SEXUALITY, LOVE, AND MATE SELECTION:

AN ATTITUDINAL STUDY

by

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CHAPTER I

INTRODUCTION

Sexuality is a topic that captures the interest of the American public. Sexuality could be seen as having different dimensions, and for this study the one aspect of sexuality that will be studied focuses on sexual attitudes involving moral issues. Research in this area that focuses on young adults is important. As young adults enter college, they begin to form serious relationships that could lead to marriage. In forming these serious relationships, people make choices regarding sexuality, attraction, and love. Indeed, 90% of the population will choose a mate (Buss & Barnes, 1986). The median age of marriage for men and women is in their twenties (Surra, 1990). Many young adults in their twenties are in college when they begin making serious life decisions in reference to romantic relationships. Sexual attitudes are one characteristic that may affect relationship choices during the college years. Most people choose a life partner that they love and are attracted to, but do their sexual attitudes affect these choices?

It is important to point out that there is conflicting evidence as to whether people's behavior and attitudes are congruent. For the current study, the focus is on attitudes and it will be assumed that attitudes and behavior are relatively consistent. The rationale for attitudes and behaviors being similar comes from the research of Michael, Gagnon, Laumann, and Kolata (1994) who conducted a national sex survey in which the results indicated that "Membership in a particular attitudinal group is closely associated with what their sexual practices are" (p.240). Also, a meta-analysis of the correlation between attitude and behavior examining approximately 100 studies over a range of domains found an average correlation of .38 (Kraus, 1995). Although .38 is far from the theoretical maximum of 1.00, it is relatively high when one considers all the factors that contribute to behavior and the size of other correlations in the literature. The present study is approached from the viewpoint that since the majority of young adults act in ways that reflect their sexual attitudes, and these attitudes contribute to serious life

decisions regarding mate selection, then such attitudes could logically affect how and whom they choose to love.

While much of the research on sexuality has been dedicated to studying sexual behaviors and attitudes surrounding the act of sex (e.g., contraception), relatively less is known about general attitudes related to sexuality (e.g., abortion, pornography). Sexual attitudes that incorporate values and moral attitudes are essential in gaining more of an overall understanding of how attraction and love are linked to sexuality. This study will seek to add valuable information to existing literature concerning sexual attitudes of college students, but will further examine the relationship of sexual attitudes to attraction and love styles.

Sexual Attitudes

One goal of science is description. Given the sensitive nature of sexuality, less is known about how this phenomenon affects relational thinking. Therefore, more efforts should be given to describing sexual attitudes and how they affect other areas of our lives, such as mate selection. Sexuality research needs to encompass not only attitudes about the acts of sex, but related areas such as abortion and legislation of pornography. For example, abortion is a very political issue in which research concerning people's attitudes about it could affect legislation that would affect the legality of getting an abortion.

One study examined sexual attitudes that included questions ranging from premarital sex to abortion (Michael et al., 1994). The researchers of this study identified three categories into which respondents fit. The first category, the *traditional*, represented the most conservative respondents. For them, their religious beliefs always guided their sexual behavior and the majority of them believed extramarital, premarital, and homosexuality were always wrong. The second category, the *relational*, consisted of people who generally did not believe premarital sex was wrong, but extramarital sex was wrong. They would also not have sex with someone they did not love. The third category, *recreational*, was the most liberal category. People in this group generally

believed that sex did not need to have love as a pre-requisite, and most opposed legislation against pornography and abortion (Michael et al.). These three groups broke down into seven smaller groups due to different attitudes of the respondents within the groups. The seven subgroups will be discussed later in the paper.

Because people have different sexual attitudes, it is important to gain knowledge about specific factors that may affect sexual attitudes. An example of one factor that affects sexual attitudes is religion. Hendrick and Hendrick (1985) found religious and gender differences in premarital sexual standards. Hendrick and Hendrick cite many more researchers who have examined the influence of religion on sexual attitudes and behavior (e.g., Glenn & Weaver, 1979; King, Abernathy, Robinson, & Balswick, 1976; Mahoney, 1980; Martin & Westbrook, 1973). Examining influences surrounding sexual attitudes gives researchers and the general public a better understanding of how sexual attitudes affect other decisions and aspects of our lives such as love and attraction.

"What's Love Got To Do With It?"

Love and sex are inextricably intertwined for many Americans. Hendrick and Hendrick (1983) say that

There is an intrinsic goodness to sexuality that ought not to get lost in the interconnecting web of life. The authors' value choice is that it is possible to have good sex, even excellent sex without love. However, the *best* sex occurs within the context of love, which in turn will nearly always involve a relationship with another with both sexual and nonsexual aspects. (p. 131)

It seems reasonable to expect that there would be some consistency in love styles and sexual attitudes since beliefs about sexuality could very well determine whom and how a person chooses to love someone. However, understanding love and defining love is essential in comparing love styles and sexual attitudes.

There has been some recognition that love is not a unidimensional phenomenon and that individual differences in love attitudes or style have relational consequences (Hendrick & Hendrick, 1989). John Allen Lee (1973) developed a typology of love after extensive theoretical and empirical research, and in general, past research has found

support for these love style typologies (Hendrick & Hendrick, 1986, 1988; Montgomery & Sorell, 1997). Lee's (1973) six love styles (three primary love styles and three secondary love styles) include: Eros, Ludus, Storge, Pragma, Mania, and Agape. Two each of the primary love styles compound to form the secondary love styles (Hendrick & Hendrick, 1987).

Ludus (primary) is described as the "game-playing" type of love which is characterized by being noncommittal and distant (Hendrick & Hendrick, 1989, p.785; Montgomery & Sorell, 1997). Since a person who endorses Ludus has a more casual attitude toward relationships and is less committed, he/she might be more likely to endorse liberal (recreational) sexual attitudes that have a less restrictive approach toward sex as opposed to conservative sexual attitudes (traditional and relational). Storge (primary) tends to be based on friendship (Hendrick & Hendrick, 1989). Eros (primary), can be described as the passionate type of love that individuals have for one another; this style "involves powerful attraction to the partner, both physically and emotionally" (Montgomery & Sorell, p.55). Lee (1973) describes the erotic lover as "open and honest" and "seeks a deep, pervasive rapport with the partner " (Hendrick & Hendrick, 1987, p. 284). Since Hendrick and Hendrick (1987) predict that permissiveness is negatively related to disclosure (pervasive rapport) which is what a person who endorses Eros seeks, then it is reasonable to assume that someone who endorses the Eros love style would be more likely to fall into the more conservative sexual groups (traditional and relational).

Pragma (secondary) is characterized as the practical type of love. The Mania (secondary) type of love can be characterized as obsessive in that it is possessive and dependent (Montgomery & Sorell, 1997). A person who puts high value on Mania may be less likely to try and form a relationship with a person that has very open sexual attitudes due to the likelihood that such a person might not see love as necessary for sex and therefore might not be committed to the Manic person. The last style of love theorized by Lee (1973) is Agape (secondary), which is known as the altruistic love style (Hendrick & Hendrick, 1987; Montgomery & Sorell). The person who endorses Agape love tends to put his/her partner's needs and wishes above his/her own. Agape love has

been found to be negatively related to permissiveness and permissiveness positively related to Ludus (Hendrick & Hendrick, 1987) Due to this finding, it may be assumed that Agape love will be found to be more characteristic of the sexual conservative groups (traditional and relational) than the sexual liberal (recreational) groups. Also, Agape love is often prescribed to members of religious groups by its leaders which would increase the probability that certain sexual attitudes, encompassing morality, are endorsed by various religious groups, therefore putting these members into more conservative sexual attitude groups.

Desired Characteristics in a Romantic Partner

In the American culture, young adults place different degrees of importance on characteristics desired in a potential romantic partner. Attraction is intertwined with sexual attitudes and love styles. Attraction is the phenomenon that draws one person to another. It can consist of a variety of attributes that one person may seek in another person. An example of an overall category filled with attributes would be similar attitudes, values, and beliefs. Furthermore, similar attitudes, values and beliefs have been found to be important factors in making romantic partner choices (Hester, 1996; Morell, Twillman, & Sullaway, 1989; Sprecher & Duck, 1994). However, there are more specific attitudes, values, and beliefs that make up the overall similarity construct. It is often helpful to group specific attributes into larger categories due to the possibility of numerous romantic partner attributes. Simpson and Gangestad (1992) have characterized romantic partner attributes into two different broad categories that include: *Personal/ Parenting* and *Attractiveness/Social Status*. Within these two categories are more specific attributes that people seek in a romantic partner.

To link sexual attitudes, love styles, and attraction, there are different examples listed. One example is that a person who fits into the recreational attitude group may value attributes in the Attractiveness/Social Status group (e.g., physical appearance, financial resources) more than attributes in the Personal/Parenting group (e.g., faithfulness and loyalty, desire for children). The person in the recreational group has the

most permissive sexual attitudes (e.g., love without sex, endorsement of extramarital sexuality) compared to attitudes of people in the traditional and recreational groups. A person who endorses Storge (friendship) over all the other love styles may place more value on Personal/Parenting attributes (e.g., similar values and beliefs, faithfulness and loyalty) than Attractiveness/Social Status (e.g., sex appeal, financial resources) in seeking a romantic partner. Furthermore, if a religious group strongly encourages Agape love then a member of that religious group may value Personal/Parenting attributes (e.g., kindness and understanding) over the importance of attributes in the Attractiveness/Social Status group due to the characteristics of Agape.

