THE ASSOCIATION BETWEEN BIBLE LITERACY

AND RELIGIOSITY

DISSERTATION

Presented to the Graduate Council of the

University of North Texas in Partial

Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Jerry D. Clark, B.S., M.A.

Denton, Texas

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bibliography, 166 titles.

The purposes of this study were to estimate: (a) the extent of biblical

literacy among convenience samples of adults from randomly selected religious

and non-religious groups, (b) the extent to which American adults are religious,

and (c) the association between religiosity and biblical literacy.

Volunteers from randomly selected religious groups participated in the

study. A 50-item Bible knowledge questionnaire and a 23-item religiosity

questionnaire were administered to 699 adults from 10 religious and

non-religious groups.

Individuals from Baptist, Methodist, Jewish, Catholic, Atheist, Episcopal,

Lutheran, Church of Christ, Presbyterian, and Unitarian groups from the

Dallas-Fort Worth area participated in the study. Mean scores and standard

deviations were computed on biblical literacy and religiosity between the

groups and within the groups. The ANOVA revealed a significant F-ratio for

both biblical literacy and religiosity. A test for multiple comparisons was then

applied to determine which group means differed significantly from each other.

The Duncan new multiple range test was used for this purpose.

The correlation between biblical literacy and religiosity yielded a significant positive correlation among the group scores. As religiosity increased, so did Bible literacy. Multiple regression was then computed to determine the association between age, gender, level of education, religious preference, and biblical literacy and religiosity. The multiple regression revealed that age, gender, level of education, and religious preference accounted for approximately 16% of the variance in biblical literacy and approximately 78% of the variance in religiosity.

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CHAPTER 1

INTRODUCTION

The scientific study of religion continues to be hampered by the problem of quantifying religious phenomena. Embree (1973) has questioned the adequacy of available instruments, scales, and indices in providing objective results in the study of religion. Further complicating accurate measurement is the fact that the world is in a period of cataclysmic change affecting the whole of our lives. The fundamental thesis seems to be that America is in a time of parenthesis, or between two eras of civilization. On the back side of the parenthesis is the span of time known as the Age of Industry which succeeded the Age of Agriculture. McKenna (1986) states that on the front edge is the forthcoming Age of Information which is, even now, coming into its own and making the Age of Industry obsolete. Questions must be asked about the impact these changes have had in the past, and what impact will they continue to have on religion.

Confusion reigns in a society or an institution when issues are not sorted out and acted upon. The massive amounts of information transmitted daily through numerous types of electronic and print media make it difficult, if not impossible, to assimilate. Bombarded with messages from the secular media,

religious and non-religious people alike can become desensitized to such a degree that values and morals begin to erode. The modernization of societies has often been accompanied by a decline in religiosity through the process of secularization. Secularization, as defined by Garnett (1955), describes an attitude which refuses to recognize that any object, ideal, being, or principle is worthy of the place of supreme importance given to an object of religious devotion. According to Sharot, Ayalon, and Ben-Rafael (1986), secularization is the process by which religious institutions, ideas, and values lose their social significance. This decline of religion has been viewed either as a dimension or as a consequence of modernization, industrialization, urbanization, the growth of science and technology, the spread of education, or the development of the mass media. Sharot et al. has stated that the decline of religiosity is most noticeable among Western Jews. This decline is marked by their movement out of the ghetto. It is also marked by their transition into the wider society which involves concentration in large urban centers. Further indication of decline is noted by their diffusion into the modern sectors of education, commerce, industry, and participation in the political institutions of their respective nations.

During the past decade, many religious people have become aware of another pervasive ideology called secular humanism. While this phrase has been loosely used and often abused, it does signify some widespread assumptions, beliefs, and commitments that shape much of our culture.

Marsden (1986) stated that "secular" refers to the naturalism of modern thought, while humanism asserts the dignity and worth of humanity and its capacity for self-realization through reason, without supernaturalism. Both words, considered separately, can be used in a neutral sense, but when combined, they refer to cultural trends that are hostile to traditional religion. What has not been sufficiently determined is the degree to which secular humanism has subtly invaded religious institutions. Theological conservatives have long accused religious liberals of trying to fuse modern assumptions and values with religious tradition. While orthodox religionists have erected formidable doctrinal barriers against theological liberalism, Marsden believes that more subtle versions of similar sub-Christian values have infiltrated behind their lines.

Theological drift from a traditional to a more moderate view is also becoming more apparent within orthodox colleges and seminaries. Frame (1990) reported in a survey of students at 16 evangelical institutions of higher education that more than 50% of those surveyed believed the Bible should not be taken literally in matters of science and history. These respondents had difficulty accepting the view that God created the world in six 24-hour days. Approximately 30% believed that persons who never have an opportunity to hear of Jesus Christ can still get to heaven.

The lifestyle attitudes of today's youth have also been noted to be quite different from their predecessors of a decade ago. In a survey of 3,000 high

school seniors, Easterlin and Crimmins (1988) found that a shift in life goals has occurred in both public and private schools. The life goal noted with the greatest increase in importance between 1976 and 1986 was "having lots of money." The life goal showing the greatest decrease was "finding purpose and meaning in life." Other trends that differed significantly from respondents of a decade ago include a stronger interest in making more money and in what money will buy and in jobs that pay well. Money is perceived as conferring status and making possible the pursuit of an envisioned lifestyle comprising more goods for oneself and one's children. Even though these trends suggest that materialism is on the rise among the youth of America, the findings of studies by Inglehart (1981) and Yankelovich (1981) suggest that American youth are progressing toward a more non-materialistic set of values.

In America's pluralistic system of education where public and private schools both seek to provide a comprehensive education, Easterlin and Crimmins (1988) found that students' interest in making money has risen steadily since 1970. While many private schools make an effort to instill conservative ideas and values, Marsden (1986) reported that attitudes concerning materialism among high school seniors are virtually the same in the public and private sector. Even though religious education occurs both in the church and private schools, Gallup and Castelli (1989) observed that teenagers are less interested in religion than adults. Johnston (1986) reported that during the 1950s and 1960s individuals who professed to be religious

maintained stronger links with their theological heritage, but during the 1980s, the religious focus seemed to be centered on personal needs, activities, and habits. Surveying the high school youth in liberal and conservative churches and in public and private schools, Stafford (1986) found that less than 10% of the respondents had any regular, voluntary Bible reading.

Researchers who have conducted studies during the last 30 years have not always agreed concerning the status of religion in America and its subsequent impact upon individuals' lives. Glock and Stark (1978) conducted a study of church members in 1963. Church members were asked questions about their religious backgrounds and the role that religion played in their lives. In a sample of Northern Californians from predominantly white Protestant and Roman Catholic churches, the data provided some insight into America's religiosity during the 1960s. The results showed that 71.1% of those surveyed attended church every week or at least three times a month, while only 6% attended once or twice a year. When asked how often they read the Bible at home, 28.6% indicated they never read it at home, 25.5% read it once a month, and 10.3% read it once a day or more. Even though 71.1% attended church regularly, only 36.5% believed that the Bible provides help in a direct way in making everyday decisions and 44.8% believed it provides help in their lives, even though they could not think of specific examples. When asked if they could recite the Ten Commandments, 59.8% of the respondents indicated

they could recite them from memory, while 39.5% were not sure they could recite all ten from memory (Glock & Stark, 1978).

To determine if biblical knowledge is influenced by religious educational programs, Willis (1968) conducted a study in 1963 to determine if an association exists between the knowledge of factual content of the New Testament and age, number of years as a church member, rate of attendance during childhood, and rate of attendance during adolescence. The results indicate that biblical knowledge does not increase to any significant extent with exposure to educational programs and sermons of the church. According to Willis, the lack of significant correlations between biblical knowledge and factors such as age, number of years as a church member, and attendance during childhood and adolescence presents a picture which is in opposition to commonly-held views in other research. Accordingly, Kosa and Schommer (1961) found that Catholic college students who participated more in church activities had significantly higher scores on a test of factual religious knowledge.

Richardson (1983) noted that the effort on behalf of religious educators to determine the association between a person's level of factual biblical knowledge and his secular attitudes is not a simple process. Nevertheless, Richardson claims that a change in knowledge is essential to a lasting change in a person's attitudes. But, is this also true in the religious realm? Ross (1950) reported that less than 20% of the respondents in his study found

religion as a basis or compelling guide for their everyday behavior. Ross summarizes, however, that his study only discovered what people claimed to believe, which in the majority of cases was simply what they had been taught to believe by their parents and not that which they had learned for themselves.

Richardson (1983) conducted his investigation of the association between factual biblical knowledge and attitudes toward one's self and others. Three instruments were used in his research: (a) a general information questionnaire, (b) a Bible knowledge test, and (c) a scale to measure attitude toward one's self and others. Using the Pearson product-moment correlation coefficient, Richardson found a significant and positive correlation between Bible knowledge and attitude toward self and others. Of the 1,148 adults tested, a positive correlation between the two variables under scrutiny was statistically significant. The significance of the correlation depends on the number of cases involved. For 1,000 cases, a correlation of $r = .62$ is significant at the .05 level and $r = .81$ at the .01 level. However, with the emphasis placed on attitude development by higher education, Richardson believed the amount of formal education that each respondent had obtained, or even the number of years a person had attended educational programs of the church, might be associated with their attitudes. Richardson used a partial correlation to show the true relationship between one series of measures and another series as it would have been if certain other variables had been constant instead of variable. Richardson's intent in using a partial correlation

was to investigate the association, provided all the participants were the same age and had the same amount of education. When freed from the influence of the other variables, Richardson found the correlation between Bible knowledge and attitude toward self was still .56 at the .05 level. Richardson concluded that the weight of the evidence demonstrated that Bible knowledge is positively associated with attitudes. If it is desirable to develop Christian attitudes in a person's life, educators in private schools and churches should communicate cognitive biblical facts.

Donahue (1985) conducted a review of data that had been gathered regarding intrinsic and extrinsic religiousness. Only studies in which intrinsic religiousness, referred to as (I), and extrinsic religiousness, referred to as (E) by Allport and Ross's study in 1967 or Feagin's study in 1964 were given consideration in this review. Kahoe (1974) used the same definition as Allport and Ross in stating that extrinsic religiousness is defined as one's use of religion for his own ends so as to provide sociability, status, and security. Intrinsic, actualizing religion is defined as a process of internalizing certain beliefs and then actualizing the principles of that belief system.

The primary purpose of Donahue's (1985) study was to determine the relationship between I and E. The study was also designed to investigate whether any later conceptual developments provide additional insight into I and E and what other possible factors influence them. Donahue concluded that intrinsic religiousness serves as a more realistic measure of one's religious

commitment than does church membership or how liberal or conservative one is in religious beliefs and behavior. Patrick (1979) noted that intrinsic religiousness is not based upon or influenced by a certain doctrine or religious definition. Intrinsic religiousness being based upon the degree to which persons live out their beliefs, makes it usable with any religious or non-religious group. In a study on religiosity and prejudice, Hood (1978) also found intrinsic religiousness to correlate with other measures of religiousness. Hoge and Carroll (1973) stated that extrinsic religiousness tends to measure the sort of religiousness that gives religion a negative connotation. It is positively correlated with prejudice and dogmatism. Hoge and Carroll found that persons with an extrinsic religious orientation tend to be more prejudiced and that casual church attenders have a higher extrinsic religious motivation.

The evidence obtained by Hood (1978) and Hoge and Carroll (1973) help provide a basis of understanding when looking at a survey of unchurched Americans who indicated a Protestant preference. A survey by Perry and Davis (1980) provides a look at some of the casualties of Protestant churches in a secular and affluent culture. Perry's and Davis's data included a large group of individuals, classified as the "Estranged," who at one time or another had a religious experience. Most were active in church at one time, but no longer felt a need for church. Perry's and Davis's results showed that 80% of the individuals in the Estranged group believed religion to be very important in

their lives, compared with 74% of the Protestants attending church who indicated that religion was very important in their lives.

A second group, classified by Perry and Davis (1980) as the "Indifferent," claimed to hold Christian beliefs, but with less certainty. They did not profess to have had a religious experience and indicated that religion was just not important to them. Perry and Davis reported that 96% of persons classified as Indifferent believed a person could be a good Christian or Jew even if he or she did not attend a church or a synagogue.

A third group, classified by Perry and Davis (1980) as the "Nominals," were not religious in any usual definition of the word. Even though they did not hold traditional beliefs, never had a religious experience, did not make a commitment to Jesus Christ, and did not perceive themselves as being religious, they still indicated Protestant as their religion of preference.

This survey by Perry and Davis (1980) estimated the total unchurched population of the United States to be 61 million persons 18 years of age and over. The results revealed that most of the unchurched believed they should arrive at their own religious beliefs without dependence on a church. The majority held the view that a person can be a good Christian without attending church. Pargament and Brannick (1987) also noted that, for the unchurched, all religion is good, but it is not something that personally concerns them. Robinson (1986) noted that the apathy and indifference demonstrated toward religion in the past 20 years is quite different from the strong faith and

spiritual vitality exhibited in previous generations. Gallup and Castelli (1989) also found that Americans increasingly view their faith as a matter between them and God, to be encouraged, but not necessarily influenced, by the church.

Religious educational programs within private schools and churches must become more focused in their methods and message to meet the needs of a changing society. As reported by Gallup and Castelli (1989), Americans today want a variety of spiritual and practical services from their churches. In the spiritual dimension, Americans want help from the church both to find meaning in their lives and to learn information about the Bible and its meaning. In the practical realm, Americans want churches to help them put their faith into practice and want teaching on moral issues, how to serve others, and how to be better parents. Americans understand that for their faith to be meaningful, it must help them in their day-to-day lives (Gallup & Castelli, 1989). Disagreement as to the most effective method of meeting these needs becomes more pronounced as the culture becomes more secular. However, unless the knowledge which is derived from the teaching within churches and private schools provides enough impact to make a difference in attitudes and to change behavior, notable differences may continue to be difficult to ascertain between the religious and non-religious individual.

Statement of the Problem

The problem of this study was to determine the association between individual religiosity and Bible literacy.

Purpose of the Study

The purpose of the study was to estimate: (a) the extent of biblical literacy among convenience samples of adults from randomly selected religious and non-religious groups, (b) the extent to which American adults are religious, and (c) the association between their religiosity and biblical literacy.

Research Questions

The following questions were addressed in this study.

1. To what extent are selected samples of American adults biblically literate?

2. To what extent are selected samples of American adults religious?

3. What is the association between religiosity and biblical literacy?

Significance of the Study

The significance of this study is that it provides data for the purpose of determining if an individual's level of biblical literacy has any bearing or influence upon his or her religiosity. Many studies have been carried out to analyze factors associated with religiosity. However, the association between religiosity and biblical literacy has received little attention. This study should

be of interest to religious educators who wish to gain insight into the link between biblical literacy and religiosity.

Limitations of the Study

The following limitations have been noted for the purpose of this study.

1. The selected sample of subjects included in this study was limited to the following religious persuasions in the Dallas-Fort Worth area: (a) Baptist, (b) Methodist, (c) Jewish, (d) Catholic, (e) Atheist, (f) Episcopal, (g) Lutheran, (h) Church of Christ, (i) Presbyterian, and (j) Unitarian.

2. Agnostics were not included in this study. Being unable to identify organized groups with regular, appointed meeting times made it virtually impossible to secure a representative sample for the administration of the instruments.

