenced what color to purchase	7.92917	.005 **	.0376

* Significant at $p < .01$

those with an antireligious orientation, Jewish families were more likely to decide jointly what color automobile to purchase (3.1481) than Catholic families where wives were the dominant influence in deciding the color of the automobile (3.4353). Again, those with proreligious orientation, Catholic families were more likely to decide jointly what color automobile to purchase (2.8696) compared to Jewish families where wives were the dominant influence in deciding the color of the automobile (3.4898) (see Table 4-17).

Overall, the findings suggest that antireligious families were more prone to joint decision making, with regard to the automobile purchase decisions whereas proreligious families were more likely to be husband-dominated. The MANOVA findings for the microwave oven purchase decisions were not significant probably due to the lower importance of the item.

Consumer Innovativeness

For the fifteen different kinds of products (apparel, home furnishings, religious ideas, etc.), factor analysis was first performed to reduce dimensionality. Four factors were significant. Items were chosen with factor loading of .5 and above. These factors were used to develop four scales (see Table 4-18). Tables 4-19, 4-20, and A-8 (in the Appendix) indicate that religion is superior to both religious orientation and perceived strength of religious affiliation in predicting willingness to try something.

As demonstrated in Table 4-21, the religion effect was significant for the "fashion," "media," and "food" scales. For the "fashion scale" a large difference was found between Catholics and Jews. Overall, Jews were more willing to try new places to shop, new apparels, and new home

TABLE 4-17

MEAN SCORES ON MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS

Marital Roles	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
1. Stimulated Interest in Automobile	Catholic	2.6589	2.8043	2.7162	2.5526	3.0000	2.7367	2.3750	3.2500	2.6471	2.8571	2.9333	2.7099
	Jewish	2.6667	2.5510	2.6667	2.6333	2.4800	2.9000	2.6000	2.4286	2.4545	2.6500	2.5000	2.5921
		2.6607	2.6737	2.7053	2.5882	2.7045	2.7612	2.4412	2.7273	2.5714	2.7353	2.6970	2.6667
2. Obtained Information	Catholic	2.1177	2.0435	2.0135	2.2368	2.1053	2.0702	2.0417	3.2500	1.8235	2.5714	1.8000	2.0916
	Jewish	2.3333	1.7143	1.8571	2.0333	1.8800	1.9000	2.7000	2.4286	1.8182	1.7000	1.6667	1.9342
		2.1696	2.8737	1.9789	2.1471	1.9773	2.0448	2.2353	2.7273	1.8214	2.0588	1.7273	2.0338
3. Influenced When to Purchase	Catholic	2.5529	2.4130	2.4865	2.3947	2.7895	2.5790	2.3333	3.5000	2.1765	2.5000	2.6000	2.5038
	Jewish	2.9259	2.2450	2.4762	2.5667	2.4000	2.8000	3.2000	2.7143	2.1818	2.2500	2.2778	2.4868
		2.6429	2.3263	2.4842	2.4706	2.5682	2.6119	2.5882	3.0000	2.1786	2.3529	2.4242	2.4976
4. Influenced Where to Purchase	Catholic	2.3294	2.3913	2.4189	2.0000	2.7895	2.3684	2.0417	3.5000	2.5882	1.9286	2.6000	2.3511
	Jewish	3.0370	1.9592	2.0952	2.4000	2.4800	2.4000	3.4000	2.4286	1.8182	1.9000	2.1111	2.3421
		2.5000	2.1684	2.3474	2.1765	2.6136	2.7371	2.4412	3.4545	2.2857	1.9118	2.3333	2.3478
5. Influenced What Make to Purchase	Catholic	2.6235	2.5000	2.5135	2.5526	2.8947	2.5965	2.5417	3.5000	2.2353	2.5714	2.7333	2.5802
	Jewish	2.6296	2.3265	2.2857	2.6000	2.3600	2.1000	2.9000	3.0000	2.4545	2.4500	2.1111	2.4342
		2.6250	2.4105	2.4632	2.5735	2.5909	2.5224	2.6471	3.1818	2.3214	2.5000	2.3939	2.5266
6. Influenced What Model to Purchase	Catholic	2.6706	2.4565	2.6486	2.4211	2.7368	2.7719	2.4167	2.7500	2.2353	2.4286	2.7333	2.5954
	Jewish	2.9259	2.3265	2.5238	2.7000	2.3600	2.6000	3.2000	3.0000	2.4545	2.4500	2.1111	2.5395
		2.7321	2.3895	2.6211	2.5441	2.5227	2.7463	2.6471	2.9091	2.3214	2.4412	2.3939	2.5749
7. Influenced What Color to Purchase	Catholic	3.4353	2.8696	3.2838	3.1579	3.2105	3.4912	3.3750	3.0000	2.5882	2.7857	3.2667	3.2366
	Jewish	3.1481	3.4898	3.3810	3.4000	3.3200	3.1000	3.0000	3.4286	3.6364	3.6000	3.2778	3.3684
		3.3661	3.1895	3.2850	3.3053	3.2727	3.4328	3.2647	3.2727	3.0000	3.2647	3.2727	3.2850
8. Influenced How Much Money Spent	Catholic	2.4823	2.1739	2.3514	2.1842	2.8421	2.5088	2.3333	3.0000	1.8235	1.9286	2.8000	2.3740
	Jewish	2.6296	2.3469	2.4762	2.5667	2.2800	2.5000	2.6000	2.8571	2.4545	2.5500	2.0556	2.4474
		2.5179	2.2632	2.3789	2.3529	2.5227	2.5075	2.4118	2.9091	2.0714	2.2941	2.3939	2.4010

TABLE 4-18

WILLINGNESS SCALES

SCALES	SCALE'S NAME	VARIABLES
I	Fashion Scale	- new places to shop - new apparel - new home furnishings
II	Media Scale	- new movies - new books - new magazines
III	Food Scale	- new foods - new restaurants
IV	Psycho-social Scale	- new political ideas - new religious ideas

TABLE 4-19

ONE-WAY LOWER ORDER MULTIVARIATE ANALYSIS OF VARIANCE SUMMARY FINDINGS FOR WILLINGNESS TO TRY SOMETHING

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.06519	3.29224	.012
Religious Orientation	.02627	1.32670	.261
Perceived Strength of Religious Affiliation	.05091	1.27267	.255

TABLE 4-20

TWO-WAY LOWER ORDER MULTIVARIATE ANALYSIS OF VARIANCE SUMMARY FINDINGS FOR WILLINGNESS TO TRY SOMETHING

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.10532	5.26589	.000
Religious Orientation	.02899	1.44908	.219

TABLE 4-21

SIGNIFICANT FINDINGS FOR RELIGION ON WILLINGNESS TO TRY SOMETHING

SCALES	F	SIGNIFICANCE	R^2
Fashion Scale	10.45769	.001 **	.0490
Media Scale	16.16475	.000 **	.0738
Food Scale	8.81321	.003 **	.0417

** Significant at p <.01

TABLE 4-22

SIGNIFICANT FINDINGS FOR RELIGIOUS ORIENTATION ON WILLINGNESS TO TRY SOMETHING

SCALES	F	SIGNIFICANCE	R^2
Fashion Scale	6.37900	.012 *	.0305
Media Scale	9.36210	.003 **	.0441
Food Scale	6.57391	.011 *	.0314

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

furnishings (11.9605) than Catholics (11.0000).

For the "media scale," Jewish families were more willing to try new movies, new books, and new magazines (12.0921) than Catholic families (10.6565). A similar pattern was also found for the "food scale." Jews were more willing to try new foods and new restaurants (7.9868) than Catholics (7.2672).

Furthermore, MANOVA analysis demonstrated significant difference between the two religious orientations for the "fashion scale" (see Table 4-22). Antireligious families were more willing to try new places, new apparels, and new home furnishings (11.6250) than proreligious families (11.0315). For the "media scale," antireligious families (11.5714) were more willing to try new movies, new books, and new magazines than proreligious families (10.7263). Furthermore, the "food scale" findings demonstrated a significant difference between two religious orientations. The antireligious families were more willing to try new foods and new restaurants (7.7768) than proreligious families (7.2421) (see Table 4-23). MANOVA findings were not significant for the "psycho-social scale." The same pattern existed but the difference was not large enough to prove any statistical significance.

Furthermore, for the eight lifestyle statements used to measure innovativeness, factor analysis was first performed. Two factors were significant. These factors were used to create two scales (see Table 4-24). Table 4-25 indicates significant findings for religion and interaction between religion and religious orientation. Perceived strength of religious affiliation was significant in models which did not contain religion variable. When religion and perceived strength of religious affiliation were combined in the two-way lower order model,

TABLE 4-23

MEAN SCORES ON WILLINGNESS TO TRY SOMETHING

Scales	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Fashion	Catholic	11.2706	10.5000	10.6486	11.3947	11.5789	11.1579	11.3333	12.5000	8.9412	11.5000	11.3333	11.0000
	Jewish	12.7407	11.5306	12.6667	11.4667	11.9600	13.0000	12.4000	12.8571	12.3636	11.0000	11.6111	11.9605
		11.6250	11.0316	11.0947	11.4265	11.7955	11.4328	11.6471	12.7273	10.2857	11.2059	11.4848	11.3527
Media	Catholic	11.0235	9.9783	10.3378	10.9474	11.3158	11.1228	10.6667	11.7500	7.7059	11.4286	11.2000	10.6565
	Jewish	13.2963	11.4286	12.2381	12.0667	12.0000	12.9000	12.8000	14.5714	11.6364	11.7000	11.0000	12.0921
		11.5714	10.7263	10.7579	11.4412	11.7045	11.3881	11.2941	13.5455	9.2500	11.5882	11.0909	11.1836
Food	Catholic	7.5765	6.6956	7.2703	7.2895	7.2105	7.6842	7.3750	7.2500	5.8823	7.1429	7.2000	7.2672
	Jewish	8.4074	7.7551	7.3333	7.9000	8.6400	6.9000	9.2000	9.4286	7.7273	7.2500	8.3333	7.9868
		7.7768	7.2421	7.2842	7.5588	8.0227	7.5672	7.9118	8.6364	6.6071	7.2059	7.8182	7.5314
Psycho-social	Catholic	4.8588	4.9783	4.4865	5.6053	5.1053	4.6842	5.4583	3.7500	8.8235	5.8571	5.4667	4.9008
	Jewish	5.5556	4.7551	5.0000	5.0000	5.1200	5.1000	5.6000	6.1429	4.9091	4.7000	4.7222	5.0395
		5.0268	4.8632	4.6000	5.3382	5.1136	4.7463	5.5000	5.2727	4.2500	5.1765	5.0606	4.9571

TABLE 4-24

INNOVATIVENESS SCALES

SCALES	SCALE'S NAME	STATEMENTS
I	Brand Innovativeness Scale	3,6,7, and 8
II	General Innovativeness Scale	1,2, and 4

TABLE 4-25

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR INNOVATIVENESS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.03256	3.28851	.039
Religious Orientation	.01808	1.82575	.164
Religion by Religious Orientation	.05303	5.35582	.005

TABLE 4-26

SIGNIFICANT FINDINGS FOR RELIGION ON INNOVATIVENESS

SCALE	F	SIGNIFICANCE	R^2
Brand Innovativeness	6.34588	.013 *	.0304

* Significant at p <.05

TABLE 4-27

SIGNIFICANT FINDINGS FOR RELIGION BY RELIGIOUS ORIENTATION INTERACTION ON INNOVATIVENESS

SCALE	F	SIGNIFICANCE	R^2
Brand Innovativeness	10.34011	.002 **	.0485

** Significant at p <.01

perceived strength of religious affiliation was no longer significant (see Table A-11 in the Appendix). This suggests that religion is superior than perceived strength of religious affiliation in predicting consumer innovativeness.

As indicated in Tables 4-26 and 4-27, Jews were more innovative (13.4605) than Catholics (12.4275). Furthermore, for families with an antireligious orientation, Jews were more innovative (15.0370) than Catholics (12.3176) whereas for families with a proreligious orientation, Catholics were more innovative (12.6304) than Jews (12.5918) (see Table 4-28).

Information Search

To test information search for an automobile, factor analysis was performed first to reduce dimensionality. Four factors were found significant. Items were chosen with factor loading of .5 and above. These factors were used to create three scales (see Table 4-29). Findings demonstrated a significant religion effect and interaction between religion and religious orientation (see Tables 4-30 and 4-31). Religion is superior to both religious orientation and perceived strength of religious affiliation in predicting information search for automobile in all MANOVA models.

As demonstrated in Table 4-32, the religion effect was significant for the "print/show scale." Jewish families visited automobile shows and read automobile magazines (7.0132) more than Catholic families (6.2824). For the "mass media scale," as indicated in Table 4-33, the interaction was significant with antireligious Jewish families showing greater usage of the newspaper, television, and radio advertisements (10.0370) than antireligious Catholic families (8.6823). For

TABLE 4-28

MEAN SCORES ON INNOVATIVENESS

Scales	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Brand Innovations	Catholic	12.3176	12.6304	12.0135	12.8421	13.2105	12.3158	12.5833	10.7500	11.0000	13.2857	13.8667	12.4275
	Jewish	15.0370	12.5918	13.5238	13.0667	13.8800	14.2000	15.0000	16.2857	12.9091	12.1000	12.9444	13.4605
		12.9732	12.6105	12.3474	12.9412	13.5905	12.5970	13.2941	14.2727	11.7500	12.5882	13.3636	12.8068
General Innovations	Catholic	9.5059	9.9348	9.2973	10.3684	10.0000	9.3509	10.3333	9.2500	9.1176	10.4286	10.2000	9.7099
	Jewish	10.9259	9.6735	10.2857	10.1000	9.9200	10.7000	10.5000	10.5714	9.9091	9.9000	9.6667	10.0921
		9.8571	9.8421	9.5158	10.2500	9.9545	9.5522	10.3824	10.0909	9.4286	10.1176	9.9091	9.8502

TABLE 4-29

INFORMATION SEARCH SCALES: AUTOMOBILE

SCALES	SCALE'S NAME	VARIABLES
I	Mass media Scale	- newspaper advertisements - television advertisements - radio advertisements
II	Interpersonal Scale	- automobile dealers - sales personnel
III	Print/Show Scale	- automobile shows - automobile magazines

TABLE 4-30

ONE-WAY LOWER ORDER MULTIVARIATE ANALYSIS OF VARIANCE SUMMARY FINDINGS FOR INFORMATION SEARCH ON AUTOMOBILE

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.05453	3.69001	.013
Religious Orientation	.00714	0.48643	.692
Perceived Strength of Religious Affiliation	.02962	0.99219	.430

TABLE 4-31

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR INFORMATION SEARCH ON AUTOMOBILE

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.05543	3.71409	.012
Religious Orientation	.02157	1.44552	.231
Religion by Religious Orientation	.12290	8.23412	.000

TABLE 4-32

SIGNIFICANT FINDINGS FOR RELIGION ON INFORMATION SEARCH FOR AUTOMOBILE

SCALE	F	SIGNIFICANCE	R^2
Print/Show Scale	4.96971	.027 *	.0239

* Significant at p <.05

TABLE 4-33

SIGNIFICANT FINDINGS FOR RELIGION BY RELIGIOUS ORIENTATION INTERACTION ON INFORMATION SEARCH FOR AUTOMOBILE

SCALES	F	SIGNIFICANCE	R^2
Mass Media Scale	19.64294	.000 **	.0883
Print/Show Scale	5.79636	.017 *	.0278

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

proreligious families the trend was reverse, Catholics showing more information search (10.5652) than Jews (8.3673). Furthermore, significant interaction suggested that for the "print/show scale," the difference between these two religions was larger for the antireligious orientation. Mean scores were 7.9253 for Jewish and 6.2000 for Catholic families (see Table 4-34). For proreligious orientation, the difference was much smaller. Mean scores were 6.5102 for Jewish and 6.4348 for Catholic families.

Overall, Jewish families searched for information more than Catholic families except for the "mass media scale" where proreligious Catholics searched for information more than proreligious Jews.

Factor analysis was first conducted for the nine items on the microwave oven to reduce dimensionality. Four factors were significant. Items were chosen with factor loading of .5 and above. These factors were used to develop three scales (see Table 4-35). In lower order two-way model, religion was more superior than religious orientation in predicting information search for microwave oven. In full two-way model, only religion by religious orientation was significant (see Table 4-36). However, religion shows greater superiority in predicting information search for microwave oven as seen by the higher F value, with the same degrees of freedom of all three independent variables, religion emerges as the best predictor of information search.

Table 4-37 indicates significant findings for the religion effect. For the "seminar/print scale," Jews were more likely to attend cooking seminars and read home/kitchen magazines (5.9394) than Catholics (5.4909). Furthermore, for the "interpersonal scale," Jews obtained information from sales personnel (4.1061) more than Catholics (3.8091).

TABLE 4-34

MEAN SCORES ON INFORMATION SEARCH FOR AUTOMOBILE

Scales	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Mass Media	Catholic	8.6823	10.5652	9.0270	9.5000	10.2632	8.6842	8.6667	8.7500	10.1765	10.9286	10.6667	9.3435
	Jewish	10.0370	8.3673	9.7619	8.7333	8.5600	10.4000	10.1000	9.4286	9.1818	8.0500	8.2222	8.9605
		9.0089	9.4316	9.1895	9.1618	9.2955	8.9403	9.0882	9.1818	9.7857	9.2353	9.3333	9.2029
Interpersonal	Catholic	7.9294	8.0217	7.9730	7.8421	8.1579	8.1403	7.6667	6.5000	7.4118	8.1429	8.6000	7.9618
	Jewish	8.6667	8.2653	8.1429	8.1667	8.9200	7.8000	9.8000	9.4286	8.4545	7.7500	8.7222	8.4079
		8.1071	8.1474	8.0105	7.9853	8.5909	8.0896	8.0588	8.3636	7.8214	7.9118	8.6667	8.1256
Print/Show	Catholic	6.2000	6.4348	6.1216	6.7105	6.0526	6.1228	6.5000	5.5000	6.1176	7.0714	6.2000	6.2824
	Jewish	7.9259	6.5102	7.0476	6.8667	7.1600	7.7000	7.3000	9.1429	6.4545	6.6500	6.3889	7.0132
		6.6161	6.4737	6.3263	6.7794	6.6818	6.3582	6.7353	7.8182	6.2500	6.8235	6.3030	6.5507

TABLE 4-35

INFORMATION SEARCH SCALES: MICROWAVE OVEN

SCALES	SCALE'S NAME	VARIABLES
I	Mass media Scale	- newspaper advertisements - television advertisements - radio advertisements
II	Seminar/Print Scale	- cooking seminars - home/kitchen magazines
III	Interpersonal Scale	- sales personnel

TABLE 4-36

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR INFORMATION SEARCH ON MICROWAVE OVEN

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.03866	2.19053	.091
Religious Orientation	.03814	2.16119	.094
Religion by Religious Orientation	.05684	3.22121	.024

TABLE 4-37

SIGNIFICANT FINDINGS FOR RELIGION ON INFORMATION SEARCH FOR MICROWAVE OVEN

SCALES	F	SIGNIFICANCE	R^2
Seminar/Print Scale	3.96128	.048 *	.0226
Interpersonal Scale	5.21511	.024 *	.0295

* Significant at $p < .05$

TABLE 4-38

SIGNIFICANT FINDINGS FOR RELIGION BY RELIGIOUS ORIENTATION INTERACTION ON INFORMATION SEARCH FOR MICROWAVE OVEN

SCALES	F	SIGNIFICANCE	R^2
Mass Media Scale	6.86800	.010 **	.0384
Interpersonal Scale	3.99879	.047 *	.0228

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

For the "mass media scale," as shown in Table 4-38, there was a significant interaction between religion and religious orientation. For antireligious orientation, Jewish families (10.0435) had higher means on the mass media scale than Catholic families (8.7353). In proreligious orientation, Catholics (9.6429) had higher means on the mass media scale than Jews (8.6744). Furthermore, findings showed interaction between religion and religious orientation for the "interpersonal scale." Jewish families obtained information from sales personnel more than Catholic families. The difference was greater for the antireligious orientation than the proreligious orientation. In the case of the antireligious orientation, the means were 4.4783 for Jews and 3.7941 for Catholics. In contrast, in the case of the proreligious orientation, the means were 3.9070 for Jews and 3.8333 for Catholics (see Table 4-39). Overall, the findings suggest that Jewish families searched for information more than Catholic families. The difference was greater for those with an antireligious orientation.

Dealer/Store Visits

MANOVA findings demonstrated significant interaction between religion and religious orientation (see Tables 4-40 and 4-41). In the case of the antireligious orientation, Jewish families (5.7222) visited more automobile dealers than Catholic families (3.7273). In the proreligious orientation, Catholics (4.1000) visited more automobile dealers than Jews (3.3333).

Furthermore, the findings indicated the same pattern for the number of stores visited for the microwave oven. In antireligious orientation, Jewish families (3.2778) visited more stores; in proreligious orientation, Catholic families (3.7500) visited more stores (see Table 4-42).

TABLE 4-39

MEAN SCORES OF INFORMATION SEARCH FOR MICROWAVE OVEN

Scales	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Mass Media	Catholic	8.7353	9.6429	8.5246	9.7813	9.7647	8.4222	9.4210	9.0000	8.8125	10.3077	10.0000	9.0818
	Jewish	10.0435	8.6744	10.0000	9.0385	8.6522	10.4286	10.4444	9.1429	9.7000	8.2941	8.4375	9.1515
		9.0659	9.1529	8.8462	9.4483	9.1250	8.6923	9.7500	9.0909	9.1538	9.1667	9.1379	9.1080
Seminar/Print	Catholic	5.6471	5.2381	5.6721	5.7188	4.4118	5.6889	6.0000	3.5000	5.6250	5.3077	4.6923	5.4909
	Jewish	6.6087	5.5814	5.8824	5.6538	6.3043	5.8571	6.4444	7.5714	5.9000	5.2353	5.7500	5.9394
		5.8901	5.4118	5.7179	5.6897	5.5000	5.7115	6.1429	6.0909	5.7308	5.2667	5.2759	5.6591
Interpersonal	Catholic	3.7941	3.8333	3.7869	3.7500	4.0000	3.8444	3.7368	3.5000	3.6250	3.7692	4.1538	3.8091
	Jewish	4.4783	3.9070	4.3525	3.8846	4.1739	4.2857	4.3333	4.8571	4.4000	3.6470	3.8750	4.1061
		3.9670	3.8706	3.9103	3.8103	4.1000	3.9038	3.9286	4.3636	3.9231	3.7000	4.0000	3.9205

TABLE 4-40

FULL TWO-WAY MULTIVARTIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR NUMBER OF DEALER/STORE VISITS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.01752	.81453	.446
Religious Orientation	.04234	1.96892	.145
Religion by Religious Orientation	.08808	4.09585	.020

TABLE 4-41

SIGNIFICANT FINDINGS FOR RELIGION BY RELIGIOUS ORIENTATION INTERACTION ON NUMBER OF DEALER/STORE VISITS

VARIABLES	F	SIGNIFICANCE	R^2
Number of Dealer Visits	6.52521	.012*	.0313
Number of Store Visits	4.31081	.041*	.0206

*Significant at $p<.05$

TABLE 4-42

MEAN SCORES ON NUMBER OF DEALER AND STORE VISITS

Variables	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Number of Dealer Visits	Catholic	3.7273	4.1000	3.4462	3.9032	3.9412	3.6129	4.0000	4.0000	5.7500	4.3333	3.3000	3.6460
	Jewish	5.7222	3.3333	3.2778	3.8148	4.0800	4.5000	5.4286	6.7143	3.2000	3.6250	3.1818	3.7714
		3.9278	3.4302	3.4096	3.8621	4.0238	3.5000	4.1667	5.8889	3.2000	3.5357	3.5152	3.6940
Number of Store Visits	Catholic	2.4545	3.7500	2.5135	4.0000	2.0909	2.2581	2.9167	3.0000	4.5000	6.1667	2.0000	2.8485
	Jewish	3.2778	2.6667	3.0000	2.8125	3.0000	3.5000	3.1429	3.2857	2.6000	2.5000	2.8182	2.9302
		2.6875	3.1556	2.6087	3.4412	2.6552	2.4054	3.0000	3.2500	3.4444	4.0000	2.4286	2.8807

For the number of dealer/store visits, the findings suggest that for families with an antireligious orientation, Jews visited more dealers/stores than Catholics; whereas for families with a proreligious orientation, Catholics visited more dealers/stores than Jews.

