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THE EFFECTS OF RELIGIOUS AFFILIATION
AND ATTENDANCE ON ILLICIT
SEXUAL BEHAVIOR AND SUBSTANCE ABUSE

A Thesis

Presented to the
Department of Sociology
Brigham Young University


In Partial Fulfillment
of the Requirements for the Degree
Master of Science


by


Thomas W. Zane

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This Thesis, by Thomas W. Zane, is accepted in its present form by the Department of Sociology of Brigham Young University as satisfying the thesis requirement for the degree of Master of Science.


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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

In past years numerous studies have been completed linking religiosity to a number of deviant behaviors. Results of these studies have varied along a continuum, reporting from moderately positive to strongly negative relationships. Many control groups and variables have been studied, the most frequent being age, type of community, and region of the country. The majority of this evidence delivers the message that religiosity is marginally related to various deviant behaviors in our society. A few studies though, have found religiosity to have no relationship to these deviant behaviors. The evidence will be discussed in more depth in Chapter Two.

The primary purpose of this paper, however, is to show under what circumstances religion and religious attendance can predict behaviors. In other words, it is to demonstrate that religion is a viable factor in a social control theory of deviant behavior.

A second, but equally important, purpose of this study, is to include members of the Church of Jesus Christ of Latter-day Saints (Mormons). Although numerous studies have been reported to date, few have

included Mormons. It is felt that Mormons have a significantly different lifestyle due directly to the teachings of their church. Deviant behavior to Mormons includes masturbation and the use of alcohol and tobacco. Furthermore, the fear of both social and spiritual sanctions pressures members of the LDS Church to conform to this lifestyle. Therefore, it is thought that more significant results will be found for Mormons than for other affiliations, between religion and deviant behaviors.

A third purpose of the present study is to discuss and overcome certain problems found in earlier studies. It is felt that there are six specific theoretical and methodological shortcomings in the majority of previous studies. They are: ignoring specific affiliations, use of adolescents almost exclusively as subjects, dealing with sexual deviance and drug abuse separately, inadequate statistical procedures, having a lack of theoretical backing, and finally, discounting religious affiliation and attendance as a viable controlling influence in society.

The first of these shortcomings is that most studies report religiosity as a multidimensional entity and operationalize various types of religiosity. These same studies, however, ignore specific religious

affiliations. With few exceptions, religious affiliation is grouped into Catholic, Protestant, and other. In a pilot study (Zane and Ricks, 1983), it was found that religious affiliation was even more powerful than religious participation as a predictor variable. The concepts of orthodoxy vs. reformed and fundamentalist vs. popular affiliations have rarely even been mentioned in previous studies. It is thought, then, that religious affiliations should not be condensed into these groups, so that their individual effects can be measured accurately.

The second shortcoming in previous research is that the majority of the studies dealing with religiosity and deviant behaviors attempted to find their relationships among adolescents. It is thought that the problem in dealing with adolescents is that it misses an important point: perhaps religious affiliation and attendance for adolescents is not as important a social control as are many other areas, i.e. peers, media, school, and family. Therefore, religious affiliation and attendance become more important social controls only after a person leaves the home and family support system. The ability of these religious variables to predict deviant behaviors may increase once

a person is more mature and is making more of his own decisions.

A third shortcoming of past research is that, with only a few exceptions, most studies have dealt with only religion and alcohol, or religion and marijuana use, or religion and sexual permissiveness. It is thought that a more usable body of evidence could be acquired by dealing with a number of different sexual behaviors and substance abuses across the same cases. Also, further information could be found by dealing with the dimensionality among and between the different behaviors.

The last statement leads us to what is seen as the fourth shortcoming in previous research: the overwhelming majority of previous studies used either gamma or Pearson's R to find their relationships. In the same studies, the authors discuss the multidimensionality of the variables and report their findings with statistics inadequate for multivariate data. While useful information can be found from running simple correlation, much more (and possibly more valid and reliable) information can be found by using other statistical procedures. Four of these procedures will be used and discussed in this paper to gain further

insight into the relationships between religion and deviant behaviors.

A fifth difficulty is the lack of theoretical backing or testing. If theory is to be useful in the social sciences, it must be supported by empirical results. While the results of many of the works completed to date are useful, they would be of more value if they were tailored to support or reject existing theories.

A final shortcoming found in studies done in the past is twofold but interrelated. First, the studies that found a significant relationship between the variables failed to deal with the predictive possibilities. Second, those studies that found religion had no significant relationship to deviant behavior totally dismissed religion as a predictor, and have been used to justify the discounting of religion as a type of social control. Few studies have attempted to show when and how religion could be used as a predictor of deviant behaviors.

The present study will attempt to overcome these six problem areas and present evidence concerning the social control predictive possibilities of religious affiliation and activity on various sexual behaviors and substance abuses. Furthermore, this study will deal

with the dimensionality (both within and between) of these two sets of behaviors.

CHAPTER II

RELIGIOSITY, SEX, AND DRUG USE

Since 1968, a number of studies have been completed dealing with the relationships between religion or religiosity and both sexual behavior and substance abuse. While a comprehensive review of all these studies is beyond the scope of this paper, the results of a representative sample of significant studies are presented.

Religion And Sex

This area seems to attract more studies than other areas, along with a considerable amount of controversy. Religion or religiosity has been shown to be related to sexual attitudes and behaviors. King, Abernathy, Robinson, and Balswick (1976), found religiosity was inversely related to both the amount of premarital sexual behavior and the degree of premarital sexual permissiveness. They showed that the relationship was stronger with sexual attitude than with behavior. Other studies which dealt with attitudes alone also found a negative correlation between religious experience or religiosity and premarital or extramarital sexual attitudes (Medora and Burton, 1981; Medora and Woodward, 1982; Weis and Slosnerick,

1981). Studies dealing with religiosity and sexual behavior have shown similar low to moderate relationships between their types of religiosity and sexual behaviors. Mahoney (1980) found fairly good relationships between the variables. Young (1981) went a step further and found, through a stepwise discriminant analysis, that sexual behaviors could be separated into groups significantly at the $p < .001$ level.

A final study reviewed in this particular area, from which data will be taken, was Smith's (1975) study which included a large sample of LDS (Mormon) students. As expected, he, too, found a moderately negative relationship between sexual behavior and what he defined as religiosity. These few studies are representative of a large body of works which have, for the most part, found similar results.

Most of the work currently being pursued deals with specific subpopulations and specific attitudes or behaviors. Hong (1983) found relationships between church attendance and sexual attitudes with subjects in Australia similar to those relationships in studies done in the United States. Herold and Goodwin (1981) dealt with premarital sexual guilt of women in Ontario, Canada. It should be mentioned, however, that they found a very low correlation between sexual guilt and

religiosity. Davids (1982) worked to separate both sexual behavior and drug use by religion and by size of community, and found complex relationships between behaviors for Jewish subjects in Toronto, Canada.

The final paper reviewed in this area once again dealt with the Mormon factor (Christiansen, Carpenter 1960). As was predicted, they found the LDS subjects to be less permissive than either the Midwesterners or the subjects measured in Denmark.

Religion And Drug Use

Like the area of religion and sex, the relationship between religion and drug use has yielded a large number of studies. The great majority of these deal with the most abused drug, alcohol. Next in priority for researchers has been the use of marijuana. By comparison, however, only a handful of works have been reported dealing with the relationships between religiosity and amphetamines, barbiturates, or hallucinogens. Although the trail of studies extends back into the 1950's and 60's, a small sample of studies was selected from work done in the past fifteen years.