3. Because a review of the literature revealed minimal research regarding this topic, a descriptive study using a pre-experimental design was the beginning point for research on a subject (Campbell & Stanley, 1963). The pre-experimental design called the One-Shot Case study was used. When using this design, respondents are studied only once with the use of two separate instruments.

4. According to Borg and Gall (1983), the correlational method is acceptable for exploratory studies where little or no previous research has

been done. This study identifies pertinent variables and provides insight that can serve as a basis for further experimental research.

5. The Methodist, Lutheran, Epsicopal, Baptist, Church of Christ, and Presbyterian groups were classified separately in this study rather than combining them into one Protestant group. However, the variations within the Jewish, Catholic, Atheist, and Unitarian groups were not considered separately, i.e.: orthodox, messianic Jews. Thus, a comparison of the Jewish, Catholic, Atheist, and Unitarian groups with the Protestants as a combined group is not included in this study.

Definition of Terms

The following terms have restricted meaning and were defined for this study.

Biblical literacy: the familiarity and/or ability that enables one to read a short, simple passage in the Bible and answer questions about it.

Extrinsic religiosity: defined by Kahoe (1974) as one's use of religion for his own ends so as to provide security, solace, sociability, status, and self-justification.

Intrinsic religiosity: is defined by Kahoe (1974) as the process of internalizing the principles of beliefs to such a degree that religion may influence the choices and decisions made in everyday life.

Religion: broadly defined by Lenski (1963) as a system of beliefs in which practices are shared by group members who ascribe devotion to something other than self which they regard worthy of supreme devotion.

Religiosity: is defined by Mathews and Smith (1979) as one's capacity to enter into communion with God, things, or persons that are deemed sacred and characterized by varying degrees of devotion to one's beliefs, practice, and knowledge.

CHAPTER 2

REVIEW OF THE LITERATURE

Religion is not the same to all people, whether in a complex modern society or in the most homogeneous primitive one. Even when considering a single religious tradition, many variations can be found. It is quite evident that people think, feel, and act differently regarding religion. As suggested by Watson, Morris, Foster, and Hood (1986), whether religion exerts a positive or negative influence on the lives of individuals has been a persistent concern in the study of religion. Less than 20% of the persons surveyed by Richardson (1983) who considered themselves religious actually used religion as a basis or a compelling guide for their everyday behavior. According to Willis (1968), an individual's knowledge of the Bible does not increase to any significant extent from more exposure to the educational programs and sermons of the church. Thus, Tamney and Johnson (1985) suggest that it is not surprising for the suggestion to be made that a religion such as Christianity has no effect in a world dominated by secular thought, automation, and bureaucratization.

In view of this great diversity, deciding how to conceptualize the phenomenon of religion and how to evaluate people in terms of their religious behavior becomes a tremendous task. Many attempts have been made to

identify religious individuals and to discover what motivates them to be religious or not. However, these efforts have often proven to be inconclusive. The task of constructing a conceptual framework for a systematic study of varying degrees of commitment to religion is, indeed, difficult.

This study was an effort to move closer to that goal. Is the claim by secular educators that a change in knowledge is essential to a lasting change in a person's life (Richardson, 1983) also true in the spiritual realm? Does an individual's level of biblical knowledge or literacy really influence his or her religiosity in terms of attitudes and actions? Fahs (1945) has suggested that religion is not defined by its content but by its attitude. Such an outlook views religion as present to the degree that one has accepted and integrated an outlook and actually lives it. Watson, Morris, and Hood (1989) observed that others have the opinion that individuals need a source of strength outside themselves. Santoni (1968) emphasized that one of the central tasks of organized religion is the elucidation of the structure of religious knowledge and suggested that an ontology is presupposed in every religion.

Finding a comprehensive and operationally useful definition of religion is difficult. However, the intrinsic importance of religion in the life of a person is enough to justify the study of the association between an individual's religiosity and his or her level of biblical literacy. In order to begin such a study, it is first necessary to have a way of measuring levels of biblical

knowledge and religiosity. If religiosity is to be studied, the different ways an individual can be religious must first be assessed (Wimberly, 1989).

Dimensions of Religiosity

In the midst of great variations of various beliefs, considerable consensus is evident regarding the general areas in which religiosity should be manifested. These general areas have been labeled as the core dimensions of religiosity. Glock (1973) identified five such distinguishable dimensions: (a) the experiential, (b) the ritualistic, (c) the ideological, (d) the intellectual, and (e) the consequential. These dimensions provide a frame of reference for the study of religion and for the assessment of religiosity. With few exceptions, researchers have not considered all five dimensions simultaneously. Most researchers have taken a unilateral approach rather than a multi-dimensional approach. In fact, several recent multi-dimensional studies strongly suggest that being religious on one dimension does not necessarily imply religiosity on other dimensions. For example, Fukuyama (1961) found among a sample of Congregationalists that those who scored high in ritual observance and biblical literacy tended to score low on religious belief and religious feeling. In his study, The Religious Factor: A Sociological Study of Religion's Impact on Politics, Economics, and Family Life, Lenski (1963) found a relatively low association between four indicators of religiosity: (a) ritual participation, (b) religious belief, (c) religious experience, and (d) religious self-segregation.

A brief review of the components of religiosity serves as an introduction to the dimensional approach. The experiential dimension provides the frame of reference that, through time, a religious person receives direct knowledge of ultimate reality or experiences religious emotion. The emotions considered proper by different religions, or actually experienced by different individuals, vary widely--from fear to exaltation, from humility to joyfulness, from peace to a sense of a passionate union with God. The emphasis placed on religious feelings as an essential element of religiosity varies considerably. Even within Christianity, groups have a diversity of views concerning their evaluation of mysticism or the importance that is attached to conversion. Every religion, however, places some value on subjective experience as a sign of individual religiosity.

The ideological dimension is made up of the expectation that a religious person holds certain beliefs. The content and scope of the beliefs vary not only between religions, but often within the same religious tradition. Putney and Middleton (1961) suggested that any ideological system has at least four variations: (a) acceptance or rejection of tenets of the system, (b) the degree of love toward others with respect to one's belief, (c) the degree to which these beliefs are significant, and (d) the ambivalence one has toward his belief. Thouless (1935) found that religious beliefs tend to be held or rejected with a high degree of conviction and that few individuals adopt the attitude of partial belief. McDowell (1972) observed that some evangelicals consider Christianity

to be either everything a person needs in this life or nothing--either one's highest certainty of hope and a satisfying life or the acceptance of the greatest delusion ever conceived. According to Pargament and Brannick (1987), however, recent investigations have revealed that the number of persons considered pro-religious continues to grow in number. But, research by Green and Hoffman (1989) reveals that every religion involves a faith that can serve as the primary motivation of one's life which is grounded in religious beliefs and behaviors.

The ritualistic dimension constitutes the specific religious practices expected of followers. It includes such activities as worship, prayer, participation in the sacraments, church attendance, and church membership. In a nationwide survey, Hoge and Polk (1980) collected data from 15 denominations regarding three theories of religious participation. The results indicated that only doctrinal religious belief was a strong predictor of participation. The deprivation theory, which states that persons suffering from deprivation look to religion as a form of compensation, was not supported from their data. The child-rearing theory, which concludes that parents join a church for the sake of family life, also did not receive conclusive evidence of support.

The intellectual dimension sets forth the expectation that religious persons are informed and knowledgeable about the basic tenets of their faith and its sacred scriptures. The intellectual and ideological dimensions have

direct bearings on one another since knowledge of a belief is a necessary condition for its acceptance. Richardson (1983) investigated the relationship between Bible knowledge and beliefs and found conclusive evidence of a positive correlation between the two variables. Ninety-eight percent of those tested were professing Christians who supposedly had accepted Jesus Christ as their Savior and who strived to live according to His example and commands. If knowledge is indeed essential to Christian growth and development, then the failure of the church to make a meaningful impact upon today's society is more easily understood. It is often assumed that those who attend church and Sunday school know and understand far more about the Bible and the Christian life than they actually do. Richardson concluded from his study that mere attendance does not assure learning of either facts or concepts.

The consequential dimension is different in kind from the first four dimensions. It includes all of the effects of religious belief, practice, experience, and knowledge upon the individual. Included in this dimension are all of the religious prescriptions which specify the actions and attitudes an individual should hold as a result of his or her religion. Obviously, this dimension cannot be studied apart from the other dimensions. Attitudes and behavior in the secular areas of life can be used as measures of religious commitment only where they are based on religious belief, practice, and knowledge. Studies of the consequences of commitment to religion have frequently compared the secular attitudes and behavior of churchgoers and

non-churchgoers and believers and non-believers in order to discover if religion does, in fact, have its effects. A relevant study concerned whether religion affects attitudes toward abortion. A study by Harris and Mills (1985) showed that the regularity of participation in religious activity influenced religious values to such a degree that a negative correlation was obtained between religiosity and support for abortion.

Religion in America is often surrounded by a controversy as to whether there has been a propensity toward greater religiousness or toward greater secularization. These disagreements across the years as to whether or not interest in religion has actually been heightened or lessened may be due in part to a failure to specify the dimensions of religiosity that allegedly increased, decreased, or remained the same. According to Glock (1973), the more identification of the different ways in which religiosity is expressed provides a perspective for isolating the gaps in previous research and helps clarify some of the discrepancies in what has been observed and reported about religiosity. It also partially establishes the requirements that need to be met if the phenomenon of religion is to be studied comprehensively.

Broen (1957) has suggested that it would ease the burden of analysis and research if each of the dimensions reviewed could be assumed to be itself unidimensional. Such an assumption would allow one to ignore the issue of sub-dimensions and to move directly to the evaluation of methods of distinguishing more-religious persons from less-religious ones. Unfortunately,

the matter is not that simple. Within every dimension, distinctions may be made in kind as well as degree. An in-depth look at past studies concerning each of the dimensions provides additional insight into the distinctions within religiosity.

Ideological Dimension

The ideological dimension of religious belief can be studied in a variety of ways. However, Yeatts and Asher (1982) have suggested that the methodological issues required for any objective study must be considered, such as a sample sufficient to represent the population, an adequate number of subjects per variable, maximization of the reliability of the instrument, and a sufficient return rate on questionnaires to ascertain characteristics of the population. As Faulkner and DeJong (1966) have pointed out, the study of belief may be examined from the perspective of the doctrines of institutionalized religion or even the role religion plays in providing answers to questions regarding religious faith, death, or purpose in life. In the study of religious beliefs, one may simply inquire into what people believe or, even further, the functions of belief (i.e., the feelings, acts, and experiences of religion, may be studied).

Much of the past research on religious belief has focused on differences in degree of acceptance of traditional church doctrine. Glock (1961) found that many types of measurement have been developed to order people along a

continuum ranging from a strong belief in God and the Bible to complete unbelief in God. Some of the measures of belief appear to be based on the assumption that a subject who holds more beliefs necessarily holds stronger beliefs. It is necessary to make distinctions of kind within the general category of religious belief, so that fundamental differences in types of belief and in types of unbelief are not obscured.

Clark (1989) described the belief structure of some persons regarding their view of religion as a function of what they have been taught to believe about God. According to Glock (1961), however, the belief structure of any religion may be divided into three parts: (a) warranting beliefs, (b) purposive beliefs, and (c) implementing beliefs.

Almost every religion includes beliefs whose main role is to warrant the existence of the Divine and to define His character. Within Christianity, the warranting doctrines are represented by a belief in God, in Christ, and His miracles, and in the virgin birth. As suggested by Martin (1959), the acceptance of these beliefs is, in effect, the acceptance of not only the existence of a god, but of a personal God, who acts in human history. Both Ramsey (1969) and Randall (1958) have asserted that Christianity is not merely a code of laws, but a knowledge of a relationship with God through Jesus Christ.

To be distinguished from warranting beliefs are those beliefs which explain Divine purpose within one's life and which attempt to define a person's

role with regard to that purpose. Within Christianity, purposive beliefs include belief in original sin, the possibility of man's redemption, a final judgment day, and salvation or damnation. Purposive beliefs, in turn, give rise to a third area of beliefs which deals with the means by which the Divine purpose is to be implemented.

Implementing beliefs--integrating one's own beliefs in life--help establish the proper conduct of a person toward God and toward mankind for fulfillment of the Divine purpose. Brown and Lowe (1951) found that the implementation of beliefs provides influence and gives direction to one's behavior and personality. Studies by Stoudenmire (1971) and Sapp and Jones (1986) indicate that affirmation of belief increases an individual's implementation of belief which, in turn, tends to influence moral judgment and conduct.

As Glock (1961) concluded, these considerations make it highly probable that the degree of religiosity cannot be measured by the sheer number of beliefs to which assent is given. Just as different religions stress different beliefs, so some individuals within various religious persuasions may have a religious creed that encompasses implementing beliefs and still others place emphasis on warranting or purposive beliefs.

It seems equally inappropriate to categorize non-believers as a single type, as many studies have done. In some studies, Glock (1961) observed, there appeared to be too few atheists or agnostics to justify distinguishing

between the two groups. However, there is much difference between a person who openly rejects religious belief and the one who contends that the question of belief is beyond his ability to decide. According to Stephen (1903), an agnostic is one who asserts that there are limits to the sphere of human knowledge. When an agnostic is in search of truth about the meaning of life (Savory, 1968), the lack of certainty of belief causes no need for a commitment. As Hilty (1965) reported, many ideas and beliefs are expressed in a variety of religions that are contrary to Christianity. Atheists, agnostics, and unitarians represent some very contrasting views to traditional religion. Atheism rejects a belief in any idea of God or in anything supernatural (DeVries, 1987). Some atheists also reject the idea that Jesus Christ ever existed; all reject his deity and resurrection (Geisler, 1985). As pointed out by O'Hair (1969), some atheists hold a view similar to humanists in that they love their fellow man instead of a god. Theists and atheists do, however, agree on some points. Johnson (1981) found that a common belief is shared regarding the existence of a physical, orderly universe that is composed of elemental structures. Theists assert that a further belief is necessary to explain the existence and characteristics of the universe. Atheists, on the other hand, contend that it is not their responsibility to offer evidence justifying their lack of belief in God.

Unitarians are individualistic in their religion. According to Rosten (1955), a Unitarian is a religious person whose ethic is derived primarily from

that of Jesus, who believes in one God, but does not believe in the Trinity. Unitarians have a philosophy of faith based upon the principles of freedom, reason, and tolerance. Some worship God earnestly and reverently but do not acknowledge Jesus as their Lord because they believe every individual has the right to approach his God in his own way. They insist that every religious community has the duty to create patterns of worship that best serve the needs of those who worship.

The question of relevancy, or how important the beliefs are to the individual, is bound up with the problem of measuring the range and degree of religious conviction. Many people acknowledge holding a belief without it being important to them. Although a large percentage of people in America acknowledge a belief in God, an accurate percentage is difficult to ascertain. Brown and Lowe (1951) found that even though 86% of the college students they surveyed believed in God, almost half of the students thought a person could be happy and enjoy life without believing in God. Brown and Lowe also found that, even though many churches place a high degree of importance on what a person believes and accepts in religion, 77% of the college students agreed that it made no difference what a person believed as long as he or she had good will toward others. The relevancy of belief is most often studied in terms of the kind of religiosity expressed in other dimensions. Normally, the extent to which individuals act out their beliefs in practice is a measure of relevancy, such as how knowledgeable they are in their religion, the kinds of

religious experiences they have had, and how active they are as a result of their beliefs.