Perceived Risk

MANOVA analysis shows that religious orientation is the most predictive variable in predicting the perceived risk in purchasing decisions (see Tables 4-43 and 4-44). However, religion appears to play an independent significant role in this prediction.

The findings showed a significant religion effect for the automobile purchase decisions (see Table 4-45). Overall, Catholic families (5.0840) appeared to perceive somewhat higher risks in their automobile purchase decisions than Jewish families (4.3160). Furthermore, the findings also indicated a significant religious orientation effect for both product categories (see Table 4-46). For the automobile purchase decisions, proreligious families (5.1050) tended to perceive higher risk than antireligious families (4.5450).

For the microwave oven purchase decisions, analysis indicated similar findings. Catholics (3.5880) perceived higher risks in their microwave oven purchase decisions than Jews (3.2890). Families with a proreligious orientation (4.0320) perceived higher risks than families with an antireligious orientation (3.0090) (see Table 4-47).

These findings suggest that Catholics seem to perceive somewhat higher risks in their automobile and microwave oven purchase decisions than Jews. This is apparent for the families with a proreligious orientation. Two points are also noteworthy. There was no significant interaction between religion and religious orientation. Also, due to

TABLE 4-43

TWO-WAY LOWER ORDER MULTIVARIATE ANALYSIS OF VARIANCE SUMMARY FINDINGS FOR PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.05572	5.62742	.004
Religious Orientation	.04308	4.35090	.014

TABLE 4-44

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.03008	3.03667	.050
Religious Orientation	.06872	6.94055	.001
Religion by Religious Orientation	.00599	.60474	.547

TABLE 4-45

SIGNIFICANT FINDINGS FOR RELIGION ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

VARIABLES	F	SIGNIFICANCE	R^2
Automobile	9.58699	.002 **	.0451
Microwave Oven	6.00024	.015 *	.0288

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

TABLE 4-46

SIGNIFICANT FINDINGS FOR RELIGIOUS ORIENTATION ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

VARIABLES	F	SIGNIFICANCE	R^2
Automobile	8.18911	.005 **	.0388
Microwave Oven	11.22265	.001 **	.0524

** Significant at p <.01

TABLE 4-47

MEAN SCORES ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASED DECISIONS

Variables	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
Automobile	Catholic	4.7412	5.7174	5.2700	4.5785	5.3675	4.7540	4.5420	5.7500	7.0000	4.6430	5.2672	5.0840
	Jewish	3.9259	4.3158	4.5710	4.3333	4.0800	4.6000	3.7000	3.2860	4.5450	4.6500	4.3878	4.3160
		4.5450	5.1050	5.1160	4.4712	4.6363	4.7311	4.2942	4.1823	6.0360	4.6472	4.7880	4.8020
Microwave Oven	Catholic	3.0118	4.6522	3.6220	3.3420	3.9485	2.8070	3.0830	5.5000	6.3532	3.7861	2.5333	3.5880
	Jewish	3.0000	3.4490	3.5242	2.8666	3.6000	3.5000	2.6000	2.8572	3.5450	3.0000	3.8888	3.2890
		3.0090	4.0320	3.6000	3.1320	3.7500	2.9100	2.9414	3.8184	5.2500	3.3242	3.7267	3.4780

higher R squares, these two predictors were more significant in predicting the perceived risk in the purchase of a microwave oven than in the purchase of an automobile. This suggests that more risk is generally attributed to microwave ovens.

Path Analysis

Path analysis was performed to specify causal influence indicators which correspond to hypothesized causal relationships within a model. A key idea in path analysis is that path coefficients can be used to estimate the empirical correlations among the variables in the system. Algebraic and graphical procedures for expressing each correlation as a function of path coefficients are discussed by Duncan (1966) and Heise (1975). These path coefficients are derived by ordinary least squares estimation (Heise 1975); in other words, these path coefficients are beta weights obtained from a set of multiple regressions on the posited relationship within the model.

The purpose of this method is to test a causal model that has been developed on the basis of empirical and theoretical factors. The use of this method is based on several assumptions. First, the relations among the variables are assumed to be linear. Examination of scatter plots of the residuals indicated that the residuals were randomly dispersed and that the relationships examined in this study were most likely linear. Second, the fact that the scatter plots indicated no serious problem with "outliers" suggested that the model has no special misspecification problem. Third, the variables are assumed to be measured on interval scales. To the extent that the scales are ordinal, the results may be slightly biased, although multiple regression is still the recommended procedure (Bohrnstedt and Carten 1971). The following discussion will

explore path analysis findings for each hypothesis and also indicate which independent variable is superior in predicting the dependent variable. Although in developing research hypotheses some intervening variables (i.e., dogmatism and authoritarianism) have been used, these variables were not measured in this study. Path analysis, therefore, demonstrates only the relationships between dependent and independent variables.

Influence and Marital Role Orientation

Path analysis[12] suggested that religious orientation was superior to both religion and perceived strength of religious affiliation in predicting marital roles in automobile purchase decisions. As demonstrated in Figure 4-1, this was significant for the questions concerning where, what make, what model to purchase and how much to spend on an automobile. Jewish families were more likely to make joint decisions than Catholic families. Figure 4-2 indicates findings for the microwave oven purchase decisions. Jews and Catholic families with antireligious orientation were more likely to decide jointly what make to purchase and how much to spend on a microwave oven. Path coefficients suggested that religion was superior to both religious orientation and perceived strength of religious affiliation in determining marital roles in microwave oven purchase decisions.

Consumer Innovativeness

Figure 4-3 suggests that all Jewish families and Catholic families

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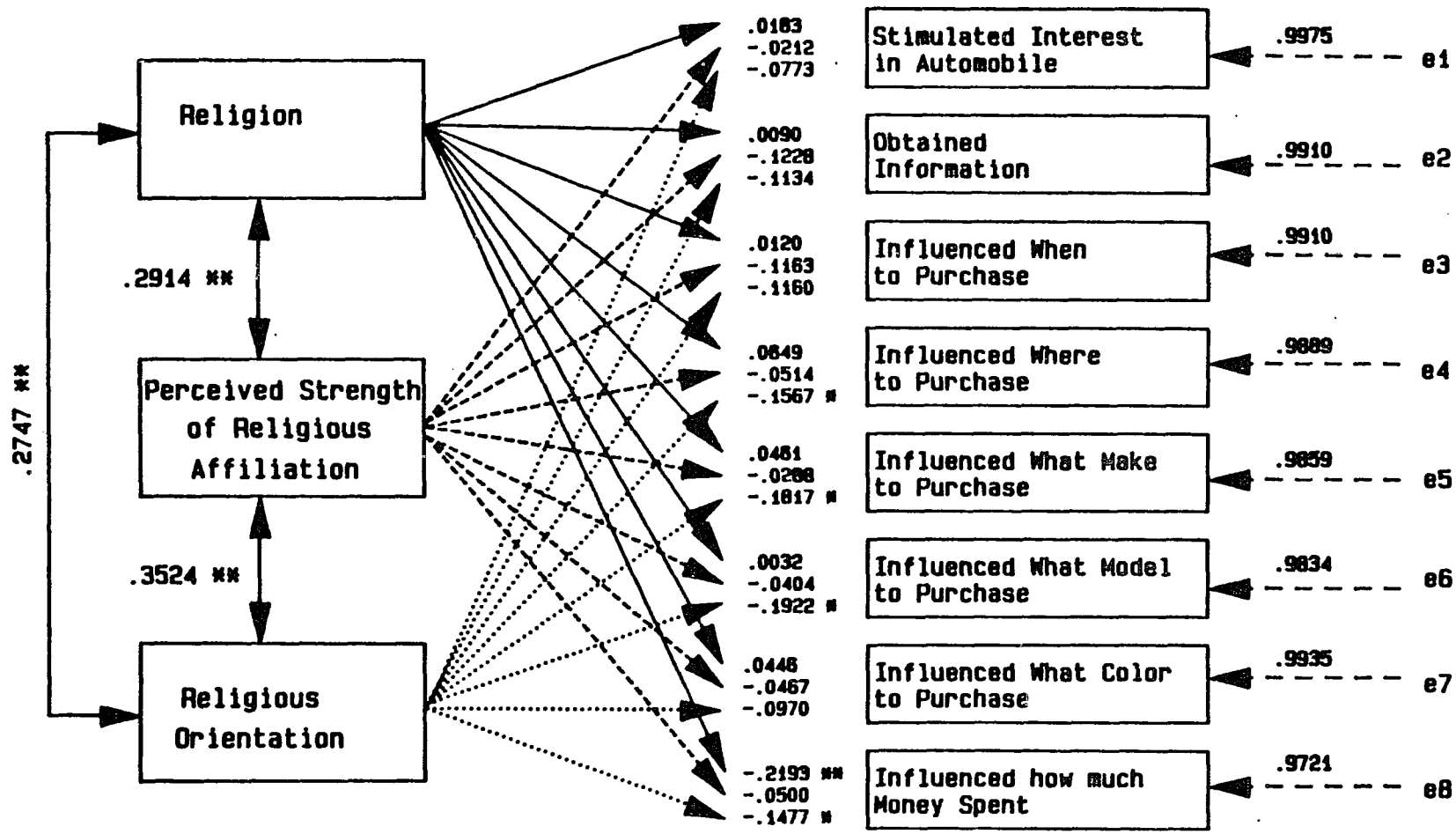
[12] In path analysis, scales for marital roles were transformed into three categories where "1" indicating dominant decision making mode, "2" indicating autonomous decision making mode, and "3" joint decision making mode.

FIGURE 4-1

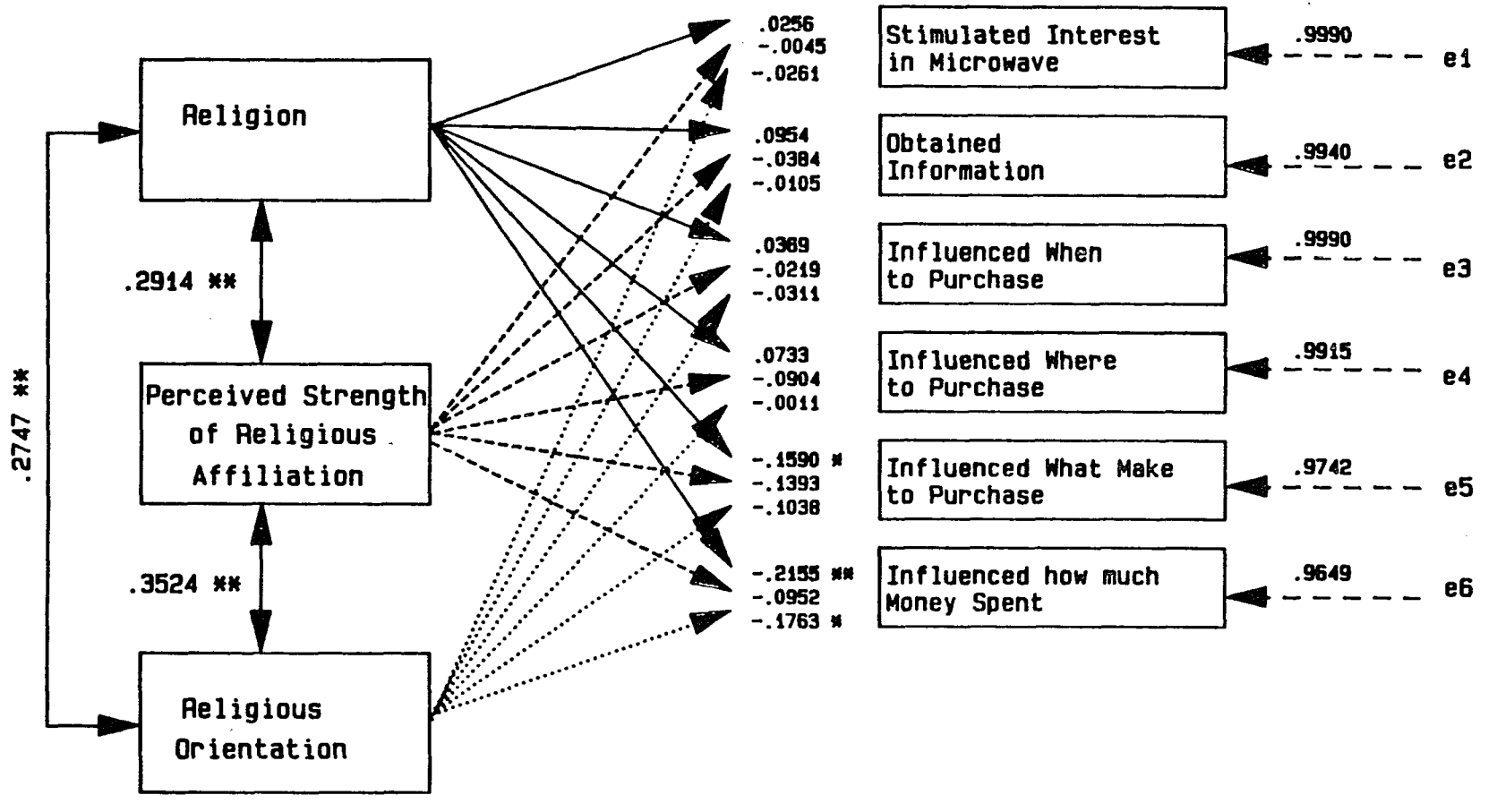
PATH ANALYSIS FOR MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS



* p < .05
** p < .01

FIGURE 4-2

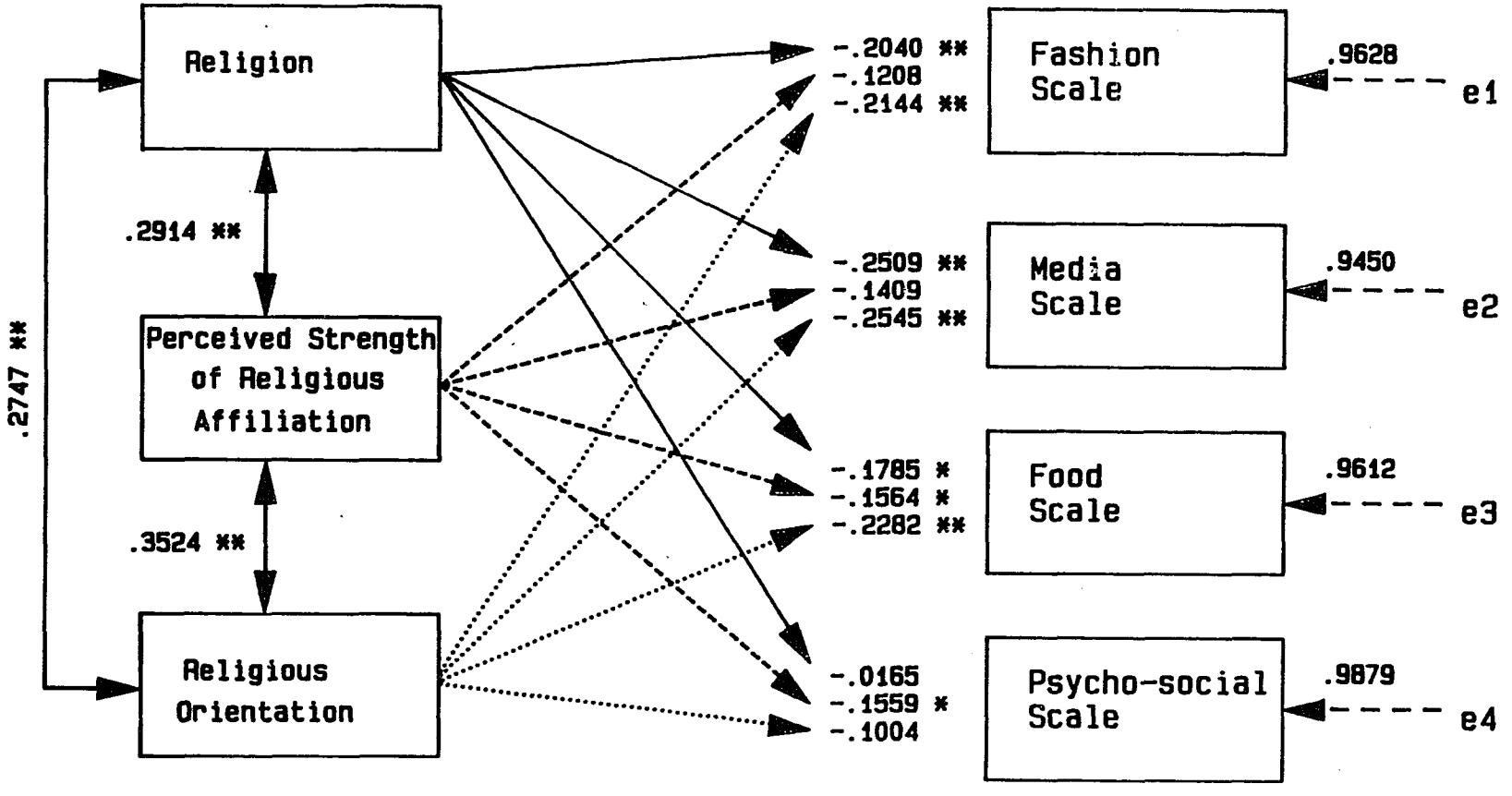
PATH ANALYSIS FOR MARITAL ROLES IN MICROWAVE PURCHASE DECISIONS



* p < .05
** p < .01

FIGURE 4-3

PATH ANALYSIS FOR WILLINGNESS TO TRY SOMETHING



* p < .05
** p < .01

with antireligious orientation were more willing to try new places to shop, new apparels, new home furnishings, new movies, new books, new magazines, new foods, and new restaurants. Furthermore, families with weak perceived religious affiliation were more willing to try new foods, new restaurants, and new political and religious ideas. Path coefficients demonstrated that religious orientation was superior to both religion and perceived strength of religious affiliation in predicting willingness to try new items.

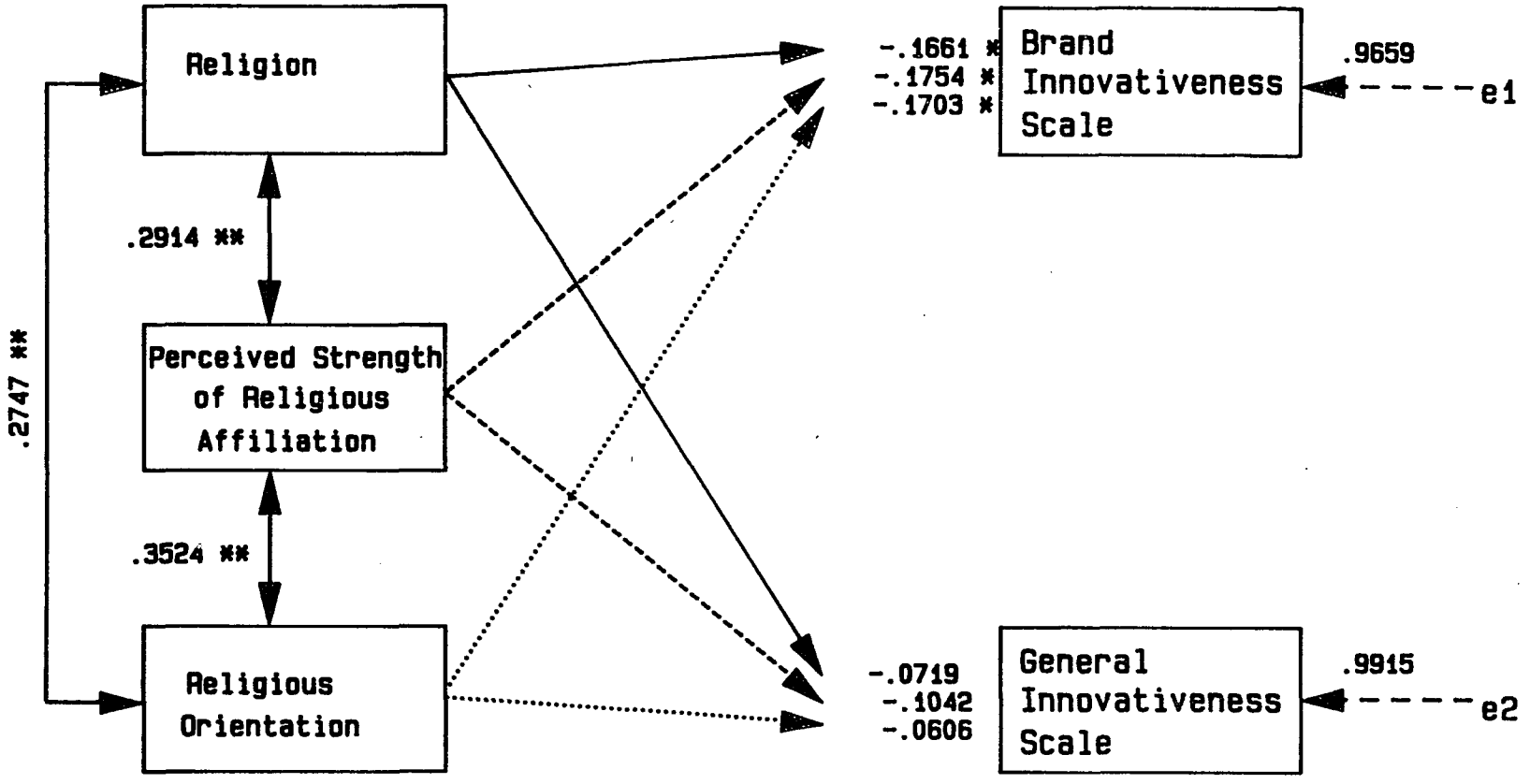
Furthermore, path analysis also suggested that all Jewish and Catholic families with antireligious orientation, and weak perceived religious affiliation were more likely to show greater brand innovativeness. Path coefficients suggested that perceived strength of religious affiliation was superior to both religion and religious orientation in predicting brand innovativeness (see Figure 4-4).

Information Search

For the print/show scale, as seen by the higher path coefficients, religion was superior to both religious orientation and perceived strength of religious affiliation in predicting search for information. As shown in Figure 4-5, Jewish families visited automobile shows and read automobile magazines more than Catholic families. For the microwave oven, on the seminar/print and interpersonal scales, religion was superior to both religious orientation and perceived strength of religious affiliation in predicting information search. Jewish families were more likely to attend cooking seminars, read home/kitchen magazines, and obtained information from sales personnel than Catholic families (see Figure 4-6).