Those studies dealing with alcohol have generally found that heavier drinkers tend to be nonreligious or less religious (Wechsler, McFadden, 1979; Burkett, 1980; Hanson, 1974). Further, Wechsler

and McFadden also found that men tend to drink more than women. Hanson's study and one done in 1953 by Straus and Bacon showed Mormons to be lowest in incidence of drinking. The one dissenting paper (Reiskin, Wechsler, 1981), found no differences in drinking by Catholics, Protestants, and Jews. The paper stated further that fewer than one-fourth of the subjects attended services once a week or more. It should be noted, however, that this study and most others did not include Mormons as a separate group.

The studies dealing with religiosity and drug use generally have found relationships between drug use and sexual behavior, and have included religion as a secondary variable (Janus, Bess, 1973; Hundleby, 1982). Some studies have dealt more with the direct relationship between church attendance and drug use, especially marijuana use. A good example of these was done by McLuckie, Zahn and Wilson (1975). They found relationships between different religious affiliations and different levels of drug use. Their results showed that Catholics and Protestants were low in their use of drugs while Jewish and nonaffiliated students were the highest in current use. Furthermore, church attendance was found to be an effective constraining factor in drug use.

Finally, a few studies have dealt with both alcohol and other drugs, especially marijuana. Turner and Willis (1979), for example, found significant differences at the .01 level between religious and nonreligious subjects in their current use of alcohol and marijuana.

Religiosity

It has been generally accepted that the concept of religiosity is a complex multidimensional entity. This agreement has led to many methods for operationalizing "religiosity".

Much of the inconsistency in the research findings in this area may be attributable to the measurement of religiosity. With few exceptions (e.g., Rohrbaugh and Jessor, 1975), frequency of church attendance has been used as the measure of religiosity. Although church attendance may provide an adequate measure of the vital component, religiosity is generally conceptualized as multidimensional. (Mahoney 1980).

The study which Mahoney mentioned by Rohrbaugh and Jessor dealt with four areas significant in the study of the concept of religiosity:

First, participation in religious rituals and observances, by embedding an individual in conventional activities and in an organized sanctioning network (see Jessor et al., 1968), can provide him with social controls.... Second, involvement with religious teachings can socialize a concern for an awareness of moral issues and of standards for appropriate conduct.... Third,

religious ideology about the nature of the deity can have important implications for control--the God of wrath as a source of anticipated punishment for transgression. Finally, fourth, emotional religious experience can generate a devoutness or reverence resulting in an obedience orientation or a 'harmonious adjustment' (James, 1902), to the world. Whatever the operative meditation, all should serve to link greater religiosity with lesser engagement in deviance. (Rohrbaugh and Jessor, 1975).

While many may agree in concept, operationalization of the ideas is a matter of interpretation and semantics. Many methods have been tried to measure religiosity beyond simple attendance statistics. Hirschi and Stark (1969) used belief in supernatural sanctions. Elifson, Petersen and Hadaway (1983), while mentioning Hirschi, felt religious salience, belief in the power of personal prayer, and orthodoxy should be added to the picture. Albrecht, Chadwick, and Alcorn (1977) used the term "religious attitudes" in what they called a morality scale.

All of these researchers thought they had a good method of measuring religiosity, and perhaps they did. With the exception of Hirschi and Stark (1969), these studies found low to moderate relationships between their concept of religiosity and various selected forms of deviance.

Alston and McIntosh (1979) found that "Religiosity and confidence in the clergy are the most important determinants of church attendance." It is felt that the real reason most studies reported in this area are concerned with church attendance so heavily is that the other areas of religiosity, which seem to deal more with emotion and attitude, do not lend themselves to empirical measurement. Alston and McIntosh (1979), however, used their type of religiosity to successfully predict religious attendance. It is possible that the relationship between the two could be reversed, or is reciprocal, thus giving religious attendance an independent variable status for further studies.

Deviance

As is the case with religiosity, deviance has also been operationalized in many ways. The problem in operationalizing deviance occurs when several types of deviance are considered. The sometimes vague line between deviance and delinquency must be considered. The orientation of the researcher tends to determine where on the continuum a particular behavior will fall. To some, heavy petting or even extra- or premarital sexual behaviors may be neither deviant nor delinquent. To others, these acts may rank with stealing or murder.

In addition, delinquency is sometimes defined as any act which can be punished by a particular society's laws.

A further classification problem to cloud the operationalization of deviant acts are victimless crimes, which include gambling, prostitution, drug use, etc., as opposed to crimes with an identifiable victim. This study will deal with deviant behaviors of the victimless type rather than the crimes studied in such works as the "Hellfire and Delinquency" paper (Hirschi and Stark, 1969). As was the case with the Hellfire research, it is thought that the types of crime and delinquency, other than the victimless variety, are not controlled as much by religious attendance and religious affiliation as by other factors such as family, peers, school, and police. These factors will not be measured because this study is a secondary analysis and is limited to religious affiliation and attendance.

The Hellfire study done by Hirschi and Stark deserves special mention since their work prompted much of the present interest and controversy in dealing with religion as an independent variable affecting deviance. Their work found church attendance unrelated to delinquent acts. It is thought that their results give supportive evidence to Social Control Theory in that the critical controlling factors of violent crime, or

crime with an identifiable victim, are not found in the church, but rather are found in family, peers, schools, etc. This paper, however, will deal with the direct relationship between religious affiliation and attendance to victimless deviance.

CHAPTER III

THEORIES OF SOCIAL DEVIANCE

There have been a large number of theories developed to explain deviant behavior. These theories range from the most general, to midrange, to very specific. Of these, there are six which have been the most accepted and tested in current literature.

First, and probably the oldest, is Anomie theory, which was first developed by Durkheim and then expanded by Merton. Anomie means a condition of normlessness or deregulation in which the normal or accepted ways of behaving are absent. Merton thought that this condition was the result of people not being able to achieve culturally emphasized goals by legitimate means (Smith, 1974).

The second of the six important theories is Sutherland's Differential Association Theory. This theory is related closely to the general theory of Symbolic Interaction, which explains the self as a product of interaction with others. Sutherland thought that deviant behavior, like all other behavior, is learned through interaction with other people. Young people who interact with deviants learn the techniques, motivations, and rationalizations for deviant behavior,

and thus become more likely to engage in deviant behavior themselves (Smith, 1974).

The third important theory of deviance is a direct descendant of Sutherland's Differential Association Theory. Korn and McCorkle thought that Sutherland's theory was too vague and out of date (Smith, 1974). Therefore, their Role Concept Theory added the concept of commitment. Not only did a person have to learn deviant behavior, he also had to have a commitment to that deviant role.

A fourth possible explanation of deviance was developed by Matza and Sykes. Their Drift or Neutralization Theory said that a person will be pressured to break the rules and will then find justification for the deviant act. That justification, while valid to him, may not be valid to the legal system or to society.

The fifth of the important theories for explaining deviance is Labeling Theory. This theory has evolved over the years through the efforts of Goffman, Sykes, Mead and Cooley. According to Labeling Theory, a person not only must act in a deviant manner, he must also be labeled as deviant. When this occurs, the labeled person becomes more likely to act in a deviant manner. Furthermore, society will treat him as if he

were deviant. This reinforces the deviant behavior and continues the cycle.