Gender Differences and Similarities

Various studies show patterns of association between sexual attitudes, love styles, and attraction that are affected by gender. In reference to desired characteristics in a romantic partner, research has shown that men and women "emphasize different attributes when evaluating romantic partners" (Simpson & Gangestad, 1992, p. 36). Hendrick and Hendrick (1986) found that men report themselves to endorse a Ludus style of love more than women, and women to endorse Storge (friendship), Mania (obsessive), and Pragma (practical) styles of love more often than men. A study on sexual attitudes found consistent results with the Hendrick and Hendrick findings in that more men than women are looking for sexual gratification without love necessarily a part of it (Michael et al., 1994). Longmore (1998) says that "The male peer group helps to elaborate a system of norms that de-value love and long-term commitment but encourage a kind of game mentality-males attempt to 'get over' not only on the females involved but in a social competition with other males" (p. 45). Longmore's statement might help to explain why men fall into the recreational category of sexual attitudes more than women, as discovered in the Michael et al. (1994) study. Also, regarding age, the Michael et al. study shows that the men aged 18-24 were more likely to fall into the recreational group than all the other age groups.

Love styles may have differences not related to gender (e.g., age, group). Montgomery and Sorell (1997) cite their own findings and other studies that have shown more similarities than differences between the love attitudes of men and women. The current study may find that sexual, love, and attraction attitudes are more highly correlated amongst themselves than any of these are with gender.

The focus of the current study is to describe specific attitudes (sexual, love, attraction) of college students at one university and how these attitudes relate to each other (e.g., Does a specific love style relate more highly with a specific sexual attitude cluster?) Also, exploring where gender differences might be found in sexuality, love, and attraction is important due to conflicting findings about gender. Different theories that try to explain aspects of love, sexuality, and attraction will be integrated throughout the next section.

CHAPTER II

LITERATURE REVIEW

This section will provide an overview of the literature on sexuality, love styles, and attraction. It begins with a history of sexuality research and then describes the source of inspiration for the current study. Theory will be integrated throughout this chapter concerning sexual attitudes, love styles and attraction. To conclude the literature review, the hypotheses will be stated.

Brief History of Sexuality Research

Sexuality research is filled with varieties of reports on sexuality. There are numerous magazine studies and empirical studies that compile the sexuality research literature. However, due to the lack of nationally representative solid data on sexuality, people continue to cite Alfred Kinsey, whose research dates back to the late 1930s and into the early 1950s (Michael et al., 1994). Other researchers such as William Masters and Virginia Johnson (1960's) have published reports on sexuality that became popularized along with different magazine reports. The problem with receiving sexual knowledge from these researchers and magazines is that in the past there were not reliable and valid scientific methods used and the methodology was not well developed. Also, the mindset many researchers used in the past was that it was not normal to conduct a survey on sex like one would on consumer dining habits, for example (Michael et al., 1994).

The Kinsey studies were important for legitimizing the sex survey in American academia. However, his methodology received criticism from three world-renowned statisticians in the 1950's: W. G. Cochran, F. Mosteller, and J. W. Tukey. In reference to Kinsey, Ericksen (1998) says that "Noting that Kinsey had begun his research when the use of random sampling in surveys was just beginning, the three statisticians concluded that he could not have been expected to use this sophisticated new methodology, especially given the paucity of qualified statisticians during the war" (p. 133).

Furthermore, many of Kinsey's subjects volunteered to be in the study which raises suspicion that people who volunteer to be in sexual studies may have different sexual practices than the majority of Americans (Michael et al., 1994).

Ten years after the Kinsey studies, Masters and Johnson initiated a new sex study that was clinical in nature. They took the approach of studying sex like one would study rats, in the lab under observation. Furthermore, the information these researchers gained about human sexual response came from patients and volunteers who received money to be observed in the laboratory (Laumann, Gagnon, Michael, & Michaels, 1994). Masters and Johnson admitted that their study was not representative but that "even admittedly prejudiced information is of inordinate value in the study of human sexual behavior" (Masters & Johnson, in Michael et al., 1994, p. 22). Due to the sensitive nature of sexuality research, there seemed to be a lot of uncertainty among researchers on how to go about gaining information on this topic.

Magazines, news reports, and other media vehicles were used to gain information about Americans' sexual attitudes. These sources of sexual information would often suggest that Americans have high rates of all kinds of sexual activities. Some of the popular reports/surveys include: The *Playboy* survey, *Redbook* survey, *The Hite report* (Hite, 1976), and *The Janus report* (Janus & Janus, 1993). As mentioned earlier, the Kinsey studies shocked the population of the United States with data about Americans that suggested they were involved in a variety of sexual practices that went against the norm. These reports were released to fill the void created by the lack of systematic, scientific studies of the American population's sexual practices. Nevertheless, the popular reports/surveys suggested even higher rates of all kinds of sexual activities among Americans. In all these studies only men and women who volunteered were included in the studies (Michael et al., 1994). Also, these studies had very low response rates. *The Hite report* had the highest response rate at 3%. This low response rate raises suspicion that, with the respondents who do answer, there is not a representation of the public or even the readership of these magazines. Without a representative sample it is impossible to generalize to a whole population.

Current Study

The inspiration for the present study comes from a nationally representative survey that asked a comprehensive list of questions about the sexuality of Americans. The study is the National Health and Social Life Survey (NHSLS).¹ The NHSLS incorporated sexual attitudes into its survey which is the focus of this study. The NHSLS conducted by Michael et al. (1994) used advanced and sophisticated methods of social science research. They found contradictory reports to the past studies on sexuality (e.g., Kinsey studies, magazine reports). This survey was conducted in response to the AIDS crisis (late 1980's) because public health officials and policy workers realized that to deal with this crisis they only had the 40 year old Kinsey data which everyone believed to be highly problematic. The researchers' goal was to study a representative sample of English speaking Americans aged 18 to 59. They received enough money to study 3,500 adults. To select respondents, they chose, at random, geographic areas of the country, using what the authors called the statistical equivalent of a coin toss. Then, within the geographic areas, the researchers randomly selected cities, towns, and rural areas. Within the cities and towns, neighborhoods were randomly selected, and within the neighborhoods households were randomly selected. This sample is known as a multistage cluster sample. The researchers were left with 4,369 households that were eligible with participants that were randomly selected. The actual participants in the study totaled 3,432 (Michael et al., 1994).

The questions of the Michael et al. (1994) study were set up to be neutral where there was no "right" answer. The interviewers for the study were highly trained to conduct face-to-face interviews. The important thing the researchers wanted readers to know is that four out of five randomly selected adults were willing to give an interview

¹ The National Health and Social Life Survey resulted in the production of two books simultaneously. *The social organization of sexuality: Sexual practices in the United States* by Laumann et al. (1994) is more technical, whereas the one more frequently cited in this paper by Michael et al. (1994), *Sex in America*, was written more towards the general public. Both books report the same study and even the one by Michael et al. contains large amounts of information on methodology and statistics. Throughout this paper references to Laumann et al. and to Michael et al. will be used interchangeably.

and give honest responses, judged by the ways researchers know how to check their "veracity." The researchers compared their findings to those of the Current Population Survey, the General Social Survey, and the National Survey of Families and Households, and found no evidence that gave them cause to believe that their sample was not fully representative of the population aged 18 to 59 (Michael et al., 1994).

The respondents of the NHSLS study were placed into different attitudinal groups based on their answers, via cluster analysis. The three categories in regard to sexual attitudes obtained by Michael et al. (1994) were the *traditional*, *relational*, and *recreational* groups. As discussed earlier, respondents in the *traditional* category, which included one-third of Michael et al.'s sample, said in response to closed-ended questions that their religious beliefs were the guiding force behind their sexual behavior and they were the most conservative on all sexual attitudes. People who fit into the *relational* category believed sex should be a part of a loving relationship, but not necessarily in marriage. The people in this category made up half of the sample of the NHSLS. The last category, *recreational*, made up a little more than a quarter of the sample. These respondents believed sex does not have to have anything to do with love and they were identified as the most liberal in their sexual attitudes.

In the NHSLS, the researchers subdivided the three categories based on the cluster analysis solution. They divided the *traditional* category into "conservative" and "pro-choice" groups according to opinions on abortion. The *relational* category broke down into three subgroups that include "religious," "conventional," and "contemporary religious." The respondents in the religious group said their religious beliefs shaped their sexual behavior and were more likely to say that they opposed sex between people of the same gender, and they opposed abortions. The respondents in the conventional subdivided category were more permissive than the religious group on teenage sex, pornography, and abortion and were less likely to say they are influenced by religious beliefs. The majority of respondents in this subdivided category believed same-gender sex and extramarital sex were always wrong. Individuals in the contemporary group were more tolerant of homosexuality, but were guided by their religious beliefs. In the

recreational category there were two subdivided groups. One, which the researchers refer to as "pro-life," included respondents who opposed homosexuality and abortion for any reason, but whom were more accepting of teenage sex, extramarital sex, and pornography. The second group is the "libertarian" group who had the least restrictive responses on any of the items. None of the people in this group considered religion as a guide to his/her behavior or attitudes regarding sexuality.