While these suggestions move toward a more operational definition of religious belief, the issue of discovering the functions of beliefs for individuals has not been addressed. An important objective is to understand the role of religion in a person's social and psychological adjustment. To investigate the functions of religion is to find out why people are religious in terms of the social and psychological benefits of religious commitment. It is not a question which can be answered by asking people directly. Individuals are likely either to find the question incomprehensible or to give an answer that is irrelevant to the concept of function. Individuals are not normally conscious of the latent functions of their belief. However, a study conducted by Brown (1962) indicated that the social factor of religious commitment does require strong social support for the maintenance and reinforcement of religious behavior.

According to Edwards (1969), the secularization of modern society has produced a social and psychological impact upon traditional beliefs. One manifestation of this secularization process has taken place in the public schools. Madden (1951) suggested that the removal of prayer and Bible reading and the introduction of naturalistic thought into public schools has created an antipathy for organized religion. Madden also noted that an increasing number of persons seek to reinstate school prayer and remove the humanistic forces within schools.

Although secularization is a major trend in modern times (Stark & Bainbridge, 1985), it is not a modern development. Secularization is a process found in all societies. While secularization may progress in some parts of a society, an opposite intensification of religion goes on in other parts. Stark and Bainbridge contend that most of the dominant religious organizations in any society are constantly becoming progressively more worldly; that is, more secularized. This trend has never caused the end of religion, but instead, a mere shift as religions that have become too secularized are replaced by more vigorous and less worldly religions.

The process of secularization is self-limiting in that it generates two counteracting processes—revival and religious innovation (Stark & Bainbridge, 1985). Religious beliefs that are eroded by secularization cause a demand for less secular beliefs, thus producing breakaway sect movements. So, out of secularization, revival is born as protest groups form to restore a vigorous, less-secular belief.

Religious innovation is also stimulated by secularization. No only does secularization revive religious beliefs, it also prompts the formation of new religious beliefs. New religious beliefs appear often within societies. When new beliefs adapt better to current needs within the market of society, the older beliefs are eclipsed. The history of religious beliefs is not only marked by a pattern of decline, but is equally marked by the birth and growth of new religious beliefs.

Religious beliefs may also be conceptualized in other ways. One alternative is to look at the concept of religion in terms of an individual's beliefs that are adopted to discover the purpose and meaning of life. Seekers include those who have the concern but who have not ultimately resolved it. Nonbelievers, too, seek purpose and meaning in life but find it in sources other than religion. Believers represent those who have experienced this concern and who believe they have resolved it for themselves. Believers with strong convictions that their beliefs and actions are correct are what Falbo and Shepperd (1986) considered self-righteous in contrast to the beliefs and actions of others. Implementation of beliefs to the point that actions are influenced is the beginning of character formation within an individual. If beliefs and behavior are to be impacted, the laws of learning must be obeyed in order for learning to take place.

At least five steps (Rasmussen, 1933) must be followed to influence attitudes, actions, and ultimately character. The first step is exposure. In religious education, a high percentage of religious education gets no further than this. The second step is repetition. Ideas must be repeated many times if retention is to occur. The third step is understanding. Even when sufficient repetition has taken place, the full learning process has barely begun. To recite Bible passages from memory does not ensure understanding. The fourth step is conviction. Unless the basic principles implied in the Bible passages are accepted, practice of them with enthusiasm does not occur. The fifth step

is application. The concept of being "doers" of one's faith is almost synonymous with character itself.

The development of religious character is a gradual process. As Hamilton (1953) observed, it can be developed in an individual, but only in an atmosphere of faith and trust in God. At this point, it is evident that the individual is concerned about the relationship between his religious beliefs and the other aspects of his life (Raschke, 1973). Until the principles are actually put into practice and become the guiding motivation in one's daily life, they cannot be considered a part of character. However, the will to apply a principle is not necessarily accompanied by the ability to do so. Ligon (1948) has shown that the mastery of principles is a positive, but negligible, predictor of ability to apply principles.

Another alternative approach involves a deep commitment to a set of values. Hoge (1970) found that from this point of view any deep commitment is meaningful to the individual, whether or not it is grounded in a belief in God. However, many forces persist in eroding the strongest of commitments. Youth sometimes seek to throw off parental restraints and establish their personal identities. Potvin and Sloane (1985) found that, as a group, adolescents are likely to assert their independence, may become indifferent to parental control, and are less traditional in their religious beliefs and attitudes. However, Potvin and Sloane noted that strong parental modeling and learning reinforcement tends to facilitate the internalization of principles learned as a

child. Even the independence of adolescence does not completely obliterate these beliefs or attitudes.

As would be expected from social learning theory, Dudley and Dudley (1986) and Willits and Crider (1989) found that the religious values held by youth tend to resemble those of their parents. However, evidence from a study by Sloane and Potvin (1983) indicates that a change in practice does not appear related to a change in belief. This result is supported by the influence of the parents' degree of involvement within their local churches on their children's level of involvement. Results of a study by Kieren and Munro (1987) reveal that the greater the parents' religious activity, the greater the religious activity of their adolescent children.

According to Carroll, Johnson, and Marty (1979), the shape of the religious future in America depends, to a large extent, on the religious beliefs, practices, and expectations of two key groups in society. The first group is the college educated who will, for the most part, be the nation's leaders; the second group is the young, who will guide the religious institutions and the nation in the years ahead. The gradual erosion of moral and ethical values within the American culture over the past two decades has left vestiges of religious influences in the balance (Colson, 1989b). The forthcoming leaders will either reject or return to the religious absolutes that profoundly shaped Western culture through the centuries.

Ritualistic Dimension

The primary focus in the ritualistic dimension, or religious practice, has been on what people do rather than on the meaning of their activity to them. Reliance of measurement has usually been placed on religious membership and frequency of attendance at religious services as indicators of religiosity within this dimension. Glock (1961) discussed three other approaches to the study of religious practices that avail themselves as possible new ways of viewing an old dilemma. First, attention may be given to distinguishing individuals simply in regard to the frequency with which they participate in religious activities and the interrelatedness of various practices. A second approach is to investigate the variations in the nature of a particular practice, such as prayer. The third is to study the meaning of ritual acts for the individuals who participate in them.

The study of the frequency and patterns of religious practice is the simplest of the three approaches. Beeghley, Velsor, and Bock (1981) determined that religious beliefs are positively related to church attendance; that is, persons with strong religious beliefs attend services more frequently than persons whose beliefs are not as strong. In fact, evidence from a study by Simpson and Hagan (1981) reveals that church attendance has been shown to discourage delinquent behavior.

During the 1950s, religion was a social phenomenon and participation with a religious group was a meaningful association and a source of friendship

(Dynes, 1957; Finke, 1989). During the 1960s and 1970s, however, a painful era of drastic change occurred within American society that influenced the credibility of institutions in general (Kilpatrick, 1983). The assassination of two Kennedys and Martin Luther King, the urban crisis accompanied with racial tensions, and the undeclared war in Southeast Asia left the church unable to cope with the painful realities of rapid, social change. The baby boomers witnessed a government that was unable to cope with either the urban crisis or the Vietnam war, schools that were unable to adequately educate individuals to live in a changing society, and marriages that were unable to provide a continuing source of satisfaction and support.

During this period, churches were viewed as being unable to provide meaning and direction in people's lives (Hertel and Nelsen, 1974). The church was no longer able to make a religious impact upon the culture, and America experienced a spiritual decline (Colson, 1989a). When asked what, if anything, would draw them back to church, Walrath (1980) and Gorlow and Schroeder (1969) found that people most frequently responded that it would be a pastor or church friends who could help them cope with their doubts or find a faith.

As noted by Glock (1961), studies regarding patterns of religious practice with a particular religious group or within a total population have been few. However, a study of this type could help researchers to discover if religious practice can be conceived in a uni-dimensional form or whether, like religiosity, it must be conceived in multidimensional terms. A basis for

deciding whether a distinction should be made between religious activity and religious involvement can then be made. Knowledge of the variations which exist in a particular type of religious practice can then provide an understanding of their meaning to the individual.

Many studies have been carried out to investigate the forces within the American culture that influence religious commitment. Stump (1986) found evidence that religious participation may vary by region within the United States. He concluded that the strength of beliefs has its greatest influence on religious participation in the Pacific Northwest and the New England states where the regional culture does not appear to encourage attendance among Protestants. The strength of belief had its smallest effect in the eastern South Central states and Mountain regions where Protestant attendance implies commitment to local cultural values. It is interesting to note, however, that, despite America's religious diversity, Menendez (1977) found that most states tend to be dominated by one or two church traditions. Lazerwitz (1961), Alston and McIntosh (1979), White (1968), and Davidson (1977) also found that women attend church more frequently than men and that a higher socioeconomic position generally leads to a higher rate of participation.

However, Estus and Overington (1970) found that neither social class nor church activity can be seen as reliable indicators of religiosity. Albrecht and Heaton (1984) discovered a negative association between level of education and religiosity--the most educated are the least religious. While

women have been shown to score higher than men on indices of religiosity, Nelsen and Potvin (1981) and Cline and Richards (1965) found that differences in religiosity based on gender are more pronounced in private than in public forms of religiosity. This may be because public forms of religiosity such as church attendance or membership are influenced more by social pressures, while prayers are a more private and individual form of religiosity.

Public forms of religiosity are most often associated with behavioral commitment, while private forms of religiosity are more closely related to attitudinal commitment. A central theme that emerges from the conceptual development of both attitudinal and behavioral commitment is the interrelatedness of the two that ultimately causes individuals to attach themselves to an organization in return for certain values or rewards from the organization. According to Larson and Goltz (1989), individuals enter organizations with specific skills and goals and work in a setting in which they can use their skills and achieve their goals. Personal commitment to an organization is likely to increase as these individuals perceive the organization as facilitating these ends. However, if the organization is perceived as failing to provide sufficient opportunities for satisfying their goals and desires, organizational commitment is likely to diminish (Mottaz, 1989). Barker and Currie (1985) determined that attitudinal commitment, then, appears to be sustained and reinforced by behavioral commitment through interaction with other believers. Cornwall (1987) emphasized that religious interaction and

socialization are important in strengthening belief and commitment through the development of personal relationships. Finner (1970), however, found that membership and social allegiance to a formal institutional affiliation may be more related to social satisfaction than to personal orientation of values and beliefs.

In America, it is sometimes difficult to discern a religious person from a non-religious one. In a study of religiosity and sexual attitudes, Wulf, Prentice, and Hansum (1984) found that the differences in sexual attitudes and behavior between churchgoers and nonattenders are narrowing, and in some cases, disappearing altogether. This trend was further substantiated in a study by Woodroof (1985) who found that a significant liberalization of sexual behavior has occurred and that the United States has become progressively more sexually permissive. As the thinking in a culture changes, theology seems to follow. American thinking patterns lie somewhere between theoretical speculation and empirical description. Some individuals consider their religion to have value only if it has any applications to their personal lifes. Some Americans have a great ability to think in abstract terms. Discussion about religious models, analogies, and systems are considered as though they are reality, rather than an attempt to describe reality.

Some cultures, however, communicate by using descriptions about life. For example, listening to a Chinese person tell story after story about life in his culture makes an American observer wonder if the point of the stories will

ever be reached. What is not realized is that the principles underlying the stories is the point. Details are included and heritage is emphasized to perpetuate the cultural customs. Due to the evolving nature of America's abstract thinking, however, much in contemporary religion has suffered from reductionism. According to Dayton (1984) and Houlden (1977), some theologians want to reduce the essence to a final conclusion. Therefore, some evangelical doctrine is nothing more than a mere list of concepts or notions to which the average lay person has little ability to tie into everyday living.

This trend has led to an increase in the number of persons who now represent themselves as having no religion. These individuals are what Tamney, Powell, and Johnson (1989) called in the jargon of investigative research "religious nones." In America, where almost everyone has a religious identity, a religious none has not received much investigative attention. However, most Americans are not reared or socialized to be religious nones. Vernon (1968) noted that many religious nones endorse a belief in God and, therefore, cannot be categorized with agnostics or atheists. However, for them, the organized religion has seemingly lost some of its personal meaning. People long for a sense of community, yearn to be part of one another, and part of something greater than themselves. For many, after the inspiration of the weekly religious service, the middle of the week seems devoid of meaningful relationships. The search for community in small groups is often difficult, because group members may not really know one another or even

want to know one another. This appears to be a partial reason why religious nones have given up their search for meaningful relationships within the church. Ten to 20 million of the individuals who claim to be born again are not members of a local church (Dayton, 1984).

Experiential Dimension

The experiential dimension of religious feeling has been associated with extreme forms of religious expression, such as speaking in tongues and experiencing conversion. This dimension has often focused on these extremes. The more-subtle and less-public feelings, such as faith, trust, and communion, which accompany religious belief and practice should also be recognized.

As found by Glock (1961), the study of the experiential dimension has many difficulties which are reflected in its research history. The effort to find a new way to study this dimension is complicated by the relative lack of common experience with this particular phenomenon which would provide the data for developing hypotheses. Except where feelings are expressed in an overt or extreme form, the individual's sensitivity to God is not likely to be openly expressed in everyday life. A common method of surface measurement is attendance at religious services. As Hong (1981) determined, the frequency of attending religious services is a significant factor of religiosity in providing a sense of belonging to individuals within religious contexts.

Religious feelings may be expressed in a variety of ways. Glock (1973) determined that feelings appear to be ordered primarily around four issues: concern, cognition, trust or faith, and fear. Individuals differ in their concerns or needs to have a belief based on an eternal God. A concern may be expressed in a wish to believe in or to seek after a purpose in life. How concerned one is in this sense is one part of the experiential dimension of religiosity. Melrose and Griswold (1941) described religious experiences and feelings as factors of religiosity that cannot be explained away by higher criticism because the feelings are real to the individuals who have the experiences.

A second component is an individual's capacity for cognition or awareness of a divine, eternal God. The awareness may be intense in the case of conversion, or it may be mild when an individual senses God in the beauty of nature. This awareness may be experienced in a religious service or privately.

An individual's faith or trust is in an eternal, all powerful God, to whom his life is given. Faith is not required in some religions, but it has a primary place in Christianity. The problem of measuring faith is a complex one. Kahoe and Dunn (1975) found that studying the matter indirectly may be more fruitful than asking individuals directly. Such issues as freedom from worry, peace of mind, and freedom from the fear of death are possible indicators of faith. Kahoe and Dunn investigated the association between the fear of death

and religious beliefs and revealed that those with more fundamental religious beliefs had less fear of death and looked forward to death more than those with more liberal religious beliefs.

The mixture of trust and fear is present in most religions, but may be emphasized in religions more than others. Instead of asking directly, a more productive way to measure fear is to see how fear is represented on the other dimensions of religiosity, such as the beliefs about the nature of God.

Intellectual Dimension

The intellectual dimension of religious knowledge seems to require that a religious person be informed about his belief. As noted by Glock (1961), many variations exist as to what kinds of knowledge are valued by different religions. Confucianists value Chinese classical knowledge; Jews highly regard Jewish law and history; Christians place great emphasis on communicating the gospel, but do not necessarily regard the origin and history of their faith highly. Attitudes toward secular knowledge vary in different religions. Some Christians make an effort to limit their exposure to secular knowledge and only tolerate a literal interpretation of the Bible. For example, a person with this attitude believes that when knowledge of the commandment of loving one another as Christ loved us is united with application in a person's life, that person is provided with both the power and the passion to love others and live a satisfying life (Johnson, 1961).