The sixth important theory, and the one which will be employed in this study, is Hirschi's Social Control Theory. Hirschi incorporated concepts from these other theories. From Anomie came the notion that a person had the need to meet certain goals and therefore had motivation to act. From Differential Association came the idea that people learn to be deviant from interaction with others. From Role Concept Theory, the concept of commitment is used almost directly. From Drift Theory came the notion that people will be pressured to act in a deviant manner. Finally, from Labeling Theory came the idea that once a person is labeled as a deviant, he will become more involved and attached to a deviant group. Separately, these five earlier theories can explain various types of deviant behavior. Together, Hirschi uses them to form a theory that is useful not only to explain deviant behavior, but also to see possible solutions to deviant behavior. He does this by breaking the theory down into four understandable components.

These four components-- attachment, commitment, involvement, and belief are explained well in Causes of Delinquency by Travis Hirschi (1969).

Attachment

Durkheim said it many years ago: "We are moral beings to the extent that we are social beings." This may be interpreted to mean that we are moral beings to the extent that we have internalized the norms of society. The essence of internalization of norms, conscience, or super ego thus lies in the attachment of the individual to others. (p.18.)

Commitment

Few would deny that men on occasion obey the rules simply from fear of the consequences. This rational component in conformity we label commitment.... The idea, then, is that the person invests time, energy, himself, in a certain line of activity....When or whenever he considers deviant behavior, he must consider the costs of this deviant behavior, the risk he runs of losing the investment he has made in conventional behavior. (p. 20.)

Involvement

Many persons undoubtedly owe a life of virtue to a lack of opportunity to do otherwise....Involvement or engrossment in conventional activities is thus often part of a control theory. The assumption, widely shared, is that a person may be simply too busy doing conventional things to find time to engage in deviant behavior. (p. 21.)

Belief

Unlike the cultural deviance theory, the control theory assumes the existence of a common value system within the society or group whose norms are being violated.... The control theorists that do not mention beliefs (or values), and many do not, deal with them as mere words that mean little or nothing if the other forms of control are missing. (p. 23.)

Hirschi then goes on to explain that each of these components is closely related to all the others.

In general, the more closely a person is tied to conventional society in any of these ways, the more closely he is likely to be tied in the other ways. (p. 27.)

Attachment and Commitment

Actually, despite the evidence apparently to the contrary, I think it safe to assume that attachment to conventional others and commitment to achievement tend to vary together. (p. 28.)

Commitment and Involvement

To perform a delinquent act a person must have the opportunity [lack of involvement] and must not have invested too heavily in the conventional group [commitment]. These two are reciprocal in that the more involvement--the more commitment which then leads to more involvement. (p. 28.)

Attachment and Belief

Attachment to others is tied to beliefs in norms and values of those others.

In short, "respect is the resource of law." Insofar as the child respects (loves and fears) [attachment] his parents, and adults in general, he will accept their rules.... In short, these two sources of moral behavior, although highly and complexly related, are assumed to have an independent effect that justifies their separation. (p. 30.)

According to Hirschi, these four components give a basis for explaining why a person behaves in a particular way rather than just describing how they

behave. The logical question now is how these four components that form the basis of Hirschi's Social Control Theory can actually predict or explain behaviors. To help answer this question, we must turn to a discussion of socialization and the social control theory.

Most social scientists would agree that people are social beings. Their whole being is a product of their intrinsic abilities and dispositions and their environment. Although the battle for supremacy between these two goes on, most researchers lean toward the social or environmental side of the fight. In other words, a person's personality, or the process of his socialization, is in large measure governed by the elements of his society.

As with the type of Symbolic Interaction taught by George H. Mead, many researchers see the development of personality as an ongoing process governed by generalized and significant others. This process, then, is molded through just the sort of contacts that the social control theory describes.

The seven theories discussed in this chapter each had important contributions to an entire method of describing and even thinking about the social control of deviance. With the exception of Hirschi's Social

Control Theory, each theory is difficult to operationalize and measure in order to gain empirical support.

This study will use data from college students to avoid the problem of using adolescents, found in previous studies, as described in Chapter One. This is done because it is assumed that if an adult is an active church attender, his peers will most likely have many of the same moral outlooks on life. The significant others, and to some extent the subject's view of his generalized other, will be based in moral thought and behavior. This is not the case with younger subjects because they cannot be as selective with their lifestyles and peers (i.e. significant others).

We feel that the validity of using religion and religious participation as viable factors in the social control of deviance is a result of their fulfilling Hirschi's four components of his Social Control Theory. First, the church gives a well-defined list of beliefs. Second, love, charity, and caring are taught in order to foster attachment. Third, commitment to moral standards is brought about by learning the eternal (supernatural) and everyday consequences of deviant actions. These can include ostracism (excommunication), bodily harm (drug related problems, etc.), pregnancy,

and, of course, Hell. Finally, as we discussed in Chapter One, we feel that churches, especially for adults, tend to fulfill the need for a place to belong. These four components will vary due to levels of participation and due to affiliation; therefore, the hypotheses must measure both factors' influences on deviant behaviors. As a validity check, a measure of the effects of the society will be included to show that religious affiliation and religious participation are more powerful than the society at large.

Hypotheses

The purpose of previous works has been, for the most part, to create an assembly of evidence to show how people act. As was discussed in the statement of the problem, the tested hypotheses of any research should attempt to lend credence or denial to a particular theory. This allows the researcher to make a more lasting contribution to the body of knowledge in the social sciences.

The six hypotheses structuring this current study are:

1. There is a significant relationship between church attendance and various illicit behaviors for nine major religious affiliations.

2. Members of the LDS (Mormon) religion engage in illicit sexual activities and substance abuse significantly less than members of other religions.

3. The frequency of church attendance influences the rate of illicit behaviors in a religious culture, as found in Utah, more than in a more secular culture, as found in Washington.

4. The various illicit sexual behaviors will load on a single factor and the various abused substances will load on another factor.

5. There is a significant positive relationship between the "sexual factor" and the "abused substance factor".

6. Religious affiliation and religious activity can be used to discriminate (using discriminant analysis) levels of deviance in sexual activity or substance use.

This final hypothesis is critical in a search for possible evidence in support of the assumption that religious activity is a viable element of social control.

CHAPTER IV

METHODOLOGY

This study will use data collected on three occasions, 1951, 1961, and 1972, by Wilford E. Smith (1975). Since this is a secondary analysis, there is little or no flexibility in the definitions, measurement, and operationalization of the variables. The data were collected through a one-page survey form (see appendix). The data to be used for this study will be taken from Chart Three, and will use only the frequency of each behavior. Other variables to be used, such as church affiliation, church attendance, and marijuana use, can be found in the right hand column of the instrument.

Subjects

Wilford E. Smith collected data from a sample of 8,584 college students. They were enrolled at the time in sociology classes.

The responses were gathered in sociology classes at five large universities and two small colleges in the northwestern part of the United States (most came from two large state universities and one large private church university). Students in sociology classes were selected because it was thought that they would be more likely to accept questions about sex than would students whose courses did not deal so freely with social behavior, and their departments were willing

to cooperate. Nonetheless, the great majority of respondents were not sociology majors, and they could be expected to be a fair sampling of the general run of students. (Smith, 1976).

The data used had two shortcomings that could cause validity problems. First, only sociology students were tested; means the respondents, therefore, were probably more aware of social problems than the general college population. Second, almost half the sample was from Brigham Young University. This also could make the sample different from college students in general. While these shortcomings may not be critical, they will lower the generalization potential of the results.