FIGURE 4-4

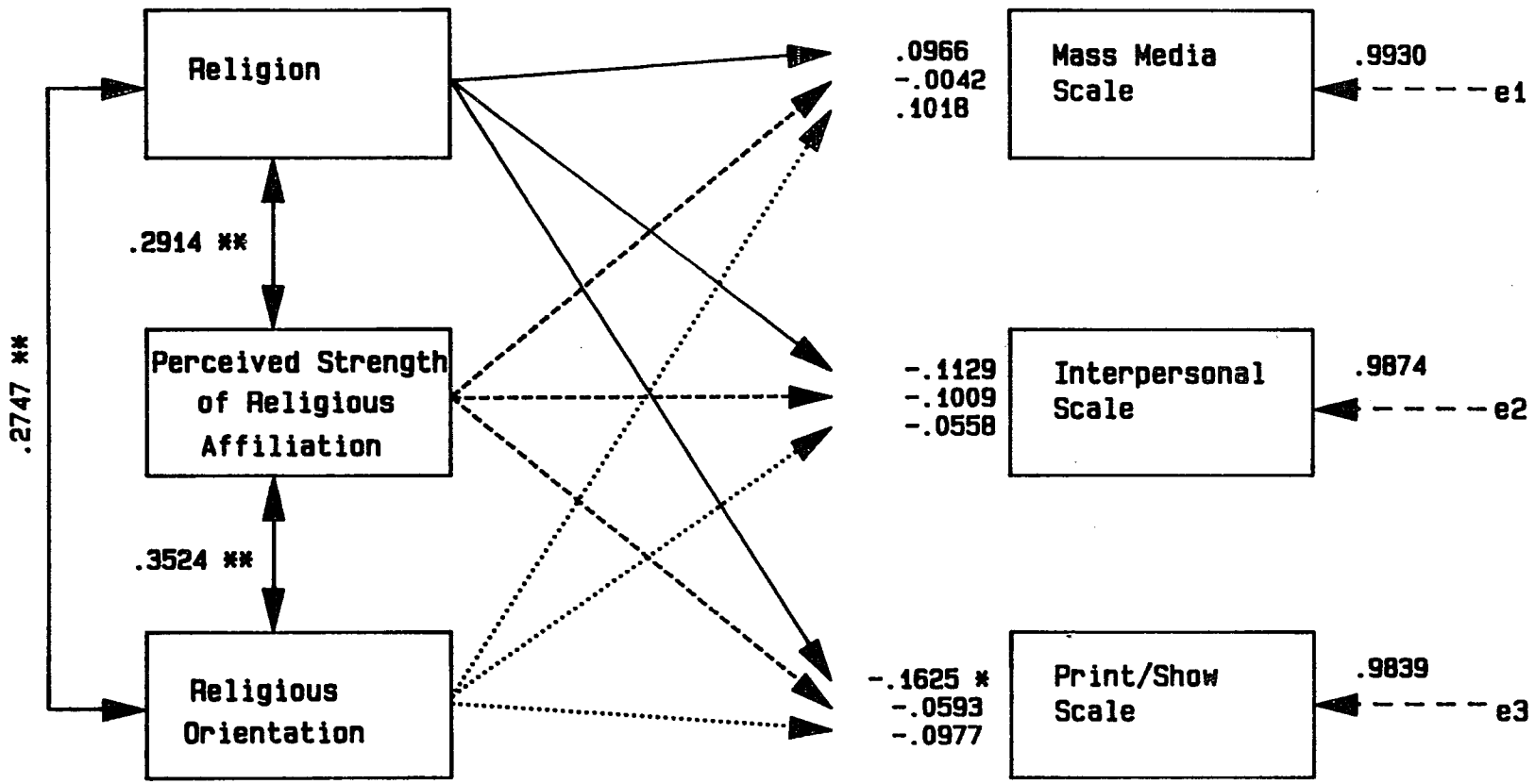
PATH ANALYSIS FOR INNOVATIVENESS



* p < .05
** p < .01

FIGURE 4-5

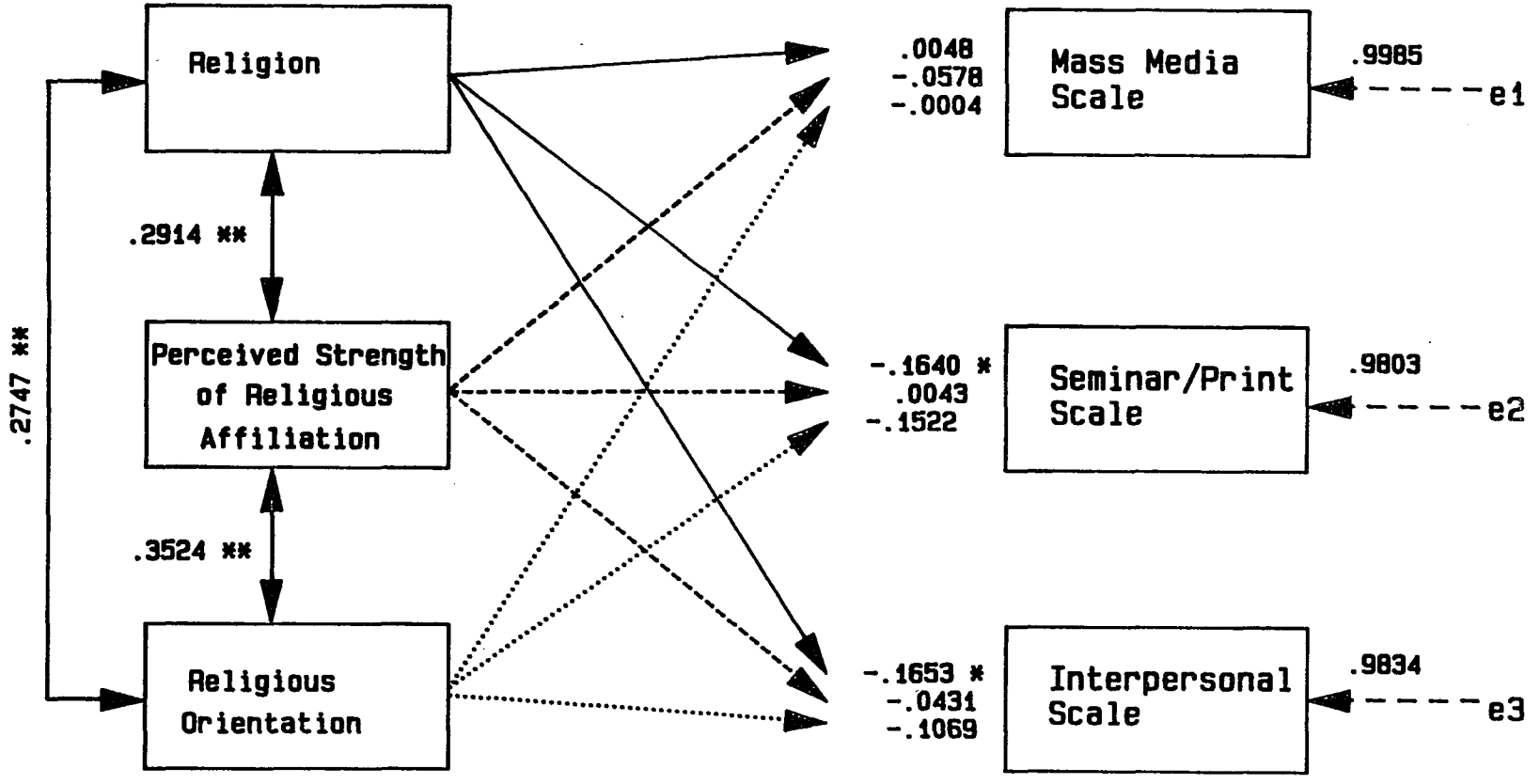
PATH ANALYSIS FOR INFORMATION SEARCH ON AUTOMOBILE



* p < .05
** p < .01

FIGURE 4-6

PATH ANALYSIS FOR INFORMATION SEARCH ON MICROWAVE OVEN



* p < .05
** p < .01

Dealer/Store Visits

Figure 4-7 indicates that due to higher path coefficients, perceived strength of religious affiliation was superior to both religion and religious orientation in predicting automobile dealer visits. Families with strong perceived religious affiliation visited more automobile dealers. For the store visit, path coefficients were not significant for religion, religious orientation, and perceived strength of religious affiliation.

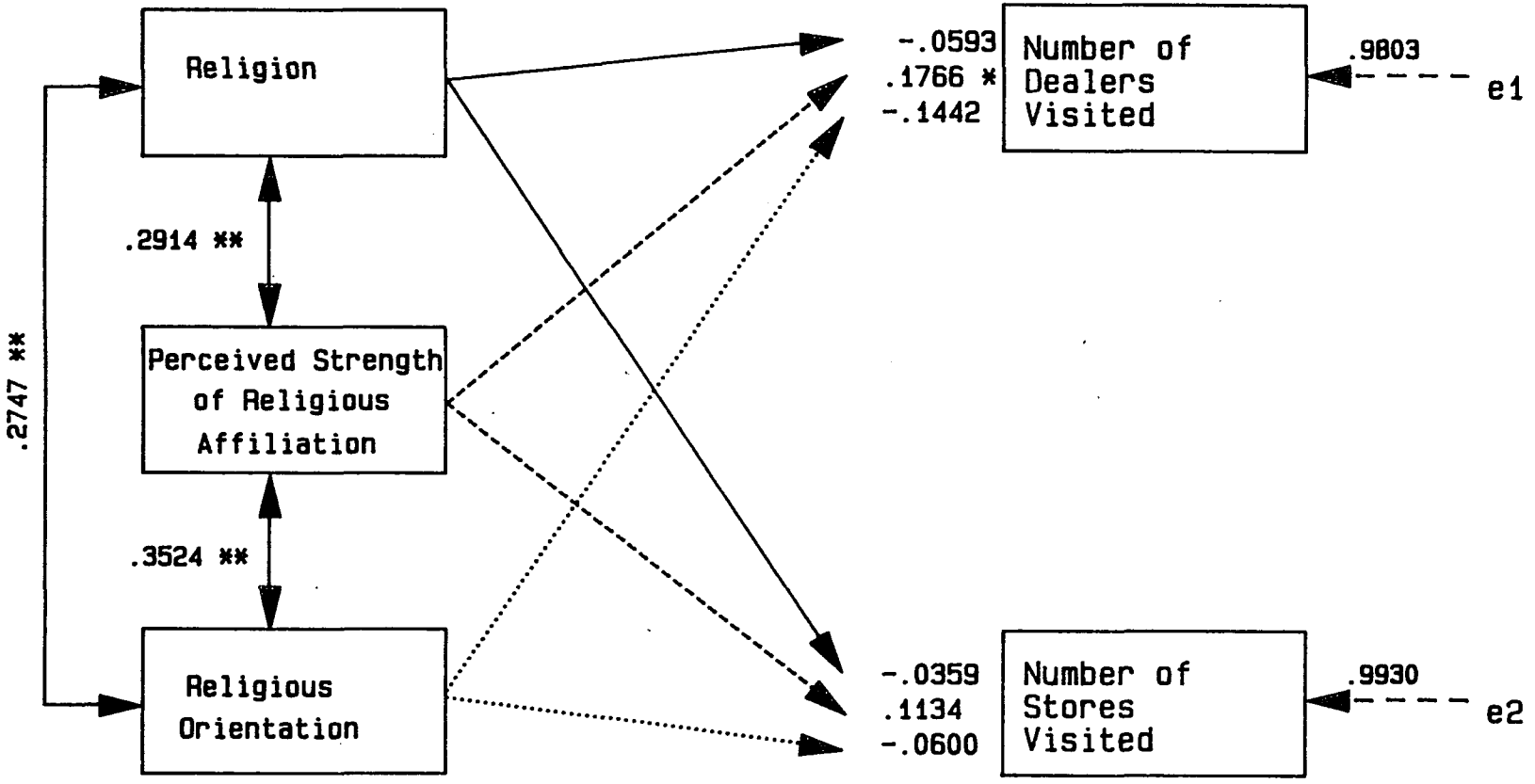
Perceived Risk

Path coefficients suggested that religious orientation was superior to both religion and perceived strength of religious affiliation in predicting the perceived risk for automobile and microwave oven purchase decisions. As indicated in Figure 4-8, Catholics and Jewish families with proreligious orientation and with strong perceived religious affiliation were more likely to perceive higher risks in their automobile and microwave oven purchase decisions.

Furthermore, path coefficients suggested that Catholics were more religious and a positive correlation was also found between religious orientation and perceived strength of religious affiliation.

FIGURE 4-7

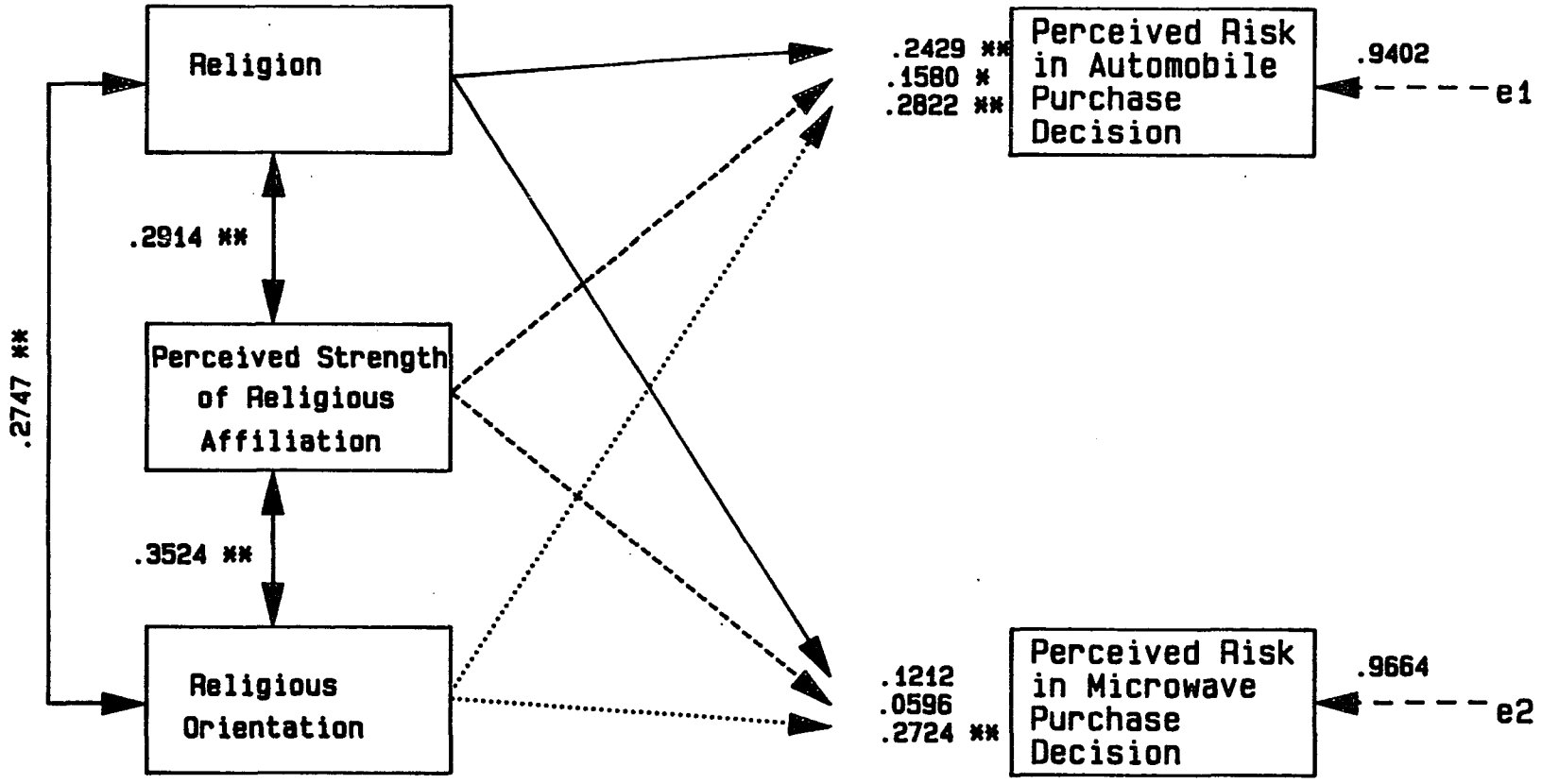
PATH ANALYSIS FOR DEALER AND STORE VISITS



* p < .05
** p < .01

FIGURE 4-8

PATH ANALYSIS FOR PERCEIVED RISK



* p < .05
** p < .01

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes all dimensions of the dissertation research, then states the conclusions of the empirical aspects of the research, suggests marketing implications of the findings, and finally offers specific recommendations for future research.

Summary

The main objective of this dissertation research was the exploration of differences in the cognitive systems possessed by Catholic and Jewish families concerning marital role orientations in automobile and microwave oven purchasing decisions, consumer innovativeness, information search, and perceived risk.

Although religion has always been a significant force in the lives of many individuals, its role in consumer choice has been characterized from two restrictive perspectives. First, religion fosters or frowns upon particular choice behavior (Hawkins, Coney, and Best 1980; Schiffman and Kanuk 1987). Second, religion serves to define the ways to do things and to provide a series of tools and techniques for social behavior (Bossard and Ball 1950; Engel and Blackwell 1982). Despite the potential importance of the religion or religiosity constructs, the empirical investigations of these constructs in consumer behavior is rare.

A detailed literature review focusing on appropriate consumer behavior and marketing topics (family decision making, consumer innovativeness, information search, and perceived risk), religion and

religiosity drawn from sociology and social psychology provided some useful insights but revealed very little information that explicitly advanced an understanding of differences in cognitive systems concerning major consumption behavior of Catholic and Jewish families.

Family consumption behavior and the process of decision making have been of keen interest to marketing strategists as well as to sociologists and social psychologists (e.g., Cox 1975; Cunningham and Green 1974; Davis 1970, 1972, 1974, 1975, 1976; Munsinger, Weber, and Hansen 1975; Safilios-Rothschild 1969). Although early research focused on husband and wife family decisions for a specific product (Blood and Wolfe 1960), attention has more recently concentrated on factors influencing various stages in the process (Munsinger, Weber, and Hansen 1975). The scope of investigation of the decision-making process needs to be broadened to include knowledge about the information search process as well as to expand the dimensions of family interactions with respect to these role patterns, religion, and religiosity.

A shortcoming of much of the literature stems from a focus on the outcomes of the decision process rather than on the internal stages. A notable exception was Davis and Rigaux (1974), who explored marital roles at three decision stages (problem recognition, search for information, and final decision) for 25 household decisions. Results suggested that the husband becomes the more dominant influence for most products as the decision stage progresses from problem recognition to information search. Moreover, when moving from information search to final decision, the patterns of influence become more equal. These earlier findings need to be reexamined in light of the religion and religiosity.

Furthermore, earlier consumer behavior models such as Howard and Sheth (1969) suggest that characteristics of the family like the cultural and subcultural values of the spouses affect role structure -- which in turn influences purchase decisions and consumption behavior. In order to create successful marketing strategies, one must bear in mind the target audience's cultural values. Members of a culture and subculture observe things the same way and invest meanings in and classify things similarly. This is known as cognitive structure. The basic life experiences of a subculture's members stem from their cognitive structure and proceed in similar directions, resulting in similar social environmental perceptions. Therefore, for different cultural groups, cultural influence affects results in fundamental differences in processing information and making decisions.

Religion, being an aspect of culture has, therefore, considerable influence on people's values, habits, and attitudes. It thus greatly influences lifestyle, which in turn affects consumer choice behavior (e.g., Wilkes, Burnett, and Howell 1986). Such influences can be seen in the goods purchased and used by various people. As a consequence, any thorough consumer behavior study requires an examination of large group effects on consumption behavior.

A suitable data base was secured to empirically explore differences in cognitive systems concerning consumption behaviors of Catholic and Jewish families, and to test a series of relevant hypotheses. Specifically, the sample examined in this dissertation research was a simple random sample; the sampling frame was obtained from a research firm and consisted of 349 households with annual incomes of $50,000 or more, headed by individuals age 35 and over, with professional-

managerial occupational status. Members of other religious groups (i.e., Protestant) were excluded because it was the purpose of the present research to focus on consumption differences of the largest minority religious groups in the United States. Protestants are divided into many denominations and are collectively considered a majority.

The selection of dependent variables for this dissertation research was made from the prevailing consumer behavior literature. The independent variables consisted of religion -- Catholicism and Judaism, religious orientation, and strength of religious affiliation. For this study, two different measures were used to measure religiosity. First, the Intrinsic-Extrinsic measure of Religious Orientation of Allport and Ross (1967) was given to the subjects. The instrument was composed of twenty statements, eleven expressing extrinsic involvement and nine expressing intrinsic involvement. The subjects responded to each statement with one of four choices ranging from strong agreement to strong disagreement. Then, depending on their tendency to agree or disagree with the two types of statements, they were assigned to one of four classifications: intrinsically religious (agreement with intrinsic and disagreement with extrinsic), extrinsically religious (agreement with extrinsic and disagreement with intrinsic), proreligious (agreement with both intrinsic and extrinsic), antireligious (disagreement with both intrinsic and extrinsic).

Studies suggest that extrinsically religious persons (those for whom religion is expedient) are found to be less conservative, less authoritarian, less dogmatic, and less traditional than intrinsically religious or proreligious persons, i.e., those for whom religion is a central focus in life (e.g., Allport and Kramer 1946; Barton and Vaughn

1976; Eysenck 1970; Hamby 1973; Rokeach 1969; Thompson 1974; Wiebe and Fleck 1980). For this religious variable, intrinsic and proreligious persons are generally indistinguishable and both score higher than either extrinsic or antireligious persons (e.g., Donahue 1985; Hamby 1973; Hood 1970; Wiebe and Fleck 1980). Therefore, to examine the role of religiosity in consumer choice, antireligious and proreligious orientations were examined in this dissertation research.

Second, respondents were requested to evaluate their own feelings of religiousness and to characterize themselves as being either very strongly religious, somewhat strongly religious, moderately religious, slightly religious, and very weakly religious. Some behavioral scientists agree that one's entire psychological makeup is organized around the "self" concept (Engel and Blackwell 1982). Consequently, if one perceives him/herself as being religious that perception would tend to influence both cognitive and conative aspects of behavior. The objective for using this measurement was to attempt to approximate an individual's perceived religious commitment and also to evaluate alternative approaches to this assessment, not to measure "true religion" or the essence of religion.

Based upon an extensive review of the literature, five hypotheses were developed. A variety of basic data analysis procedures were employed to conduct the empirical phase of this dissertation research. As part of the initial exploratory investigation, cross-tabulation, correlational analysis, Kruskal-Wallis analysis, and factor analysis were used. Then to test the five research hypotheses, the data were analyzed using multivariate analysis of variance (MANOVA), and Path analysis procedures.

Certain measurement scales were used to examine the consumption differences between Catholic and Jewish families. In order to assess the reliability of these scales, Cronbach's Coefficient Alpha was used. Detailed analysis revealed that all scales could be considered to be "very satisfactory" in terms of their reliability.

Multivariate analysis of variance analysis (MANOVA) was selected as the principal statistical procedure to test the five research hypotheses. This statistical procedure seemed particularly suitable because it provided both the main and interaction effects for religion, religious orientation, and perceived strength of religious affiliation -- the independent variables. Also, the availability of predicted values which were equal to the mean values of the independent variables was desirable from a plotting and interpretation standpoint. Furthermore, Path analysis was used for each hypothesis to illuminate the findings.

Factor analysis was performed for Hypotheses 2 and 3 -- innovativeness and information search, to reduce the dimensionality of the data. Kruskal-Wallis test findings were examined and disregarded because they demonstrated similar group variances. All hypotheses were first tested between two religious groups; the second examination of the hypotheses was based on religiosity -- religious orientation and perceived strength of religious affiliation.

Conclusions

It is the purpose of this section to reflect on the findings presented in Chapter Four. First, the findings pertaining to religious orientation and perceived strength of religious affiliation are reported on, then to provide a structured discussion, a hypothesis-by-hypothesis

format is followed (see Table 5-1).

Catholics scored somewhat higher on the religious orientation as well as on the perceived strength of religious affiliation scales. These findings are consistent with the work of Feather (1967), Jones (1958), Rokeach (1960, 1969a, b), and Wilson and Patterson (1968).

Influence and Marital Role Orientation

Hypothesis 1a

Jewish families are more prone to joint consumer decision making than Catholic families.

Hypothesis 1b

For each of these two types of families, the lower the religious orientation, the greater the use of joint consumer decisions.

Hypothesis 1c

For each of these two types of families, the lower the perceived religious affiliation, the greater the use of joint consumer decisions.

The evidence at various levels of analysis supports the acceptance of this hypothesis for religion and religious orientation. In Jewish families, husbands and wives decided jointly what make microwave oven to purchase and how much to spend on an automobile and a microwave oven; whereas in Catholic families, husbands exhibited greater dominance in the purchase decisions for these products (see Tables 5-2 and 5-3). Families with antireligious orientation were more prone to joint decision making for automobiles in most decision stages and choices including whether or not to purchase, and in subdecisions such as information search, when to buy, where to buy, what model to buy, what color to buy and even how much to spend. In proreligious families, husbands tended to dominate all decisions except color of the automobile was jointly decided. Findings for microwave oven purchase decisions

TABLE 5-1

SUMMARY OF SIGNIFICANCE OF THE RESEARCH VARIABLES

Variables	Religion	Religious Orientation	Perceived Strength of Religious Affiliation
Marital Roles			
Automobile	ns	S (A-joint) (P-husband)	ns
Microwave Oven	ns	ns	ns
Willingness	S (J more than C)	S (A more than P)	ns
Innovativeness	S (J more than C)	S (A more than P)	S (M more than W&S)
Information Search			
Automobile	S (J more than C)	ns	ns
Microwave Oven	S (J more than C)	S (A more than P)	ns
Number of Dealer/Store visits	ns	ns	ns
Perceived Risk			
Automobile	ns	ns	ns
Microwave Oven	ns	S (P more than A)	ns

Key:
S = Significant (J-Jewish, C-Catholic, A-Antireligious, P-Proreligious, M-Moderate, W-Weak, S-Strong)
ns= Not Significant

TABLE 5-2

SUMMARY OF MARITAL ROLES IN AUTOMOBILE PURCHASE DECISIONS, RELIGION, RELIGIOUS ORIENTATION, AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Marital Roles	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Stimulated interest in automobile	ns	ns	ns	ns	ns	ns	ns
Obtained information	ns	ns	H	=	ns	ns	ns
Influenced when to purchase	ns	ns	H	=	ns	ns	ns
Influenced where to purchase	ns	ns	H	=	ns	ns	ns
Influenced what make to purchase	ns	ns	ns	ns	ns	ns	ns
Influenced what model to purchase	ns	ns	H	=	ns	ns	ns
Influenced what color to purchase	ns	ns	=	=	ns	ns	ns
Influenced how much money spent	H	=	H	=	ns	ns	ns

Key:

H - Husband more influential than wife
W - Wife more influential than husband
= - Husband and wife equally influential
ns- Not significant

TABLE 5-3

SUMMARY OF MARITAL ROLES IN MICROWAVE OVEN PURCHASE DECISIONS, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Marital Roles	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Stimulated interest in microwave oven	ns	ns	ns	ns	ns	ns	ns
Obtained information	W	W	ns	ns	ns	ns	ns
Influenced when to purchase	ns	ns	ns	ns	ns	ns	ns
Influenced where to purchase	ns	ns	ns	ns	ns	ns	ns
Influenced what make to purchase	H	=	ns	ns	ns	ns	ns
Influenced how much money spent	H	=	ns	ns	ns	ns	ns

Key:

H - Husband more influential than wife
W - Wife more influential than husband
= - Husband and wife equally influential
ns- Not significant

were not significant.