In his study on the sociology of knowledge, Scott (1988) found that the imputation of knowledge to individuals is in itself a complicated process. The fundamental claim of this theory is that the beliefs individuals hold are related to the characteristics of their social circumstances. Sahay (1975) reported that data and information contained in knowledge are expressed in the form of values and sentiments that move an individual to action. In the discussion of the nature of knowledge, Woolf (1980) defined knowledge as the fact or condition of knowing something with familiarity gained through experience or association. On the basis of these experiences and concepts, association values are formed, and then judgments are formed that influence actions. Woodburne (1927) concluded that religion is a complexity of knowledge, attitudes, sentiments, and overt behaviors.

The expansion of man's knowledge of the secular world began to increase greatly at the beginning of this century, and, according to Hardon (1971), the knowledge explosion continues to grow at an exponential rate. The average person in America is forced to deal with a large amount of information, and to sort through it for relevant facts. An individual's reasoning is based on what is considered fact; inferences are then drawn. People in American society tend to reason inductively, from specific to general laws. There is a constant need to understand the world through the interpretation of facts. This style of thinking leads to the emphasis of results and consequences. Evangelicals in America often consider what they know and believe rather than

what they do to be of utmost importance. This make it convenient for them to enjoy the benefits of a secular culture, while holding to a carefully constructed belief system. To isolate what one believes from what one does is to divide fact from all responsibility. As pointed out by Dayton (1984), this belief system seems to propagate the idea that the acceptance of truth does not necessarily have consequences. Blame for this dilemma is often placed on the different interpretations of the Bible. But, MacArthur (1978), Lindsell (1981), and Cartledge (1941) have stated that even though the Bible is considered by many to be infallible and inerrant, the fact remains that many different denominations interpret the Bible differently.

Stafford (1986) has stated that the Bible many evangelicals proclaim as inspiring is obviously a book they do not read. Larson (1985) reported that everything from emotions to secular opinion has replaced the Bible as truth in evangelical circles today. According to Nida (1986), the Bible, in a sense, should be regarded as being written primarily in a religious language, which proclaims a truth that transcends time and history. Cartledge (1941) further contended that this language makes communication of thought between God and man a possibility and a reality. For the greater part of history, philosophy has been a search for truth--not only truth, but Absolute Truth. The assumption reported by Hargrove (1984) is that God equals truth and that truth is in the mind of God. Nineham (1976) stated that Christianity derives both its definition and understanding from the truth found in the Bible,

because the Bible provides the content for belief and the basis for behavior. Rall (1941) and MacArthur (1973) maintain that Christianity has both a character and a function. On the one hand, it brings man into relationship with a living and unchanging God. On the other is the practical side that involves living out one's belief.

The Bible has faced many challenges from what appear to be contradictions. Critics of the Bible ask why God, who is self sufficient and in need of nothing, would create a universe and desire the worship of the beings He created; why He, who is eternal and immutable, would act within human history; why He, who knows no sorrow, loves His created beings and sympathizes with their sorrows (Hick, 1967).

The Bible will always have its critics. Harper (1904) reported that the Bible is of no value to an individual's religious experience unless it is read and followed. A survey of young people by Stafford (1986) indicates that only 10% engaged in regular, voluntary Bible reading. Harper (1904) contended that if young people do not develop the discipline of Bible reading early in life, it is unlikely they will develop it after they are married and have children. Harper stated further that if this pattern continues, biblical illiteracy may be perpetuated in the church indefinitely. Cook (1986) asserted that Bible literacy requires more than mere Bible reading and the ability to recognize words, phrases, and sentences. Stek (1986) suggested that it is difficult to listen to the voice of God if the Bible is viewed merely as a series of verses

strung together, like pearls on a string, each verse having its own meaning. The Bible was written for a particular purpose and with a particular meaning. As Burrows (1938) pointed out, it is the task of each reader of the Bible to find out what is meant in each of its books. The Bible must be studied openly and honestly without any preconceived ideas about what one wants it to mean or what seems to be most helpful and edifying.

The great variation within and between denominations regarding the quality and content of the knowledge that a religious individual should have makes it difficult to judge what kinds of knowledge should be considered as indicators of religiosity. Glock (1961) reported that attributes of religiosity based on knowledge cannot be made without regard to the individual's orientation on the other dimensions of religiosity, particularly religious belief. Glock and Stark (1978) stated that it is a matter of considerable research interest to learn the relationship between how much and what kind of religious knowledge a person may possess and his patterns of belief, practice, and experience. As higher biblical criticism, evolutionary thought, and modern secular philosophy have been absorbed by many liberal Protestants, the value of reading and knowing the Bible has decreased for them (Hammond, 1983). Watson, Howard, Hood, and Morris (1988) found that while the majority of Americans believe that the Bible is God's inspired word, their knowledge of the Bible is vague and impractical. They cannot name four of the Ten Commandments or even four of the names of Jesus's apostles. Watson et al.

stated further that even if an individual believes the Bible to be the authoritative word of God, it does not reveal anything about his biblical literacy or maturity. Biblical literacy is associated with the degree to which it is used as a guide to develop a meaningful understanding of everyday life.

A mere knowledge of the Bible is, as stated by Hightower (1930), not sufficient to develop individual character. To develop character requires both a knowledge of the text and a sincere, consistent desire to integrate scriptural principles into one's life. Brown (1927) and Little (1970) stated that it is only when the Holy Spirit illumines the Bible in the heart of a person that the Bible begins to become part of one's life and change his or her behavior. Through sincere application and discipline, Wesley and Kepler (1954) stated, the Bible is able to correct, mold, and perfect mental attitudes and moral character. Bridges (1979) stated that religious character develops into godliness. Godliness covers the totality of the spiritual life and provides the foundation upon which character is built. The order of the following list of character traits is deliberate. The first group of four character traits, viz., humility, contentment, thankfulness, and joy, deal primarily with an individual's relationship to God. The next group of three, holiness, self control, and faithfulness are qualities that deal strictly with individuals. The final group of six character traits, peace, patience, gentleness, kindness, goodness, and love, are qualities that enable one to deal graciously and tenderly with others. Bridges (1984) cited the actions that are associated with biblical wisdom

through the conviction that one's beliefs are a result of his or her level of biblical knowledge.

As suggested by Glock (1961), however, it is unlikely that greater and broader knowledge of the Bible will necessarily be associated with stronger religious feelings, more regular church participation, or greater adherence to religious belief. To the contrary, Glock found that persons with limited knowledge about their own faith were found to display more religious attitudes and actions than either those with no knowledge or those with great knowledge.

Attitudes toward knowledge are also likely to be relevant to a person's level of knowledge. The quantity of time spent reading religious literature, as an indicator of interest in acquiring knowledge, is, however, ordinarily studied within the area of religious practice.

Consequential Dimension

The dimension of religious effect which concerns conduct is stated clearly in some religions and abstractly in others. The more a religion is integrated into the social structure, the more likely it is that the everyday actions of a person are defined by religious imperatives. This more intrinsic religiousness serves as a better measure of religious commitment and reflects a healthier and more mature orientation. In contrast, the results of studies by Leak and Fish (1989), Donahue (1985), and McClain (1978) show that extrinsic

religiosity is based on a self-serving motivation. The causes and correlations of any kind of human activity, according to Argyle (1961), must first be categorized in some manner for an objective measurement to occur. According to Tapp (1973), the term "religiosity" is being used more often in defining this religious effect because it is less historically and institutionally biased than the term "religion" and less awkward than "religiousness."

Evidence in a study of religiosity by Strickland and Weddell (1972) showed that Unitarians are more extrinsic in their religious orientation, less dogmatic, and less prejudiced than Baptists. However, this seems to contradict a growing body of evidence, as suggested by Wilson (1960), indicating that persons who exhibit extrinsic religious values tend to be more prejudiced than those who are not considered as religious. Digenan and Murray (1975) found that significant attitudinal differences exist between various religious denominations. Studies by Chalfant and Peek (1983) and Allport and Ross (1967) have concluded that church members display higher levels of prejudice than the unchurched, but that highly active members are less prejudiced than less active members, and fundamentalist groups exhibit greater prejudice than nonfundamentalists. Hoge and Carroll (1973) reported that the strongest determinants of prejudice among church members appear related more to certain personality factors than to religious beliefs.

Sometimes a religion sets general standards by which individuals must make the decisions of daily existence. Glock (1961) stated that in Christianity

the individual is exhorted to be a good steward of what God has given, to show initiative in living a new life in Christ, and to manage wealth in terms of Christian responsibility and leadership. However, the manner in which these general principles are interpreted in concrete circumstances is left for the individual's decision.

As stated by Carmody (1980), a less religious belief sometimes makes man's social ills and the problems of his environment primary theological concerns. Highly religious persons, on the other hand, resist any departure from accepted beliefs and orthodox opinions and build up defenses against any type of change in their religious ideals or thinking (Symington, 1935). It appears that a person's level of religiosity is often more of a state of mind, cultural, and social ideals than a set of theological propositions (Williams, 1980). Howe (1982) suggested that at times those who want to appear highly religious insist on using apologetics to answer questions that are not being asked or trying to prove what was never doubted by arguments that neither side understands. The more religious have usually been opposed to the less religious individuals. To change the message of the Bible or to interpret it to fit either group defeats the purpose of the book. Secular influence has diluted the Bible to the point that in some denominations, God has been made into man's image. As Hamilton (1969) contended, theology has produced much of the confusion and distortion regarding historic Christianity. Generally

speaking, dilution occurs slowly and begins with change in the little things (Hoey, 1986).

In conclusion, despite the differences between religions, Glock (1961) believes that a general consensus exists, that religiosity should influence individuals to the point that good consequences follow religious commitment. The consequences have to do both with what one can expect to receive and with what one can be expected to give. The rewards may be future or might be immediate. Immediate rewards include such things as peace of mind, freedom from worry, or a sense of well-being. Included in future rewards would be promises of eternal life and heavenly rewards. The consequential dimension has expectations about what a person will do as a result of being religious that include both avoiding certain kinds of conduct and actively engaging in others. Thus, research on religious effects cannot be carried out in isolation from other aspects of religiosity.

CHAPTER 3

PROCEDURES FOR THE COLLECTION OF DATA

Sample

The sample included 10 convenience samples selected from church attenders who identified with, or regularly participated in, the educational programs of Baptist, Methodist, Presbyterian, Catholic, Unitarian, Episcopal, Lutheran, Church of Christ, and Jewish congreations. The respondents also included a convenience sample of selected individuals who identified themselves as Atheists.

Selection of the Sample

The 10 religious and non-religious groups that participated in this study were selected at random from the Dallas and Fort Worth telephone directories. However, within each group, convenience samples of subjects volunteered to participate in the study who were involved in the educational programs of the various groups. Individuals from within each group volunteered to participate and agreed to substitute 1 hour of their regularly scheduled class time to complete the two instruments used in this study.

This method of selection was used for each religious group. Twenty of each religious group were selected, with 10 from Dallas and 10 from the Fort

Worth telephone directory yellow pages. The names and addresses of the 20
churches within each religious group were then recorded in the order of their
selection. The number one selection from each city was written first, the
second selection from each city recorded second, and so on until all 20 of the
churches from each religious group were recorded in descending order.
Telephone calls were then made to pastors, teachers, or lay leaders at each of
the churches beginning with the number one selection from each city through
the list in descending order. Appointments were scheduled with individual
churches and groups until an adequate sample was secured for each group.
The largest sample included 159 respondents from the Church of Christ group;
the smallest sample contained 35 respondents form the Unitarian group.

Procedures for the Collection of Data

The data were collected by personally administering the two instruments
at scheduled meetings of each religious group. Male and female adult
respondents within each religious group who participated in their own
educational programs voluntarily participated in the study. The collection of
data from religious or non-religious groups that could not be secured from
personal administrations of the two instruments was acquired by training an
individual from each of the respective groups. The instruction of these
individuals to insure uniformity in administration of the instruments was
accomplished through an introductory telephone conversation, a personal letter

that included detailed administration instructions, a personal visit if time permitted, a follow-up telephone conversation, and a follow-up visit if time permitted. This assured that each administration of the instruments included the same instructions, time constraints, materials, and standard conditions for each group in order to insure procedural standardization. With the simple and straight-forward instructions on the cover sheet of each instrument, the participants could complete both instruments easily and efficiently within a group setting.

The Instrument

The instrument used to facilitate the measurement of biblical literacy was the Standardized Bible Content Test developed by the American Association of Bible Colleges (1980). The test was developed by Bible college educators for use in Bible colleges. Some items are easy enough for incoming freshmen to answer and others are difficult enough to challenge graduating seniors. The test was designed to measure a person's level of factual Bible knowledge and, thus, provide a general assessment of one's familiarity with the Bible. The test contains straight-forward factual knowledge questions. It does not assess an individual's spiritual condition or doctrinal commitment, nor does it assess or require complex skills and comprehensions such as application, synthesis, translation, or interpretation. Each form of the test is balanced by item content, item difficulty, and item discrimination. The Form E test has

150 items in a multiple choice format with five answer choices per item. The first 77 questions are from the Old Testament and the last 73 questions are from the New Testament.

The reliability of the original Form E 150 instrument was determined through the Kuder-Richardson formulas KR-20 and KR-21. The American Association of Bible Colleges (1980) manual indicates that the KR-20 produced a .940 coefficient and a .940 using KR-21.

Coefficients of validity on Bible knowledge tests are difficult to obtain. In a sense, the Bible tests are self-validating; they are tailored to measure the outcome of a single, well-identified objective, namely, Bible knowledge. Therefore, it is safe to say that tests of this nature are self-validating.

Because of the wide range of abilities measured by Form E of the test, its designers extended the range of item difficulty slightly beyond the recommended limits. On Form E, the most difficult item was answered by only 19% of the standardization group. The easiest item was answered correctly by 81% of the group. Only 3 of the items had a difficulty factor greater than 70%, whereas 13 items had a difficulty factor less than 30%. A total of 134 out of the 150 items fell within the recommended range of 0.30 to 0.70 as stated in the test manual.

The Standardized Bible Content Test, Form A, was used in a study by Hakes (1967) to determine if a difference existed in knowledge of the Bible between first-year college students who attended church-related private schools

and students who attended public schools. Hakes concluded that there was a statistically significant difference, at the .05 level of confidence, between male and female students from public and private schools. The students who had attended church-related schools knew more Bible content than public school students.

In order to facilitate the administration of this instrument and the religiosity instrument during a 50 to 60 minute meeting time, a table of random numbers from Kapadia and Anderson's (1987) book was used to select 50 questions from the original 150 questions. Appendix A is a copy of the Bible knowledge instrument used. The 50 questions were administered to 73 respondents at Denton Bible Church, Denton, Texas to determine if the reliability was consistent with standardized testing procedures. Based on 73 cases, using the odd-even method on the number of correct responses out of 50 with the Pearson product-moment correlation, a correlation of $r = .71$ was found at $p = .001$.

The second instrument, used to measure religiosity, was the Religiosity Scales developed by Faulkner and DeJong (1966). This scale was designed to measure the five dimensions of religiosity identified by Glock and Stark (1965): (a) ideological (beliefs), (b) intellectual (knowledge), (c) ritualistic (religious behavior, i.e., church attendance), (d) experiential (feeling, emotion), and (e) consequential (effects of the secular world on right and wrong) dimensions. The scale is considered by Robinson and Shaver (1973) to be a good measure

of religiosity since it is based on Glock's and Stark's dimensional analysis. The relevant question, however, is the interrelationships among the five dimensions. Faulkner and DeJong (1966) stated that a positive relationship would be expected among the five dimensions, but if some aspects of religiosity are more significant than others, variations might be expected in the pattern of relationships.