Operationalization of Variables

1. Church Activity-- this variable will be used as shown, using five levels of attendance: attend regularly, quite often, only special services, rarely, and never.

2. Church Affiliation--This study will use Mormon (The Church of Jesus Christ of Latter-day Saints), Catholic, Jewish, Presbyterian, Lutheran, Methodist, Episcopalian, Baptist, and other Protestant respondents.

3. Illicit Sexual Behavior--This will include premarital or extramarital heavy petting and sexual intercourse, and homosexuality. Passionate

kissing and masturbation will be considered as separate sexual behaviors from those listed as "illicit".

4. Substance Abuse--This area will include the variables "getting drunk" and "present marijuana use". Non-abusive use of beer, liquor, and tobacco will be considered separately.

All of the behaviors noted will be measured on a scale of five possible levels of behavior: regularly, often, occasionally, rarely, and never.

It is unfortunate that the scales used in the original collection of the data were not more solid. The measurement of behavior using a scale that is barely above the nominal level may be less anxiety provoking to the respondent, but an interval scale would have been more empirically valid.

Chapter V

FINDINGSThe Sample

A frequencies program was run for the variables to insure that further statistics would not contain invalid results due to mathematical problems in the data set. The two independent variables, church affiliation and church activity, were severely skewed. Church affiliation reported 54% of the subjects as LDS (see table 1). Each of the other affiliations--Catholic, Lutheran, Presbyterian, Methodist, Episcopal, Protestant, Baptist, and Jewish--ranged between 2.0% and 9.9% of the sample. The smallest percentage of respondents, 2.0%, were Jewish. The largest, discounting LDS, were respondents reporting "Protestant", and made up 9.9% of the sample. Church attendance was skewed due to the high percentage (50.1%) of respondents reporting regular attendance. While there were differences between the numbers for males and females, it is thought that they were not critically different and, therefore, would not affect further statistical analysis.

As expected, due to the high LDS sample size, the sexual behaviors and substance use variables were

TABLE 1

SUMMARY OF SAMPLE

	LDS		8 MAJOR AFFILIATIONS	
	<u>MALE</u>	<u>FEMALE</u>	<u>MALE</u>	<u>FEMALE</u>
ACTIVE	1626	2099	521	1117
INACTIVE	290	120	1012	840

skewed toward lower incidence/behavior levels. All of these variables, with the exception of passionate kissing which showed a more evenly distributed sample, had 50% or more of the subjects reporting "never".

Hypothesis 1

There is a significant relationship between church attendance and various illicit behaviors for nine major religious affiliations.

This hypothesis is similar to the hypotheses tested by most of the previous studies in this area. A separate stepwise regression was run for each religious affiliation and included all the reported behaviors: passionate kissing, petting, extramarital coitus, masturbation, homosexuality, getting drunk, and the use of marijuana, beer, and liquor.

The LDS subsample had significant negative correlations with all the behaviors except passionate kissing, homosexuality, and getting drunk. The six variables that did enter, which in order of entry were beer, marijuana use, petting, masturbation, liquor, and coitus, reported a total R square of .4223 (see table 2). The correlations with the notation (*) were simple correlations rather than multiple correlations.

The Catholic subsample had much lower correlations, so only three of the variables were

significant enough to enter the stepwise equation. They included marijuana use, coitus, and getting drunk, which all showed a significant negative correlation (see table 3). The R square, however, was only .1660.

The Lutherans in the sample also had three significant behaviors (marijuana, getting drunk, kissing), which correlated with religious activity (see table 4). This left the other six, liquor, beer, petting, masturbation, coitus, and homosexuality, out of the equation. They all had low negative correlations. The total R square for the three significant variables was .2825.

The Presbyterian subsample had only one significant variable, which was getting drunk. It explained a very small portion of the variance with an R square of .1398 (see table 5).

The Methodists had only two significant variables entered into the stepwise equation. These were getting drunk and use of liquor. The R square for these was .3276 (see table 6). The use of beer and marijuana also had moderate correlations. The rest of the variables, with the exception of homosexuality which had a zero cell count, had low correlations.

The Episcopalian subsample had only 69 valid cases used in the equation. That problem, and the

TABLE 2

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR LDS RESPONDENTS

Deviant Behaviors	Multi. Corr.	R Square	Step #
Beer	-.5917	.3501	1
Marijuana	-.4870	.3868	2
Petting	-.3937	.4059	3
Masturbation	-.2800	.4145	4
Liquor	-.5854	.4191	5
Coitus	-.3976	.4223	6
Getting Drunk	-.550*	-----	NE
Kissing	-.225*	-----	NE
Homosexuality	-.114*	-----	NE

* Simple correlations.

TABLE 3

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR CATHOLIC RESPONDENTS

Deviant Behaviors	Multi. Corr.	R Square	Step #
Marijuana	-.3314	.1098	1
Getting Drunk	-.2808	.1435	2
Coitus	-.2800	.1660	3
Liquor	-.125*	-----	NE
Beer	-.133*	-----	NE
Kissing	-.157*	-----	NE
Petting	-.233*	-----	NE
Masturbation	-.157*	-----	NE
Homosexuality	-.010*	-----	NE

* Simple correlations.

TABLE 4

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR LUTHERAN RESPONDENTS

Deviant Behaviors	Multi. Corr.	R Square	Step #
Marijuana	-.4612	.2127	1
Getting Drunk	-.3408	.2445	2
Kissing	+.0944	.2825	3
Liquor	-.243*	-----	NE
Beer	-.225*	-----	NE
Petting	-.072*	-----	NE
Coitus	-.215*	-----	NE
Masturbation	-.086*	-----	NE
Homosexuality	-.069*	-----	NE

* Simple Correlations.

TABLE 5

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR PRESBYTERIAN RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Getting Drunk	-.3739	.1398	1
Liquor	-.268*	-----	NE
Beer	-.356*	-----	NE
Kissing	-.158*	-----	NE
Petting	-.188*	-----	NE
Coitus	-.242*	-----	NE
Masturbation	-.001*	-----	NE
Homosexuality	-.070*	-----	NE
Marijuana	-.315*	-----	NE

* Simple correlations.

TABLE 6

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR METHODIST RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Getting Drunk	-.5433	.2952	1
Liquor	-.4823	.3276	2
Beer	-.464*	-----	NE
Kissing	-.085*	-----	NE
Petting	-.186*	-----	NE
Coitus	-.189*	-----	NE
Masturbation	-.097*	-----	NE
Homosexuality	-----	-----	NE
Marijuana	-.356*	-----	NE

* Simple correlations.

TABLE 7

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR EPISCOPALIAN RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Coitus	-.2784	.0775	1
Liquor	-.068*	-----	NE
Beer	-.200*	-----	NE
Getting Drunk	-.273*	-----	NE
Kissing	-.219*	-----	NE
Petting	-.190*	-----	NE
Masturbation	-.105*	-----	NE
Homosexuality	-.215*	-----	NE
Marijuana	-.198*	-----	NE

* Simple correlations.

results which showed the highest correlation as $-.2784$ for coitus, allowed only that variable to be significant enough to be entered into the equation. The R square, however, was only $.0775$ (see table 7).

The respondents that reported their affiliation as simply Protestant could include a number of denominations. This category was included in the analysis as "general Protestant," a category that has been used in previous studies. For this category, three of the variables were significant enough to enter the equation. They were the use of beer, the use of marijuana, and homosexuality. The R square, however, was only $.1520$ (see table 8).