These findings support the propositions suggested by Alvirez and Bean (1976), Loudon and Bitta (1979), Penalosa (1968), and Strodtbeck (1958) concerning Catholic and Jewish family structure. Findings also support that persons with higher religiosity tend to be more traditional in their outlook toward their sex roles (e.g., Siiter and Ellison 1984; Simas and McCarrey 1979; Wilkes, Burnett, and Howell 1986).

Consumer Innovativeness

Hypothesis 2a

Jewish families are more likely consumer innovators than Catholic families.

Hypothesis 2b

For each of these two types of families, the lower the religious orientation, the greater the consumer innovativeness.

Hypothesis 2c

For each of these two types of families, the lower the perceived religious affiliation, the greater the consumer innovativeness.

Findings suggest that this hypothesis should be accepted. Specifically, Jewish families were more innovative than Catholic families in all religiosity groupings. The antireligious families were more likely to exhibit considerably greater openness to new dances, new books, and new sports activities than proreligious families (see Table 5-4). Furthermore, the antireligious families were more likely to enjoy buying unfamiliar brands and trying new brands before their friends (see Table 5-5).

These findings are consistent with the findings of Hirschman (1981) who found Jews to be more innovative than non-Jews and of Wilkes et al.

TABLE 5-4

SUMMARY OF WILLINGNESS TO TRY SOMETHING, RELIGION, RELIGIOUS ORIENTATION, AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Variables	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
New dances	ns	ns	LW	MW	ns	ns	ns
New places to shop	ns	ns	ns	ns	ns	ns	ns
New apparel	ns	ns	ns	ns	ns	ns	ns
New home furnishings	ns	ns	ns	ns	ns	ns	ns
New movies	LW	MW	ns	ns	ns	ns	ns
New books	ns	ns	LW	MW	ns	ns	ns
New magazines	LW	MW	ns	ns	ns	ns	ns
New vacation spots	ns	ns	ns	ns	ns	ns	ns
New foods	ns	ns	ns	ns	ns	ns	ns
New restaurants	ns	ns	ns	ns	ns	ns	ns
New political ideas	ns	ns	ns	ns	ns	ns	ns
New religious ideas	ns	ns	ns	ns	ns	ns	ns
New types of transportation	ns	ns	ns	ns	ns	ns	ns
New hairstyles	ns	ns	ns	ns	ns	ns	ns
New sports activities	ns	ns	LW	MW	ns	ns	ns

Key:

MW - More Willingness
LW - Less Willingness
ns - Not Significant

TABLE 5-5

SUMMARY OF INNOVATIVENESS, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Variables	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Try new products at least once	ns	ns	ns	ns	ns	ns	ns
Wait for others to try new products	SA	A	ns	ns	ns	ns	ns
Investigate new brands	ns	ns	ns	ns	ns	ns	ns
Cautious about trying new products	ns	ns	ns	ns	ns	ns	ns
Waste of time to try new brands	SA	A	ns	ns	ns	ns	ns
Eager to find out about new products	ns	ns	ns	ns	ns	ns	ns
Enjoy buying unfamiliar brands	ns	ns	SD	SA	ns	ns	ns
Try new brands before friends	SD	SA	SD	SA	ns	ns	ns

Key:

SA - Strongly Agree
A - Agree
SD - Strongly Disagree
ns - Not Significant

(1986), who found that less religious persons are somewhat more likely to be opinion leaders.

Information Search

Hypothesis 3a

Jewish families are more likely to expose themselves to a greater quantity of information search than Catholic families.

Hypothesis 3b

For each of these two types of families, the lower the religious orientation, the greater the consumer information search.

Hypothesis 3c

For each of these two types of families, the lower the perceived religious affiliation, the greater the consumer information search.

The results provided support for this hypothesis. Jews visited the automobile dealers, used Consumer Reports, and attend cooking seminars more than Catholics (see Tables 5-6 and 5-7). The antireligious families were likely to read home/kitchen magazines, discuss automobile/microwave oven purchase decisions with their friends/neighbors, and watch microwave oven advertisements more than proreligious families.

Dealer/Store Visits

Hypothesis 4a

Jewish families will visit more dealers/stores before deciding on their purchase than Catholic families.

Hypothesis 4b

For each of these two types of families, the lower the religious orientation, the greater number of dealer/store visits.

Hypothesis 4c

For each of these two types of families, the lower the perceived religious affiliation, the greater number of dealer/store visits.

TABLE 5-6

SUMMARY OF INFORMATION SEARCH ON AUTOMOBILE, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Sources of information	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Visit the automobile dealers	L	M	ns	ns	ns	ns	ns
Visit the automobile shows	ns	ns	ns	ns	ns	ns	ns
Read automobile magazines	ns	ns	ns	ns	ns	ns	ns
Read newspaper advertisements	ns	ns	ns	ns	ns	ns	ns
Obtained information from sales personnel	ns	ns	ns	ns	ns	ns	ns
Discuss with friends/neighbors	ns	ns	L	M	ns	ns	ns
Watch automobile advertising on television	ns	ns	ns	ns	ns	ns	ns
Listen to radio advertising	ns	ns	ns	ns	ns	ns	ns
Other (Consumer Reports)	L	M	ns	ns	ns	ns	ns

Key:

M - More
L - Less
ns - Not Significant

TABLE 5-7

SUMMARY OF INFORMATION SEARCH ON MICROWAVE OVEN, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Sources of information	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Visit the appliance stores	ns	ns	ns	ns	ns	ns	ns
Attend cooking seminars	L	M	ns	ns	ns	ns	ns
Read home/kitchen magazines	ns	ns	L	M	ns	ns	ns
Read newspaper advertisements	ns	ns	ns	ns	ns	ns	ns
Obtained information from sales personnel	ns	ns	ns	ns	ns	ns	ns
Discuss with friends/neighbors	ns	ns	L	M	ns	ns	ns
Watch microwave oven advertising on television	ns	ns	L	M	ns	ns	ns
Listen to radio advertising	ns	ns	ns	ns	ns	ns	ns
Other (Consumer Reports)	ns	ns	ns	ns	ns	ns	ns

Key:

M - More
L - Less
ns - Not Significant

Catholic and Jewish families actively visited dealers/stores to evaluate automobiles and microwave ovens; therefore the hypothesized relationship is not significant at the .05 level (see Table A-22, in the Appendix). Furthermore, MANOVA findings indicated significant interaction between religion and religious orientation. For families with antireligious orientation, Jews visited more dealers/stores than Catholics; whereas for families with proreligious orientation, Catholics visited more dealers/stores than Jews.

A study by Schaninger and Buss (1984) suggested that consumers with low trait anxiety and high tolerance for ambiguity are more likely to search out more information. Furthermore, studies by Baker and Gorsuch (1982), Lovekin and Malony (1977), Rokeach and Kemp (1960) indicated that religiosity is correlated positively with trait anxiety. The current findings are, therefore, consistent with previous studies.

Perceived Risk

Hypothesis 5a

Jewish families will perceive lower risk in their purchasing decisions than Catholic families.

Hypothesis 5b

For each of these two types of families, the lower the religious orientation, the lower the perceived risk.

Hypothesis 5c

For each of these two types of families, the lower the perceived religious affiliation, the lower the perceived risk.

The results of the MANOVA analysis suggest that this hypothesis should be accepted. In all religiosity groups, Catholic families were more likely than Jewish families to perceive somewhat higher risks in their automobile and microwave oven purchase decisions (see Table 5-8).

TABLE 5-8

SUMMARY OF PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Product Categories	Religion		Religious Orientation		Perceived Strength of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Automobile	ns	ns	ns	ns	ns	ns	ns
Microwave Oven	ns	ns	HR	LS	ns	ns	ns

Key:
HR - High Perceived Risk
LS - Low Perceived Risk
ns - Not Significant

In actuality, the findings of this hypothesis are not surprising. It is well established in the social psychology literature that the higher the religiosity, the greater the trait anxiety (e.g., Argle and Beit-Hallahmi 1975; Dittes 1969; Rokeach and Kemp 1960). Therefore, this finding is consistent with Jacoby (1971) and Schaninger and Buss (1982) studies which suggested that individuals low in trait anxiety select riskier products.

Throughout the analysis religion was more significant in explaining variability of the dependent variables. In path analysis, religion variable explained more of the total variation than other independent variables. The religion variable showed higher path coefficients than religious orientation and perceived strength of religious affiliation indicating superiority in explaining major consumption behavior.

Overall, findings of this dissertation research suggest that religion represents the most basic element of the individual consumer's cognitive world. As such, it structures the individual's perception and understanding of himself, of significant others, and of the objects and behaviors which constitute his psychological environment. As shown in Figure 2-2, a positive correlation exists between religious orthodoxy and authoritarianism. Because of the organized structure of religion and its place in childrearing, religious systems foster authoritarian persons. In particular, the authoritarian's tendency to rigid, exaggerated sex role stereotypes that stress clearly defined roles of dominance. It is, therefore, concluded that religious orientation is superior in predicting marital roles and risks in expensive and high involvement durable good (e.g., automobile) purchasing decisions.

Religious influence affects results in fundamental differences in

processing information and consumer innovativeness. Religion has, therefore, considerable influence on individuals' values, habits, and attitudes. In general, the religions practiced in a society serves to define the ways to do things and to provide a series of tools and techniques for social behavior. It thus greatly influences lifestyles, which in turn affects consumer choice behavior. The acceptance or rejection of innovation reflects an attempt on the part of an individual to make his attitudes and beliefs consistent with his behavior. Religion is hereby proposed to be a useful conceptual vehicle for interpreting consumers' choice behavior. If marketing strategists desire to understand true attitudes in order to motivate human beings, whether it be for the purchase of a product or for the pursuit of economically desirable goals they cannot forego the analysis of religious values.

Further analysis was also conducted to test gender effect in this study. However, MANOVA findings were not statistically significant enough to make any conclusions.

Recommendations

This final section reflects on the marketing implications of the main findings of this dissertation research and makes recommendations for areas of needed future research.

Marketing Implications

The findings have several implications of potential significance for marketing:

First, religion and religious orientation appear to be linked directly and/or indirectly to various consumption patterns. This

linkage is present for marital role orientation in automobile and microwave oven purchase decisions. This implies that a consumer's religion and religious orientation may serve as a potentially powerful predictor and determinant of decision making. If family role structure can be predicted from readily discernible household characteristics, then a useful framework for anticipating the influence of each member might be developed. Preliminary analysis of these relationships indicate that measures of religion and religious orientation of family are useful indicators of role structure differences.

Second, the findings suggest that Jewish families are more innovative, at least within the cohorts examined here. It is possible that in markets having large Jewish populations, a disproportionately high level of consumption innovativeness will be present. This implies not only more rapid awareness and adoption of new products by Jewish consumers, but also the possibility of a faster product life-cycle within this religious group. The potential for less brand and store loyalty and for more rapid advertising campaign wear out among Jewish consumers may be possible, as well. The propensity toward innovativeness may affect not only Jewish consumers in the marketplace, but Catholic and other religious groups, as well. Because innovation diffusion is an inherently social phenomenon, Jewish innovativeness may carry other consumers along the diffusion curve more rapidly.

Third, one may infer from the data that search for information within a given religious group will tend to emphasize certain types of information sources rather than others. For example, Jewish families visited automobile shows, read automobile magazines, and attended cooking seminars more than Catholic families. This implies that different

types of information search may characterize an individual, depending upon the religious tradition according to which he was raised. Religious differences in the structure of information search may provide an explanation for the high degrees of creativity and social change observed in multidenominational societies (Arieti 1976). Due to denominational speculation in information search, a sophisticated synergy may emerge from ecumenical cross-fertilization. Each religious subculture in a multidenominational society may play a significant role as an information seeker for certain segments of knowledge. When these segments are grouped together via interdenominational communication, a more variegated set of ideas may emerge in society than would be the case if only one religious tradition were present.

Fourth, the data demonstrated that Catholic consumers were likely to be more sensitive to any potentially negative consequences of their purchase decisions, such as a poorly functioning automobile or microwave oven. Therefore, it would seem desirable for the marketing strategists to emphasize reducing risk or ambiguity of the brand through the use of risk reduction strategies (i.e., the availability of courteous product selection assistance, the financial convenience of their credit programs, the availability of prompt and reliable service). Most importantly, marketers should continuously emphasize "customer satisfaction" and their willingness to stand behind their products.

Last, findings suggest that religion and religious orientation should perhaps be viewed as variables having great potential influence on marketing and consumption. Marketing strategists who desire to understand consumers in a more predictive and comprehensive manner may find it useful to view religion and religious orientation as generators

of consumption patterns rather than simply as correlates of item purchasing. The findings of this study, for example, suggest that consumers' propensities to exert influence in purchasing decision making, to adopt new products/services, to expose themselves to marketing-relevant information sources, and to perceive risk in their decisions may be tied to religious origins and religious orientations.

Suggestions for Future Research

Subcultural antecedents to the social norms governing consumers' cognitive structures are little explored in the consumer behavior literature. Yet studies which link cognitions to their social origins may play a valuable role in increasing our knowledge of the development and longitudinal transmission of the consumption process. Research which further develops this stream of potential causation would prove valuable to consumer behavior theory.

Since the results and ideas presented in this dissertation research are basically exploratory, additional studies are needed to test the conclusions drawn from the present findings. In order to get a clearer picture of religious influences, a wider variety of families with more diverse backgrounds (i.e., different social classes and different religions) should be tested. To achieve these ends, researchers should investigate the changing purchasing behavior of families at different stages in the family life cycle.

More research needs to be conducted to explore whether similar value dimension correlations can be observed with other durable and nondurable goods. In addition, the possible linkages between religious values and various intervening variables of consumer behavior should be

examined to more fully understand the concepts of religion and religiosity in the field of marketing.

A study examining how religion and religiosity affect store choice and frequency of purchase would offer potential implications for marketing strategists. In particular, research would add a new dimension to the work that has already been reported and synthesized on product choice decisions, thereby giving marketers and retailers a richer understanding of the shopping behavior of these consumers.

Research is also needed to determine how religion and religiosity are related to brand loyalty, high-versus low-involvement, or high quality versus low quality product.

Future research on the influence of religion and religiosity on information search and processing should not ignore cognitive personality traits. More theoretical and empirical work is needed to tie together the interactive effects of such cognitive personality and religious influences to task or structural variables.

With the assistance of the instruments and theory used in this dissertation, consumer research can incorporate more of a subcultural dimension. More emphasis on the development of this dimension in consumer research would add both breadth and depth to our understanding of this aspect of behavior.

A P P E N D I X

TABLE A-1

ATTITUDES OF RESPONDENTS TOWARD RELIGION

Below you will find a number of questions which deal with social and religious issues. Please circle the appropriate number for each statement according to how much you "agree" or "disagree" with it. Answer all questions. Do not leave any questions unanswered.

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Praying has no place in the classrooms/schools.	4	3	2	1
b. I would not consider purchasing any food products that do not conform to my religious dietary laws.	4	3	2	1
c. Abortion is a sin against mankind.	4	3	2	1
d. Nonessential business should not be permitted to operate on the Sabbath.	4	3	2	1

TABLE A-2

MULTIPLE LOGISTIC REGRESSION FINDINGS FOR THE ATTITUDES TOWARD PRAYING IN THE CLASSROOMS/SCHOOLS

SOURCE	DF	CHI-SQUARE	PROB
Intercept	3	9.58	0.022500
Religion	3	85.25	0.000000
Religiosity	9	43.99	0.000001
Likelihood Ratio	9	12.60	0.181400

EFFECT	PARAMETER	DF	ESTIMATE	CHI-SQUARE	PROB
Intercept	1	1	-0.529039	4.93	0.0264
	2	1	0.133941	0.51	0.4745
	3	1	-0.237188	1.40	0.2360
Religion	4	1	1.63755	49.15	0.0001
	5	1	1.42292	57.24	0.0001
	6	1	0.337884	3.34	0.0677
Religiosity	7	1	1.38805	15.80	0.0001
	8	1	0.900946	7.26	0.0071
	9	1	1.40286	17.91	0.0001
	10	1	-0.90152	6.21	0.0127
	11	1	-0.519319	3.15	0.0761
	12	1	-0.449159	2.25	0.1340
	13	1	0.381946	1.06	0.3033
	14	1	0.80878	6.64	0.0100
	15	1	-0.427008	1.33	0.2488

TABLE A-3

MULTIPLE LOGISTIC REGRESSION FINDINGS FOR THE ATTITUDES TOWARD RELIGIOUS DIETARY LAWS

SOURCE	DF	CHI-SQUARE	PROB
Intercept	3	58.92	0.0001
Religion	3	16.10	0.0011
Religiosity	9	28.00	0.0010
Likelihood Ratio	9	29.74	0.0005

EFFECT	PARAMETER	DF	ESTIMATE	CHI-SQUARE	PROB
Intercept	1	1	1.56052	38.18	0.0001
	2	1	1.56504	38.77	0.0001
	3	1	0.741708	6.97	0.0083
Religion	4	1	0.619645	8.15	0.0043
	5	1	0.322481	2.30	0.1294
	6	1	0.80633	11.36	0.0008
Religiosity	7	1	-0.557524	2.31	0.1289
	8	1	-0.415189	1.30	0.2536
	9	1	0.138878	0.13	0.7180
	10	1	1.58758	7.69	0.0055
	11	1	1.03153	3.20	0.0737
	12	1	0.604215	0.91	0.3399
	13	1	-1.211980	11.29	0.0008
	14	1	-0.775002	5.10	0.0239
	15	1	-1.046	6.56	0.0104

TABLE A-4

MULTIPLE LOGISTIC REGRESSION FINDINGS FOR THE ATTITUDES TOWARD ABORTION

SOURCE	DF	CHI-SQUARE	PROB
Intercept	3	26.41	0.000100
Religion	3	67.56	0.000000
Religiosity	9	38.21	0.000015
Likelihood Ratio	9	12.33	0.195300

EFFECT	PARAMETER	DF	ESTIMATE	CHI-SQUARE	PROB
Intercept	1	1	0.986261	13.56	0.0002
	2	1	1.12489	18.67	0.0001
	3	1	0.486797	2.94	0.0863
Religion	4	1	-1.78691	51.59	0.0001
	5	1	-0.984405	16.75	0.0001
	6	1	-0.632536	5.88	0.0153
Religiosity	7	1	-1.05853	11.53	0.0007
	8	1	-0.751599	8.13	0.0044
	9	1	-0.454059	2.64	0.1041
	10	1	1.81817	16.49	0.0001
	11	1	1.30288	9.10	0.0026
	12	1	0.797938	2.82	0.0932
	13	1	-0.953126	6.25	0.0124
	14	1	-0.184789	0.32	0.5688
	15	1	0.224705	0.45	0.5023

TABLE A-5

MULTIPLE LOGISTIC REGRESSION FINDINGS FOR THE ATTITUDES TOWARD THE SABBATH

SOURCE	DF	CHI-SQUARE	PROB
Intercept	3	72.82	0.0001
Religion	3	16.18	0.0010
Religiosity	9	51.75	0.0001
Likelihood Ratio	9	11.31	0.2550

EFFECT	PARAMETER	DF	ESTIMATE	CHI-SQUARE	PROB
Intercept	1	1	2.58831	41.51	0.0001
	2	1	2.4267	36.17	0.0001
	3	1	1.36884	10.14	0.0014
Religion	4	1	-0.445779	2.34	0.1264
	5	1	-0.0248268	0.01	0.9313
	6	1	0.2173830	0.47	0.4943
Religiosity	7	1	-1.71628	13.19	0.0003
	8	1	-0.985519	4.57	0.0325
	9	1	-0.735119	2.26	0.1327
	10	1	1.37691	2.85	0.0916
	11	1	0.352821	0.18	0.6702
	12	1	0.339144	0.15	0.6963
	13	1	-1.11684	4.00	0.0455
	14	1	-0.313129	0.33	0.5658
	15	1	-0.244674	0.18	0.6737

TABLE A-6
CROSS TABULATION FINDINGS FOR DEALER/STORE VISITS AND RELIGION

Variables		# of Dealers Visited		# of Stores Visited	
Religion / Number of Dealers/Stores		CATHOLIC	JEWISH	CATHOLIC	JEWISH
1	NO	10	7	19	12
	%	5.7	5.4	18.1	16.2
2	NO	36	38	39	22
	%	20.7	29.2	37.1	29.7
3	NO	58	36	25	26
	%	33.3	27.7	23.8	35.1
4	NO	22	25	11	9
	%	12.6	19.2	10.5	12.2
5	NO	27	10	5	4
	%	15.5	7.7	4.8	5.4
6	NO	12	5	2	0
	%	6.9	3.8	1.9	.0
7	NO	4	2	1	1
	%	2.3	1.5	1.0	1.4
8	NO	1	3	1	0
	%	.6	2.3	1.0	.0
9(10)*	NO	0	1	1	0
	%	.0	.8	1.0	.0
10(18)*	NO	1	1	1	0
	%	.6	.8	1.0	.0
11	NO	1	1	-	-
	%	.6	.8	-	-
12	NO	2	0	-	-
	%	1.1	.0	-	-
14	NO	0	1	-	-
	%	.0	.8	-	-
Chi-Square		16.25584		6.47454	
DF		12		9	
Significance		0.1798		0.6916	

*Numbers in the parenthesis show number of stores visited for microwave oven.

TABLE A-7

CROSS TABULATION FINDINGS FOR PERCEIVED RISK IN AUTOMOBILE & MICROWAVE OVEN PURCHASE DECISIONS AND RELIGION

Variables		Automobile		Microwave Oven	
Religion / Response Categories		CATHOLIC	JEWISH	CATHOLIC	JEWISH
Will Probably not Work or Will Have Somehting Wrong (7,8,9)	NO	42	25	24	7
	%	20.6	17.2	13.9	6.1
50-50 Chance (4,5,6)	NO	112	76	78	47
	%	54.9	52.4	45.0	41.3
Will Probably Work Fine Probably Nothing Wrong (1,2,3)	NO	50	44	71	60
	%	24.5	30.4	41.1	52.6
Chi-Square		3.51770		11.32023	
DF		2		2	
Significance		0.8978		0.1842	

TABLE A-8

CROSS TABULATION FINDINGS FOR DEALER/STORE VISITS AND RELIGIOUS ORIENTATION

Variables		Number of Dealers Visited		Number of Stores Visited	
Religious Orientation / Response Categories		Anti religious	Pro religious	Anti religious	Pro religious
1	NO	4	4	11	6
	%	4.1	4.7	17.2	13.3
2	NO	19	24	20	15
	%	19.6	27.9	31.3	33.3
3	NO	33	27	20	15
	%	34.0	31.4	31.3	33.3
4	NO	13	11	7	5
	%	13.4	12.8	10.9	11.1
5	NO	10	14	4	1
	%	10.3	16.3	6.3	2.2
6	NO	7	4	1	0
	%	7.2	4.7	1.6	.0
7	NO	4	0	1	0
	%	4.1	.0	1.6	.0
8	NO	3	0	0	1
	%	3.1	.0	.0	2.2
9	NO	1	0	-	-
	%	1.0	.0	-	-
10	NO	1	0	0	1
	%	1.0	.0	.0	2.2
11 (18)*	NO	1	0	0	1
	%	1.0	.0	.0	2.2
12	NO	0	2	-	-
	%	.0	2.3	-	-
14	NO	1	0	-	-
	%	1.0	.0	-	-
Chi-Square		15.22672		6.93117	
DF		12		9	
Significance		0.2293		0.6443	

*Number in the parenthesis shows number of stores visited for Microwave oven.