The study by Michael et al. (1994) is not the only one that categorized respondents into the categories of *traditional*, *relational*, and *recreational*. Carpenter (1998) examined how "young women's sexual subjectivity" has been portrayed and shaped over twenty years in the magazine *Seventeen*. She uses a sexual scripting approach and states that "the sexual scripting approach argues that sociocultural processes are fundamental in determining what is perceived as sexual and how individuals behave sexually" (p.158). Within the sexual scripting approach, Carpenter (1998) categorized the magazine articles as advocating the three sexual attitude categories of *traditional*, *relational*, or *recreational*. The *Seventeen* editors advocated the *relational* sexual attitude category most frequently. The *traditional* orientation was the second most common attitude conveyed, but the "prevalence" of this attitude decreased over time. On the other hand, the *recreational* orientation appeared in 3.8% of items mentioning sexuality starting in 1984 (not mentioned in 1974), and by 1994, 13% of items mentioned recreational sexuality (Carpenter, 1998). The sexual scripting approach is reviewed later within the context of the larger social learning theory.

In summary, sexuality research has faced challenges in the past with reporting nationally representative attitudes and behaviors about sexuality. Sexuality research is needed as was demonstrated by the Michael et al. (1994) study which was conducted as a response to the AIDS crisis and received partial funding from the federal government. The Michael et al. project was a nationally representative study that provided important information to the general public and researchers regarding sexuality. Since the NHSLs sexual-moral attitude clusters are relatively new, there is to our knowledge no college study that has duplicated the sexual attitudes part of the larger NHSLs questionnaire.

Furthermore, the present study will add to the scant research on how sexual attitudes influence love styles and attraction. As discussed earlier, college is a transition time when serious relationships are formed and sexual attitudes are formed and acted upon.

Sexual Attitudes Research on College Students

A salient characteristic of college life is sexual activity. A nationally representative longitudinal study known as the National Survey of Children (NSC) was conducted from 1976 to 1987 using the same respondents for the entire study. Respondents were interviewed in 1976, 1981, and 1987. The majority of respondents in 1987 were aged 18 to 22. The researchers had over 1,000 respondents in the study participate in the third wave of interviews. Findings from the interviews show that 66 % of females aged 18 were sexually experienced compared to one of four females at age 15. Of the males, 66% of non-Blacks and 90% of Blacks were sexually experienced by age 17. Furthermore, by age 19, nearly all the Blacks had had sex and 85% of non-Black respondents had had sex (Moore & Stief, 1991). It is important to gather data regarding sexual attitudes from “college aged” students since from adolescence through college the rates of sexual activity increase substantially.

The NSC asked several questions that are similar to the ones the current study asks respondents. Two of the items included in the NSC study were as follows: “It is wrong for someone who is 16 to 17 years old to have sex before marriage,” and “It is wrong for someone 14-15 years old to have sex before marriage” (Moore & Stief, 1991, p. 365). Findings indicate that 87% of the respondents felt it was wrong for 14-15-year-olds to have sex before marriage, but only 52% of the respondents felt it was wrong for 16-17-year-olds to have sex before marriage. Out of all the different groups, White females held the most conservative attitudes about sexual activity, while the White males were found to be the most liberal in their sexual attitudes and were least likely to agree early sex is wrong. Nevertheless, 84% of the White male subgroup felt sex was wrong at 14-15 years of age, but only 50% felt sex was wrong at 16-17 years of age. The Black females and Black males showed similar ideas in accepting early sexual activity, but the

Black females were more likely to feel very strongly that sex is wrong (Moore & Stief, 1991).

There appear to be different value systems between cultures. When the White and Black respondents were asked to give reasons for remaining virgins, values were given for the White respondents that differed from the Black respondents. The White respondents of both sexes cited personal, family, and religious values for postponing sex to their late teens and early 20's. Only a few of the Black respondents of both sexes cited those reasons for postponing sex to their late teens and early 20's. The White youths placed more importance on personal and family values as for reasons to remain celibate (Moore & Stief, 1991).

Attitudes may change due to different classes college students enroll in during college. One study analyzed the effects of a college-level human sexuality course. The authors cite more evidence for attitude change as opposed to behavior change due to the human sexuality course (Weis, Rabinowitz, & Ruckstuhl, 1992). This finding does not support the Michael et al. (1994) findings of behaviors and attitudes being congruent. Nevertheless, the Weis et al. study found that students that were younger were more likely to change their sexual attitudes in a permissive direction during the course of the semester. Individuals who were not involved in an intimate relationship were more likely to develop increasingly permissive abortion attitudes. Also individuals who were members of social groups with "restricted sexual norms" (e.g., living with parents, younger age, females) were more likely to have increasingly permissive sexual attitudes throughout the semester (Weis et al.).

In another study with college students taking health and human sexuality courses, pretest scores (before taking the courses) showed that 88.1% of the students had experienced sexual intercourse before taking the course. Furthermore, 84% of the pre- and posttest respondents approved of premarital sexual intercourse with no significant differences in those students taking human sexuality opposed to those taking health (Feigenbaum, Weinstein, & Rosen, 1995). In other words, it appears that sexual activity and attitudes are active for the majority of people before they enter college. Nevertheless,

these college students are not likely to form serious relationships that lead to marriage until college and after. Citing some gender differences among health and human sexuality courses, the Feigenbaum et al. (1995) study of the pretests of the health and human sexuality courses showed that 65.7% of women and 31.1% of men believed sexual intercourse should be reserved for love involvement only. The men in both the pre-test and post-test samples were five times more likely than women to "believe that physical attractiveness was a sufficient reason for having sexual intercourse" (p. 115).

Attitudes and behavior concerning abortion are relevant to the college age group. One study found that 41% of women who became pregnant aged 18 to 19 obtained abortions (Henshaw & Van Vort, 1989). The Feigenbaum et al. (1995) study found that 83% of the college respondents expressed the belief that abortion should be legal. When the NSC participants were asked their attitude towards abortion there proved to be gender/race differences. Blacks were less accepting of abortion than Whites, and males were more accepting of abortion than females, except in cases of rape where there is much similarity in the acceptance of abortion for both genders. Black females were the least accepting of abortion, but they reportedly had an abortion rate at that time that was twice the abortion rate for White females (Henshaw & Van Vort, 1989). As stated above, Black and White men and women were very tolerant of abortion if the reason was rape (Moore & Stief, 1991). However, the number of rape related abortions is very small given the total number of abortions (Torres & Forrest, 1988). Nevertheless, one-half of the NSC sample accepted abortion for social and economic reasons. The current study asks college students similar questions about abortion as the NSC (Moore & Stief, 1991).

Marriage and cohabitation are relevant issues to college students since it is during this time (late teens and twenties) that most people make decisions leading to marriage. Most youths surveyed in the NSC planned to marry in their 20's. Excluding Black males, more than half of the NSC sample endorsed living together before marriage as making "a lot of sense" (Moore & Stief, 1991, p. 377). Data from the NSC indicate that about 1 in 10 youths are strongly opposed to cohabitation. Moore and Stief conclude that "Most

youths are fairly, if not strongly, supportive of the growing trend toward 'living together'" (p. 377).

College students' attitudes toward censorship of sexual explicitness in literature and drama was studied by Hevener (1990), who found that the 146 students' responses indicated more permissive attitudes for adults than junior high students. Of this college population, 80% believe pornography "tends to corrupt" junior high students, 71% believe the same for senior high students, but only 41% of the college students surveyed felt that pornography leads to corruption in adults. There was a difference in the literature and drama reading and viewing in attitudes toward homosexual and heterosexual material with more tolerant attitudes surrounding heterosexual literature and drama being shown to students and adults (Hevener, p. 171).

Another study concerning attitudes toward pornography on a college campus generated interesting results. Women were more likely than men in this study to consider various material as pornography. The majority of respondents believed that the pornography items should be made available and legal for adults, but not minors. Women gave more support for pornography restrictions than males. Respondents who were more religious and less sexually active favored more restrictions on pornography. Contrary to other studies, this study did not find college students more liberal than the general population (Lottes, Weinberg, & Weller, 1993).

Religion and Sexual Attitudes

Religion has been linked with sexual attitudes and behavior. A national survey by the National Opinion Research Center looked at attitudes of White American Protestants and Catholics toward nonmarital sex. Catholics and Protestants did not disagree on the extramarital attitudes. Men and women who were Catholic and Protestant condemned extramarital sex more severely than premarital sex (Alston, 1974). This finding is consistent with the Michael et al. (1994) findings in that extramarital sexuality is disapproved of more strongly overall than premarital sexuality. Women in the Alston study disapproved of any given item of sexual activity more strongly than men. Among

female respondents there were not significant differences found between Catholics and Protestants. However, among the men respondents, Protestants were more likely than Catholics to disapprove of any kind of nonmarital sex (Alston, 1974).