The Baptist subpopulation, while small in number (42 valid cases), had moderately negative correlations for all the variables except for masturbation and homosexuality (see table 9). Due to the small number of valid cases, however, only two variables entered the stepwise equation. They were passionate kissing and the use of liquor. The R square was also a moderately high $.3683$.

The Jewish subpopulation contained only 29 valid cases. This small N could seriously hamper the validity and reliability of the results for the Jewish subpopulation. Only one variable had a correlation

TABLE 8

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON CHURCH
ACTIVITY FOR GENERAL PROTESTANT RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Beer	-.3178	.1010	1
Marijuana	-.2936	.1337	2
Homosexuality	+.1293	.1520	3
Liquor	-.305*	-----	NE
Getting Drunk	-.249*	-----	NE
Kissing	-.095*	-----	NE
Petting	-.108*	-----	NE
Coitus	-.173*	-----	NE
Masturbation	-.141*	-----	NE

* Simple correlations.

TABLE 9

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR BAPTIST RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Kissing	-.5252	.2759	1
Liquor	-.4142	.3683	2
Beer	-.395*	-----	NE
Getting Drunk	-.334*	-----	NE
Petting	-.518*	-----	NE
Coitus	-.518*	-----	NE
Masturbation	-.172*	-----	NE
Homosexuality	-.192*	-----	NE
Marijuana	-.433*	-----	NE

* Simple correlations.

TABLE 10

STEPWISE REGRESSION OF DEVIANT BEHAVIORS ON
CHURCH ACTIVITY FOR JEWISH RESPONDENTS

Variable	Multi. Corr.	R Square	Step #
Masturbation	+.3941	.1553	1
Liquor	-.084*	-----	NE
Beer	+.270*	-----	NE
Getting Drunk	+.180*	-----	NE
Kissing	-.068*	-----	NE
Petting	-.061*	-----	NE
Coitus	-.125*	-----	NE
Homosexuality	-.129*	-----	NE
Marijuana	-.113*	-----	NE

* Simple correlations.

significant enough to enter the equation: the rest of the variables except for the use of beer had correlations lower than .2 (see table 10). This equation differed from all the other equations in that the significant variable, masturbation, had a positive correlation of .3941 and an R square of .1553. The R square, which reports explained variance, was highest for LDS respondents, lower for conservative Protestants (Baptists and Methodists), and lowest for liberal Protestants, Catholics, and Jews.

A further test was run on this hypothesis, which again tested for Pearson's R values, but was split by gender as well as religious affiliation. Although the males' correlation values were slightly higher than those reported for the total group, and the females' correlation values were slightly lower, there were no significantly different values for either gender across the nine religious affiliations and nine measured behaviors.

As a third way of testing Hypothesis One, correlation coefficients were computed for church attendance and each illicit behavior for each of the nine religions (see table 11).

The LDS subsample had significant negative correlations (ranging between $-.073$ to $-.500$) between

TABLE 11

SUMMARY OF SIMPLE CORRELATIONS BETWEEN
RELIGIOUS ACTIVITY AND ILLICIT BEHAVIORS

Religion	Drunk	Petting	Coitus	Homo- sexuality	Marijuana
LDS	-.500*	-.337*	-.329*	-.073+	-.489*
Catholic	-.300*	-.272*	-.316*	-.015	-.344*
Lutheran	-.312*	-.153*	-.224*	-.079+	-.431*
Presbyterian	-.369*	-.192*	-.228*	-.0006	-.302*
Methodist	-.422*	-.231*	-.261*	-.030	-.355*
Episcopalian	-.301*	-.160*	-.261*	-.096+	-.207*
Protestant	-.308*	-.146*	-.189*	-.012	-.292*
Baptist	-.329*	-.238*	-.336*	-.139+	-.437*
Jewish	-.064*	-.099*	-.207*	-.055	-.125*

* Pearson's correlation is coefficient significant <.001.

+ Pearson's correlation coefficient, although very small, is reported as significant because of large sample size.

activity level and each of the five behaviors. Hence, as church activity is higher, illicit behaviors are lower. The Catholic subsample had lower correlations (-.015 to -.344), all of which were significant except for homosexuality. Other affiliations which followed a similar pattern of having significant correlations for all variables except homosexuality include the Presbyterians (-.0006 to -.369), Methodists (+.030 to -.422), and Protestants (+.012 to -.308). Those affiliations for which the correlations between activity and all illicit behaviors were significant include Lutherans (-.079 to -.431), Episcopalians (-.096 to -.301), and Baptists (-.139 to -.437). The Jewish subsample had only one significant correlation (-.207) for coitus. The correlations for the other behaviors among the Jews ranged from +.055 to -.125 but were not significant.

With the exception of the Jewish subsample, Hypothesis One was strongly supported by the data. The three methods of testing the data all came to the same conclusion: there is a statistically significant relationship between church attendance and various illicit behaviors for nine major affiliations. Furthermore, that relationship is especially strong for LDS respondents.

Hypothesis 2

Members of the LDS (Mormon) religion engage in illicit sexual activities and substance abuse significantly less than members of other religions.

To test this hypothesis, the percentage of respondents reporting regular, often, or occasional patterns of sexual behaviors and substance use behaviors for each variable within each of the nine major religions was calculated. The LDS subsample had the lowest rates of behavior patterns for all five illicit behaviors (with a slight exception for homosexuality), ranging from 0.4 percent for homosexuality to 13.9 percent for petting (see table 12). Further examination shows that the Catholic subsample had the highest percentage of respondents reporting regular, often or occasional behavior patterns for four of the illicit behaviors. (They were second highest for petting with only 0.5 percent difference from the highest percentage).

To statistically support the simple comparisons of percentages, a difference of proportions z test was calculated for each behavior to see if the percentage of LDS members engaging in the behaviors was less than the percentage for all other major affiliations combined (see table 13). The LDS subsample proportions for

TABLE 12

PERCENTAGE OF RESPONDENTS REPORTING REGULAR,
OFTEN, OR OCCASIONAL PARTICIPATION FOR
FIVE ILLICIT BEHAVIORS

Religion	Drunk	Petting	Coitus	Homo- sexuality	Marijuana
LDS	04.0	13.9	03.4	00.4	01.2
Catholic	26.6	41.4	23.8	03.0	15.6
Lutheran	17.2	36.9	19.7	00.7	08.0
Presbyterian	17.5	36.1	14.2	01.7	05.7
Methodist	18.2	38.2	18.0	00.2	09.0
Episcopalian	20.2	38.8	14.0	00.5	08.4
Protestant	17.8	40.2	20.2	01.0	06.4
Baptist	11.9	39.6	19.8	00.6	06.2
Jewish	16.8	41.9	15.5	00.7	08.4

TABLE 13

GROUPED PERCENTAGE OF RESPONDENTS REPORTING
REGULAR, OFTEN, OR OCCASIONAL RESPONSES
FOR FIVE ILLICIT BEHAVIORS

Behaviors	LDS			8 Major Affiliations		
	Male	Female	Total	Male	Female	Total
Drunk	06.9%	01.6%	04.0%	28.9%	11.2%	19.1%
Petting	18.0%	10.8%	13.9%	48.9%	31.6%	39.0%
Coitus	04.9%	02.3%	03.4%	25.3%	13.5%	18.6%
Homosexuality	00.7%	00.2%	00.4%	01.1%	00.3%	01.3%
Marijuana Use	05.6%	01.3%	01.2%	41.3%	26.1%	08.7%

males, females, and the combined gender totals, were significantly lower ($<.001$) for four of the illicit behaviors. Homosexuality was not significantly different due to the extremely small incidence of this behavior.