TABLE A-9

MEAN SCORES ON MARITAL ROLES IN MICROWAVE OVEN PURCHASE DECISIONS

Marital Roles	Religion	Religious Orientation		Perceived Strength of Religious Affiliation			Religious Orientation by Perceived Strength of Religious Affiliation						
							Antireligious			Proreligious			
		Antireligious	Proreligious	Strong	Moderate	Weak	Strong	Moderate	Weak	Strong	Moderate	Weak	
1. Stimulated Interest in Microwave Oven	Catholic	3.5294	3.5476	3.4918	3.5313	3.7059	3.3778	3.7368	4.2500	3.8125	3.2308	3.5385	3.5364
	Jewish	3.9130	3.4884	3.3529	4.0000	3.4348	3.2857	4.1111	4.2857	3.4000	3.9412	3.0625	3.6364
		3.6264	3.5177	3.4615	3.7414	3.5500	3.3654	3.8571	4.2727	3.6538	3.6333	3.2759	3.5739
2. Obtained Information	Catholic	3.2059	3.1429	3.1311	3.2813	3.1765	2.9778	3.5789	4.0000	3.5625	2.8461	2.9231	3.1818
	Jewish	3.6088	3.3721	3.3529	3.7692	3.1739	3.5714	4.2222	2.8571	3.2000	3.5294	3.3125	3.4545
		3.3077	3.2588	3.1795	3.5000	3.1750	3.0577	3.7857	3.2727	3.4231	3.2333	3.1379	3.2841
3. Influenced When to Purchase	Catholic	3.3088	3.1429	3.2295	3.2188	3.3529	3.2444	3.3158	4.0000	3.1875	3.0769	3.1538	3.2455
	Jewish	3.3478	3.5349	3.1176	3.9615	3.1739	2.7143	4.2222	2.8571	3.4000	3.8235	3.3125	3.4697
		3.3187	3.3412	3.2051	3.5517	3.2500	3.1731	3.6071	3.2727	3.2692	3.5000	3.2414	3.3295
4. Influenced Where to Purchase	Catholic	2.9412	3.0000	2.9180	2.9063	3.2353	2.8000	3.0526	4.0000	3.2500	2.6923	3.0000	2.9636
	Jewish	3.5217	3.3721	3.1176	3.8462	3.1739	3.1429	4.2222	3.0000	3.1000	3.6471	3.2500	3.4242
		3.0879	3.1882	2.9615	3.3276	3.2000	2.8462	3.4286	3.3636	3.1923	3.2333	3.1379	3.1364
5. Influenced What Make to Purchase	Catholic	3.0588	3.0000	3.0328	2.8750	3.3529	3.0000	3.0000	4.0000	3.1250	2.6923	3.1538	3.0364
	Jewish	3.6522	3.3256	3.2941	3.6154	3.3478	3.5714	4.1111	3.1429	3.1000	3.3529	3.4375	3.4394
		3.2088	3.1648	3.0897	3.2069	3.3500	3.0679	3.3571	3.4545	3.1154	3.0667	3.3103	3.1875
6. Influenced How Much Money Spent	Catholic	2.8677	2.7619	2.8033	2.8125	2.9412	2.7111	3.0000	4.0000	3.0625	2.5385	2.6154	2.8273
	Jewish	3.2174	3.1395	2.9412	3.2308	3.2609	3.2857	3.2222	3.1429	2.7000	3.2353	3.3125	3.1667
		2.9560	2.9529	2.8333	3.0000	3.1250	2.7885	3.0714	3.4545	2.9231	2.9333	3.0000	2.9545

TABLE A-10

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY RELIGIOUS ORIENTATION) FINDINGS FOR WILLINGNESS TO TRY SOMETHING

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.06942	3.47096	.009
Religious Orientation	.06489	3.24461	.013
Religion by Religious Orientation	.02016	1.00819	.404

TABLE A-11

FULL TWO-WAY MULTIVARIATE ANALYSIS OF VARIANCE (RELIGION BY PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION) FINDINGS FOR WILLINGNESS TO TRY SOMETHING

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.06171	3.25569	.013
Perceived Strength of Religious Affiliation	.03849	0.94784	.477
Religion by Perceived Strength of Religious Affiliation	.07549	1.95141	.051

TABLE A-12

SIGNIFICANT FINDINGS FOR RELIGION ON WILLINGNESS TO TRY SOMETHING

SCALES	F	SIGNIFICANCE	R^2
Fashion Scale	6.88862	.009 **	.0329
Media Scale	10.80381	.001 **	.0506
Food Scale	5.46045	.020 *	.0262

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

TABLE A-13

SIGNIFICANT FINDINGS FOR PERCEIVED STRENGTH OF RELIGIONS AFFILIATION ON WILLINGNESS TO TRY SOMETHING

SCALES	F	SIGNIFICANCE	R^2
Media Scale	3.76145	.025 *	.0361
Food Scale	3.59632	.029 *	.0346
Psyco-Social Scale	3.54754	.031 *	.0341

* Significant at p <.05

TABLE A-14

TWO-WAY LOWER ORDER MULTIVARIATE ANALYSIS OF VARIANCE SUMMARY FINDINGS FOR INNOVATIVENESS

EFFECT	HOTELLINGS	F	SIGNIFICANCE
Religion	.03108	3.10809	.047
Perceived Strength of Religious Affiliation	.03801	1.89092	.111

TABLE A-15

SIGNIFICANT FINDINGS FOR RELIGION ON INNOVATIVENESS

SCALE	F	SIGNIFICANCE	R^2
Brand Innovativeness	6.03701	.015 *	.0292

* Significant at $p < .05$

TABLE A-16

SIGNIFICANT FINDINGS FOR PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION ON INNOVATIVENESS

SCALE	F	SIGNIFICANCE	R^2
Brand Innovativeness	4.12718	.018 *	.0395

* Significant at $p < .05$

TABLE A-17

SIGNIFICANT FINDINGS FOR RELIGION ON INFORMATION SEARCH FOR AUTOMOBILE

SCALES	F	SIGNIFICANCE	R^2
Mass Media Scale	0.91047	.341	.0044
Interpersonal Scale	3.32984	.069	.0160
Print/Show Scale	4.84976	.029 *	.0231

* Significant at p <.05

TABLE A-18

SIGNIFICANT FINDINGS FOR RELIGION ON INFORMATION SEARCH FOR AUTOMOBILE

SCALE	F	SIGNIFICANCE	R^2
Print/Show Scale	4.80421	.030 *	.0234

* Significant at p <.05

TABLE A-19

SIGNIFICANT FINDINGS FOR RELIGIOS ORIENTATION ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

VARIABLES	F	SIGNIFICANCE	R^2
Automobile	5.67223	.018 *	.0272
Microwave Oven	2.44132	.120	.0119

* Significant at p <.05

TABLE A-20

SIGNIFICANT FINDINGS FOR RELIGIOUS ORIENTATION ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

VARIABLES	F	SIGNIFICANCE	R^2
Automobile	4.11772	.044 *	.0197
Microwave Oven	7.47360	.007 **	.0352

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

TABLE A-21

SIGNIFICANT FINDINGS FOR RELIGIOUS ORIENTATION ON PERCEIVED RISK IN AUTOMOBILE AND MICROWAVE OVEN PURCHASE DECISIONS

VARIABLES	F	SIGNIFICANCE	R^2
Automobile	4.27435	.040 *	.0207
Microwave Oven	7.66374	.006 **	.0364

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

TABLE A-22

SUMMARY OF NUMBER OF DEALER/STORE VISITS, RELIGION, RELIGIOUS ORIENTATION AND PERCEIVED STRENGTH OF RELIGIOUS AFFILIATION

Number of Dealers/Stores	Religion		Religious Orientation		Perceived Stregth of Religious Affiliation		
	Catholic	Jewish	Proreligious	Antireligious	Strong	Moderate	Weak
Number of dealers visited	ns	ns	ns	ns	ns	ns	ns
Number of stores visited	ns	ns	ns	ns	ns	ns	ns