A more recent study about the influence of religiosity on attitudes toward nonmarital sexuality produced interesting results. The researchers drew upon reference group theory which is stated as “People’s behaviors and attitudes are decisively shaped by the groups in which they participate” (Cochran & Beeghley, 1991, p. 46). People use the groups for evaluation of past behavior and how to act in the future. Cochran and Beeghley cite research that has clarified reference group criteria as follows:

The degree to which a group or collectivity serves as a reference group for an individual is a positive and additive function of (1) the degree of *similarity* between the status attributes of an individual and other members; (2) the degree to which an individual’s values and beliefs *agree* with those of other members; (3) the degree of *clarity* in a group’s values and beliefs; (4) the degree to which and individual is in *sustained interaction* with other group members; and (5) the degree to which an individual defines group leaders as *significant others*. (p. 47)

Many religious groups meet the above criteria and in doing so become important reference groups for their members.

The Cochran and Beeghley (1991) study comes from the national General Social Surveys conducted between 1972 and 1989. The study found consistencies between the official doctrines and normative stands of the faith groups to which people belonged. The findings of the surveys indicated the American adult population was more tolerant of premarital sexuality than of extramarital sexuality and homosexuality. On a scale of tolerance, the non-affiliated, Jews, and Episcopalian were the most tolerant, while slightly more intolerant, were the Catholics and Presbyterians. The Lutherans and Methodists were more oppositional than the other groups, but groups who had the most conservative attitudes toward nonmarital sexual relations were the Baptists and other Protestants.

Members' attendance of religious services for different groups made a difference in sexual attitudes. However, one study looking at how various classes affect change in attitude did not find the frequency of church attendance related to change in attitudes (Weis et al., 1992). Nevertheless, Cochran and Beeghley (1991) found that attendance

measures had an inverse effect among nonaffiliated and members of the Jewish, Episcopalian, and Presbyterian faiths. Religious identification along with attendance were significantly and inversely related to premarital sexual permissiveness among Methodists, other Protestants, and Catholics. Lutherans and Baptists showed similar patterns as above in attendance and strength of religious identification. For the Lutherans, membership in a religious organization was significantly and inversely related to attitudes toward premarital sex and for the Baptists an additional characteristic along with attendance and religious identification was a belief in an afterlife that was significantly and inversely related to attitudes toward premarital sex. In conclusion of this study, the researchers found that religiosity had stronger effects on attitudes toward premarital sexuality as “denominational proscriptiveness” increased and had less of an effect if the religious group took a weaker stance on sexual issues (Cochran & Beeghley). This finding would add support to reference group theory.

To summarize, sexual attitudes toward different situations and groups vary. Research studies find that for the most part people approve of adults having freedom to view and buy things that contain explicit sexual content. On the other hand, minors and younger adolescents receive less approval by respondents in various studies for freedom given them to buy and view things that contain explicit sexual messages. There is a general negative attitude in the United States toward extramarital sexual activity compared to premarital sexual activity. Attitudes of college age groups seem to lean toward endorsing cohabitation as a choice for couples. Attitudes toward abortion are conflicting according to the reasons for the abortion. There is high approval for people receiving abortions due to rape, but mixed attitudes toward people pursuing abortions for social or economic reasons.

Love Styles

Romantic love is a common experience among college students. One study conducted on undergraduate students found that 94% percent of the students reported that they had been in love before and 84% reported they had ended one or more love

relationships (Knox, Schacht, & Zusman, 1999). Also, Knox et al. found that younger respondents (19 or younger) were more likely to believe in "love at first sight" than older respondents (54% of younger group compared to 36% of the older group) (p.149). Love is clearly perceived and acted out differently by people. The reasons as to why people do not see love and act "love" out in the same way could depend on various factors that range from age to sexual attitudes. For the current study, sexual attitudes and their effects on love attitudes will be the focus.² This section will look at past research, the measures for the current study, and links between sexuality and love. Also, gender is integrated throughout this section due to various research findings about love.

Past Research

In a summary on love research, Berscheid (1994) cites researchers Sternberg and Beall (1991) for approaching romantic love from a psychometric approach. Their focus is on trying to identify underlying dimensions of experiences that people report that are in love relationships. Sternberg (1986, 1987) developed a triangular theory of love which can explain "many popularly recognized subtypes of love.... by different weightings of three components 'intimacy, passion, and decision/commitment'" (Berscheid, p. 105). However, Hendrick and Hendrick (1989) along with admitting their measurement of love has problems, believe that Sternberg's scale does not yet measure his components independently which leads to a lack of validity for his theory. Other popular measures of love cited by Berscheid (1994) and Hendrick and Hendrick (1989) include: Davis and Latty-Mann's (1987) Relationship Rating Form (designed to measure more than just love); Hazan and Shaver's (1987) measurement of attachment styles in love relationships; Hatfield and Sprecher's (1986) Passionate Love Scale (unidimensional); and the Hendrick and Hendrick's (1986) Love

² Although the present study takes the perspective of sexual attitudes being the independent variable and love styles and attraction criteria being dependent variables, it must be acknowledged that correlational survey data cannot establish causality. Other directions of effect may also be possible. This issue is revisited in the Discussion.

Attitudes Scale (multidimensional) derived from Lee's (1973) love styles. The Love Attitudes Scale: Short Form (Hendrick, Hendrick, & Dicke, 1998) is the measure that appears the most useful for the purposes of the current study. Hendrick and Hendrick (1989) after comparing all these measures of love conclude their findings by saying that Love is simply too unruly to be categorized so easily. It means different things to different people in different relationships at different points in time. Only with patient, open-minded exploration of several of the current approaches to love will we have any possibility of developing the overarching theory of love that still eludes us. (p. 793)

Hendrick and Hendrick's Measure of Love

As was discussed earlier to some extent, drawing from Lee's (1973) six love styles (Ludus, Eros, Pragma, Mania, Storge, and Agape), Hendrick and Hendrick (1987) found interesting links between love attitudes and sexual attitudes. The person who endorses the Eros style of love tends to be "passionate, intense, somewhat idealistic" towards sexuality and is not generally interested in seeking sensation for "its own sake" (p. 294). The Mania lover is similar to the Eros lover on sexual attitudes. The Agape lover is idealistic about sex, but "actively negative about permissive, instrumental sexuality" (p. 294). On the other end of the spectrum, the Ludus lover "is oriented to casual, permissive and sometimes manipulative sexuality" in a relationship and the Storge lover has a moderately idealistic view of sexuality (p. 294). The Pragma lover is "somewhat instrumental" about sex and love, but the Pragma and Storge love styles are more characteristic of older individuals compared to college-age subjects (p.294).

Another study that suggests love style differences by people might be more characteristic of group differences (e.g., church attendance, age) instead of gender differences was conducted by Montgomery and Sorell (1997). They found frequency of church attendance was significantly correlated with some of the LAS subscale scores. They found that people who attended church "strongly" endorsed Storge, Pragma, and Agape and not Ludus or Mania (p.58). The age group studied by Montgomery and Sorell ranged from 17 to 70 years and they found that young single adults were the least likely

to attend church. The young adults were also found to endorse the Manic and Ludic love attitudes more strongly than any of the married adults with the Agapic love attitude being the lowest endorsed love attitude for "unmarried youth" (p.59).

Changes in Love over Time

Some researchers have suggested that the love attitudes people have may change over time. Sternberg (1986, 1987) who developed the Triangular Theory of Love suggested that the three components of his theory (intimacy, passion, and commitment) would change throughout a relationship (Montgomery & Sorell, 1997). The empirical research supporting changes of love over the life span have discovered some small significant differences. However, using Lee's (1973) theory of love styles, Montgomery and Sorell did not find support for a "developmental progression" of love attitudes across the life-span. There were limitations in that it was a cross-sectional study, but the adult sample represented a full range of age and relationship length variations (Montgomery & Sorell).

Gender Differences/Similarities

In one study, Hendrick and Hendrick (1987) found overall more similarities in male and female relationship experiences than differences. Hendrick and Hendrick also found that patterns of relationships between variables such as sexual attitudes and love styles are relatively similar for men and women (1987). Hendrick and Hendrick found that men and women support a relational orientation whether intercourse is a part of the relationship or not (1995). Knox et al. (1999) found that men and women today share more similarities than differences in their beliefs about love. In reference to gender findings, Montgomery and Sorell (1997) found more similarities than differences in the love attitudes between men and women. In spite of these findings, there remain various studies that find obvious gender differences.

Michael et al. (1994) tell us that the findings of the NHSLS indicate that "many more women than men are looking for love and consider marriage to be a prerequisite for

sex" (p. 237). Furthermore, more men than women are looking for sexual play and pleasure with marriage and love not necessarily a part of it. One study found that women indicated a greater preference for "partner engagement" (this script requires a loving relationship) than men which shows that women desire intimacy and "expressions of love during sex" more than men (Frey & Hojjat, 1998). Similarly, Thompson's (1990, 1994, 1995) research on teenage girls' narratives about sex and romance emphasize the fear of being conned and dropped after first intercourse (p. 48). In love attitudes/sexual attitudes research, men usually report themselves as being more game-playing compared to women and women report themselves to be characterized by the friendship, practicality, and manic love styles more than men (Hendrick & Hendrick, 1995). Furthermore, men self-reported having been in love more times and having had more relationship and sexual partners compared to women's self-reports. Also, Hendrick and Hendrick (1995) cite various research findings that consistently show that women's sexual attitudes are more conservative than men's in most areas. Many scholars have cited sociobiological explanations, script theory, and social learning theory to understand gender differences in sex and love.