Another difference of proportions z test was calculated to measure the significance of differences between the proportions for the LDS subsample and the second lowest proportions appearing for each of the five illicit behaviors (see table 14). Again, all of the differences were significant ($<.001$) with the exception of homosexuality. The Methodists reported a lower percentage of homosexuality (0.2 percent) as compared to the LDS percentage of 0.4 percent, but the difference was not statistically significant due to the extremely small rate of incidence of homosexuality in the subsamples. With the exception of the variable homosexuality, this hypothesis was strongly supported by the data. Both the methods of testing this hypothesis came to the conclusion that the LDS subsample was significantly lower in illicit behavior than the eight other affiliations measured.

Hypothesis 3

The frequency of church attendance influences the rate of illicit behaviors in a religious

TABLE 14

PERCENTAGE OF RESPONDENTS REPORTING REGULAR,
OFTEN, OR OCCASIONAL PARTICIPATION
FOR FIVE ILLICIT BEHAVIORS

<u>Behavior</u>	<u>Percentage</u>	<u>Religion</u>	<u>Percentage</u>	<u>Religion</u>
Drunk	04.0%	LDS	11.9%	Baptist
Petting	13.9%	LDS	36.1%	Presbyterian
Coitus	03.4%	LDS	14.0%	Episcopal
Homosexuality	00.4%	LDS	00.2%	Methodist
Marijuana	01.2%	LDS	05.7%	Presbyterian

culture, as found in Utah, more than in a more secular culture, as found in Washington.

There were two reasons for including this hypothesis. First, to find evidence to support or deny the hypothesis, and second, to act as a validity check for the present study. In order to say that religion is a viable factor of social control, it is also necessary to find evidence to the contrary for other factors. Since this study was based on secondary analysis, the only testable factor was the cultural difference between respondents in the two areas. Religion and religious activity were shown to be significantly related to lower rates of deviant behavior in the previous two hypotheses. If the religious factor is to be considered a viable factor of social control, it should have a stronger influence than the difference between cultures.

To test this hypothesis, a Mann-Whitney U test was calculated to measure the significance of differences between respondents in Washington and Utah for the five illicit behaviors (see tables 15 and 16). Separate U tests were calculated for the nine major religions and for inactive and active members. A Mann-Whitney U test was used because of greatly varying cell sizes and, in some instances, very low cell frequencies. As shown in table 15, the inactive LDS respondents

TABLE 15

PERCENTAGE OF INACTIVE MEMBERS ENGAGING IN
ILLICIT BEHAVIORS IN WASHINGTON VERSUS UTAH

Religion	Drunk	Petting	Coitus	Homo- sexuality	Marijuana
LDS	33.3/ 23.6	60.0/ 37.2+	40.0/ 16.2+	13.3/ .8*	100.0/ 29.4*
Catholic	43.4/ 25.0	55.7/ 46.4	41.1/ 32.1*	1.1/ 0	51.3/ 33.3+
Lutheran	28.5/ 14.3+	46.8/ 25.0*	29.0/ 10.7*	1.1/ 3.6	44.7/ 20.0
Presbyterian	28.2/ 29.4	46.8/ 29.4*	22.4/ 14.7	.4/ 0	35.8/ 50.0+
Methodist	27.9/ 30.4	48.4/ 34.8*	27.1/ 21.7	0/ 0	44.6/ 66.7
Episcopalian	28.9/ 23.8	48.6/ 33.3	21.8/ 23.8	1.1/ 0	45.7/ 50.0
Protestant	25.0/ 20.9	46.3/ 40.5	25.4/ 23.8	1.0/ 2.3	33.0/ 55.6+
Baptist	14.5/ 30.8	52.0/ 30.8*	29.3/ 23.1	1.3/ 0	30.0/ 100.0+
Jewish	19.3/ 0	44.1/ 33.3	17.8/ 0	.9/ 0	46.4/ 0

WA/UT Washington is the top number in each cell.
Utah is the bottom number in each cell.

* Mann-Whitney U test shows significant differences
at <.05 level.

+ Mann-Whitney U test shows significant differences
at <.10 level.

TABLE 16

PERCENTAGE OF ACTIVE MEMBERS ENGAGING IN
ILLICIT BEHAVIORS IN WASHINGTON VERSUS UTAH

Religion	Drunk	Petting	Coitus	Homo- sexuality	Marijuana
LDS	3.6/ 1.9	14.3/ 11.4	10.7/ 1.9	0/ .4	0/ 1.0
Catholic	19.8/ 19.1	34.7/ 38.2+	15.9/ 16.2	.6/ 1.	22.3/ 23.1
Lutheran	9.0/ 6.5	31.6/ 27.7	15.9/ 4.3	0/ 0	8.5/ 0
Presbyterian	6.3/ 13.2	26.6/ 31.3+	7.6/ 9.0	0/ 1.5*	6.5/ 0
Methodist	4.2/ 3.8*	28.2/ 32.7	8.4/ 5.8	0/ 1.2	6.7/ 0
Episcopalian	11.1/ 8.0*	30.1/ 30.4	4.2/ 8.3	0/ 0	33.3/ 50.0
Protestant	7.3/ 15.8	32.0/ 44.7	13.8/ 13.5	.7/ 2.6	9.5/ 14.3
Baptist	5.4/ 15.4	29.7/ 38.5	10.8/ 15.4	0/ 0	0/ 0
Jewish	9.1/ 0	36.4/ 0	9.1/ 0	0/ 0	0/ 0

WA/UT Washington is the top number in each cell.
Utah is the bottom number in each cell.

* Mann-Whitney U test shows significant differences
at <.05 level.

+ Mann-Whitney U test shows significant differences
at <.10 level.

showed significant differences ($<.10$) in Washington versus Utah for four of the behaviors. For getting drunk, there was no significant difference between the two cultures. The differences for homosexuality and marijuana use, however, were even more significant ($<.05$).

It should be noted that the cell frequencies for the variable homosexuality in the eight other religious affiliations were too low to test for any significant differences. Also, all the Jewish cell frequencies were too low to yield mathematically valid measures.

For the other eight religious affiliations, only a few significant differences were found for inactive members. There were significant differences ($<.05$) for petting for four of the seven major religions with a high enough cell frequency to be tested. Two religious affiliations showed significant differences for coitus. A moderate pattern of significance ($<.10$) was found for marijuana use behavior.

For active church attenders (see table 15), even fewer significant differences were noted. For Methodists and Episcopalians, the behavior of getting drunk was significantly different ($<.05$) in Washington and Utah. Moderate significant differences ($<.10$) were found for petting for Catholics and Presbyterians. For

the active LDS members, the only significant difference ($<.05$) was for coitus; this illicit behavior occurred with significantly greater frequency among Washington Mormons than Utah Mormons.

For active members, an even less distinct pattern of behaviors emerged. For some behaviors, especially marijuana use, and some religious affiliations, especially Protestants, higher rates of the behaviors were found in Utah than in Washington.

In terms of rates of behavior, by far the lowest rates were found for homosexuality for both active and inactive members, and the highest rates were found for petting.