Key:
ns - Not Significant

FIGURE A-1

PLOT OF WHO OBTAINED INFORMATION ON AUTOMOBILE

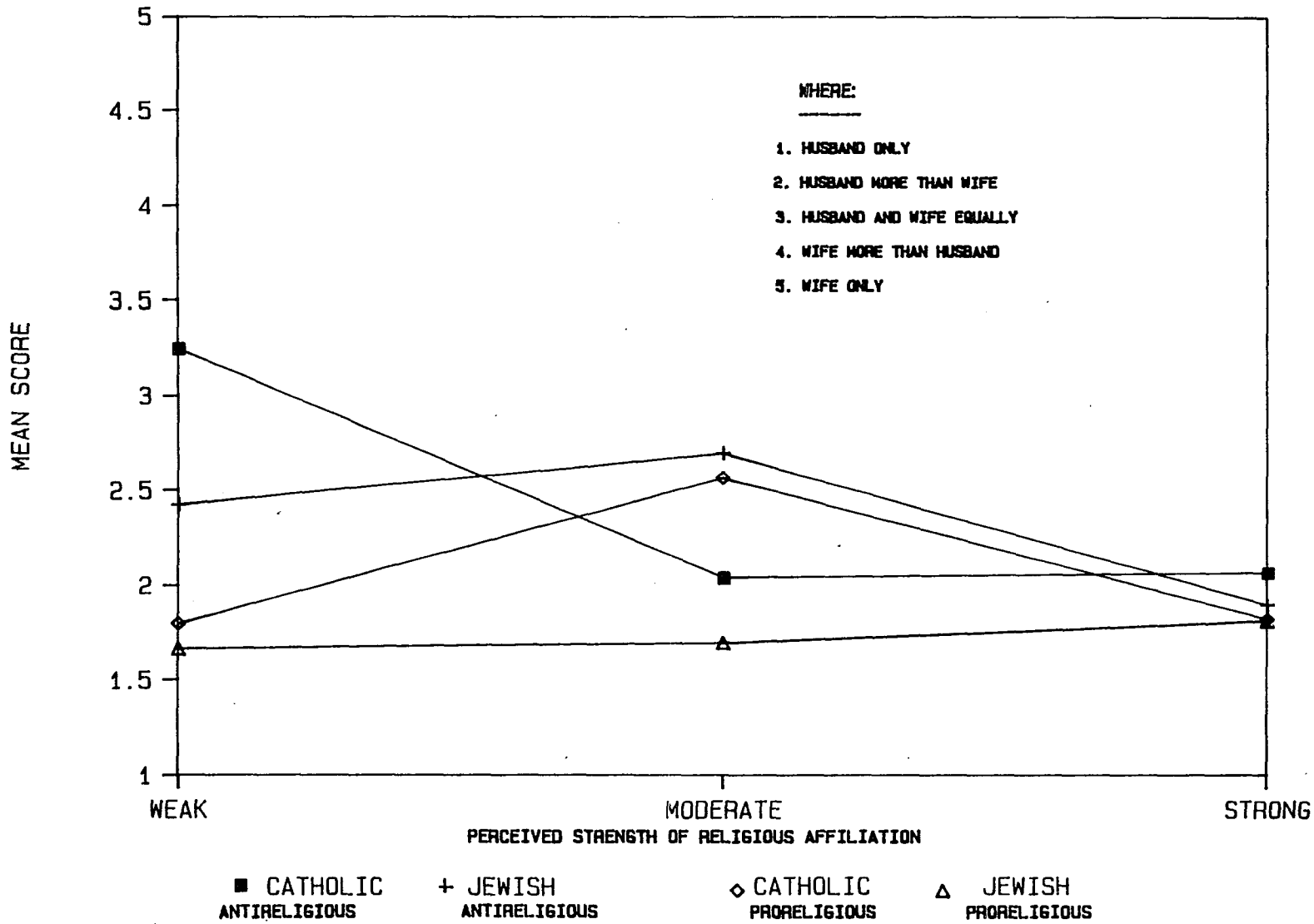


FIGURE A-2

PLOT OF WHEN TO PURCHASE AUTOMOBILE

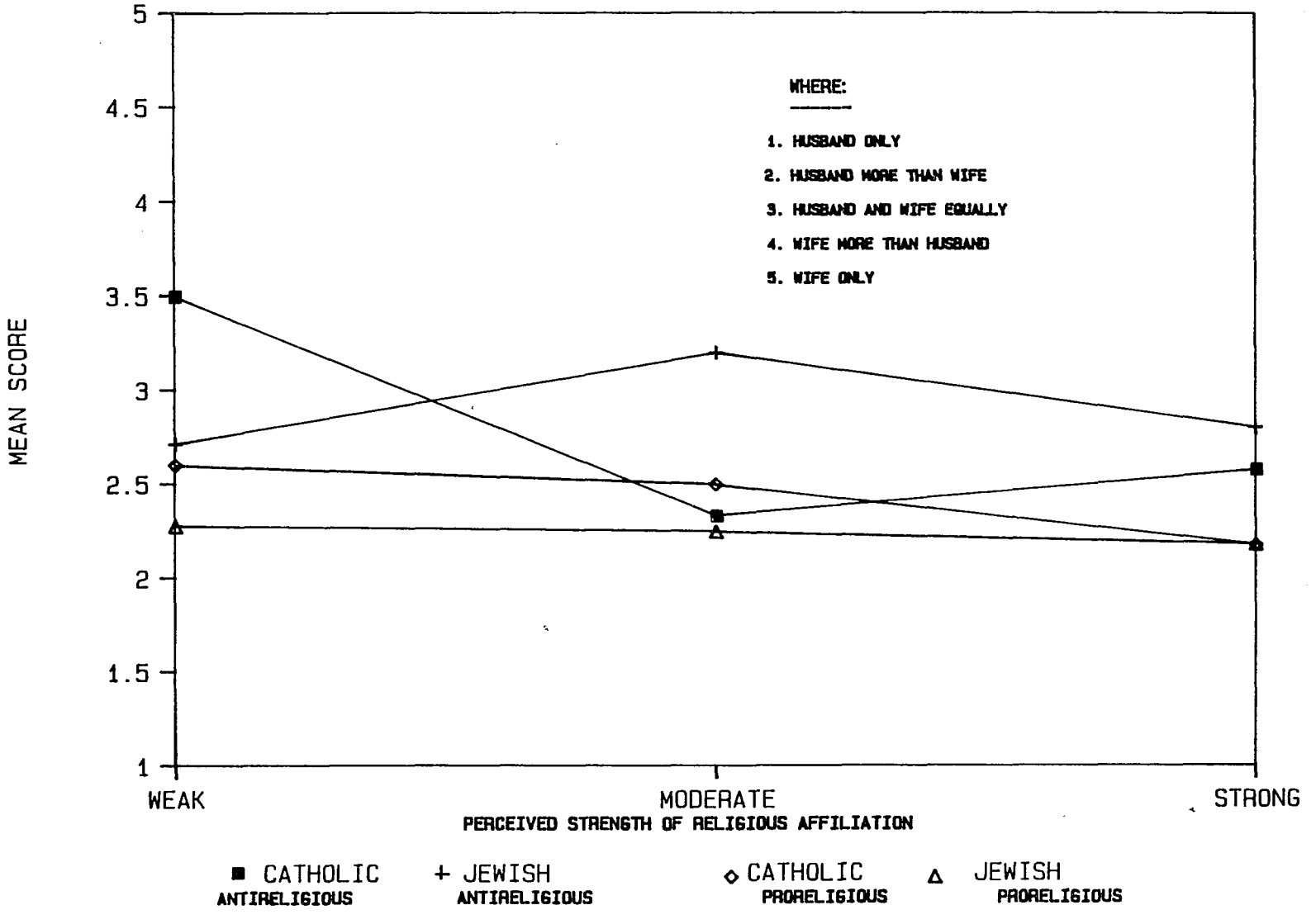


FIGURE A-3

PLOT OF WHERE TO PURCHASE AUTOMOBILE

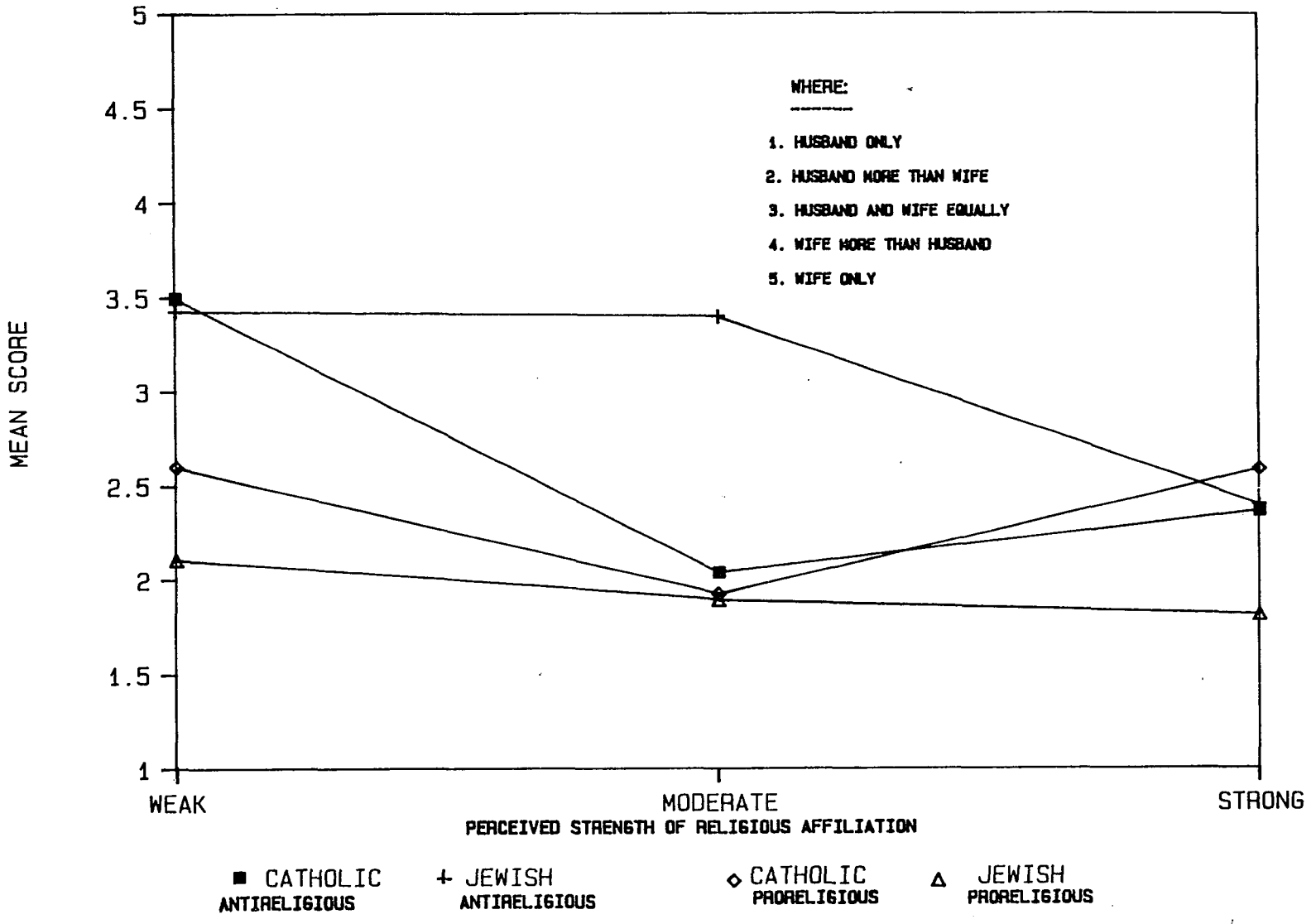


FIGURE A-4

PLOT OF WHAT MODEL OF AUTOMOBILE TO PURCHASE

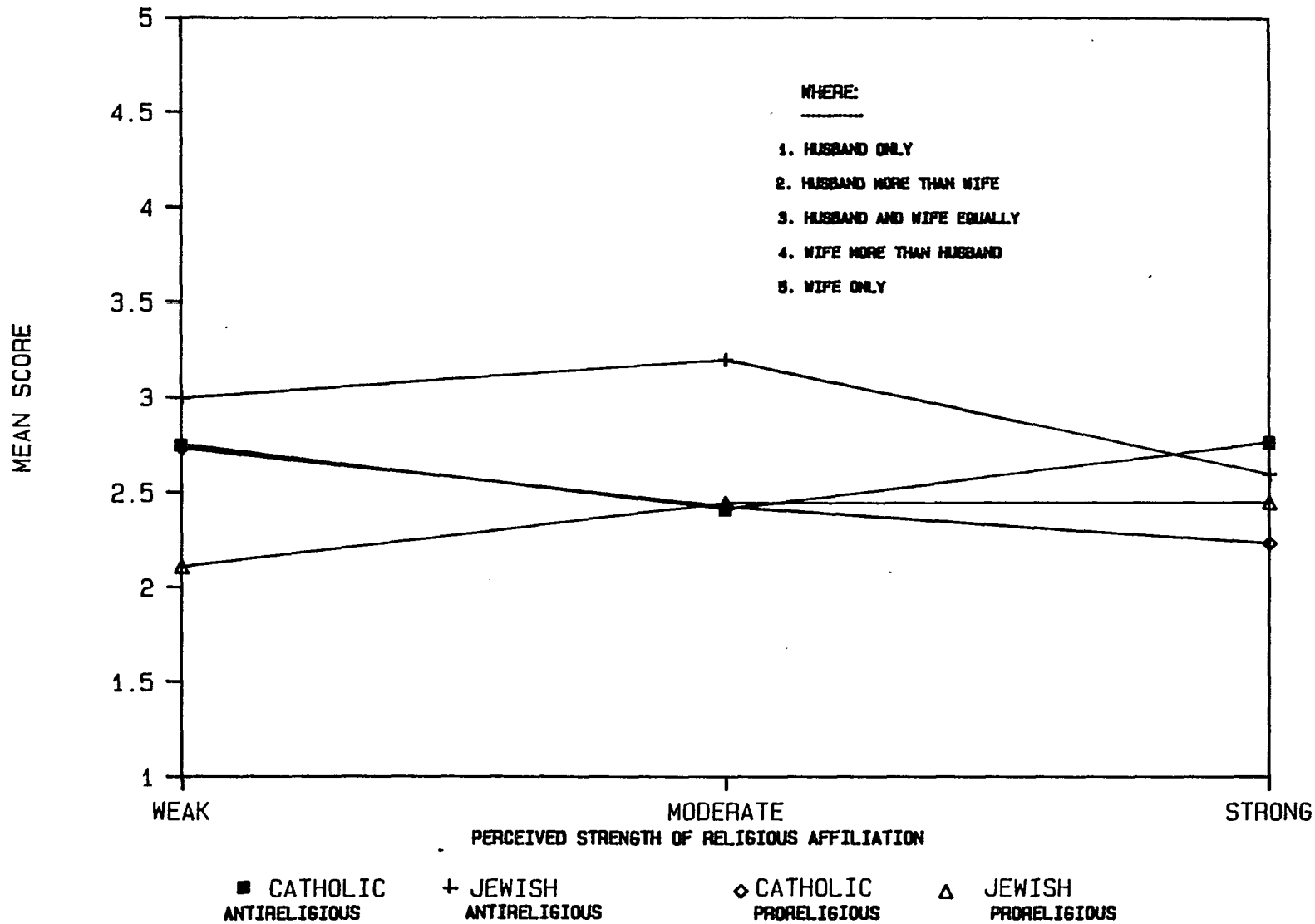


FIGURE A-5

PLOT OF WHAT COLOR OF AUTOMOBILE TO PURCHASE

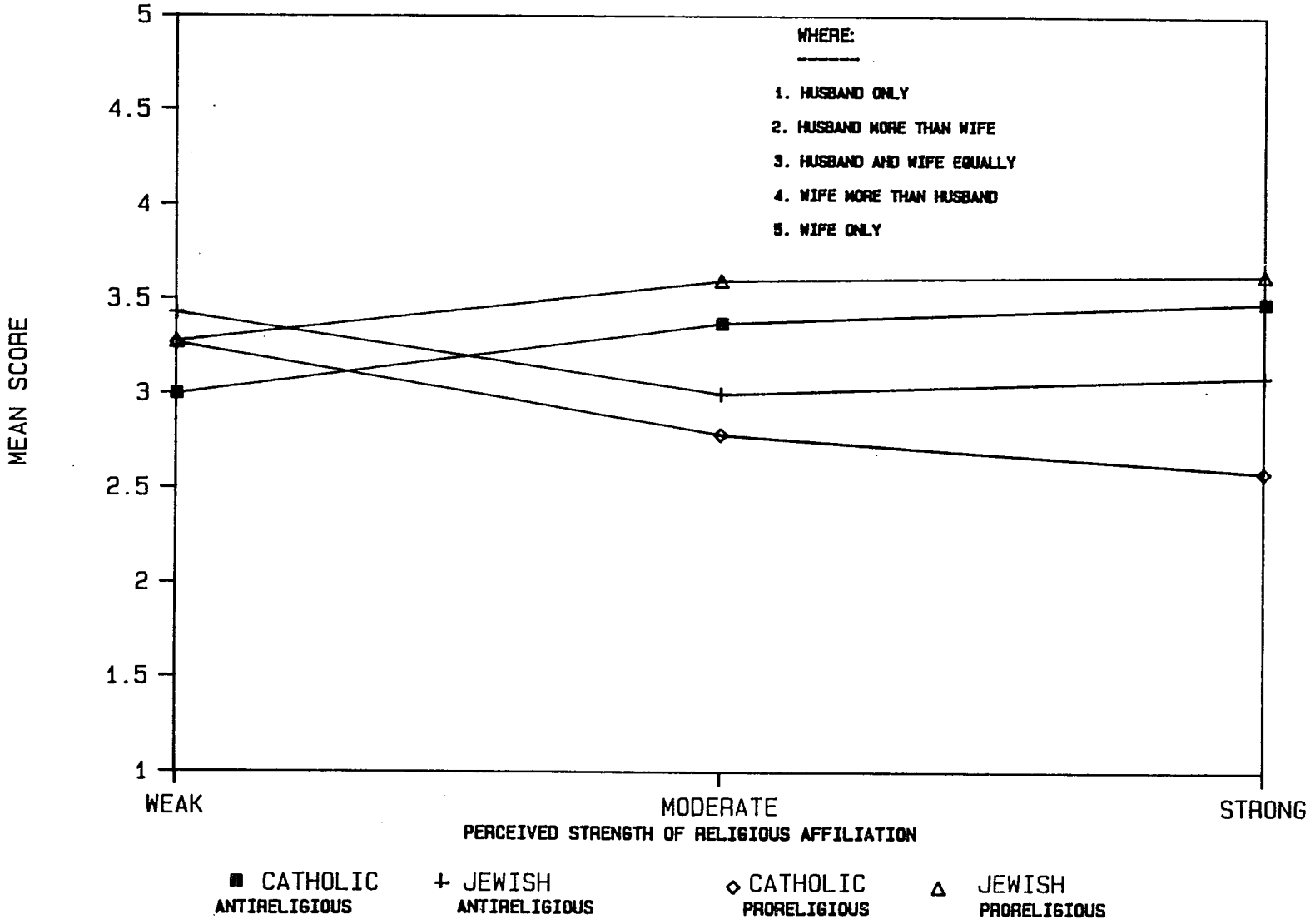


FIGURE A-6

PLOT OF HOW MUCH MONEY TO SPEND ON AUTOMOBILE

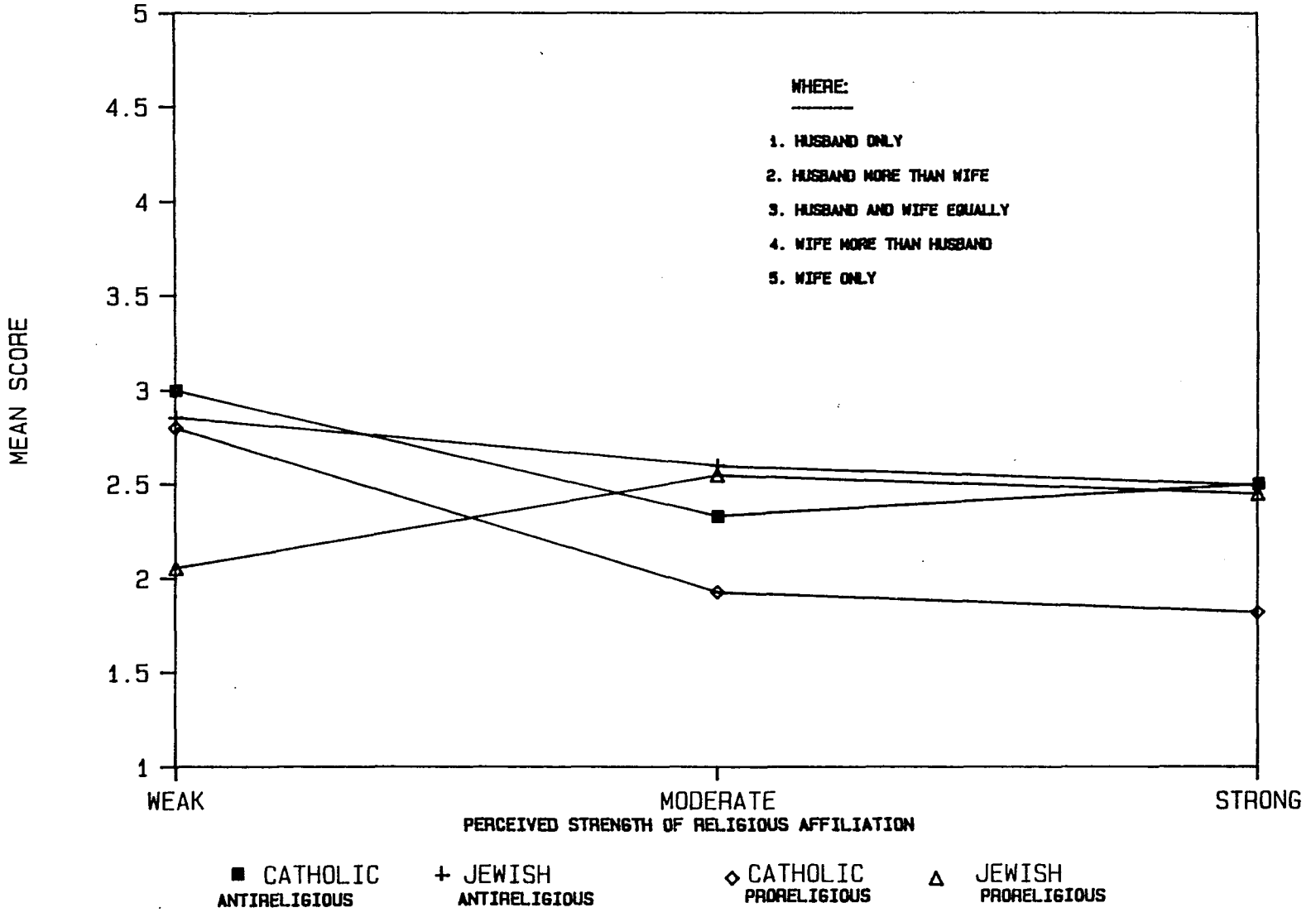


FIGURE A-7

PLOT OF FASHION SCALE

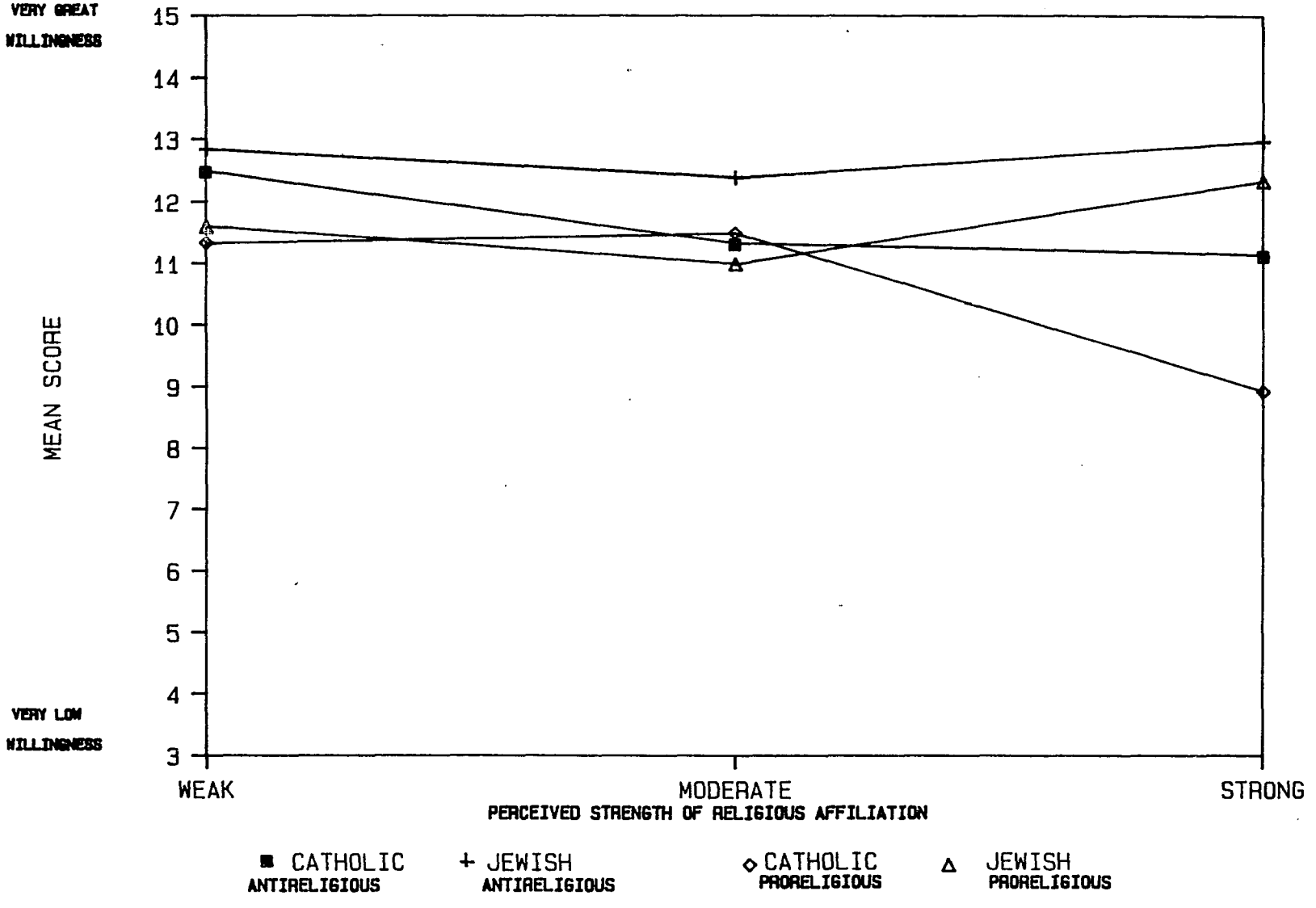


FIGURE A-8

PLOT OF MEDIA SCALE

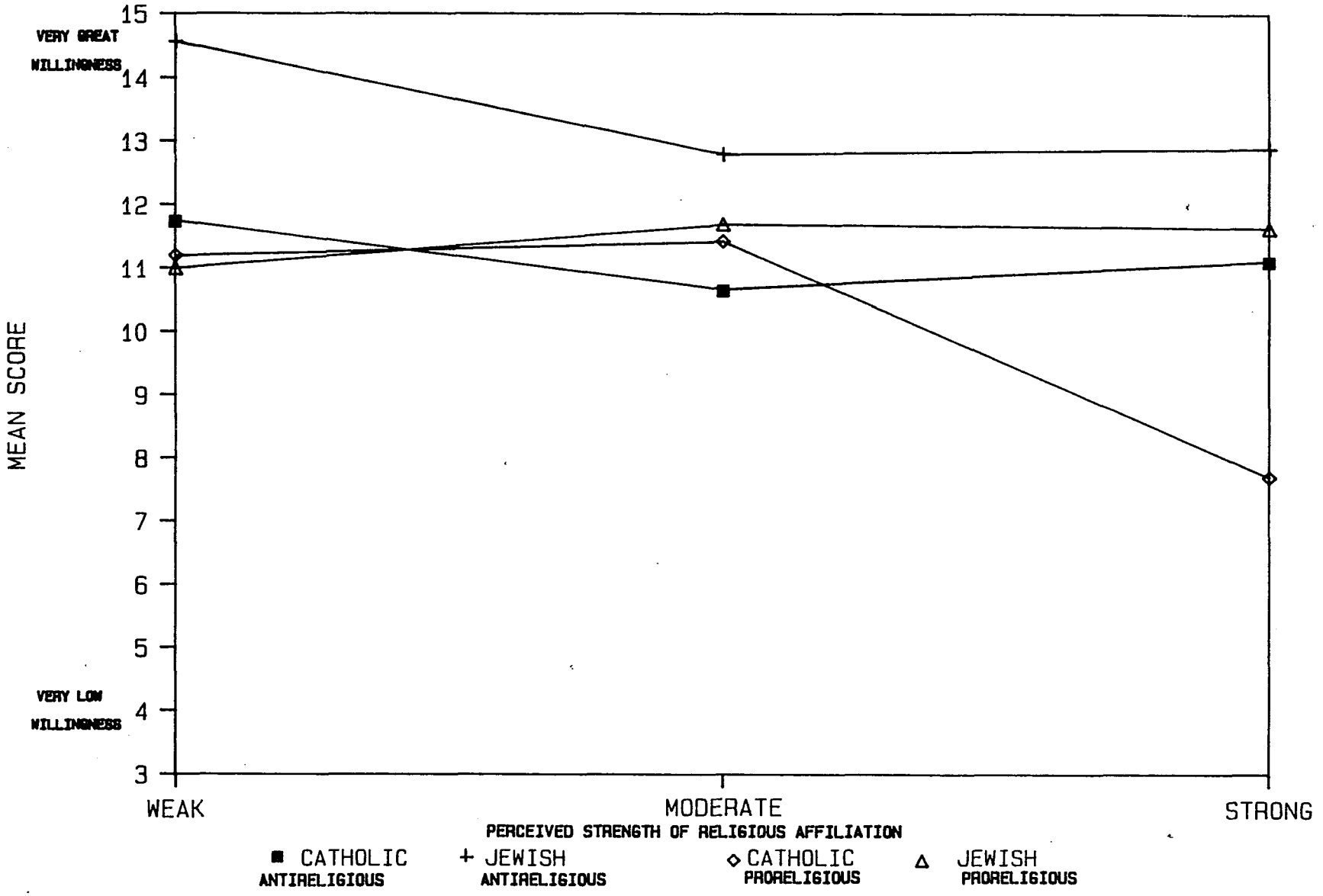


FIGURE A-9

PLOT OF FOOD SCALE

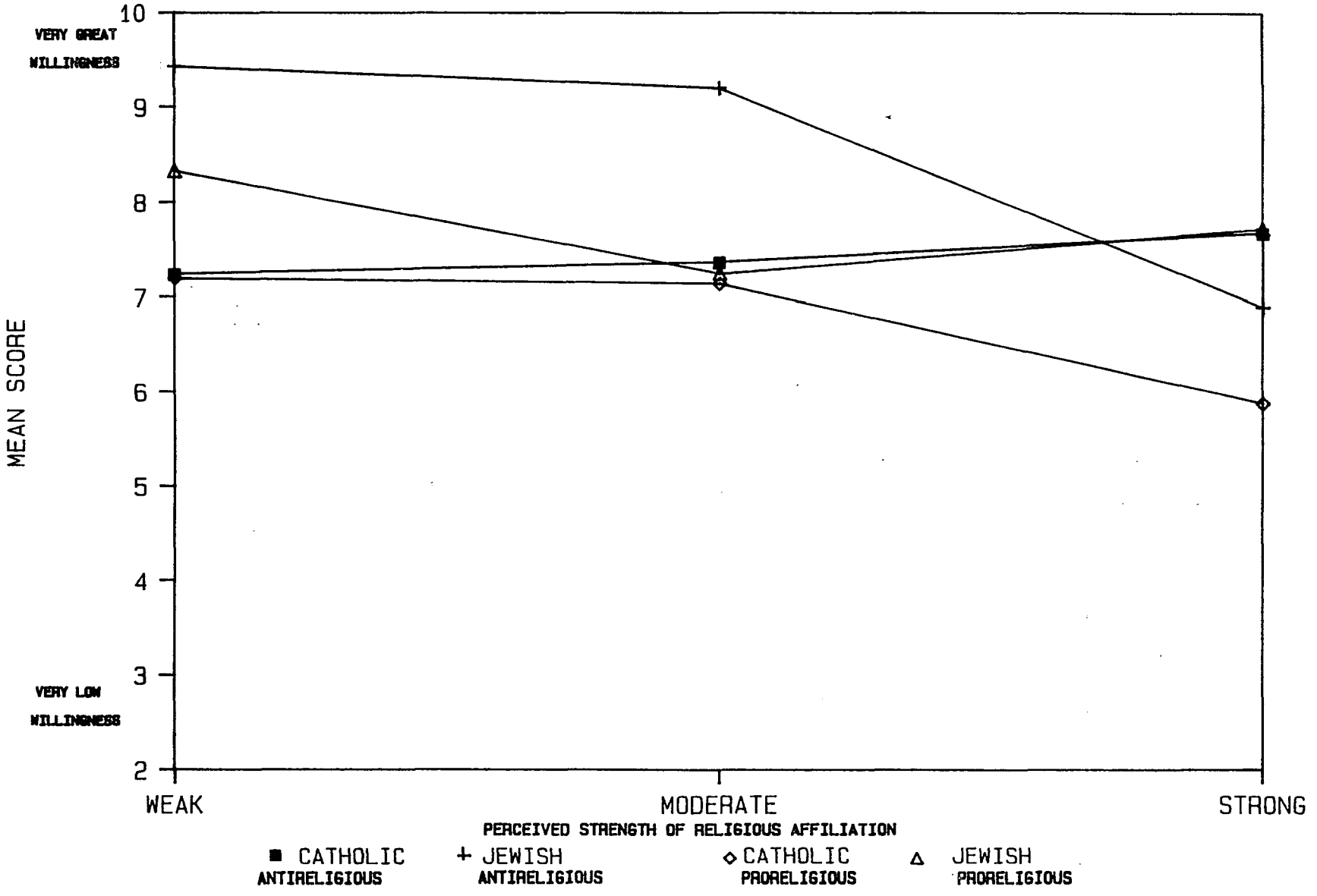


FIGURE A-10

PLOT OF BRAND INNOVATIVENESS SCALE

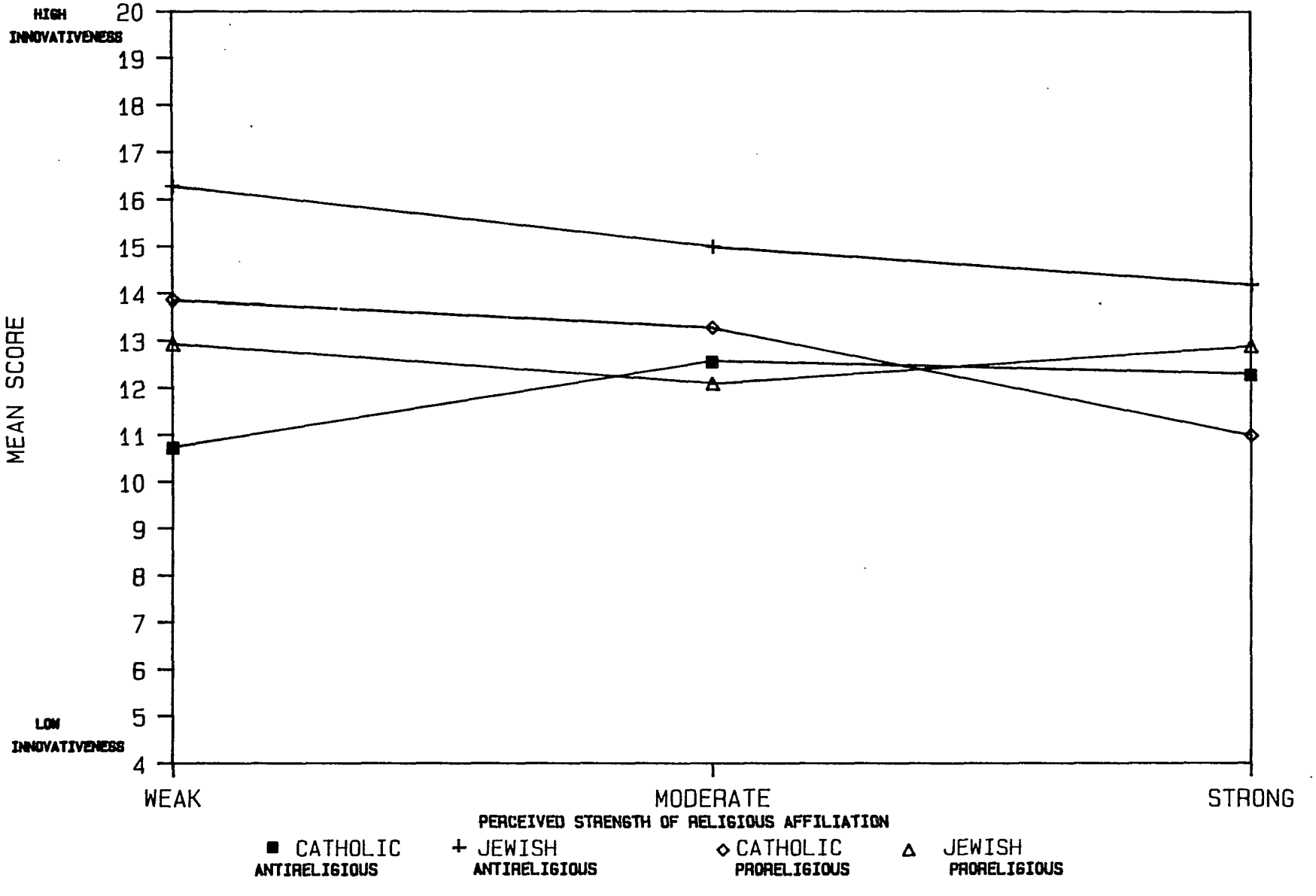


FIGURE A-11

PLOT OF AUTOMOBILE MEDIA SCALE

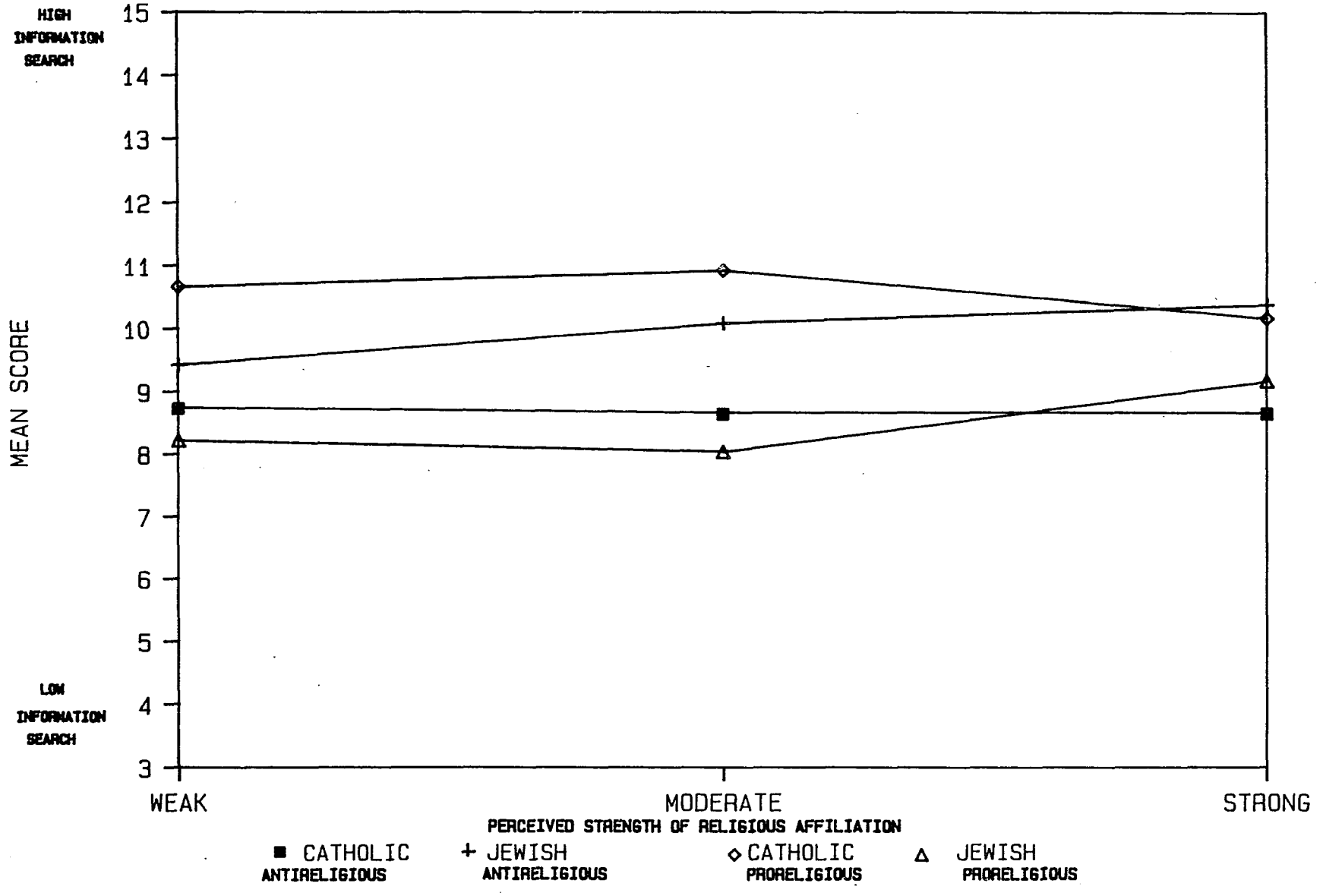


FIGURE A-12

PLOT OF AUTOMOBILE INTERPERSONAL SCALE

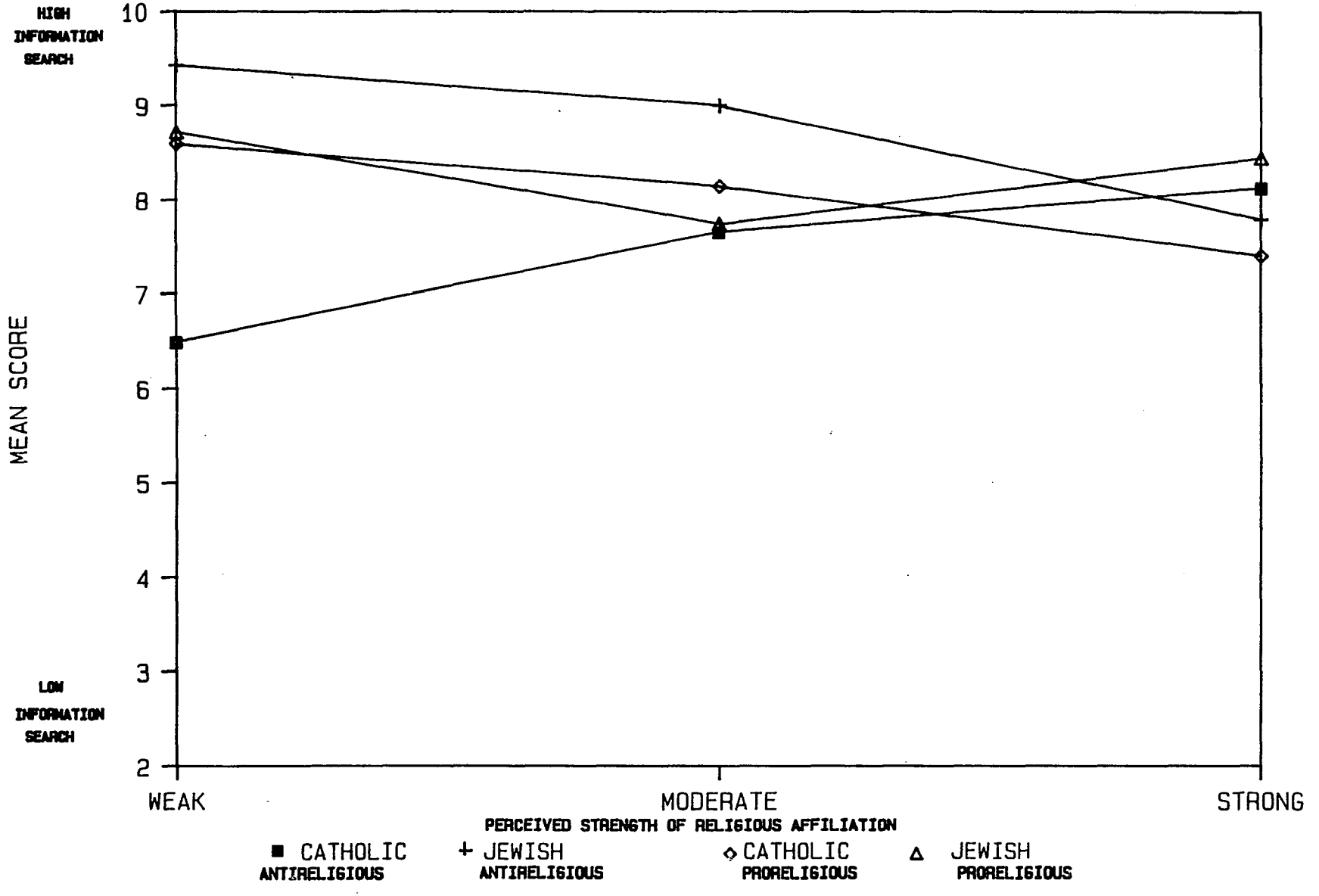


FIGURE A-13

PLOT OF AUTOMOBILE PRINT SCALE

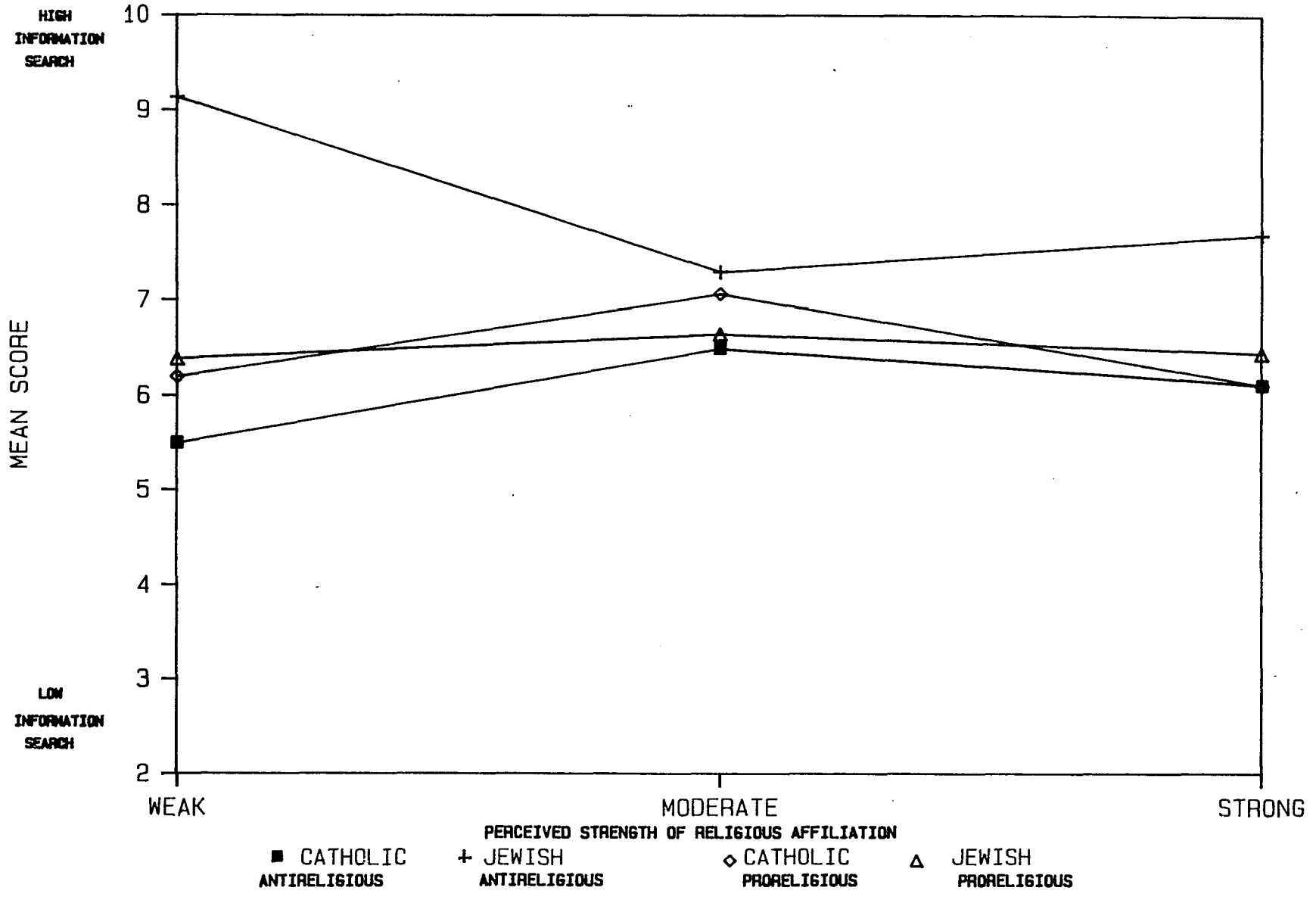


FIGURE A-14

PLOT OF MICROWAVE MEDIA SCALE

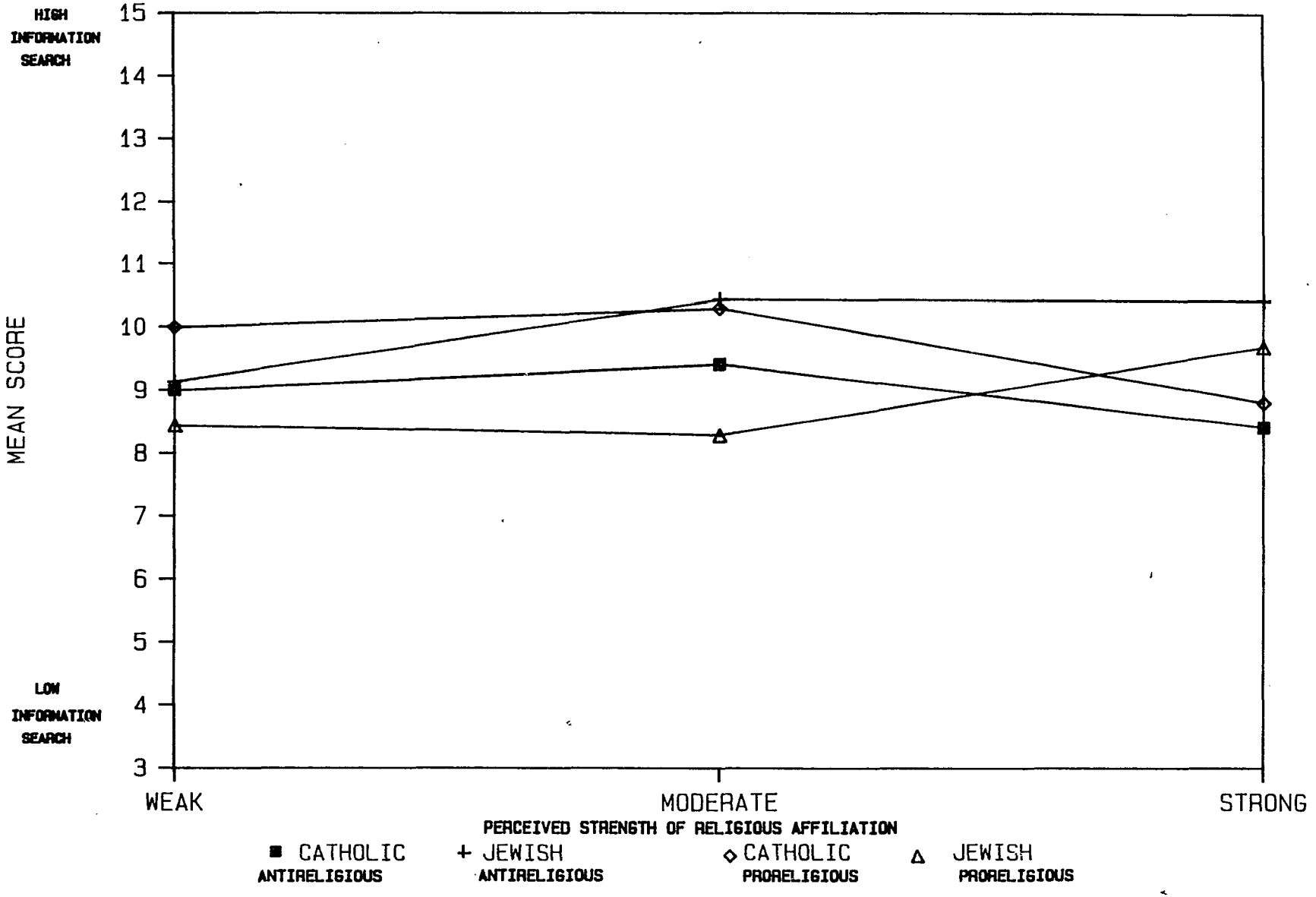


FIGURE A-15

PLOT OF MICROWAVE SEMINAR SCALE

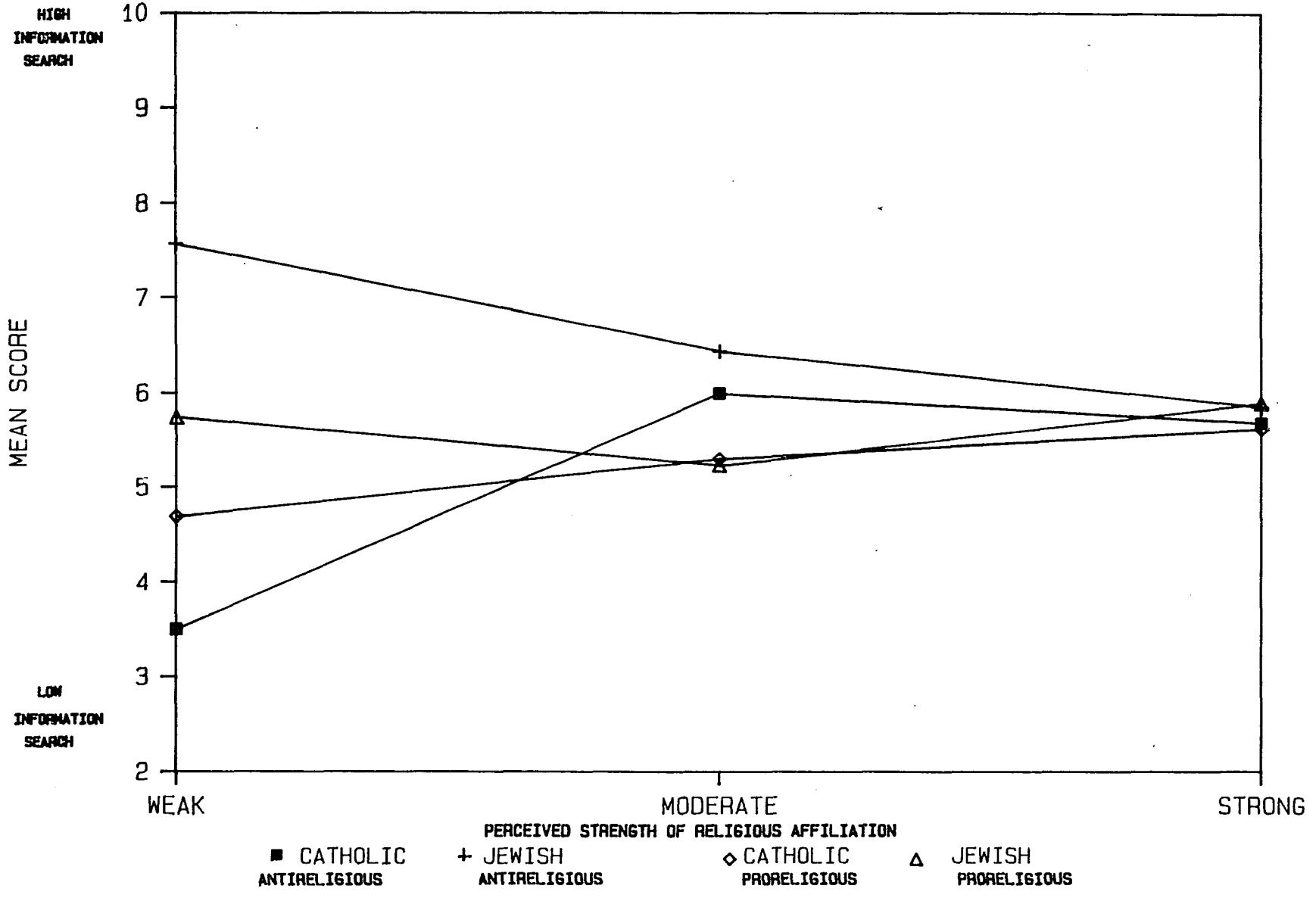


FIGURE A-16

PLOT OF MICROWAVE INTERPERSONAL SCALE

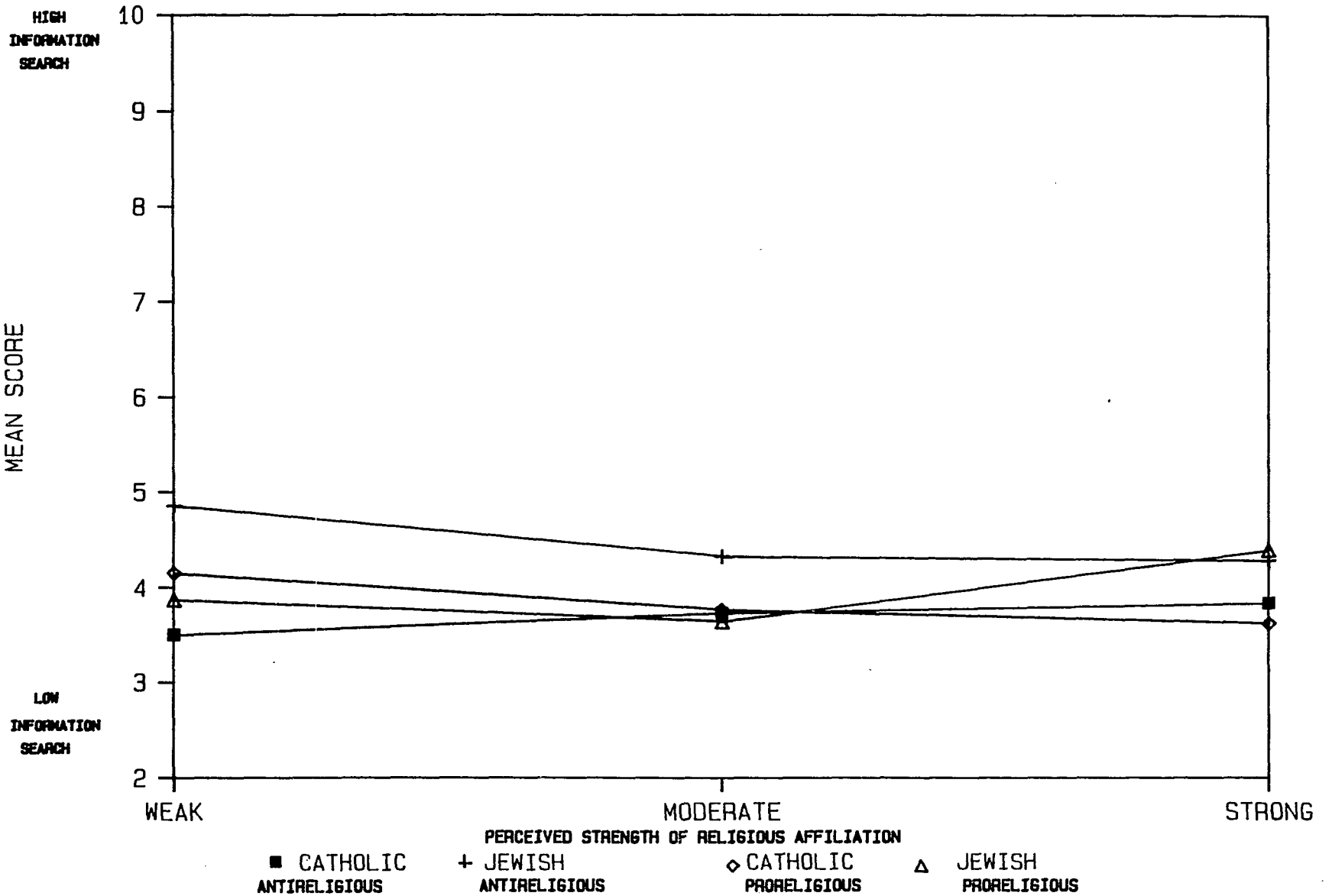


FIGURE A-17

PLOT OF NUMBER OF DEALER VISTS

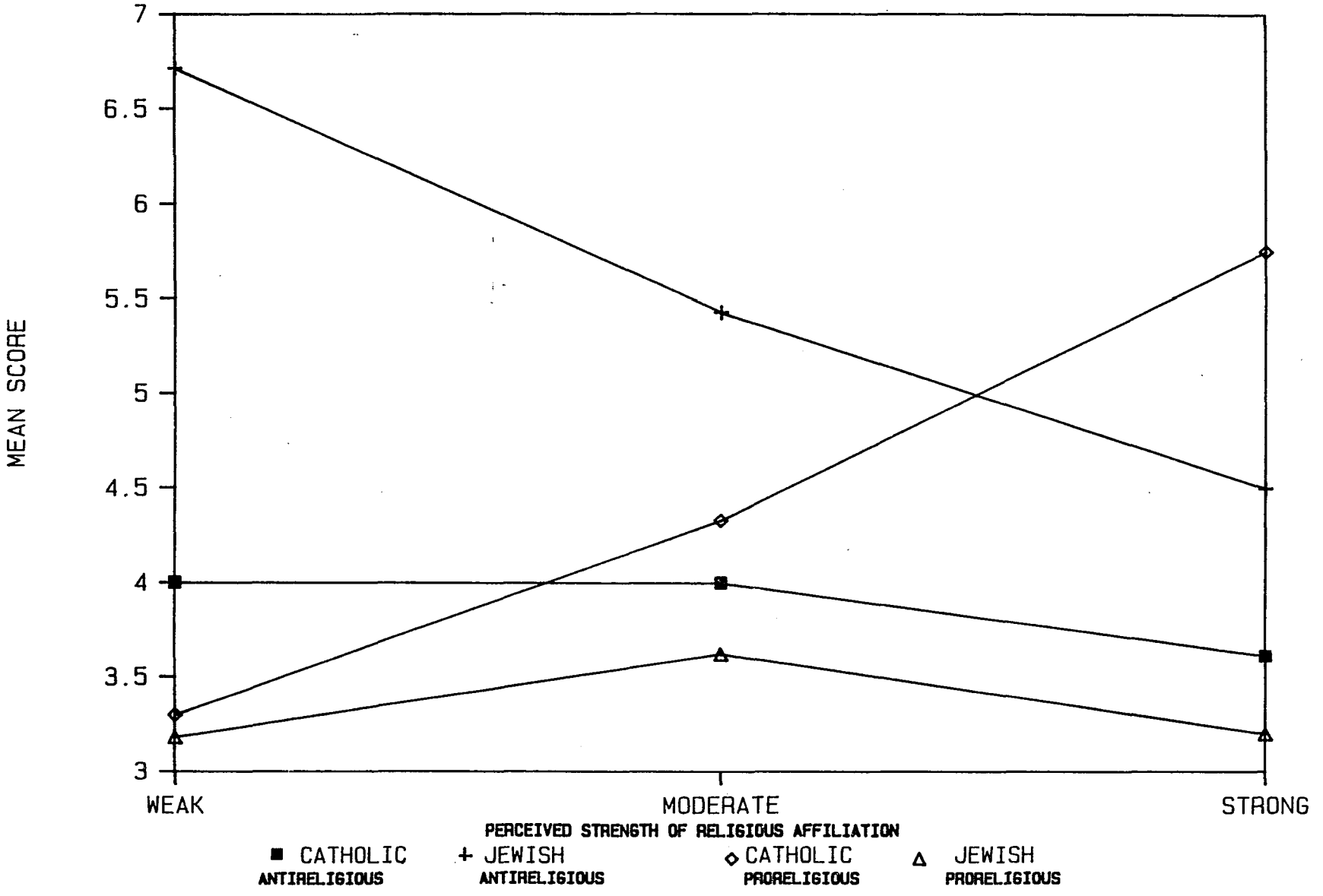


FIGURE A-18

PLOT OF NUMBER OF STORE VISITS

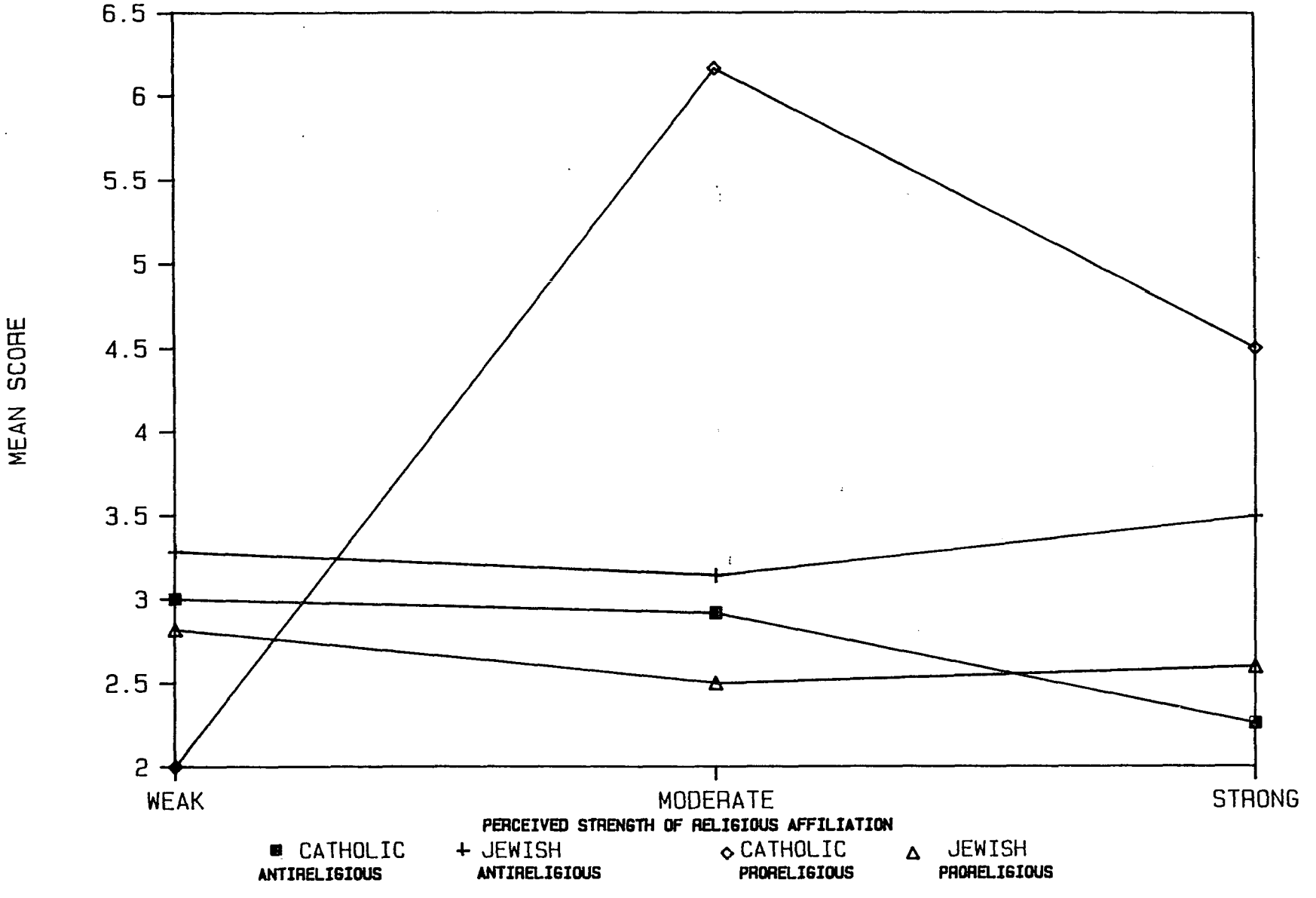


FIGURE A-19

PLOT OF PERCEIVED RISK IN AUTOMOBILE PURCHASE DECISIONS

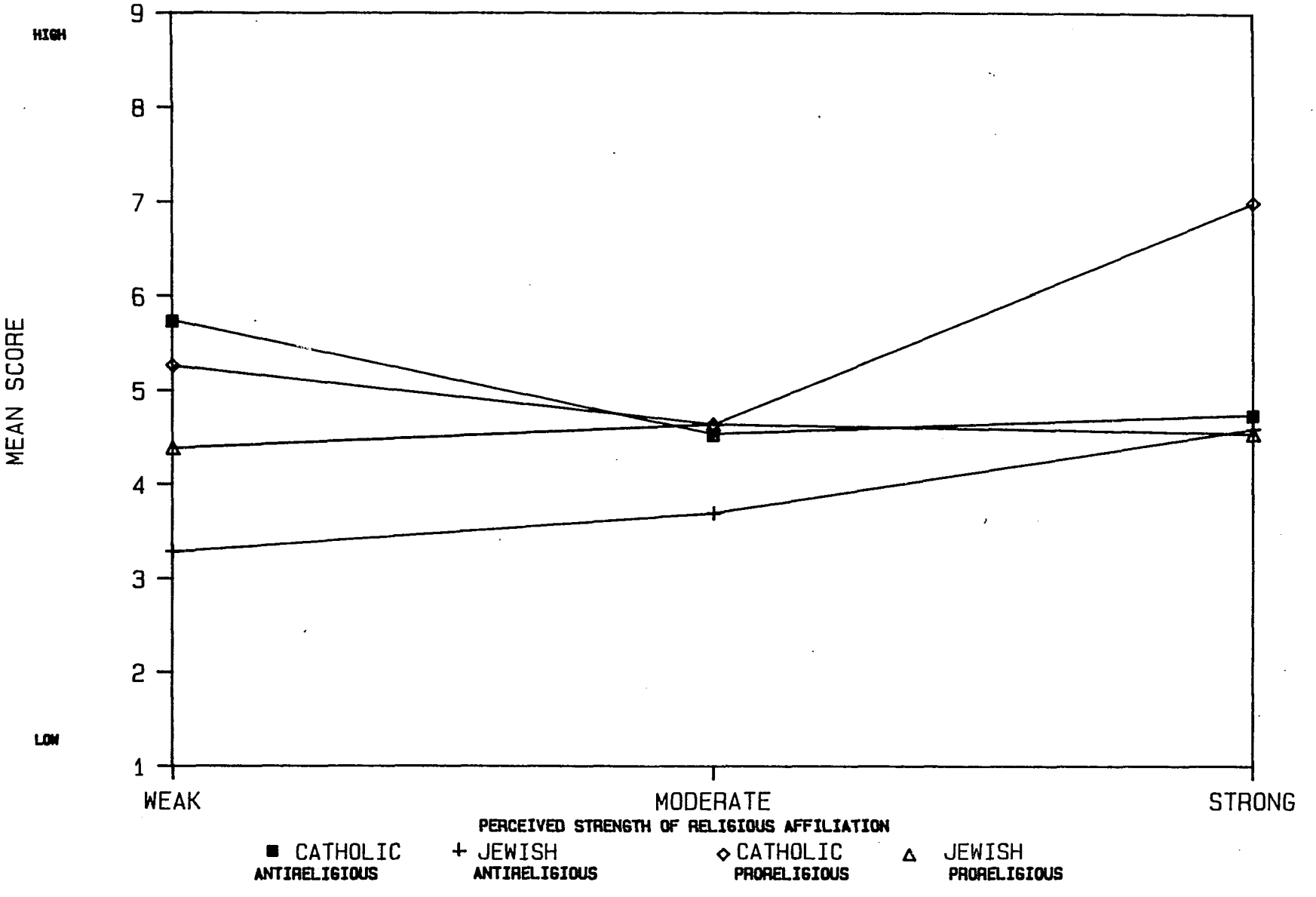
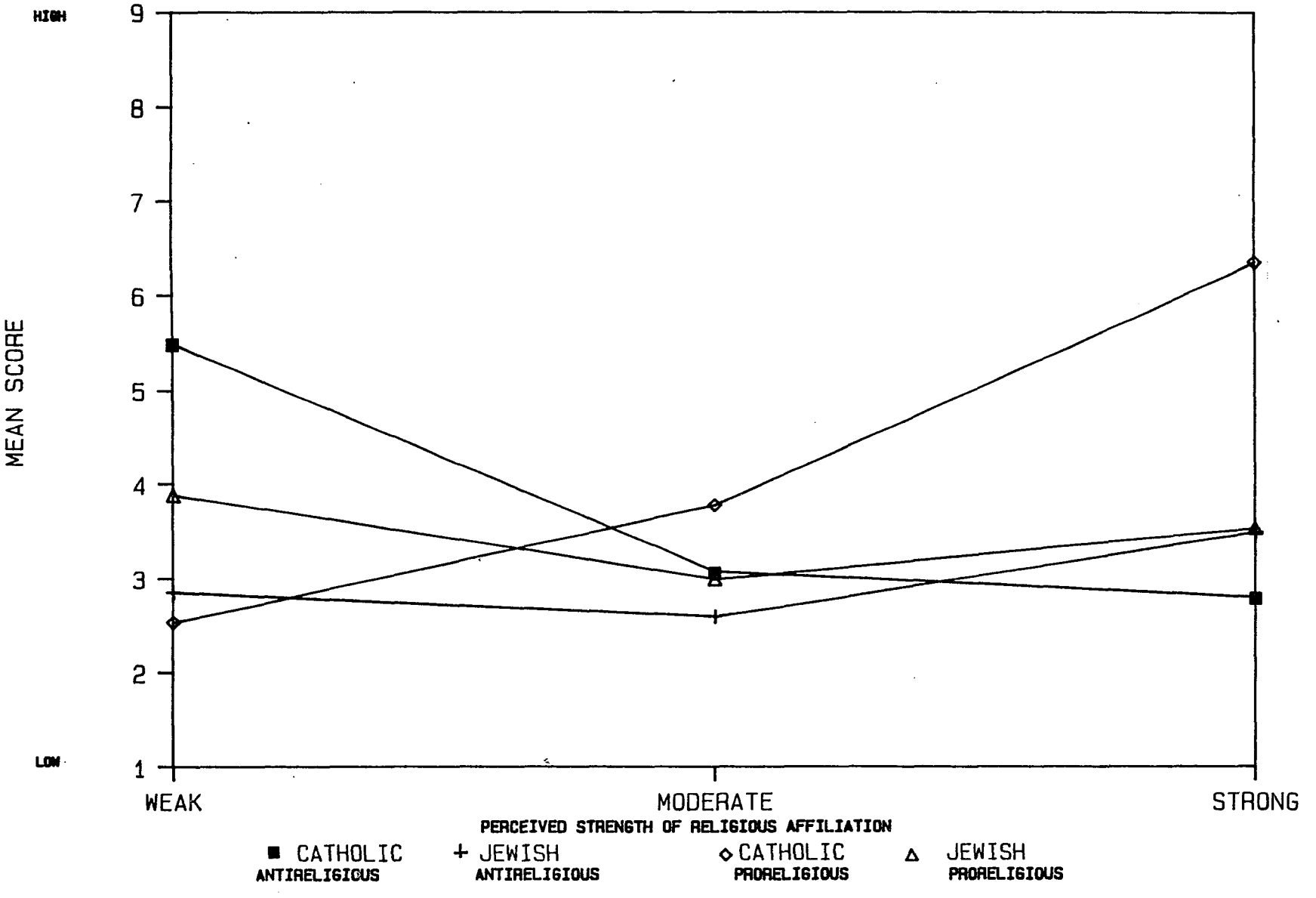


FIGURE A-20

PLOT OF PERCEIVED RISK IN MICROWAVE OVEN PURCHASE DECISIONS



A STUDY OF HOUSEHOLD PURCHASE DECISIONS

FOR DURABLE GOODS

PART I

A. We are interested in the roles played by various family members in deciding about your most recently purchased automobile [Please circle one answer for each item].

	Husband Only	Husband More Than Wife	Husband and Wife Equally	Wife More Than Husband	Wife Only
1. Which family members stimulated interest in buying your newest automobile?	1	2	3	4	5
2. Which family members obtained most of the information on your recently purchased automobile?	1	2	3	4	5
3. Which family members most influenced when the automobile was purchased?	1	2	3	4	5
4. Which family members most influenced where you bought your most recently purchased automobile?	1	2	3	4	5
5. Which family members most influenced what make of automobile was purchased?	1	2	3	4	5
6. Which family members most influenced what model of automobile was purchased?	1	2	3	4	5
7. Which family members most influenced what color of automobile was purchased?	1	2	3	4	5
8. Which family members most influenced how much money was spent on the automobile?	1	2	3	4	5

B. We are interested in the roles played by various family members in deciding about your most recently purchased microwave oven [Please circle one answer for each item].

	Husband Only	Husband More Than Wife	Husband and Wife Equally	Wife More Than Husband	Wife Only
1. Which family members stimulated interest in buying your microwave oven?	1	2	3	4	5
2. Which family members obtained most of the information on your recently purchased microwave oven?	1	2	3	4	5
3. Which family members most influenced when the microwave oven was purchased?	1	2	3	4	5
4. Which family members most influenced where you bought your most recently purchased microwave oven?	1	2	3	4	5
5. Which family members most influenced what make of microwave oven was purchased?	1	2	3	4	5
6. Which family members most influenced how much money was spent on microwave oven?	1	2	3	4	5

PART II

A. How willing are you to try something new in each area listed below without first checking with others who have tried the product? A 5 indicates very great willingness; a 1 indicates very little willingness. [Please circle the appropriate number]

	VERY GREAT WILLINGNESS				VERY LITTLE WILLINGNESS
a. new dances	5	4	3	2	1
b. new places to shop	5	4	3	2	1
c. new apparel	5	4	3	2	1
d. new home furnishings	5	4	3	2	1
e. new movies	5	4	3	2	1
f. new books	5	4	3	2	1
g. new magazines	5	4	3	2	1
h. new vacation spots	5	4	3	2	1
i. new foods	5	4	3	2	1
j. new restaurants	5	4	3	2	1
k. new political ideas	5	4	3	2	1
l. new religious ideas	5	4	3	2	1
m. new types of transportation	5	4	3	2	1
n. new hairstyles	5	4	3	2	1
o. new sports activities	5	4	3	2	1

B. Please indicate your agreement or disagreement with each of the following statements, by circling the appropriate number that best expresses your feeling.

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1. I am the kind of person who would try any new product at least once	5	4	3	2	1
2. I would rather wait for others to try a new product than try it right away myself	5	4	3	2	1
3. When I see a new brand somewhat different from the usual, I investigate it	5	4	3	2	1
4. I am very cautious about trying new/different products	5	4	3	2	1
5. Trying new brands of grocery and other similar products is generally a waste of time	5	4	3	2	1
6. When I hear about a new product or store, I am usually eager to find out more about it	5	4	3	2	1