Theories Relevant to Love

Sociobiology

Similar to other evolutionary theories, sociobiology is often used by researchers to explain the different sex and love patterns observed between men and women. Hendrick and Hendrick (1995) and other researchers integrate this theory into their research to help explain sex differences in love. As discussed later, the main tenet of this evolutionary theory (sociobiology) is that reproductive success is the driving force for romantic relationships. Reproductive success is determined by the evolutionary fitness inherent in passing on one's genes (Hendrick & Hendrick).

Women and men differ in how they achieve fitness. Men are able to maximize their fitness by getting as many women pregnant as possible, therefore creating a greater likelihood that their genes will be passed on. Women reach their maximum fitness level

by investing heavily in each of the infants they produce. Since there are gender differences in how men and women maximize their fitness levels, researchers argue there are probable gender differences in other aspects of intimate relationships (Hendrick & Hendrick, 1995). Tying this theory in with Lee's (1973) love styles, Hendrick and Hendrick (1991) reason that young males increase their chances of having reproductive success by engaging in Ludic game-playing behavior. The women, however, increase their chances of reproductive success by engaging in a Pragmatic (practical) style of love because they take genetic and economic factors of a potential partner into consideration (Hendrick & Hendrick).

Social Learning Theories (Script Theory)

General Social Learning Theory. Social learning theories basically argue that men and women are rewarded by society for acting in ways that are consistent with "traditional gender role conceptualizations" (Hendrick & Hendrick, 1995, p. 57). One example is found in a meta-analysis that looked at gender and the evaluation of leaders. Eagly, Makhijani, and Klonsky (1992) found that for a set of experiments that held characteristics of leaders other than their sex constant, masculine males were more favorably evaluated than masculine females. However, there was an equal evaluation of males acting in a feminine style and females acting in a feminine style. Basically, women are evaluated in a negative manner when they adopt a masculine style of leadership, but men are not evaluated negatively when they adopt a feminine style of leadership (Eagly et al.). This finding can be explained by social learning theories in that women are not rewarded (e.g., given approval) for acting masculine in a leadership role due to the "traditional gender role conceptualization," but men are rewarded for acting either masculine or feminine in a leadership role. Women, due to the lack of rewards received for acting masculine in a leadership role, may be less likely than men to act out a masculine leadership style. Social learning theory (Bandura, 1977) is similar to script theory in that its premise is that men and women are rewarded in society for behaving in

ways that match traditional gender role norms. Script theory is discussed next in greater detail.

Script Theory. A theory that Laumann et al. (1994) drew from in their approach to doing the NHSLS study is script theory. Scripts can be described as "normative clusters that specify the parameters for lines of action in given social contexts...sexual scripts specify how to behave sexually" (Longmore, 1998, p. 51). Script theory brings together the cultural level of meaning and the intrapsychic level (intrapsychic scripts are the "plans" and "fantasies" by which individuals guide and reflect on their present, past or future actions) (Laumann et al., p. 6). The scripting theory then links the cultural and intrapsychic levels of meaning to a system of "interpersonal action" (p. 7). There are assumptions in the scripting approach about the ways sexual patterns are acquired and demonstrated. Some of the assumptions include: (a) Patterns of sexual behavior in a culture are locally derived (meanings of "sexual" and "sex" differ in different cultures), (b) Human beings do not have biological instincts about how to act sexually, or that the "effects" of these instincts pale in comparison with an individual's socially determined script for how to behave sexually, (c) Individuals acquire the patterns of sexual behavior appropriate for their culture from birth to death, and (d) People may not follow the scripts provided by their culture exactly, but instead may act in ways that they see suitable (Laumann et al., 1994).

Laumann et al. (1994) based on Ortner and Whitehead (1981a, 1981b), and Herdt and Stoller (1990), sum up their beliefs by arguing that

...sociocultural processes play a fundamental role in determining what we perceive to be 'sexual' and how we construct and interpret our sexual fantasies and thoughts. Thus, although biological factors may indeed affect sexual behavior, they play at most a small role in determining what those specific behaviors will be and how they will be interpreted. (pp. 5-6)

This theory helps explain actions and attitudes of people in different cultures.

Hendrick and Hendrick (1995) state that researchers and theorists who draw from social learning theories may say that childhood learning of gender roles and the strength of that learning leads to gendered sexual scripts that allow men to be "active and wide-

ranging" in their sexuality and women to be "passive and monagamous in their sexuality" (p. 57). For men to easily fit into their traditional roles prescribed by our society, then they are likely to be more "sexually active and exploratory" while women would be more conditioned to the "emotional aspects of sex, to the stable and practical aspects of love" (Hendrick & Hendrick, p. 57). Basically, the idea put forth is that men and women are provided different sexual scripts from society (e.g., parents, teachers) that influence how they behave and what is acceptable. Nevertheless, social learning theories support the idea that men, after doing some sexual exploring, settle down into committed relationships (Hendrick & Hendrick). Also, as mentioned earlier in connection with religion and reference group theory, religions can provide scripts for their members to follow. Longmore (1998) cites various researchers as evidence for stating that "structural symbolic interactionists are likely to note that sexual scripts are located in broader meaning and value systems rooted to various institutions and processes in society, such as courtship, marriage, family, and religion" (p.52).

Although scripts related to sexual behavior are the focus of this thesis, there are other areas where scripts can influence behavior. To broaden this literature review somewhat, the idea of media pressure on women to be thin is discussed briefly as an example of how media scripts can affect people. One study examined the relation of media exposure to symptoms of eating disorder and tested whether body satisfaction, ideal-body stereotype internalization, and gender-role endorsement mediated this effect (Stice, Schupak-Neuberg, Shaw, & Stein, 1994). The researchers found a direct relationship between media exposure and eating disorder symptoms. The researchers state, "This effect supports the assertion that exposure to the media-portrayed thin ideal is related to eating pathology" (Stice et al., p. 838). They found support for their hypothesis that internalizing sociocultural processes also "mediates" the relation between eating pathology and the media. This is one example of how scripts that we internalize can affect our attitudes and behavior.

Another study examined how sex appeals of male and female models were used in American television commercials. The focus was on the physical characteristics and behavior of models appearing during primetime network programs. Lin (1998) cites research that demonstrates the importance of physical attractiveness in eliciting more effective communication and attitude change. Lin found that female models were more frequently in a state of undress compared to males in commercials. The author concludes that females were presented as sex objects more often than males (Lin). This study could support script theory in that women are rewarded for being physically attractive and so to fit the physical attractiveness script they do things to themselves to appear physically attractive (e.g., cosmetics, plastic surgery).

Summary

In summary, love research has been a difficult endeavor for researchers. Hendrick and Hendrick nicely sum up the difficulties faced in the study of love by saying that "Love means different things to different people in different relationships at different points of time" (Hendrick & Hendrick, 1992). However, the Hendrick and Hendrick (1987) Love Attitudes Scale measures six different dimensions of love and has been correlated with sexual attitude measures. As a result of these types of studies, there have been linkages of sexuality and love. There are gender differences and similarities reported by researchers so there is not a black and white conclusion that can be stated on the issue for either argument. Theories such as sociobiology and social learning are postulated in understanding why people act in various ways in society. Nevertheless, there is much needed research in the area of love and how it is intertwined with sexuality and attraction.

Attraction

As humans, we make many decisions that influence our lives in the realm of attraction. We are attracted to others and others are attracted to us based on certain attitudes and attributes. The *American Heritage Dictionary* defines attract as "to arouse

the interest, admiration, or attention of” and attraction as “a feature or characteristic that attracts” (1994, p.54). Interpersonal relationship knowledge is currently encased within the type of relationship such as romantic or friendship (Berscheid, 1994). This study will examine romantic attraction and will discuss dynamics of attraction, theories, gender differences/similarities, and how it is linked with sexuality and love.

In studying attraction, the disciplinary approach, characteristics of the partners, and the nature of the relationship phenomena being examined are confounded with the relationship type (Berscheid, 1995). This study is specifically interested in romantic attraction and mate selection. The majority of researchers interested in studying interpersonal attraction look at variables which may affect an individual’s positive or negative attitude toward someone else. Berscheid (1969) cites other researchers who define attitude as “an individual’s tendency or predisposition to evaluate an object or the symbol of that object in a certain way” (p. 2). There is knowledge we know about attraction and different theories and reasons that strive to explain attraction from one person to another and one sex to another.

Since mate selection has a variety of constructs to measure, it is helpful to have organized categories. Mate preference has been classified into three different categories which include: consensually desired characteristics; attributes where men and women place different importance (sex differences); and individual differences (Buss & Barnes, 1986; Simpson & Gangestad, 1992). These classifications are helpful in the approach of different theories that researchers draw from in the study of mate selection and attraction.