Correlation coefficients were computed among the five dimensions of religiosity. The correlation coefficients ranged from a high of .58 between the ideological and intellectual dimensions to a low of .36 between the experiential and consequential. Based on 362 respondents, all of the correlations were positive and statistically significant at p = .05. As shown in Table 1, correlations between the ideological and the intellectual, ritualistic, and

Table 1

Correlation Coefficients Between Five Dimensions of Religiosity

Ide Int	Ide Rit	Ide Exp	Int Rit	Int Exp	Exp Rit	Rit Con	Int Con	Ide Con	Exp Con
.58	.57	.49	.49	.48	.44	.43	.43	.39	.36

Note. Ide = Ideological, Int = Intellectual, Exp = Experiential, Rit = Ritual, Con = Consequential.

experiential scales, respectively, ranked 1, 2, and 3 out of a total of 10 correlations.

Correlations between the consequential dimension and the other four were all lower than the correlations between the other dimensions. The remaining three dimensions, viz., intellectual, ritual, and experiential, fall between the two extremes in importance. The correlation analysis indicates differences among the three with the intellectual dimension slightly above average and the experiential dimension slightly below average as indicators of religiosity. The lower correlation between the consequential dimension and the other four dimensions may indicate that moral and ethical views are fairly independent of religious beliefs.

The correlations among the five dimensions of religiosity indicate the interdependent nature of these measures of religious involvement. Even though these dimensions are positively related, the degree of association differs for the various dimensions. The diversity in degree of association lends support to the notion that religious involvement is characterized by several dimensions, some of which are more closely related than others.

The reliability coefficient for the overall instrument was .92. The reliability coefficient for each of the five scales considered individually were as follows: (a) ideological, .94, (b) intellectual, .93, (c) ritualistic, .92, (d) experiential, .92, and (e) consequential, .90. A copy of the religiosity instrument used in this research appears in Appendix B.

A problem in developing a measure of religiosity is delineating what is considered more religious and what is considered less religious. The Religiosity Scales are based on traditional Judaeo-Christian beliefs, but designed to measure the deviation from traditional Judaeo-Christian responses to such matters as belief in God, attendance at religious services, and personal communion with the Deity. With this emphasis on traditional beliefs, the item response categories to each question include answers that range from very religious to irreligious. For example, a respondent's answer to their belief about Deity, the response "I am an atheist" would be considered irreligious by Robinson and Shaver (1973). But, the response, "I believe in a Divine God, Creator of the universe" would be considered the most religious response.

Each of the 23 questions used in the Religiosity Scales have item response categories ranging from most religious to least religious. The first response, for each question is considered the most religious, the second response is considered less religious, the third response is less religious than the second, and so on for each level of response. Some questions have as many as six-item response categories, while others have only two, three, or four.

Question nine of the instrument asks the respondent to name, by writing in the blanks provided, the four gospels or for Jewish respondents to name the first five books of the Old Testament. To score this question in the same manner as the others, correctly answering this question was considered the

most religious response, thus receiving the lowest score. The following procedure was followed for scoring this question: (a) all correct answers, a score of 0; (b) 3 correct of the gospels or 4 of the Old Testament books, a score of 1; (c) 2 correct of the gospels or 3 of the Old Testament books, a score of 2; (d) 1 correct of the gospels or 2 of the Old Testament books, a score of 3; (e) 0 correct of the gospels or 1 of the Old Testament books, a score of 4; and (f) 0 correct of the Old Testament books, a score of 5.

The lowest score possible on this instrument was 22. This occurred due to question number nine being scored as a 0 for a totally correct answer which was measured as the most religious response. If a respondent answered the last response category for each question, indicating the least religious or irreligious level, the highest score possible was 82, 83 for Jewish respondents. Thus, a raw score of 22 indicates the highest level of religious involvement or religiosity, while a score of 82, 83 for Jewish respondents, indicates the lowest level of religious involvement or religiosity.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

During the spring semester 1991, research was conducted in which the association between Bible literacy and religiosity was explored among individuals from 10 different religious and non-religious groups in the Dallas-Fort Worth, Texas area.

The study involved the use of two instruments: (a) the Bible Knowledge Content Test, utilized to assess Bible knowledge of the respondents and (b) the Religiosity Scales, utilized as an indicator of the respondents' religiosity. The Bible Knowledge Content Test, as described in Chapter 3, was revised to include 50 multiple choice questions. Each question has four possible answer selections, but only one is considered the correct response. The best possible score if all questions were answered correctly would be 50 on this instrument. The Religiosity Scales instrument has a range of scoring from 22 to 83. A score of 22 indicates a maximum religiosity, whereas a score of 83 indicates minimal religiosity. A score of 50 on the Bible literacy instrument and a score of 22 on the religiosity instrument would be an example of a perfect (1.00) correlation.

The results of the administration of the two questionnaires used to answer the three research questions posed for this study: (a) To what extent are American adults biblically literate? (b) To what extent are American adults religious? and (c) What is the association, if any, between religiosity and biblical literacy?

Procedures for the Treatment of Data

The beginning treatment of the data identified the mean scores for each of the 10 religious and non-religious groups on both Bible literacy and religiosity. A one-way analysis of variance was then used to determine whether the 10 different groups surveyed differed significantly among themselves. If the analysis of variance yielded a significant F ratio, then a post hoc test was performed to determine which of the group means differed significantly from one another. The test for multiple comparisons used in this study was Duncan's multiple range test. This special test takes into account the probability that a significant difference may exist between means.

A correlation coefficient was then computed on the scores for the two variables, Bible literacy and religiosity, to determine if the two variables are significantly associated.

Lastly, multiple regression was used to predict the effect of Y, the dependent variables of age, level of education, gender, and religious preference on X, the independent variable of religiosity. Likewise, multiple

regression was used to predict the effect of $\underline{Y}$, the dependent variables of age, level of education, gender, and religious preference on $\underline{X}$, the independent variable of biblical literacy. Finally, step-wise regressions were performed to determine the independent contributions of the dependent variables on the variables of religiosity and biblical literacy.

Results

On the Bible Knowledge Content Test, out of a maximum possible mean score of 50, the entire sample, consisting of 699 respondents, had a mean score of 20.9. A perusal of the results in Table 2 shows the difference in mean scores, standard deviations, the percentage of maximum possible literacy, and the number of respondents for each religious and non-religious group, and for the entire sample in descending order of magnitude.

On the Religiosity Scales instrument, with possible scores from 22 to 83, the mean was 36.5. As seen in Table 3, the Baptist group showed the least amount of variation in religiosity with a standard deviation of 2.6, while the Jewish group, with an 11.1 standard deviation, indicated the largest amount of variation among all the groups.

The data in Table 3 indicate that of the 10 different groups, individuals from the Baptist and Church of Christ groups reflect the highest degrees of religiosity, while the Unitarians and Atheists demonstrate the lowest levels of religiosity.

Table 2

Mean Scores, Standard Deviations, Percentage of Maximum Possible Literacy,

and Number of Respondents of 10 Groups on Bible Literacy

Group	Mean	Percent of Maximum Possible Literacy	Standard Deviation	Number of Respondents
Baptist	29.0	58.0	10.6	67
Church of Christ	23.1	46.2	8.5	159
Lutheran	21.4	42.8	9.7	40
Jewish	21.0	42.0	11.5	38
Presbyterian	20.9	41.8	7.9	54
Episcopal	19.9	39.8	6.7	70
Methodist	19.8	39.6	7.3	81
Catholic	18.4	36.8	7.4	80
Atheist	16.7	33.4	6.3	75
Unitarian	13.8	27.6	7.8	35
Summation	$G_{\bar{x}} = 20.9$	$G_{\bar{x}} = 40.2$	$G_{\bar{x}} = 8.9$	$\underline{N} = 699$

The examination of the data in Table 4 show the results of the one-way

analysis of variance between Bible literacy and religious preference. The

Table 3

Mean Scores, Standard Deviations, Percentage of Maximum Possible

Religiosity, and Number of Respondents of Groups on Religiosity

Group	Mean	Percent of Maximum Possible Religiosity	Standard Deviation	Number of Respondents
Baptist	24.8	88.7	2.6	67
Church of Christ	27.7	79.4	4.5	159
Lutheran	30.7	71.7	4.2	40
Presbyterian	30.9	71.2	5.7	54
Catholic	32.4	67.9	7.4	80
Episcopal	32.9	66.9	7.1	70
Methodist	33.4	65.9	6.9	81
Jewish	39.7	55.4	11.1	38
Unitarian	58.4	37.7	7.4	35
Atheist	72.4	30.4	4.6	75
Summation	$G_{\bar{x}} = 36.5$	$G_{\bar{x}} = 63.5$	$G_{\bar{x}} = 15.5$	$\underline{N} = 699$

purpose of the analysis of variance was to determine whether the means of the
10 groups differ significantly among themselves. Because the analysis of

Table 4

One-Way Analysis of Variance of the Bible Literacy Scores by Religious

Preference

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio
Between groups	9	8,957.8	995.3	14.4*
Within groups	689	47,514.8	69.0	
Total	698	56,472.6		

Note. *Significant at $p = .05$.

variance yielded a significant F ratio (the ratio of between-groups variance to within-groups variance), computation of the post hoc tests for multiple comparisons was required.

Using the Duncan multiple range test, pairs of group means that differ significantly from one another at the .05 level when comparing Bible literacy with religious preference are denoted in Table 5. The mean of the Baptist group differed significantly from all the other group means. The mean of the Church of Christ group differed significantly from the group means of the Unitarians, Atheists, Catholic, Methodists, and Episcopals.

Table 5

Duncan Multiple Range Test-Post Hoc Test of Group Means on Bible Literacy

Mean	Group	11	5	4	2	6	9	3	7	8	1
13.8	Unitarian										
16.7	Atheist										
18.4	Catholic	X									
19.8	Methodist	X	X								
19.9	Episcopal	X	X								
20.9	Presbyterian	X	X								
21.0	Jewish	X	X								
21.4	Lutheran	X	X								
23.1	Church of Christ	X	X	X	X	X					
29.0	Baptist	X	X	X	X	X	X	X	X	X	

Note. 1 = Baptist, 2 = Methodist, 3 = Jewish, 4 = Catholic, 5 = Atheist, 6 = Episcopal, 7 = Lutheran, 8 = Church of Christ, 9 = Presbyterian, 11 = Unitarian.

In Table 5 and Table 7 the Unitarian group is labeled as number 11, but is listed in the tables as the tenth group. This numbering sequence in the tables is identical to the order and numbering sequence on the cover sheet of each questionnaire. On the cover sheet, the Agnostic category was listed as

tenth, the eleventh category was Unitarians, and the twelfth category was labeled as Other. However, these categories labeled Agnostic and Other received no responses and were not included in the reporting of the results.

The results of the one-way analysis of variance for religiosity for the 10 groups in the study are shown in Table 6. The purpose of the analysis of variance was to determine whether the groups differed significantly among themselves. Because the analysis of variance yielded a significant F ratio (the ratio of between-groups variance to within-groups variance), computation of the post hoc tests for multiple comparisons was required.

Table 6

One-Way Analysis of Variance of the Religiosity Scores

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio
Between groups	9	141,494.3	15,721.6	419.5*
Within groups	689	25,821.3	37.5	
Total	698	167,315.6		

Note. *Significant at p = .05.

Using the Duncan multiple range test, the data in Table 7 indicate which pairs of group means differ significantly from one another at the .050 level in

terms of religiosity. The mean of the Jewish, Unitarian, and Atheist groups differed significantly from most of the other group means.

Table 7

Duncan Multiple Range Test-Post Hoc Test of Group Means on Religiosity

Mean	Group	11	5	4	2	6	9	3	7	8	1
24.8	Baptist										
27.74	Church of Christ	X									
30.7	Lutheran	X	X								
30.9	Presbyterian	X	X								
32.9	Catholic	X	X								
32.9	Episcopal	X	X								
33.4	Methodist	X	X	X	X						
39.7	Jewish	X	X	X	X	X	X	X			
58.4	Unitarian	X	X	X	X	X	X	X	X		
72.4	Atheist	X	X	X	X	X	X	X	X	X	

Note. 1 = Baptist, 2 = Methodist, 3 = Jewish, 4 = Catholic, 5 = Atheist, 6 = Episcopal, 7 = Lutheran, 8 = Church of Christ, 9 = Presbyterian, 11 = Unitarian.

The correlation coefficient for the two variables, Bible literacy and religiosity are shown in Table 8. The data in Table 8 also reflects whether the

Table 8

Correlation Coefficient Comparing Bible Literacy with Religiosity

Group	Number of Respondents	Correlation Coefficient
Baptist	67	.0639
Methodist	81	.3206*
Jewish	38	.6426**
Catholic	80	.1941
Atheist	75	.0202
Episcopal	70	.3461*
Lutheran	40	.0858
Church of Christ	159	.2654**
Presbyterian	54	.2057
Unitarian	35	.0639
Summation	699	.3442**

Note. 1-tailed significance: * -.01, ** -.001.

variables are related to any significant degree for all groups combined and for each group separately. A one-tailed test is appropriate if concern is with the absolute magnitude of the difference regardless of the plus or minus sign. The correlation coefficient of .3442 between Bible literacy and religiosity between the groups was significant at p = .001 with nine degrees of freedom. This significant correlation would indicate that as religiosity increased, Bible literacy would also increase. The correlation between Bible literacy and religiosity for the Jewish and Church of Christ groups was also significant at p = .001, while the correlations for the Methodist and Episcopal groups were significant at p = .01.

The results of the multiple regression used to predict the effect of Y, the dependent variables of age, level of education, gender, and religious preference on X, the independent variable, biblical literacy appear in Table 9. Data in the column labeled R Squared Change shows that the effect of the four dependent variables accounts for approximately 16% of biblical literacy. Religious preference, considered by itself, accounts for almost all of the 16% of the effect on biblical literacy.

The results of multiple regression used to predict the effect of Y, the dependent variables of age, level of education, gender, and religious preference on X, the independent variable, religiosity are shown in Table 10. Data in the column labeled R Squared Change shows the effect of the four previously mentioned dependent variables, which account for approximately

78% of a group's religiosity. Religious preference considered by itself accounts for 78% of the effect on religiosity.

Table 9

Multiple Regression Effect on Biblical Literacy by Age, Gender, Level of Education, and Religious Preference

Source	Degrees of Freedom	Sum of Squares	R Squared Change	F	Significant F
Age	1	36.9	.00	.56	.45
Gender	1	6.1	.00	.09	.76
Level of education	5	2,371.9	.04	7.19	.0000
Religious preference	9	8,989.4	.16	15.13*	.0000

Note. Multiple R = .45, R Square = .20, Adjusted R Square = .18, Standard Error = 8.13. *Significant at .05.

Table 10

Multiple Regression Effect on Religiosity of Age, Gender, Level of Education, and Religious Preference

Source	Degrees of Freedom	Sum of Squares	R Squared Change	F	Significant F
Age	1	231.5	.00	6.4	.01
Gender	1	244.8	.00	6.7	.01
Level of education	5	458.8	.00	2.5	.02
Religious preference	9	130,132.2	.78	397.6*	.00

Note. Multiple R = .92, R Square = .85, Adjusted R Square = .85, Standard Error = 6.03. *Significant at .05.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Discussion

An examination of the data in Chapter 4 reveals several trends. The mean and standard deviation on the Bible literacy variable of the overall sample provides some insight into differences between the groups, as well as differences of individuals within each group. The scores of the total sample yielded a mean of 20.9 and a standard deviation of 8.9 which reflect the degree of variation among all the participants. The amount of variation within the groups is reflected in group means and standard deviation. The group means ranged from a high of 29 to a low of 13 and the standard deviations ranged from 7 to 11.