7. I enjoy buying unfamiliar brands just to get some variety in my purchases	5	4	3	2	1
8. I often try new brands before my friends and neighbors do	5	4	3	2	1

PART III

A. To get information about what make of automobile to purchase would you: [Please circle the appropriate number]

		Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1.	Visit the automobile dealers	5	4	3	2	1
2.	Visit the automobile shows	5	4	3	2	1
3.	Read automobile magazines	5	4	3	2	1
4.	Read newspaper advertisements	5	4	3	2	1
5.	Obtain information from sales personnel in the dealers	5	4	3	2	1
6.	Discuss with my friends/neighbors	5	4	3	2	1
7.	Watch automobile advertising on television	5	4	3	2	1
8.	Listen to radio advertising	5	4	3	2	1
9.	Other (please specify) _____					

B. To get information about what make of microwave oven to purchase would you: [Please circle the appropriate number]

		Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1.	Visit the appliance stores	5	4	3	2	1
2.	Attend cooking seminars	5	4	3	2	1
3.	Read home/kitchen magazines	5	4	3	2	1
4.	Read newspaper advertisements	5	4	3	2	1
5.	Obtain information from sales personnel in the stores	5	4	3	2	1
6.	Discuss with my friends/neighbors	5	4	3	2	1
7.	Watch microwave oven advertising on television	5	4	3	2	1
8.	Listen to radio advertising	5	4	3	2	1
9.	Other (please specify) _____					

PART IV

1a. Before your recent automobile purchase did you shop in any dealer for this automobile before deciding on your purchase?

____Yes ____No

b. If "yes," how many dealers did you visit?___

2a. Before your recent microwave oven purchase did you shop in any appliance store for this microwave oven before deciding on your purchase?

____Yes ____No

b. If "yes," how many stores did you visit?___

PART V

In your opinion, what is the likelihood that there will be something wrong with an unfamiliar brand of each of the following items, or that it will not work properly? [Please circle the appropriate number]

Product	Will Probably Work Fine Probably Nothing Wrong				50-50 Chance		Will Probably Not Work or Will Have Something Wrong		
Automobile	1	2	3	4	5	6	7	8	9
Microwave Oven	1	2	3	4	5	6	7	8	9

PART VI

Of the products we have questioned you, automobile and microwave oven we would like to determine the "main users" of these two products:

a. Who in your household is the main user of the automobile?

____ Husband
____ Wife
____ Both equally
____ Other (Please specify)
_____
_____

b. Who in your household is the main user of the microwave oven?

____ Husband
____ Wife
____ Both equally
____ Other (Please specify)
_____
_____

PART VII

The following items deal with various types of religious ideas and social opinions. We should like to find out how common they are.

Please indicate the response you prefer, or most closely agree with, by circling the appropriate number for each statement corresponding to your choice on the right margin.

If none of the choices expresses exactly how you feel, then indicate the one which is closest to your own views. If no choice is possible, you may omit the item.

There are no "right" or "wrong" choices. There will be many religious people who will agree with all the possible alternative answers.

SECTION A

1. What religions offers me most is comfort when sorrows and misfortune strike.

   a. I definitely disagree 1
   b. I tend to disagree. 2
   c. I tend to agree 4
   d. I definitely agree. 5

2. One reason for my being a church/synagogue member is that such membership helps to establish a person in the community.

   a. Definitely not true 1
   b. Tends not to be true. 2
   c. Tends to be true. 4
   d. Definitely true 5

3. The purpose of prayer is to secure a happy and peaceful life.

   a. I definitely disagree 1
   b. I tend to disagree. 2
   c. I tend to agree 4
   d. I definitely agree. 5

4. It doesn't matter so much what I believe so long as I lead a moral life.

   a. I definitely disagree 1
   b. I tend to disagree. 2
   c. I tend to agree 4
   d. I definitely agree. 5

5. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.

   a. Definitely not true of me . . 1
   b. Tends not to be true. 2
   c. Tends to be true. 4
   d. Clearly true in my case . . . 5

6. The church/synagogue is most important as a place to formulate good social relationships.

   a. I definitely disagree 1
   b. I tend to disagree. 2
   c. I tend to agree 4
   d. I definitely agree. 5

7. Although I believe in my religion, I feel there are many more important things in my life.

   a. I definitely disagree 1
   b. I tend to disagree. 2
   c. I tend to agree 4
   d. I definitely agree. 5

8. I pray chiefly because I have been taught to pray.

   a. Definitely true of me 5
   b. Tends to be true. 4
   c. Tends not be true 2
   d. Definitely not true of me . . 1

9. A primary reason for my interest in religion is that my church/synagogue is a congenial social activity.

   a. Definitely not true of me . . 1
   b. Tends not to be true. 2
   c. Tends to be true. 4
   d. Definitely true of me 5

10. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.

   a. Definitely disagree 1
   b. Tend to disagree. 2
   c. Tend to agree 4
   d. Definitely agree. 5

11. The primary purpose of prayer is to gain relief and protection.

   a. I definitely agree. 5
   b. I tend to agree 4
   c. I tend to disagree. 2
   d. I definitely disagree 1

SECTION B