On the surface, this hypothesis was not well supported by the data. At the deeper, more important level, however, the data supported the notion that religious affiliation and attendance were stronger influencing factors on the nine behaviors than was the cultural difference.

Hypothesis 4

All sexual behaviors will load on a single factor and all abused substances will load on another factor.

To determine whether the data would support this hypothesis, two factor analyses were run. The first

included the substances coffee, cola, tobacco, liquor, beer, and marijuana. It also included the behavior getting drunk. The second factor included the sexual behaviors passionate kissing, petting, coitus, masturbation, and homosexuality.

The first factor analysis, which dealt with substance use and abuse, had a moderately high level of dependence among the variables. The determinant of the correlation matrix, which can range from 0 to 1, was .012. As expected, there was one significant factor. The reported eigenvalue for that factor was 4.31. The percent of variance explained was 61.6%. The communality ranged from .88 for coke use to .65 for marijuana use. This means that the factor is explaining a moderate to high percentage of the variance for each variable. The critical portion of this calculation, the rotated factor matrix, reported very high loadings for all the variables (see table 17).

The second factor analysis dealt with sexual behaviors. There was a moderate dependency among the variables with a determinant of the correlation matrix calculated at .213. This analysis reported three significant factors with eigenvalues of 2.38, 1.08, and .810. The three factors, in hindsight, split where they logically should have (see table 18). The first factor,

petting, passionate kissing, and coitus, logically fits together. The second and third factors, masturbation and homosexuality, were loaded alone. Each factor explained 47.6%, 21.6%, and 16.2% of the variance respectively. Together they explained 85.4% of the variance in the variables. The communality ranged from .99 for homosexuality to .65 for coitus.

This hypothesis was not supported in its present form by the data. The abused substances were strongly related with the exception of coffee. It is possible that tobacco should not be included in the factor either. The second factor found extremely high relationships between petting, passionate kissing and coitus. Masturbation and homosexuality were totally separate behaviors. We now know that the sexual factor should exclude homosexuality and masturbation and that the substance-abuse factor should exclude the use of coffee and tobacco.

Hypothesis 5

There is a significant positive relationship between the "sexual factor" and the "abused-substance factor".

To find evidence to test this hypothesis a canonical correlation analysis was calculated. As was the case with factor analysis, the substance use and

TABLE 17

FACTOR MATRIX FOR SUBSTANCES

Variable	Factor 1	Factor 2
Use of Beer	.81202	.40565
Marijuana Use	.80641	.04326
Getting Drunk	.80147	.33193
Use of Liquor	.76685	.48520
Use of Tobacco	.75129	.14273
Use of Coffee	.65860	.42533

TABLE 18

FACTOR MATRIX FOR SEXUAL BEHAVIORS

Variable	Factor 1	Factor 2	Factor 3
Petting	.92570	.14457	.00556
Kissing	.85618	.10667	.04742
Coitus	.79989	.03839	.11151
Masturbation	.13856	.98570	.08207
Homosexuality	.03273	.07934	.99233

abuse variables were grouped as one possible factor and the sexual behaviors were grouped as another possible factor. Canonical analysis forms factors and then measures the relationship between the factors. Again as in factor analysis, the strongest factor for sexual behaviors included passionate kissing, petting, and coitus (see table 19). The substance use and abuse factor differed from factor analysis since it only included use of beer and liquor and the variable getting drunk. There was a moderately high canonical correlation between these two factors (.534). The Chi factor explained .28494 of the variance in Eda. The dimension reduction analysis found the canonical correlation between the two factors to be significant.

Therefore, there is a strong relationship between the two sets of variables. That is, respondents that are engaging in one set of behaviors are more likely to be engaging in the other behaviors as well.

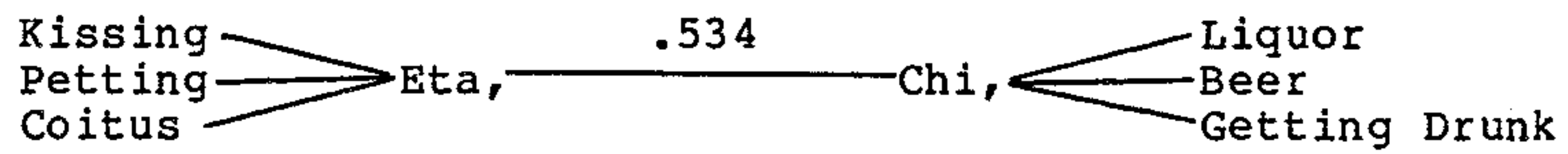
Hypothesis 6

Religious affiliation and religious activity can be used to discriminate (using discriminant analysis) levels of deviance in sexual activity or substance use.

A separate discriminant analysis was calculated for each of the four illicit behaviors to determine

TABLE 19

CANONICAL CORRELATION ANALYSIS



whether church affiliation and attendance could predict illicit patterns of behavior.

For the behavior getting drunk (see table 20) the two predictor variables correctly classified the subjects in 77.99% of the cases. Religious affiliation and attendance, however, were even better at predicting cases that have reported never getting drunk (i.e. lower deviance levels), with a correct classification percentage of 82.0%.

The second illicit behavior considered was coitus (see table 21). The overall percentage of correct classifications was a poor 74.99%. As was the case with getting drunk, the two predictor variables did considerably better at correctly classifying subjects that had never had extramarital or premarital sex; that percentage was 77.4%.

The third illicit behavior considered was homosexuality (see table 22). The overall percentage of 70.55% of correctly classified cases was even lower than for the previous illicit behaviors. Again, however, those respondents in the "never" category had a better classification percentage than those in the first category.

The fourth and final illicit behavior was marijuana use (see table 23). This behavior was

TABLE 20

DISCRIMINANT ANALYSIS FOR THE VARIABLE GETTING DRUNK

<u>Level of Behavior</u>	<u>Total Cases</u>	<u>% Correctly Classified</u>
1. Have been drunk	2195	68.0%
2. Have never been drunk	5496	82.0%

Percent correctly classified = 77.99%

TABLE 21

DISCRIMINANT ANALYSIS FOR THE VARIABLE COITUS

<u>Level of Behavior</u>	<u>Total Cases</u>	<u>% Correctly Classified</u>
1. Have tried sex	1363	64.1%
2. Have never tried sex	6270	77.4%

Percent correctly classified = 74.99%

predicted more accurately than any of the other tested illicit behaviors. Church affiliation and attendance were able to correctly classify marijuana users in 81.53% of the cases. As was the case with the previous classification, the respondents reporting "never" to marijuana use had a higher classification percentage than did the marijuana users, 83.4% to 73.7%.

A summary of the standardized canonical discriminant function coefficients (see table 24) shows a marked pattern in the data. For every illicit behavior measured, religious attendance is the strongest discriminating variable. Religious affiliation came close only with the behavior petting.

The analysis of the data for this hypothesis yielded mixed results. Given a subject's affiliation and level of attendance, we could correctly classify him 70 to 80 percent of the time. While this may not be a great percentage, it is felt that the hypothesis was supported.