Theories Relevant to Attraction

Sociosexuality

One study by Simpson and Gangestad (1992) focused on within-sex individual differences in romantic attraction. They chose not to look at the consensually desired traits because most people do not have the attributes needed to attract someone with all the consensually desired characteristics, and even though some attributes are consensually desired, there is considerable individual variability in the specific attributes

people find most important in a potential dating partner. The researchers did not look at sex differences, citing Buss and Barnes (1986) who found there is more variability in attraction responses that exist within the sexes than between the sexes. The model and measure Simpson and Gangestad chose to use for exploring individual differences in romantic partner preference is sociosexuality. They define sociosexuality as “individual differences in willingness to engage in sexual relations without closeness, commitment, and other indicators of emotional bonding” (p.35). Individuals who have put forth an *unrestricted* sociosexual orientation are more likely to engage in sex in the absence of closeness, commitment and other indicators of emotional bonding. Individuals with a *restricted* sociosexual orientation tend not to engage in sex in the absence of those indicators (Simpson & Gangestad).

Drawing upon evolutionary theory (described in greater detail below), Simpson and Gangestad (1992) hypothesized that women who choose mates based on their ability and willingness to take care of offspring should require greater evidence of the man’s potential investment before engaging in sex, which would classify the women as having a restricted sociosexual orientation. On the other hand, women who choose men based on attributes associated with male fitness, such as attractiveness, should not require as much time to evaluate the male and so they would have an unrestricted sociosexual orientation. Similar to the women’s categorizations, males who invested heavily in offspring in evolutionary history, should have wanted partners who demonstrated sexual exclusivity to the relationship. For those men who invested exclusively in offspring, they should have taken a longer time to make sure there was exclusivity to long-term relationships and would have a restricted sociosexual orientation. Men who did not invest exclusively in offspring should have had an unrestricted orientation.

Simpson and Gangestad (1992), drawing from sociosexuality theory, found that unrestricted individuals desire, choose, and acquire romantic partners who are more physically and sexually attractive with higher social visibility. Restricted individuals desire, choose, and acquire romantic partners who are more kind/affectionate, responsible, and loyal/faithful.

Simpson and Gangestad (1992) developed the Romantic Partner Attribute Index (RPAI) that classifies specific romantic partner attributes into two different factors called *Personal/Parenting* and *Attractiveness/Social Status*. The *Attractiveness/ Social Status* category contains the following attributes: physical attractiveness, sex appeal, social status, and financial resources. The *Personal/Parenting* category contains the following attributes: responsibility, kindness and understanding, sense of humor, faithfulness and loyalty, similar values and beliefs, qualities of a good parent, and stable personality. The RPAI will be used in the present study.

Evolution Explanations

Sex differences in mate selection can be traced through evolution, some researchers believe. Evolutionary models assume that humans maximize reproductive success, but because reproduction processes are different in women and men, there are gender differences in mate preference. Women, are assumed to invest more resources in their offspring and are more aware of resource limitations, so they seek out men who can and will provide resources. Men, on the other hand have less access to females who are likely to reproduce and therefore are more aware and sensitive to characteristics in females that reflect their ability to reproduce, such as health and youth, with which physical attractiveness is often associated (Berscheid, 1994).

Attitude Similarity

There has been voluminous research on attitude similarity and dissimilarity and how important it is in mate selection. Hester (1996) cites research on attraction that supports the idea of people being attracted to others on the basis of "similarity in attitudes, values, and traits-'birds of a feather' hypothesis (e.g., Byrne, 1971; Hill & Stull, 1981)" (p. 28). One study cited by Hester found that adults choose mates who are similar in interests, personality, and attitudes. Furthermore, Pilkington and Lydon (1997) cite research that has been done over the last few decades that supports the notion that attitude similarity promotes interpersonal attraction and that in the absence of clearly

expressed attitude information, individuals perceive the target individual to have both similar attitudes and be attractive.

This was challenged by Rosenbaum (1986) who put forth the idea that similar attitudes do not affect attraction, but dissimilar attitudes cause disliking (repulsion hypothesis). Rosenbaum was criticized for methodological errors and then contradicted by various experiments that demonstrated similar attitudes and attraction have a positive relationship. However, research has shown support for the repulsion hypothesis in that dissimilar partners strongly disliked each other (Krueger & Caspi, 1993). As was just noted in a previous section, "similar values and beliefs" is one of Simpson and Gangestad's (1992) items on the "Personal/Parenting" subscale of their RPAI instrument.

Self-Categorization

Pilkington and Lydon (1997) cite self-categorization theory which predicts a positive correlation between similar attitudes and attraction among high-prejudiced individuals. Self-categorization theory (Turner, 1982) puts forth the idea that people define themselves and others at "different levels of abstraction depending on the social context in which they are situated" (p.108). There is a difference between a person's social and personal identity. Personal identity includes the individual's characteristics that define that person and social identity refers to the "self-categories" that define an individual in reference to his/her group memberships (in-group/out-group). Social self-categorization has been shown to affect attraction to the degree that people are liked in "proportion to their perceived group prototypicality" (p.108).

Low-prejudiced individuals are expected to evaluate people who are in-group/out-group from a personal identity perspective. High-prejudiced individuals can evaluate in-group people from a personal or a social identity level, depending on social context where the evaluation occurs. The study by Pilkington and Lydon (1997) discovered support for the similarity attraction principle, by finding that similar attitudes increase interpersonal attraction and dissimilar attitudes decrease interpersonal attraction. They also found that low-prejudiced respondents' attraction ratings for heterosexual and

homosexual targets were independent of perceived attitude similarity in both their no-attitude control conditions. For the high-prejudiced individuals, similarity increased their attraction toward heterosexual and homosexual targets.

Ideal Partner Hypothesis

The ideal partner hypothesis is basically that people are attracted to potential partners based on their ideals (e.g. activity level, looks, income, social status). Fletcher, Simpson, Thomas, and Giles (1999) state that

There is no shortage of material from which people can develop their ideal standards. In addition to personal experience and observation of other people's relationships, individuals are subjected, on a daily basis, to voluminous doses of relationship-oriented information (at least in developed countries) via TV, novels, films, books, plays, and so forth. (p. 72)

One study that supports the ideal partner hypothesis was done by Desrochers (1995) who focused on what kinds of traits women were attracted to in men. He found that for women, occupational status as opposed to income did not affect romantic attraction. Masculine and feminine traits had a large effect on the attraction of women to men. The researchers found, contrary to other findings, that women preferred males with feminine characteristics as friends and romantic partners over males with masculine characteristics. Also, women preferred socially desirable males over unsocially desirable males. A possible reason and conclusion for the findings of women being attracted to males with feminine traits is stated by Desrochers (1995) who reasons that females may genuinely want partners that have traits such as warmth and kindness (feminine) as opposed to determination and confidence (masculine) because the masculine traits could be perceived as leading to the traditional hierarchy of romantic relationships.

Another study that supports the ideal partner hypothesis found that independent of similarity, respondents sought a mate with specific characteristics that included: sociability, lower emotionality levels and higher activity levels (Krueger, 1993). Another recent study looking at undergraduate perceptions of the ideal romantic partner found that females preferred romantic partners with higher feminine scores (Hester, 1996).

Hester explains the findings by noting that in the popular press and scholarly world, much literature suggests that women are no longer content to just want a partner who financially provides for them, but also want one who provides interpersonal fulfillment and emotional intimacy. Men's preferences for an ideal romantic partner include one who is similar to them by being more autonomous, creative, and masculine. To conclude, there are conflicting findings in the literature on attraction towards men and women with masculine, feminine, and androgynous traits.

One thing that has consistently been reported by researchers concerning mate selection revolves around gender differences. A repeated finding among scientists is that men place more value on physical appearance than women in mate selection and women place more value on earning potential and financial success than men do in selecting a mate (Berscheid, 1994; Shaffer & Bazzini, 1997; Simpson & Gangestad, 1992). Even in singles ads we see different attraction patterns between men and women. Willis and Carlson (1993) examined over 800 singles ads and found that men were more likely to seek attractiveness and offer financial security. Women were more likely to offer attractiveness and seek financial security. Also, the researchers found that beliefs in the 1990's are more stereotypical than they were in the 1980's through this comparison of singles ads (Willis & Carlson 1993). These findings could support social learning/script theory and how men and women learn what to value in the opposite sex due to the rewards they receive (e.g., women rewarded financially by being physically attractive).

Feingold (1990) observed that effect sizes associated with women giving less importance to physical attractiveness than men are larger in self-report than in "behavioral research paradigms" (Berscheid, 1994). Also, in some areas it has been shown that men and women value similar characteristics such as personal/parenting qualities (Simpson & Gangestad, 1992).

In summary, the attraction literature contains different theories, although the similarity and ideal partner hypotheses seem to be frequently used in research on attraction. There appear to be changes in women in what they desire in a mate in reference to masculinity and femininity. Women as a sex seem to place increasingly

more importance on feminine characteristics in male partners. Desrochers (1995) cautions that past research has found the opposite of this trend. In regard to gender, the attraction literature on gender, as a whole, emphasized the gender differences and not the similarities. However, the current study will take into account the possibility of gender similarities/differences and group similarities/differences.