Even though the Bible literacy instrument had a fairly high degree of difficulty, the between groups mean (Table 2) of 20.9 appears low, considering that each person answered an average of 30 questions incorrectly. Overall, 40% of the questions were answered correctly, while 60% were answered incorrectly. These results, however, appear to be consistent with the trends of the 1980s. According to Gallup and Castelli (1989), the level of Bible knowledge increased slightly in the 1980s. Gallup and Castelli did not consider

this increase in Bible knowledge during the 1980s impressive due to the large number of college-educated Americans between 1954 and 1982. In addition, many of these educated Americans had attended Sunday school. Gallup and Castelli found that from 1954 to 1982, the percentage of persons who knew who delivered the Sermon on the Mount only increased from 34% to 42%. The percentage of individuals who could name the four gospels increased during the same period from 35% to 46%.

The mean and standard deviation between the groups and within the groups on the religiosity variable again indicates a large amount of variation among the groups. With a between group mean of 36.5 and a standard deviation of 15.5, the variability among the groups appears very pronounced. The mean scores for the Baptist, Church of Christ, and Lutheran groups were number one, two, and three on both the Bible literacy instrument and the religiosity instrument. The mean scores for the Unitarian and Atheist groups showed the least amount of Bible literacy and least amount of religiosity.

With the large variation among group means, it was necessary to investigate factors that might account for the variability in Bible literacy and religiosity. Analysis of variance was the inferential technique used to determine if the F values of the group means differed significantly from one another. The one-way analysis of variance was applied to the data and it yielded a significant F-ratio on the variable of Bible literacy by religious preference (Table 4). A post hoc test for multiple comparisons was then used

to identify which pairs of group means differed reliably from one another. The Duncan multiple range test (Table 5) was used for this purpose. Using the Duncan method, the Unitarian and Atheist group means were identified as having the greatest degree of difference on the religiosity variable by religious preference. The Baptist group mean differed significantly from all the other group means on the Bible literacy variable by religious preference.

Using the one-way analysis of variance on the variable of religiosity by religious preference, a large F-ratio (Table 6) demonstrates the large degree of variation between the groups and within the groups. The same previously mentioned post hoc test for multiple comparisons (Table 7), was used to identify which pairs of group means differed most significantly. The Jewish, Unitarian, Atheist, and Methodist group means differed most significantly with the Baptist and Church of Christ group means. This result was obvious; the best possible score on religiosity is 22 and the means for the Baptist and Church of Christ group were 24.8 and 27.7, respectively. While the least amount of religiosity is a score of 83, the group means for the Jewish, Unitarian, and Atheist were 39.7, 58.4, and 72.4, respectively. The Baptist and Church of Christ group means, therefore, reflect a greater degree of religiosity than do the group means of the Jewish, Unitarian, and Atheist groups. This implies that more emphasis and importance are placed on the Bible and traditional religious values by the Baptist and Church of Christ groups since their means reflect higher Bible literacy scores and a higher degree of

religiosity than Atheists and Unitarians. The group means of the mainline denominations, including Methodist, Presbyterian, Episcopal, and Catholic, reflect less variation and more similarity between groups.

The Presbyterian, Methodist, Episcopal, and Catholic group means on biblical literacy and religiosity were slightly above the means of the Atheist and Unitarian groups, but lower than those of the Baptist and Church of Christ groups. The Presbyterian, Methodist, Episcopal, and Catholic groups (Table 2) answered between 58% and 64% of the biblical literacy questions incorrectly but still reflected more religiosity in their group means by scoring between 65% and 71% of the maximum possible for religiosity. Again, these scores and percentages on religiosity (Table 3) place the Presbyterians, Methodist, Episcopal, and Catholic groups between the Baptist group on the high end and the Unitarian and Atheist groups on the low end.

According to Gallup and Castelli (1989), Presbyterians, Methodists, Episcopalians, and Catholics are experiencing a decline in membership of adults under 30. Lower birth rates and a higher defection rate by individuals who identify with these groups is a partial cause. Gallup and Castelli further stated that 1 in 3 persons who were raised Methodist and 1 in 10 who were raised Catholic no longer identify with those religious groups. Although only 49% of the Catholics believed religion was important to them as adults, 63% of the Protestants believed religion was very important to them as adults.

The common thread that underlies most research in education is the intent to discover relationships between variables. Two values are said to be related to each other if the values of one variable are predictable from the values of the other variable. As shown in Table 8, the scores of biblical literacy and religiosity were compared by religious preference. Among all the groups, a significant correlation coefficient of $r = .34$ indicates how effectively persons score on the variable of biblical literacy can be used to predict their score on the variable of religiosity. The correlation coefficient squared, as stated by Ferguson (1981), r^2, is the proportion of the variance of Y that can be predicted from X. Thus, r^2 is the ratio of two variances and may be viewed as a simple proportion. Therefore if $r = .34$, then $r^2 = .11$. It could then be stated that approximately 12% of the variance of biblical literacy is predictable from the variance of religiosity or that it represents approximately a 12% association. That leaves an unexplained variance of approximately 88% that must be attributable to other variables.

It should be noted that the correlation coefficient between Bible knowledge and religiosity of the Atheist and Unitarian groups was not significant. A high score on the religiosity variable and a low score on the Bible literacy variable did not yield a significant correlation coefficient. With correlation coefficients of .06 for the Unitarian group and .02 for the Atheist group, it was not possible to use the scores on biblical literacy to predict their scores on religiosity. Squaring the correlation coefficients of .06 and .02 for

the Unitarians and Atheists, respectively, as stated by Ferguson (1981), would yield a .00 for each group. The r^2 would be the ratio of the variances on the two variables. Thus, .00% of the variance of biblical literacy is predictable from the variance of religiosity. All of the variance, therefore, must be attributable to other variables or factors. One possible reason for the lack of significant correlation coefficients is the similarity between the scores of these two groups on the two instruments. The lack of variation within the groups' scores on the two variables could be partially responsible for lack of correlation.

Statistical significance, as stated by Borg and Gall (1983), is also dependent on whether a one-tailed or two-tailed test is performed. In a two-tailed test, both positive and negative coefficients from both sides of the normal curve distribution are considered. Because the coefficient from only one side of the normal curve distribution was considered for this study, a one-tailed test was used. The level of statistical significance of a correlation is also determined in large part by the number of cases upon which the correlation is based. For example, with 22 cases, a correlation of .54 is needed to be significant at the 1% level. However, if 100 cases are considered, a correlation of .25 is significant at the 1% level. When 1,000 cases are considered, a correlation of .08 is significant at the 1% level. Therefore, the sample size in some of the groups may not have been of sufficient size to have a correlation level of statistical significance.

A correlation of .25 indicates that only 6% of the variance in the two measures that have correlated is common to both. While correlations in this range may have meaning in exploratory research, Borg and Gall (1983) stated that correlations at this level are of little value in practical prediction situations. With a correlation of approximately .50, crude prediction may be achieved. Correlation coefficients over .85 indicate a very close relationship between the two variables correlated. A correlation of .85 indicates that about 72% of the variance of one variable is predictable from the variance of the other variable, or approximately a 72% association. This leaves an unexplained variance of only 28% to other variables.

The within-group correlation coefficients among the Methodist, Jewish, Episcopal, and Church of Christ groups were significant in that their score on the variable of biblical literacy could be used to predict how they would score on the variable of religiosity.

Multiple regression is the technique for determining if an association exists between an independent variable and some combination of two or more dependent variables. As shown in Table 9, the combined impact of age, gender, level of education, and religious preference on biblical literacy can account for only about 16% of the effect of a group's score. Likewise, as shown in Table 10, the combined effect of age, gender, level of education, and religious preference on religiosity is attributable to approximately 78% of a group's score.

Conclusions

In the zeal to explore the correlates of biblical literacy and religiosity, it can be difficult to understand or interpret their causes and effects. The variation between the groups in biblical literacy was to be expected to some extent, but it was somewhat surprising to see the size of the variation within groups. This apparent range of variation in Bible knowledge content, even among a more religious group such as the Baptists, shows the diversity among individual group members. This trend is consistent with the prediction of Gallup and Castelli (1989) that over the next decade America will continue to become more religiously pluralistic and less Protestant in belief and practice. Even the mainline denominations will become more diverse unless more efficient means are used for returning present members and attracting new converts. In the best case scenario, diversity among religious groups is predicted to continue, which will most likely impact the range of diversity in biblical literacy among religious groups.

The larger diversity in biblical literacy (SD 10.6) and lesser diversity in religiosity (SD 2.7) by the Baptist group suggests that more impact is being made on the group's beliefs and practices than on biblical literacy. The Jewish group showed a more diverse range of scores on biblical literacy and religiosity than any other group. The group score on religiosity was rather unexpected, based on their adherence to certain traditions and religious emphasis. No

explanation for the cause or effect of this range of diversity can be assumed from the results of this study.

The significant correlation of Bible literacy and religiosity within some of the groups was expected to some degree. Members of a religious group that tends to emphasize Bible reading, Bible teaching, or Bible studying would obviously be expected to answer more Bible content questions correctly than members of groups that do not emphasize Bible reading, teaching, or studying. Likewise, religious groups that adhere to the commands, teachings, and traditions of the Bible would be expected to be more religious than groups that do not emphasize those same things. Therefore, groups that depart from traditional Protestism, Catholicism, Judaism, or Christianity beliefs or practices would be expected to have lower scores on biblical literacy and on religiosity.

To be fair to the groups that were, by their own definition, less religious or non-religious, it should be noted that the instruments used were not adequate in cutting across the wide lines of diversity in beliefs and practices encountered among the groups in this study. Finding two instruments that would fairly measure biblical literacy and religiosity among such diverse groups would be extremely difficult, if not impossible.

APPENDIX A

BIBLE LITERACY INSTRUMENT

INSTRUCTIONS FOR PARTICIPANTS

1. Leave the questionnaire face up and closed until instructed to open it.

2. 50 questions appear in the questionnaire. You have 15 minutes to respond to all items. This should provide ample time to respond to all the items if you do not spend too much time on any particular one.

3. Each item has a choice of four answers. Only one is correct for each item. Indicate your selection of the one best answer for each item by filling in the blank on the left hand margin.

4. Please fill in the appropriate blanks on this front cover. Your cooperation is appreciated. Please do not sign your name.

5. If you finish this questionnaire before the allotted time, please put your test face down along with your pencil.

AGE _____

MALE _____ (0)

FEMALE _____ (1)

LEVEL OF EDUCATION

_____ LESS THAN HIGH (1)
SCHOOL GRADUATE

_____ HIGH SCHOOL GRADUATE (2)

_____ 1-3 YEARS OF COLLEGE (3)

_____ COLLEGE GRADUATE (4)

_____ MASTER'S DEGREE (5)

_____ DOCTOR'S DEGREE (6)

RELIGIOUS PREFERENCE

_____ BAPTIST (1)

_____ METHODIST (2)

_____ JEWISH (3)

_____ CATHOLIC (4)

_____ ATHEIST (5)

_____ EPISCOPAL (6)

_____ LUTHERAN (7)

_____ CHURCH OF CHRIST (8)

_____ PRESBYTERIAN (9)

_____ AGNOSTIC (10)

_____ UNITARIAN (11)

_____ OTHER (PLEASE SPECIFY) (12)

_____ 1. The books of Jonah and Nahum both contain a message to
A. Syria
B. Assyria
C. Egypt
D. Babylon

_____ 2. The death of Moses is recorded in
A. Judges
B. Genesis
C. Leviticus
D. Deuteronomy

_____ 3. The minor prophet who foretold the birthplace of the
Messiah was
A. Isaiah
B. Micah
C. Ezekiel
D. Malachi

_____ 4. The man who led a revolt against Moses' authority in
the wilderness was
A. Joshua
B. Eli
C. Dathan
D. Korah

_____ 5. Laban was Rachel's
A. Brother
B. Cousin
C. Father
D. Uncle

_____ 6. What direction is the Mediterranean Sea from Palestine?
A. East
B. North
C. South
D. West

_____ 7. Who said "Don't urge me to leave you or turn back from
you"?
A. Esther
B. Ruth
C. Joshua
D. Mordecai

_____ 8. The last and greatest of the Old Testament judges was
A. Saul
B. Gideon
C. Samuel
D. Joshua

_____ 9. "We all, like sheep have gone astray, each of us has turned to his own way", is found in
A. Jeremiah
B. Ezekiel
C. Lamentations
D. Isaiah

_____ 10. Abraham is buried at
A. Beersheba
B. Gerar
C. Ur of Chaldees
D. Cave of Machpelah

_____ 11. How many years did Moses stay in Midian before God called him to lead the Israelites out of Egypt?
A. 27
B. 33
C. 40
D. 80

_____ 12. Which book contains an important portion of the genealogy of Christ?
A. Jeremiah
B. Esther
C. Micah
D. Ruth

_____ 13. Contemporary prophets of the Jewish exile were
A. Isaiah & Jeremiah
B. Ezekiel & Daniel
C. Hosea & Amos
D. Elisha & Elijah

_____ 14. "Create in me a pure heart, O God", is taken from
A. Psalm 34
B. Psalm 51
C. Psalm 42
D. Psalm 91

_____ 15. What book means the "second law"?
A. I Chronicles
B. Exodus
C. Proverbs
D. Deuteronomy

_____ 16. Lamentations is a cry against
A. The desolations of Jerusalem
B. The sin of the heathen nations
C. The devices of the devil
D. The future tribulation judgments of Israel

_____ 17. The imprecatory psalms
A. Ask God to destroy Israel's enemies
B. Dedicate the speaker to God's will
C. Show trust in God when trials come
D. Consider the glories of creation

_____ 18. The miracle, in which the sun and moon stood still, took place
A. As a sign that God would give Joshua victory over his enemies
B. So God could fight for Israel
C. As a result of an unwise league made by Israel
D. To give David time to regroup his forces against Absalom

_____ 19. Who said, "If I perish, I perish"?
A. Deborah
B. Ruth
C. Esther
D. Daniel

_____ 20. The book which tells of a king who made a huge image of gold is
A. Daniel
B. Ezekiel
C. Jeremiah
D. Isaiah

_____ 21. "One day the angels came to present themselves before the Lord, and Satan also came with them", is from
A. Lamentations
B. Ecclesiastes
C. Job
D. Ezekiel

_____ 22. The city where Abraham received a call was
A. Jericho
B. Rephidim
C. Haran
D. Bethlehem

_____ 23. The Israelites came from which son of Noah?
A. Canaan
B. Ham
C. Japheth
D. Shem

_____ 24. Who said, "The God who answers by fire --he is God"?
A. Elisha
B. Isaiah
C. Elijah
D. Samuel

_____ 25. The two gospels that include genealogies of Jesus are
A. Matthew and John
B. Mark and Luke
C: Mark and John
D. Matthew and Luke