TABLE 22

DISCRIMINANT ANALYSIS FOR THE VARIABLE HOMOSEXUALITY

<u>Level of Behavior</u>	<u>Total Cases</u>	<u>% Correctly Classified</u>
1. Have tried Homo- sexual Relationships	142	42.3%
1. Have never tried Homo- sexual Relationships	7505	71.1%

Percent correctly classified = 70.55%

TABLE 23

DISCRIMINANT ANALYSIS FOR THE VARIABLE MARIJUANA USE

<u>Level of Behavior</u>	<u>Total Cases</u>	<u>% Correctly Classified</u>
1. Have tried marijuana	502	73.7%
2. Have never tried marijuana	2140	83.4%

Percent correctly classified = 81.53%

TABLE 24

STANDARDIZED DISCRIMINANT FUNCTION COEFFICIENTS

	Religious Affiliation	Religious Attendance
Getting Drunk	.229623	.89614
Coitus	.18023	.91419
Homosexuality	-.07417	1.03077
Marijuana Use	.16377	.91681
*Petting	.62222	.96668

* The petting analysis calculated the coefficients but not the classifications.

CHAPTER VI

DISCUSSION

Of the six hypotheses tested in this study, three, (the first, second, and fifth), were strongly supported by the data. The third hypothesis, however, which dealt with cultural differences, and the sixth hypothesis, which dealt with the discriminating abilities, had mixed results. The fourth hypothesis, which dealt with the two factors, needs modification to be correct.

The sample, as stated in the results section, was severely skewed toward LDS respondents. While the large LDS subsample was responsible for some inflation of the significance levels, the statistical methods used to test each hypothesis generally minimized this problem.

Another problem with the data set was the high number of regular church attenders. It is probable that the skewness on activity and religion toward active LDS respondents caused an artificially low rate of illicit behaviors for the sample.

The data strongly supported Hypothesis 1 for all religious affiliations except for the Jews. Nearly all correlations were both negative and significant. As

shown in table 1, many R values less than .30 were statistically significant. Because of the large sample size, the significance levels were slightly inflated. In most social science testing, a Pearson's R value of .30 is the cut-off point at which a relationship is considered to be significant.

Although the significance levels were inflated, a comparison between LDS respondents and the other eight religious affiliations is still valid. The LDS subsample generally had the highest r values and significance levels. This means that activity has a more important controlling influence on illicit behaviors for Mormons than for members of any of the other eight religious affiliations.

The general conclusion for Hypothesis 1 is that as church activity is higher, illicit behavior is lower. In all probability, the small Jewish sample size excluded them from having significant correlations between church activity and illicit behaviors. A further study should equalize the sample sized for all the religions tested.

Hypothesis 2, which stated that Mormons would have a statistically significant lower behavior rate than members of the other eight religions, was strongly supported by the data. The difference of proportions

tests yielded a very high significance for all behaviors except the comparison of the rates for homosexuality between LDS and Methodist members. The data supports both the hypothesis stated for this study and the findings of previous studies that dealt with Mormons. A further study in this area should include other fundamentalist or orthodox religions in the sample.

The third hypothesis, which dealt with the significance of cultural differences between Utah and Washington, was not well supported by the data. It did, however, support the validity of affiliation and attendance over differences in society. Generally, the hypothesis was more correct for inactive respondents than for active ones. These findings indicate that the cultural differences between Utah and Washington were not as significant in affecting illicit behavior as were religious affiliation and church activity. The only exception to this was found for inactive LDS members, where significant cultural differences were found. Further studies in this area should include cultures with larger differences between them; they might include, for example, a sample from New York City, Southern California, Utah, and Georgia.

The fourth hypothesis, which dealt with factor analyzing the deviant behaviors, was not strongly

supported in its present form by the data. The sexual behaviors petting, passionate kissing, and coitus were very strongly loaded together. Masturbation and homosexuality loaded alone on the second and third factors respectively. Thus, petting, passionate kissing, and coitus are strongly interrelated for the respondents in the present study. Masturbation and homosexuality, however, were not significantly interrelated to any of the other sexual behaviors. The hypothesis should therefore be modified to exclude homosexuality and masturbation. The second factor analysis incorporated the substances: cola, coffee, beer, liquor, marijuana, and the behavior "getting drunk". The strongest factor included all the substances except cola, and the behavior getting drunk. The strongest loadings $<.80$ included the use of beer, marijuana use, and getting drunk. The factor loadings were so strong for smoking, drinking, marijuana use, and getting drunk that the factor would indicate use of one substance would indicate use of the other substances as well. Even though most of the substances incorporated in the factor analysis were not illicit, the results are still significant. Further studies could use less anxiety-provoking survey questions dealing with petting or passionate kissing as indicators of coitus levels.

Also, this portion of the hypothesis should only include the substances beer, marijuana, and the variable "getting drunk".

The results of the canonical correlation analysis supported Hypothesis Five, which stated that the first factor in each of the factor analyses computed for Hypothesis Four would have a strong correlation. The moderate canonical correlation of .534 indicates that when respondents higher rates of kissing, petting, and coitus, they also had higher rates for the use of liquor, beer, and the behavior getting drunk. Further research in this area should focus on the strong intercorrelations between the noted sexual behaviors and abused substances.

The sixth, and final hypothesis, was not as strongly supported by the data as the previous hypotheses in this study. Church affiliation and church attendance were originally considered as discriminating variables. The results of the discriminant analysis, however, found that only religious attendance was a good discriminating variable. This was due to the insignificant differences in rates of behavior for all the religions except LDS. Another problem with the discriminating abilities of church affiliation and church attendance was that the percentages of correct

classifications were very poor (42.3% to 73.7%) for respondents in the "have tried" categories. The percentages of correct classifications (71.1% to 83.4%) were considerably better due to the large sample size and the large proportion of respondents in the sample that reported "never". A further study should use religious attendance as used in the present study, but should group religious affiliation into Conservative Protestants, Liberal Protestants, Catholics, and Mormons. Also, other fundamentalist religions should be considered.

Originally, there were six shortcomings to previous studies done in this field. The problem of ignoring specific affiliations, however, was slightly different than first thought. It was found that instead of separate affiliations as we tried, or general groups as used in earlier studies, smaller logical groups could be formed. These would include Liberal Protestant, Conservative Protestant, Catholic, Jewish, and LDS. Further research should include other Fundamentalist or Orthodox religious affiliations to determine where they would fit. The next four shortcomings: using adolescents as subjects, dealing with sexual deviance and drug abuse separately, using inadequate statistical procedures and lacking theoretical backing were

overcome. Reversing these problems yielded results not found in most of the earlier studies discussed in Chapter Two. The final shortcoming, the discounting of religious affiliation and attendance as a viable influence in society, was found to be inaccurate for these nine religious affiliations and types of victimless deviance.

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THE EFFECTS OF RELIGIOUS AFFILIATION
AND ATTENDANCE ON ILLICIT
SEXUAL BEHAVIOR AND SUBSTANCE ABUSE

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ABSTRACT

A sample of 7724 college students in Washington and Utah was selected to study the relationships of religious activity and religious affiliation to illicit sexual behaviors, use of marijuana, and getting drunk. For all religious affiliations (except for the Jews), there were significant correlations between church activity and the five measured illicit behaviors. LDS rates of behavior were significantly lower at $<.001$ for the five illicit behaviors. Two factor analyses were calculated to determine which sexual behaviors would load on a single factor and which substances would load on another factor. Extramarital coitus, heavy petting, and passionate kissing formed the first "sexual" factor. The use of beer, liquor, and marijuana combined with the behavior getting drunk to form the "substance-abuse" factor. A canonical analysis reported a moderate relationship with a canonical coefficient of .534 between the two factors. A discriminant analysis based on each subjects' religious affiliation and activity level yielded a 70-80 percent correct classification percentage.

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