The overall research on sexual attitudes, love, and attraction seems to be capable of many linkages. Many theories (e.g., script, evolution) are used in all three areas. This study will focus on hypotheses that combine sexual attitudes, love, and attraction.

Hypotheses

Before stating the formal hypotheses, it should be assumed that this study will compare its findings to the Michael et al. (1994) findings. Although respondents' attitudes from the current sample (college students) may very well differ from those of a nationally representative sample of respondents aged 18-59, in the absence of specific guidelines for how the two would differ, a tentative hypothesis that the college-student clusters will resemble the Michael et al. clusters is not unreasonable. Further, it should be noted that some of the hypotheses below can be derived from social learning/script and/or psycho-evolutionary theory. However, according to Clark and Reis (1988) these two theories often make similar predictions. Writing about evolutionary theories, they state, "Of course, because such propositions also might be generated by other theoretical frameworks, the predictive uniqueness of socioevolutionary concepts remains to be demonstrated" (Clark & Reis, p. 644).

Assuming that some types of clusters representing liberal and conservative orientations toward morality and sex will emerge, the formal hypotheses that this study will test include:

The first set of hypotheses focuses on the relationship between the Recreational, Relational, and Traditional sexual attitudes³, the love styles Agape, Ludus, and Mania and the romantic partner attributes. To the extent that people acquire or do not acquire their sexual attitudes from religious institutions, then the following hypotheses can be derived from script theory.

- 1a. Respondents who are more Recreational in sexual attitudes are more likely to endorse a Ludus love style and less likely to endorse an Agape style of love than respondents in the Traditional and Relational categories.
 - 1b. Respondents in the Traditional and Relational categories are more likely to endorse Mania and Eros styles of love, while respondents in the Recreational category will be less likely than the other categories to endorse these styles of love.
 - 1c. Respondents who are more Recreational in their sexual attitudes will seek a partner with Attractiveness/Social Status attributes as opposed to Personal/Parenting qualities. Those who endorse a Ludus love style also will seek a partner based on Attractiveness/Social Status
 - 1d. Respondents who are Traditional in their sexual attitudes will be more likely to seek a partner with Personal/Parenting attributes as opposed to respondents in the Relational and Recreational categories, who will be more likely to seek a partner with Attractiveness/Social Status attributes.
2. The second set of hypotheses focuses on gender differences and similarities.

³ The reader should allow for some flexibility when looking at the sexual attitude clusters. In these hypotheses, the NHSLS cluster titles are used to preserve continuity with the literature. However, because our cluster solution may not match exactly with the NHSLS clusters, the clusters from the present study may warrant somewhat different descriptors. Thus, when reading the word "Relational" in the hypotheses, the reader should keep in mind that a perhaps better label for that cluster would be "Relational or people with other similar patterns of liberal attitudes on most of the items but conservative attitudes on the items about love being necessary for sex and opposition to extramarital sex."

Researchers have made arguments for either social learning or evolutionary theory from which to derive the following hypotheses. In general, men are expected to be more game-playing in their love and permissive in their sexual attitudes than women.

- 2a. Men are more likely than women to place importance on physical attractiveness and sex appeal (represented by the Attractiveness/Social Status scale), in potential romantic partners.
- 2b. Women will be more likely than men to endorse Mania, Eros, and Pragma styles of love.
- 2c. Men, relative to women, will be proportionally better represented in the Recreational category and on the Ludus love style.

CHAPTER III

METHOD

Participants

Participants for this study were enrolled at Texas Tech University. All the respondents were taking classes from the Human Development and Family Studies (HDFS) curriculum in the College of Human Sciences and had to be 18 years or older to participate.⁴ Respondents were verbally asked to volunteer in this study during classes and asked to complete the survey at that time. The number of respondents surveyed in HDFS classes in the Spring and Summer semesters of 1999 totaled 330.⁵

The final sample consisted of 23% males and 77% females. The plurality of respondents, 41%, were aged 20-21. Respondents aged 22-23 made up 25% of the sample and 21% of the sample consisted of respondents aged 18-19. The remaining respondents were aged anywhere from 24-59 years of age. The majority of respondents, 85%, were White. The other two most frequently reported races were Hispanic (8%) and Black (4%).

The most commonly reported religious preference was Protestant (60%). Of the Protestants, 56% were Baptist and Methodist, and 20% responded "none." Of the overall sample, 16% reported themselves Catholic and 16% filled in "Other" as a religious preference. Of the total sample, 7% reported they were "none" on religious preference. Approximately one-quarter of respondents (27%) attended religious services weekly;

⁴ The current study did not use a nationally representative, random sample and instead used a college-student sample that is more characteristic of social psychological studies.

⁵ The planning for the sample size was as follows: Based on the NHSLs, it was assumed there would be seven clusters. Further, it was felt that 50 subjects per cluster would allow for comparing clusters to each other on the love styles and attraction criteria, resulting in a goal of 350 subjects (7 x 50). Considerations of statistical power (which Miles [Undated] describes in simplified language as "a greater ability to find what we were looking for") suggest that with cell sizes of 50, assumptions of medium effect size, and a two-tailed .05 significance level, power will be 70%, which is close to what is considered a good level (Bond [Undated]; Miles [Undated]). Further, although 330 people filled out the questionnaire, sample sizes for the various analyses differ due to missing data.

20% attended once a month; 19% attended several times a year; 19% attended religious services 1-2 times a year; and 5% reported they never attended religious services. 9% reported they attended several times a week.

Of all the respondents, 40% had HDFS majors, 18% had other majors in the College of Human Sciences, 5% had other social science majors, 9% were undecided, and 26% of the respondents had "other" majors. Of the respondents surveyed, 32% were currently taking or had taken Human Sexuality and 68% had never taken the class.

Regarding relationship status, 34% of the respondents reported that they were never married, not cohabiting, but were seriously dating. The respondents who reported they were never married, not cohabiting, and casually dating totaled 27%. Respondents reporting they were never married, not cohabiting, and not dating totaled 16%. Respondents that reported they were married or engaged totaled 15%. The length of relationship descriptions are as follows: 30% were not in a current relationship, 13% had been in the relationship 3-5 years, 28% had been dating less than a year, and 22% had been dating between 1-3 years.

The respondents were asked to describe who they were answering the questionnaire in reference to in order to assess whether there were differences in the results due to the target. Respondents answering the questions who had their current partner in mind totaled 62%. The respondents who had their most recent past partner in mind when answering the questions totaled 32%, and the remaining respondents, 6%, answered the questions with a hypothetical partner in mind.

Measures

Demographics

A demographic questionnaire was designed for the study in order to gain essential background information for sample description and later analysis. The kinds of questions asked are illustrated by the sample description immediately above. Questions such as religion and race were shown to be relevant for analysis in the Michael et al. (1994) survey, although it is questionable in the present study whether there are enough

people in the various categories to do meaningful analyses. There was a separate sheet included in the survey packet that students used to write in "other/specify" answers if they did not fit into some of the categories on the demographics part of the survey. The Appendix contains the questionnaire used in this study.

Love Attitudes Scale (LAS): Short Form

This questionnaire is replicated from Hendrick, Hendrick, and Dicke's (1998) short form of the Hendrick and Hendrick (1986) Love Attitudes Scale (LAS). Hendrick and Hendrick created a well-standardized measure of six of Lee's (1973) love styles (Eros, Ludus, Pragma, Mania, Storge, and Agape). The short LAS has four items per subscale (reduced from the original seven). In keeping with Hendrick et al. (1998), low scores indicate more of the construct. Means and coefficient alpha (α) estimates of internal consistency for the six subscales in the present study are as follows: Eros ($\underline{M}$ = 1.95, α = .80); Ludus ($\underline{M}$ = 3.93, α = .72); Storge ($\underline{M}$ = 2.61, α = .84); Pragma ($\underline{M}$ = 2.90, α = .77); Mania ($\underline{M}$ = 3.23, α = .68); and Agape ($\underline{M}$ = 2.58, α = .87). Means and alphas in the present study were virtually identical to Hendrick et al.'s (1998) values.⁶

Romantic Partner Attribute Index

Students filled out a 15-question survey called the Romantic Partner Attribute Index derived from Simpson and Gangestad (1992). Participants rated each attribute from 0 (not at all important) to 8 (extremely important) according to the influence each attribute has on their selection of a romantic partner (a point was later added to each item to restore the original 1-9 metric). Simpson and Gangestad had two factors emerge from

⁶ For the scales in general there were some adjustments made. In the Hendrick et al. LAS (1998), the scale was originally scored 1 to 5. However, the Scantron sheets used for the current study provide response options of 0-9. Due to concern that respondents who wanted to choose the lowest option of love style responses would fill in 0 instead of 1, we changed the options to 0 to 4 to be consistent with the Scantron. To make sure scores were comparable to the norms of the Hendrick and Hendrick LAS we added a point to every response in the final scale computation. Similar adjustments were made where necessary to some of the other instruments.

their study that include Personal/Parenting qualities and Attractiveness/Social Status. Means and coefficient alpha (α) estimates of internal consistency for the two factors in the present study are as follows: Personal/Parenting qualities ($M = 7.98$, $\alpha = .88$); Attractiveness/Social Status ($M = 6.29$, $\alpha = .73$).