_____ 26. Which book presents Christ as King of the Jews?
A. Matthew
B. Luke
C. Mark
D. John

_____ 27. Which statement comes from Jesus' Sermon of the Mount?
A. "You will hear of wars and rumors of wars"
B. "Man does not live on bread alone, but on every word that proceeds from the mouth of God"
C. "You are the light of the world"
D. "The Son of Man is Lord of the Sabbath"

_____ 28. "Be filled with the Spirit" is a quote from
A. Ephesians
B. James
C. Hebrews
D. Philippians

_____ 29. Indicate what Ananias and Sapphira are best known for.
A. They caused division in the early Corinthian church
B. They strengthened the churches during early persection
C. They lied against the Holy Spirit
D. They taught Apollos in the Christian doctrine

_____ 30. The Colossians' faith was challenged by false philosophy. To combat this, Paul
A. Emphasized the supremacy of Christ's person and work
B. Refuted the false ideas
C. Pronounced a curse on false teachers
D. Gave a discourse on the limitations of human wisdom

_____ 31. In I John the Christian "is to love not only with words or tongue, but with
A. Actions and work
B. Truth and righteousness
C. Actions and in truth
D. Work and righteousness

_____ 32. A book with a special promise to the one who reads and listens to its words is
A. Romans
B. Revelation
C. Galatians
D. Hebrews

_____ 33. When Paul first came to Corinth, he stayed with
A. Timothy's family
B. Apollos
C. Aquilla and Priscilla
D. The household of Stephanas

_____ 34. Which high priest did the Romans recognize?
A. Ithamar
B. Caiaphas
C. Aaron
D. Hilkiah

_____ 35. "The victory that has overcome the world" is achieved by
A. Hope
B. Love
C. Loyalty
D. Faith

_____ 36. After Joseph and Mary were warned by an angel, they fled with Jesus to
A. Egypt
B. Samaria
C. Syria
D. Galilee

_____ 37. Which book contains "If any of you lacks wisdom, he should ask God"?
A. James
B. I John
C. II and III John
D. Jude

_____ 38. Simeon and Anna were
A. A couple who followed Jesus during His public ministry
B. Aged saints who recognized the child Jesus as Messiah
C. The parents of John the Baptist
D. The parents of a blind man Jesus healed

_____ 39. Ephesus is located in
A. Asia Minor
B. Macedonia
C. Palestine
D. Syria

_____ 40. Who said, "God does not show favoritism"?
A. Matthew
B. Peter
C. Luke
D. John

_____ 41. Some Galileans tried to make Jesus a king by force after he had
A. Stilled a storm
B. Fed 5,000 people
C. Raised a widow's son from the dead
D. Cleansed 10 lepers

_____ 42. What city was the main base of operation for Gentile missions and the starting point for Paul's three missionary journeys?
A. Jerusalem
B. Rome
C. Antioch
D. Ephesus

_____ 43. The river which connects the Sea of Galilee and the Dead Sea is the
A. Jordan
B. Nile
C. Euphrates
D. Tigris

_____ 44. When Thomas finally saw Jesus after his resurrection, he cried,
A. "My Lord and my God"
B. "Have mercy on me, O Lord"
C. "I do believe; help me overcome my unbelief"
D. "You are the Christ, the son of the living God"

_____ 45. What three books contain passages on the apostasy of
the last days?
A. II Peter, Romans, and Philippians
B. I Timothy, II Peter, and Jude
C. I Peter, James, and I John
D. Romans, Galatians, and Ephesians

_____ 46. Which Pauline epistle contains two consecutive
chapters dealing with Christian giving?
A. Philippians
B. I Corinthians
C. II Corinthians
D. Galatians

_____ 47. "Teacher, what do you want me to do for you" was
asked by
A. John
B. Philip
C. Peter
D. Saul

_____ 48. Indicate the city in which Jesus performed His
first miracle.
A. Cana
B. Capernaum
C. Nazareth
D. Bethlehem

_____ 49. When Paul describes the nature of the church in the
Corinthian epistle, he uses the symbolism of
A. Priesthood
B. Flock
C. Bridegroom
D. Body

_____ 50. Indicate the number of days between Christ's
resurrection and ascension.
A. 17
B. 40
C. 50
D. 60

APPENDIX B

RELIGIOSITY INSTRUMENT

INSTRUCTIONS FOR PARTICIPANTS

1. Leave the questionnaire face up and closed until instructed to open it.

2. There are 23 items on this questionnaire. You have 15 minutes to complete the items. This should provide ample time to finish all items if you do not spend too long on any particular one.

3. Each item has a choice of two or more answers. Select the answer that most accurately describes your degree of religious involvement. Indicate the selection of your answer for each question by filling in the blank space on the left hand margin.

4. Please fill in the appropriate blanks on this front cover. Your cooperation is appreciated. Please do not sign your name.

5. If you finish before the allotted time, please put your questionnaire down along with your pencil. At the end of 15 minutes, the time allowed for completing this questionnaire will end.

AGE _____

MALE _____ (0)

FEMALE _____ (1)

LEVEL OF EDUCATION

_____ LESS THAN HIGH (1)
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_____ CHURCH OF CHRIST (8)

_____ PRESBYTERIAN (9)

_____ AGNOSTIC (10)

_____ UNITARIAN (11)

_____ OTHER (PLEASE SPECIFY (12)

_____ 1. Do you believe that the world will come to an end
according to the will of God?
1. Yes, I believe this.
2. I am uncertain about this.
3. No, I do not believe this.

_____ 2. Which of the following statements most clearly describes
your idea about Deity?
1. I believe in a Divine God, Creator of the Universe, who
knows my innermost thoughts and feelings, and to Whom
one day I shall be accountable.
2. I believe in a power greater than myself, which some
people call God and some people call Nature.
3. I believe in the worth of humanity, but not in a God
or a Supreme Being.
4. The so-called universal mysteries are ultimately
knowable according to the scientific method based
on natural laws.
5. I am not quite sure what I believe.
6. I am an atheist.

_____ 3. Do you believe that it is necessary for a person to repent
before God will forgive one's sins?
1. Yes, God's forgiveness comes only after repentance.
2. No, God does not demand repentance.
3. I am not in need of repentance.

_____ 4. Which one of the following best expresses your opinion of
God acting in history?
1. God has and continues to act in the history of mankind.
2. God acted in previous periods, but is not active at the
present time.
3. God does not act in human history.

_____ 5. Which of the following best expresses your view of the
Bible?
1. The Bible is God's word and all it says is true.
2. The Bible was written by authors inspired by God, and
its basic moral and religious teachings are true, but
because its writers were human, it contains some human
errors.
3. The Bible is a valuable book because it was written by
wise and good people, but God had nothing to do with it.
4. The Bible was written by authors who lived so long ago
that it is of little value today.

_____ 6. How do you personally view the origin of the universe as recorded in Genesis?
1. Literally true history.
2. A symbolic account which is no better or worse than any other account of the beginning.
3. Not a valid account of the origin of the universe.

_____ 7. Which of the following best expresses your opinion concerning miracles?
1. I believe the report of the miracles in the Bible; that is, they occurred through a setting aside of natural laws by a higher power.
2. I neither believe nor disbelieve the so-called miracles of the Bible. No evidence which I have considered seems to prove conclusively that they did or did not happen as recorded.
3. I do not believe in the so-called miracles of the Bible. Either such events did not occur at all, or if they did, the report is inaccurate and they could be explained upon scientific grounds if we had the actual facts.

_____ 8. What is your view of the following statement: Religious truth is higher than any other form of truth.
1. Strongly agree
2. Agree
3. Disagree
4. Strongly disagree

_____ 9. Write the names of the four gospels in the left margin.
_____ (For Jewish respondents, write the first five books
_____ of the Old Testament)
_____
_____

_____ 10. Do you believe it is possible for an individual to develop a well-rounded religious life apart from participation in organized religion?
1. No
2. Uncertain
3. Yes

_____ 11. How much time during the week would you say you spend reading the Bible and other religious literature?
1. One hour or more
2. One-half hour
3. None

_____ 12. In the past four weeks, how many religious worship
services have you attended?
1. Three or more
2. Two
3. One
4. None

_____ 13. Which of the following best describes your participation
in the act of prayer?
1. Prayer is a regular part of my behavior.
2. I pray primarily in times of stress and/or need, but
not much otherwise.
3. Prayer is only incidental to my life.
4. I never pray.

_____ 14. Do you believe that for marriage, the ceremony should
be performed by:
1. A religious official
2. Either a religious official or a civil authority
3. A civil authority

_____ 15. Would you say that one's religious commitment gives life
a certain purpose which it could not have otherwise?
1. Strongly agree.
2. Agree.
3. Disagree.
4. Don't know.

_____ 16. All religions stress that belief normally includes some
experience of "union" with the divine. Are there
particular moments when you feel "close" to the Divine?
1. Frequently
2. Occasionally
3. Rarely
4. Never

_____ 17. Would you say that religion offers a sense of security in
the face of death which is not otherwise possible?
1. Agree
2. Uncertain
3. Disagree

_____ 18. Respond to this statement: "Religion provides the
individual with an interpretation of one's existence
which could not be discovered by reason alone."
1. Strongly agree
2. Agree
3. Disagree
4. Strongly Disagree
5. Don't know

_____ 19. Faith, meaning putting full confidence in the things we
hope for and being certain of things we cannot see, is
essential to one's religious life.
1. Agree
2. Uncertain
3. Disagree

_____ 20. What is your feeling about the operation of non-essential
businesses on Sunday?
1. They should not be open.
2. I am uncertain about this.
3. They have a legitimate right to be open.

_____ 21. A young man and a young woman, both of whom attend
religious services frequently, regularly date one
another and have entered into sexual relations with
each other. Which of the following statements
expresses your opinion concerning this matter?
1. People who identify themselves with religious groups
   to the extent that they participate in worship
   services should uphold the group's moral teachings
   as well.
2. Sexual intercourse prior to marriage is a matter of
   individual responsibility.

_____ 22. Two candidates are seeking the same political office. One
is a member of and a strong participant in a religious
group. The other candidate is indifferent, but not
hostile, to religious organizations. Other factors being
equal, do you think the candidate identified with religion
would be a better public servant than the one who has no
interest in religion?
1. Definitely yes.
2. Probably yes.
3. Don't know.
4. Probably not.
5. Definitely not.

_____ 23. Suppose you are living next door to a person who confides
in you that each year he puts down on his income tax a
$50.00 contribution to the church in "loose change," even
though he knows that while he does contribute some money
to the church in "loose change" each year, the total sum
is far below that amount. Do you feel that a person's
religious orientation should be reflected in all phases
of his life so that such behavior is morally wrong---
that it is a form of lying?
1. Yes
2. Uncertain
3. No.

REFERENCE LIST

Albrecht, S. L., & Heaton, T. B. (1984). Secularization, higher education, and religiosity. Review of Religious Research, 26, 43-57.

Allport, G. W., & Ross, M. J. (1967). Personal religious orientation and prejudice. Journal of Personality and Social Psychology, 5, 432-443.

Alston, J. P., & McIntosh, A. W. (1979). An assessment of the determinants of religious participation. The Sociological Quarterly, 20, 49-62.

American Association of Bible Colleges. (1980). Standardized Bible content tests manual, form E. Fayetteville, AR: Author.

Argyle, M. (1961). Religious behavior. Glencoe, IL: The Free Press.

Baker, M., & Gorsuch, R. (1982). Trait anxiety and intrinsic-extrinsic religiousness. Journal for the Scientific of Religion, 21, 119-122.

Barker, I. R., & Currie, R. F. (1985). Do converts always make the most committed Christians? Journal for the Scientific Study of Religion, 24, 305-313.

Beeghley, L., Velsor, E. V., & Bock, W. E. (1981). The correlates of religiosity. The Sociological Quarterly, 22, 403-412.

Borg, W. R., & Gall, M. D. (1983). Educational research (4th ed.). New York: Longman.

Bridges, J. (1979). The pursuit of holiness. Colorado Springs: NavPress.

Bridges, J. (1984). The practice of Godliness. Colorado Springs: NavPress.

Broen, W. E. (1957). A factor-analytic study of religious attitudes. Journal of abnormal and social psychology, 54, 176-179.

Brown, C. R. (1927). Why I believe in religion. New York: The MacMillan Company.

Brown, D. G., & Lowe, W. L. (1951). Religious beliefs and personality characteristics of college students. The Journal of Social Psychology, 33, 103-129.

Brown, L. B. (1962). A study of religious belief. British Journal of Psychology, 53, 259-272.

Buri, F. (1968). Thinking faith. Philadelphia: Fortress Press.

Burrows, M. (1938). Bible religion: It's growth in scriptures. New York: Abingdon-Cokesbury Press.

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Boston: Houghton Mifflin.

Carmody, J. (1980). Theology for the 1980s. Philadelphia: The Westminster Press.

Carroll, J. W., Johnson, D. W., & Marty, M. E. (1979). Religion in America: 1950 to the present. New York: Harper and Row.

Cartledge, S. A. (1941). The Bible: God's word to man. Philadelphia: The Westminster Press.

Chalfant, P. H., & Peek, C. W. (1983). Religious affiliation religiosity and racial prejudice: A new look at old relationships. Review of Religious Research, 25, 155-161.

Clark, K. J. (1989). Proofs of God's existence. The Journal of Religion, 69, 59-84.

Cline, V. B., & Richards, J. M. (1965). Factor-analytic study of religious belief and behavior. Journal of Personality and Social Psychology, 1, 569-578.

Colson, C. (1989a, October). If Communism fails, do we win? Christianity Today, 64.

Colson, C. (1989b, October). Living in the new Dark Ages. Christianity Today, 30-33.

Cook, T. C. (1986). Literacy and literacy. Bible Literacy Today, 8, 14.

Cornwall, M. (1987). The social bases of religion: A study of factors influencing religious belief and commitment. Review of Religious Research, 29, 45-56.

Davidson, J. D. (1977). Socio-economic status and ten dimensions of religious commitment. Sociology and Social Research, 61, 462-485.

Dayton, E. R. (1984). Whatever happened to commitment? Grand Rapids: Zondervan Publishing.

DeVries, P. (1987, May). The deadly sin. Christianity Today, 22-24.

Digenan, M. A., Sr., & Murray, J. B. (1975). Religious beliefs, religious commitment, and prejudice. The Journal of Social Psychology, 97, 147-148.

Donahue, M. J. (1985). Intrinsic and extrinsic religiousness: Review and meta-analysis. Journal of Personality and Social Psychology, 48, 400-419.

Dudley, R. L., & Dudley, M. G. (1986). Transmittal of values from parents to adolescents. Review of Religious Research, 28, 3-13.

Dynes, R. R. (1957). The consequences of sectarianism for social participation. Social forces, 35, 331-334.

Easterlin, R. A., & Crimmins, E. M. (1988). Recent social trends: Changes in personal aspirations of American youth. Sociology and Social Research, 72, 217-218.

Edwards, D. L. (1969). Religion and change. London: Hodder and Stoughton.

Embree, R. A. (1973). The religious association scale: A preliminary validation study. Journal for the Scientific Study of Religion, 12, 223-226.

Estus, C. W., & Overington, M. A. (1970). The meaning and end of religiosity. American Journal of Sociology, 75, 760-778.

Fahs, S. (1945). Religion and the child. Washington, DC: Association for Childhood Education International.

Falbo, T., & Shepperd, J. A. (1986). Self-righteousness: Cognitive, power, and religious characteristics. Journal of Research in Personality, 20, 145-157.

Faulkner, J. E., & DeJong, G., F. (1966). Religiosity in 5-D: An empirical analysis. Social Forces, 45, 246-254.