1. I try hard to carry my religion over into all my other dealings in life.

   a. I definitely disagree 5
   b. I tend to disagree. 4
   c. I tend to agree 2
   d. I definitely agree. 1

2. Quite often I have been keenly aware of the presence of God or the Divine Being.

   a. Definitely not true 5
   b. Tends not to be true. 4
   c. Tends to be true. 2
   d. Definitely true 1

3. My religious beliefs are what really lie behind my whole approach to life.

   a. This is definitely not so . . 5
   b. Probably not so 4
   c. Probably so 2
   d. Definitely so 1

4. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services.

   a. Almost never. 5
   b. Sometimes 4
   c. Usually 2
   d. Almost always 1

5. If not prevented by unavoidable circumstances, I attend church/synagogue:

   a. more than once a week 1
   b. about once a week 2
   c. two or three times a month. . 4
   d. less than once a month. . . . 5

6. If I were to join a church/synagogue group I would prefer to join (1) a Bible Study group, or (2) a social fellowship.

   a. I would prefer to join (1) . 1
   b. I probably would prefer (1) . 2
   c. I probably would prefer (2) . 4
   d. I would prefer to join (2) . 5

7. Religion is especially important to me because it answers many questions about the meaning of life.

   a. Definitely disagree 5
   b. Tend to disagree. 4
   c. Tend to agree 2
   d. Definitely agree. 1

8. I read literature about my faith (or church/synagogue).

   a. Frequently. 1
   b. Occasionally. 2
   c. Rarely. 4
   d. Never 5

9. It is important to me to spend periods of time in private religious thought and meditation.

   a. Frequently true 1
   b. Occasionally true 2
   c. Rarely true 4
   d. Never true. 5

PART VIII

CLASSIFICATION QUESTIONS

Now I would like to ask you a few last questions so that we may put together the answers of people with similar family characteristics. For each of the following questions, please check (X) one category.

1. In my household, I am the . . .

_____ Husband
_____ Wife

2a. Are you:

1. Single _____
2. Married _____ [If you check this box go to question 2b]
3. Separated/Divorced _____
4. Widowed _____

2b. About how long have you been married to your husband/wife? Please write in below.

_____ Year(s)
_____ Month(s)

3a. Please check the appropriate space to indicate the number of family members living in your household including yourself.

1. _____ 4. _____ 7.
2. _____ 5. _____ More than 7 _____
3. _____ 6. _____

b. Please check the appropriate space to indicate the number of children (11 years or less) living in your household.

1. _____ 4. _____ None _____
2. _____ 5. _____
3. _____ More than 5. _____

4. Please check the space that best describes your nationality background?

Irish _____ Polish _____
Italian _____ Spanish _____
Jewish _____ Other (specify) _____

5a. With what religion or denomination, if any, do you identify? Please indicate which one.

Catholic _____ Islam _____
Jewish _____ Other (specify) _____
Protestant _____ None _____

b. How would you rate the strength of your religious affiliation?

Very Strong _____ Very Weak
5 4 3 2 1

6. Below you will find a number of questions which deal with social and religious issues. Please circle the appropriate number for each statement according to how much you "agree" or "disagree" with it. Answer all questions. Do not leave any questions unanswered.

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Praying has no place in the class-rooms/schools .	4	3	2	1
b. I would not consider purchasing any food products that do not conform to my religious dietary laws. .	4	3	2	1
c. Abortion is a sin against mankind	4	3	2	1
d. Nonessential businesses should not be permitted to operate on the Sabbath.	4	3	2	1

7. Please check the appropriate space to indicate the category which best describes your and your spouse age.

	Husband:	Wife:
Under 35 years	____	____
35-44 years	____	____
45-54 years	____	____
55-65 years	____	____
Over 65 years	____	____

8. Please check the appropriate space to indicate the highest grade attended or degree received by you and your spouse.

	Husband:	Wife:
Some college	_____	_____
College graduate	_____	_____
Some graduate work	_____	_____
Master's or doctorate degree	_____	_____

9. Please check the appropriate space to indicate the category which best describes the correct occupation for you and for your spouse. (Occupations are listed in alphabetical order.)

	Husband:	Wife:
Accountant	_____	_____
Dentist	_____	_____
Executive	_____	_____
Engineer	_____	_____
Head of large firm . .	_____	_____
Lawyer	_____	_____
Physician	_____	_____
Professor	_____	_____
Scientists	_____	_____
Other (Specify) . . .	_____	_____

10. Please pick out the number of the group which best describes the total combined annual income before taxes of all members of your household, including yourself -- that is, income from their jobs as well as any other sources.

$ 50,000 to $59,999	_____
$ 60,000 to $69,999	_____
$ 70,000 to $79,999	_____
$ 80,000 to $89,999	_____
$ 90,000 to $99,999	_____
$100,000 and over	_____

Respondent's Name: _____

Address: _____

City _____ State _____

Telephone Number: _____

This concludes the interview, thank you very much for your cooperation and time.

INTERVIEWER: _____

DATE OF INTERVIEW: _____
MONTH / DATE

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