Feagin, J. (1964). Intrinsic-extrinsic religious orientation scale in prejudice and religious types: A focused study of southern fundamentalists. Journal for the Scientific Study of Religion, 4, 3-13.

Ferguson, G. A. (1981). Statistical analysis in psychology and education. New York: McGraw-Hill Book Company.

Finke, R. (1989). Demographics of religious participation: An ecological approach, 1850-1980. Journal for the Scientific Study of Religion, 28, 45-58.

Finner, S. L. (1970). Religious membership and religious preference: Equal indicators of religiosity? Journal for the Scientific Study of Religion, 9, 273-279.

Frame, R. (1990, April). Theological drift: Christian higher ed the culprit? Christianity Today, 43, 46.

Fukuyama, Y. (1961, Spring). The major dimensions of church membership. Review of Religious Research, 2, 235.

Gallup, G., Jr., & Castelli, J. (1989). The people's religion. New York: MacMillan Publishing Company.

Garnett, A. C. (1955). Religion and the moral life. New York: The Ronald Free Press Company.

Geisler, N. (1985). False gods of our time. Eugene, OR: Harvest House.

Glock, C. Y. (1961). On the study of religious commitment. In S. W. Cook (Ed.), Review of recent research bearing on religious and character formation (pp. 98-109). New York University.

Glock, C. Y. (1973). Religion in sociological perspective. Berkley: University of California.

Glock, C. Y., & Stark, R. R. (1965). Religion and society in tension. Chicago: Rand McNally.

Glock, C. Y., & Stark, R. R. (1978). The Northern California church member study. Ann Arbor: University of Michigan, Inter-University Consortium for Political and Social Research.

Gorlow, L., & Schroeder, H. E. (1969). Motives for participating in the religious experience. Journal for the Scientific Study of Religion, 7, 241-251.

Green, C. W., & Hoffman, C. L. (1989). Stages of faith and perceptions of similar and dissimilar others. Review of Religious Research, 30, 246-254.

Hakes, J. E. (1967). A comparison of freshmen at Calvin College from Protestant day school and public school backgrounds relative to Bible knowledge, value orientation, and dogmatism. Dissertation Abstracts International, 68, 7510. (University of Pittsburgh).

Hamilton, K. (1969). What's new in religion. Grand Rapids: Erdmans Publishing Company.

Hamilton, W. (1953). The Christian man. Philadelphia: The Westminster Press.

Hammond, P. E. (1983). In search of a Protestant Twentieth Century: American religion and power since 1900. Review of Religious Research, 24, 281-290.

Hardon, J. A. (1971). Christianity in the Twentieth Century. New York: Doubleday and Company.

Hargrove, B. (1984). Religion and the sociology of knowledge. New York: The Edwin Mellen Press.

Harper, W. R. (1904). Religion and the higher life. Chicago: The University of Chicago.

Harris, R. J., & Mills, E. W. (1985). Religion, values, and attitudes towards abortion. Journal for the Scientific Study of Religion, 24, 119-236.

Hartz, G. W., & Everett, H. C. (1989). Fundamentalist religion and its effect on mental health. Journal of Religion and Health, 28, 207-217.

Hertel, B. R., & Nelsen, H. M. (1974). Are we entering a post-christian era? Religious belief and attendance in America, 1957-1968. Journal for the Scientific Study of Religion, 13, 409-419.

Hick, J. (1967). Theology's Central Problem. Birmingham: The University of Alabama.

Hightower, P. R. (1930). Biblical information in relation to character and conduct. Iowa City: University of Iowa.

Hilty, P. (1965). The Bible and modern man. New York: The Frederick Unger Publishing Company.

Hoey, J. B. (1986). No small task: How great is your faithfulness. Discipleship Journal, 34, 9-11.

Hoge, D. R. (1970). Commitment on campus: Changes in religion and values over five decades. Philadelphia: The Westminster Press.

Hoge, D. R., & Carroll, J. W. (1973). Religiosity and prejudice in northern and southern churches. Journal for the Scientific Study of Religion, 12, 181-198.

Hoge, D. R., & Polk, D. T. (1980). A test of theories of Protestant church participation and commitment. Review of Religious Research, 21, 315-329.

Hong, L. K. (1981). Anomia and religiosity: Some evidence for reconceptualization. Review of Religious Research, 22, 233-236.

Hood, R. W., Jr. (1978). The usefulness of the indiscriminately pro- and anti-categories of religious orientation. Journal for the Scientific Study of Religion, 17, 419-431.

Houlden, J. L. (1977). Patterns of faith. Philadelphia: Fortress Press.

Howe, F. R. (1982). Challenge and response. Grand Rapids: Zondervan Publishing Company.

Inglehart, R. (1981, December). Post-materialism in an environment of insecurity. American Political Science Review, 75(4), 880-890.

Johnson, B. C. (1981). The atheist's debater's handbook. New York: Prometheus Books.

Johnson, L. S., Jr. (1961). Spiritual knowledge and walking worthily of the Lord. Bibliotheca Sacra, 118, 334-347.

Johnston, J. (1986, January). Growing me-ism and materialism. Christianity Today, 16-17.

Kahoe, R. D. (1974). Personality and achievement correlates of intrinsic and extrinsic religious orientations. Journal of Personality and Social Psychology, 29, 812-816.

Kahoe, R. D., & Dunn, R. F. (1975). The fear of death and religious attitudes and behavior. Journal for the Scientific Study of Religion, 14, 379-382.

Kapadia, R., & Anderson, G. (1987). Statistics explained: Basic concepts and methods. New York: Ellis Horwood Limited.

Kieren, D. K., & Munro, B. (1987). Following the leaders: Parents' influence on adolescent religious activity. Journal for the Scientific Study of Religion, 26, 249-255.

Kilpatrick, W. K. (1983). Psychological seduction. New York: Prometheus Books.

King, M. B., & Hunt, R. A. (1975). Measuring the religious variable: National replication. Journal for the Scientific Study of Religion, 14, 13-22.

Kosa, J., & Schommer, C. (1961). Religious participation, religious knowledge, and scholastic aptitude: An empirical study. Journal for the Scientific Study of Religion, 8, 88-97.

Larson, P. (1985). Painting the truth. Moody Monthly, 85, 78-79.

Larson, L. E., & Goltz, W. J. (1989). Religious participation and marital commitment. Review of Religious Research, 30, 387-400.

Lazerwitz, B. (1961). Some factors associated with variations in church attendance. Social Forces, 39, 301-309.

Leak, G. K., & Fish, S. (1989). Religious orientation, impression management, and self deception: Toward a clarification of the link between religiosity and social desirability. Journal for the Scientific Study of Religion, 28, 355-359.

Lenski, G. (1963). The religious factor: A sociological study of religion's impact on politics, economics, and family life. New York: Double Day and Company.

Ligon, E. M. (1948). A greater generation. New York: The MacMillan Company.

Lindsell, H. (1981). The battle for the Bible. Grand Rapids: Zondervan Publishing Company.

Little, P. E. (1970). Know what you believe. Wheaton, IL: Scripture Press Publications.

MacArthur, J. F. (1973). Keys to spiritual growth. New Jersey: Fleming H. Revell Company.

MacArthur, J. F. (1978). Why believe the Bible. Glendale, CA: Regal Books.

Madden, W. (1951). Religious values in education. New York: Harper and Brothers Publishers.

Marsden, G. (1986, January). Secular humanism within the church. Christianity Today, 14-15.

Martin, C. B. (1959). Religious belief. New York: Cornell University Press.

Mathews, S., & Smith, G. B. (1979). A dictionary of religion and ethics. New York: The MacMillan Company.

McClain, E. W. (1978). Personality differences between intrinsically religious and nonreligious students: A factor analytic study. Journal of Personality Assessment, 42, 159-166.

McDowell, J. (1972). Evidence that demands a verdict. San Bernadino, CA: Campus Crusade for Christ.

McKenna, D. (1986). Mega truth: The church in the age of information. San Bernadino, CA: Here's Life Publishers.

Melrose, D., & Griswold, E. M. (1941). Reorientation to religion: An operational approach. Norman, OK: Cooperative Books.

Menendez, J. A. (1977). Religion at the polls. Philadelphia: The Westminster Press.

Mottaz, C. J. (1989). An analysis of the relationship between attitudinal commitment and behavioral commitment. The Sociological Quarterly, 30, 143-158.

Nelsen, H. M., & Potvin, R. H. (1981). Gender and regional differences in the religiosity of Protestant adolescents. Review of Religious Research, 22, 268-282.

Nida, E. A. (1986). Primary religious language. Biblical Literacy Today, 8, 7.

Nineham, D. (1976). The use and abuse of the Bible. New York: Barnes and Noble Books.

O'Hair, M. M. (1969). What on earth is an atheist? Austin, TX: American Atheist Press.

Pargament, K. I., & Brannick, M. T. (1987). Indiscriminate proreligiousness: Conceptualization and measurement. Journal for the Scientific Study of Religion, 26, 182-200.

Patrick, J. W. (1979). Personal faith and the fear of death among divergent religious populations. Journal for the Scientific Study of Religion, 18, 298-305.

Perry, E. L., & Davis, J. H. (1980). Toward a typology of unchurched Protestants. Review of Religious Research, 21, 388-404.

Potvin, R. H., & Sloane, D. M. (1985). Parental control, age, and religious practice. Review of Religious Research, 27, 3-13.

Putney, S., & Middleton, R. (1961). Dimensions and correlates of religious ideologies. Social Forces, 39, 285-291.

Rall, H. F. (1941). Christianity: An inquiry into its nature and truth. New York: Charles Scribner's Sons.

Ramsey, A. M. (1969). God, Christ, and the world. London: SCM Press.

Randall, J. H. (1958). The role of knowledge in western religion. Boston: Starr King Press.

Raschke, V. (1973). Dogmatism and committed and consensual religiosity. Journal for the Scientific Study of Religion, 12, 339-344.

Rasmussen, B. I. (1933). Character education for the elementary child. Mountain View, CA: The Hectograph Duplicator Company.

Richardson, B. (1983). Do Bible facts change attitudes? Bibliotheca Sacra, 40, 163-171.

Robinson, H. (1986, January). More religion, less impact. Christianity Today, 4-5.

Robinson, J. P., & Shaver, P. R. (1973). Measures of social psychological attitudes. Ann Arbor: University of Michigan, Survey Research Center Institute for Social Research.

Ross, M. (1950). Religious beliefs of youth. New York: Association Free Press.

Rosten, L. (Ed.). (1955). A guide to the religions of America. New York: Simon and Schuster.

Sahay, A. (1975). Knowledge, values, and sentiments. Sociological Analysis and Theory, 5, 289-299.

Santoni, R. E. (1968). Religious language and the problem of religious language. Bloomington: Indiana University.

Sapp, G. L., & Jones, L. (1986). Religious orientation and moral judgment. Journal for the Scientific Study of Religion, 25, 208-214.

Savory, J. (1968). Tuned-in Christians. Valley Forge, PA: The Judson Press.

Scott, A. (1988). Imputing beliefs: A controversy in the sociology of knowledge. The Sociological Review, 36, 31-52.

Sharot, S., Ayalon, H., & Ben-Rafael, E. (1986). Secularization and the diminishing decline of religion. Review of Religious Research, 27, 193-225.

Simpson, J. H., & Hagan, J. (1981). Conventional religiosity attitudes toward conflict crime and income stratification in the United States. Review of Religious Research, 23, 167-177.

Sloane, D. M., & Potvin, R. H. (1983). Age differences in adolescent religiousness. Review of Religious Research, 25, 142-153.

Stafford, T. (1986, April). Opening the closed book. Christianity Today, 25-27.

Stark, R., & Bainbridge, W. S. (1985). Secularization, revival, and cult formation. Berkley: University of California.

Stek, J. H. (1986, October). Interrogating the Bible: It's supposed to be the other way around. Christianity Today, 21-22.

Stephen, L. (1903). An agnostic's apology. New York: G. P. Putnam's Sons.

Stoudenmire, J. (1971). On the relationship between religious beliefs and emotion. Journal for the Scientific Study of Religion, 10, 254.

Strickland, B. R., & Weddell, S. C. (1972). Religious orientation, racial prejudice, and dogmatism: A study of Baptists and Unitarians. Journal for the Scientific Study of Religion, 11, 395-399.

Stump, R. W. (1986). Regional variations in the determinants of religious participations. Review of Religious Research, 27, 208-221.

Symington, T. A. (1935). Religious liberals and conservatives. New York: Columbia University.

Tamney, J. B., & Johnson, S. D. (1985). Consequential religiosity in modern society. Review of Religious Research, 26, 360-376.

Tamney, J. B., Powell, S., & Johnson, S. (1989). Innovation theory and religious nones. Journal for the Scientific Study of Religion, 28, 216-229.

Tapp, R. B. (1973). Religion among the Unitarian universalists. New York: Seminar Press.

Thouless, R. H. (1935). The tendency to certainty in religious belief. The British Journal of Psychology, 26, 16-31.

Vernon, G. M. (1968). The religious "nones": A neglected category. Journal for the Scientific Study of Religion, 7, 219-229.

Walrath, D. A. (1980). Why some people may go back to church. Review of Religious Research, 21, 468-475.

Watson, P. J., Howard, R., Hood, R. W., & Morris, R. J. (1988). Age and religious orientation. Review of Religious Research, 29, 271-280.

Watson, P. J., Morris, R. J., Foster, J. E., & Hood, R. E. (1986). Religiosity and social desirability. Journal for the Scientific Study of Religion, 25, 215-232.

Watson, P. J., Morris, R. J., & Hood, R. W. (1989). Sin and self-functioning, part 4: Depression, assertiveness, and religious commitments. Journal of Psychology and Theology, 17, 44-58.

Wesley, J., & Kepler, T. S. (Eds.). (1954). Christian perfection. New York: The World Publishing Company.

White, R. H. (1968). Toward a theory of religious influence. Pacific Sociological Review, 11, 23-28.

Williams, P. W. (1980). Popular religion in America: Symbolic change and the modernization process in historical perspective. Englewood, NJ: Prentice Hall.

Willis, J. (1968). Correlate of Bible knowledge. Journal for the Scientific Study of Religion, 7, 280.

Willits, F. K., & Crider, D. M. (1989). Church attendance and traditional religious beliefs in adolescence and young adulthood: A panel study. Review of Religious Research, 31, 68-81.

Wilson, W. C. (1960). Extrinsic religious values and prejudice. Journal of Abnormal and Social Psychology, 60, 286-288.

Wimberly, D. W. (1989). Religion and role-identify: A structural symbolic interactionist conceptualization of religiosity. The Sociological Quarterly, 30, 125-142.

Woodburne, A. S. (1927). The religious attitude. New York: The MacMillan Company.

Woodroof, T. J. (1985). Premarital sexual behavior and religious adolescents. Journal for the Scientific Study of Religion, 24, 343-366.

Woolf, H. B. (Ed.). (1980). Webster's new collegiate dictionary. Springfield, MA: G. C. Merriam Company.

Wulf, J., Prentice, D., & Hansum, D. (1984). Religiosity and sexual attitudes and behavior among evangelical Christian singles. Review of Religious Research, 26, 119-131.

Yankelovich, D. (1981). New rules: Searching for self fulfillment in a world turned upside down. New York: Random House.

Yeatts, J. R., & Asher, W. (1982). Factor analyses of religious variables: Some methodological considerations. Review of Religious Research, 24, 49-53.