Sexual Attitudes Questionnaire

A sexual attitudes questionnaire that comes from the larger National Health and Social Life Survey (NHSLS) conducted in the early 1990's was filled out. The clusters derived from the current study will be compared to the seven clusters that came out of the NHSLS study. However, the current study uses self-administered questionnaires (SAQs) instead of face to face interviews (FTFI) to gain sexual attitude information. The reason for using SAQs instead of FTFIs was the lack of funding, but also with SAQs the respondents can remain totally anonymous and feel free to answer honestly. However, respondents may not understand the question and need clarification, which is hard to get with SAQs.⁷

The questionnaire was derived from Michael et al. (1994) and included nine items designed to assess attitudes toward sexuality. Key-word summaries of the items are included in Table 1 (the exact items are given in the Appendix of the present document; or in Michael et al., Appendix B; or in Laumann et al., 1994, Appendix C). Respondents filled in responses according to three different response scales that included: 0 =

⁷ As an illustration of the robustness of questions over different response modes, the National Survey of Children interviewed respondents at three different times. The NSC used the FTFI method for the first interview, but due to budget cuts used the telephone to interview respondents thereafter. Despite the use of different methods to interview the NSC participants, researchers found no differences between the different interview methods once they analyzed the data (Moore & Stief, 1991).

Table 1. Description of Clusters on Answers to Individual Questions (Percent in Each Cluster Endorsing Each Item).

	Liberal, Except on Homosex- uality (LEH)	Liberal, Across the Board (LAB)	Less Religiously- Based Conser- vatism (LRBC)	Traditional Conser- vative (TC)	Liberal, Except Must Be in Love for Sex (LELS)	Conser- vative, Except for Premarital and Teens (CEPT)
Premarital sex is always wrong*	.00	.00	.69	.72	.00	.00
Premarital sex among teenagers is always wrong*	.00	.03	.94	.96	.00	.02
Extramarital sex is always wrong*	.85	.79	.94	1.00	.80	.96
Same-gender sex is always wrong*	.82	.00	.75	.97	.00	.84
There should be laws against the sale of porno- graphy to adults**	.09	.00	.37	.70	.37	.36
I would not have sex with someone unless I was in love with them.**	.18	.15	.31	1.00	.91	.98
My religious beliefs have guided my sexual behavior.**	.26	.15	.44	.99	.23	.84
A woman should be able to obtain a legal abortion if she was raped.***	.97	1.00	.56	.34	.86	.80
A woman should be able to obtain a legal abortion if she wants it for any reason.***	.50	.70	.13	.08	.54	.33

*Answered "always wrong"

**Answered "strongly agree" or "agree"

***Answered "yes"

"Always wrong " to 3 = "Not wrong at all"; 0 = "Strongly agree," to 3 = "Strongly disagree"; and 0 = "Yes," 1 = "No," and 3 = "Not applicable." ⁸

Gender Roles: Personal Attributes Questionnaire

The last measure used in this study is the short form of the Personal Attributes Questionnaire (PAQ; Spence & Helmreich, 1978). This measure was used in a supplementary fashion, because the concept of cultural scripts (script theory was reviewed previously) could involve gender role prescriptions, as well as cultural scripts for sexual attitudes, love styles, and attraction. The PAQ is similar to the Bem Sex Role Inventory (BSRI; Bem, 1974) in that they are both self-report measures that contain two scales, one containing descriptors for personality characteristics usually associated with males, and the other containing descriptors for personality characteristics usually associated with females (Spence, 1991). However the length of the PAQ compared to the BSRI is more suitable for this study. Spence cites several researchers in her article who provided results showing correlations between the parallel scales on the PAQ and BSRI, and that the PAQ items all fall into the instrumental and expressive traits categories that have shown to be socially desirable for both sexes or just one of the sexes (Spence, 1991). The short form of the PAQ was included in the questionnaire to examine instrumental (Masculinity scale) and expressive (Femininity scale) traits. Each respondent rated the 16 attributes on a scale from 0 = "Not at all," to 4 = "Very" (the original is also 0-4). Means and coefficient alpha (α) estimates of internal consistency for

⁸ One potential flaw in the nine NHLS items is that seven of them refer to people in general, but two ask about the respondent personally. We thus included additional, alternative questions at the end of the questionnaire to see if there was a difference in results when the two "personalized" items were rephrased in terms of people in general ("*People* should not have sex with someone unless they are in love with them" and "*People* should let their religious beliefs shape and guide their sexual behavior"). A correlation between the two items (original personalized and alternative generalized) in each corresponding pair was calculated. These correlations were high (.69 for the two versions of the "sex and love" item, and .57 for the two versions of the "religion guiding sex" item), indicating that the original and alternative forms of the items are highly overlapping. Thus, the last two general questions that were added to the end of the questionnaire were not used in statistical analyses.

the two scales are as follows: Masculinity ($\underline{M} = 2.76$, $\alpha = .79$); Femininity ($\underline{M} = 3.32$, $\alpha = .85$). The items of the PAQ are available at the web site:

<http://www.utexas.edu/research/pair/cst2.htm#PAQ> .

Procedure

The students were given questionnaires with Scantrons (answer sheet with options 0 to 9 that students pencil in so a computer can process the answers) attached to them during class by the primary researcher. When a professor did not want participation in this research to affect the students' grades, the professor of each room where the questionnaire was distributed left the room while the Scantrons were being filled out. If a professor did want to offer extra credit for participation, that professor made extra credit available through alternative activities so students did not feel particular pressure to participate in this project. The students were anonymous since no identifying information was asked of them. When the professor gave extra credit for participation, the professor kept track of who took part through some mechanism other than the anonymous questionnaire (e.g., a separate sign-up sheet to be kept only by the professor). The reading of the questionnaire and filling out of the Scantron took the student approximately fifteen minutes to complete.

CHAPTER IV

RESULTS

Analyses

Creation of Clusters

The first analytic strategy employed was a cluster analysis, thereby replicating with college students the NHSLS's sexual moral attitudes. The cluster analysis involves using methods designed to identify cases with distinctive characteristics in heterogeneous samples and combining them into homogeneous groups. This type of analysis is used in many studies in which people are categorized by their replies to a combination of questions as opposed to one. Rapkin and Luke (1993) explain that "Cluster analysis identifies cases in a sample with similar scores on all variables of interest, and puts them together to form clusters, or subgroups of cases" (p. 251). Each case in a sample is assigned to the cluster that is most representative of its particular score profile. The criteria used to gain the best assignment of cases is done by gaining the greatest separation of clusters and maximizing the homogeneity within the clusters. Rapkin and Luke state: "Confidence in a cluster solution is increased when clusters are stable, when cases in different clusters also differ on external criteria, and when relationships among variables within a cluster make sense" (p. 254).

There are two major forms of cluster analysis. Iterative cluster analysis, first employed on our data, allows the researcher to specify the number of clusters a priori. The iterative cluster method places cases into the clusters based on distance from the centers the computer chooses by default. Based on the NHSLS results, seven clusters were specified in the iterative analysis, although it was understood from the beginning that the meanings of the clusters in the present study might not perfectly match those in the NHSLS. The second type of cluster analysis we employed is the hierarchical (more specifically agglomerative) type, which begins with each respondent being his or her own cluster, then starts making bigger groupings based on similarities between respondents (Rapkin & Luke, 1993).

For the iterative cluster analysis on the sexual attitudes we chose k of 7 clusters because of the Michael et al. (1994) study, and as previously mentioned, the computer by default determined the cluster centers. Seven clusters were obtained with the iterative method and also with the hierarchical cluster analysis.⁹ Based on the degree of replicability of the two solutions, we formed six clusters in which the cases matched on the iterative and hierarchical analyses. The derivation of the clusters is shown in Table 2. The description of the clusters and percentages on the NHSLS items that went into making the clusters are shown in Table 1 (previously shown in Chapter III).

Cluster By Gender Analyses on Love Styles

ANOVA. Analysis of Variance (ANOVA) was used because it is often fruitful to cluster cases on independent variables (sexual-moral attitude clusters) and compare the clusters on the dependent variables (love styles and attraction criteria). This study analyzed a 2 X 6 ANOVA design with gender and cluster (sexual attitude clusters) as independent variables, first on love styles and then on attraction.

On the love styles there were cluster main effects on Eros, $F(5, 243) = 2.18$, $p = .057$; Ludus, $F(5, 243) = 7.36$, $p < .001$; Storge, $F(5, 243) = 2.05$, $p = .072$; Pragma, $F(5, 243) = 5.77$, $p < .001$; and Agape, $F(5, 243) = 1.93$, $p = .09$. These ANOVA significance levels include marginal significance levels (.05-.10). There were three main gender effects: Storge, $F(1, 243) = 4.48$, $p < .05$, Pragma, $F(1, 243) = 4.28$, $p < .05$, and Agape, $F(1, 243) = 6.85$, $p < .01$. The means by cluster and gender on love styles are shown in Table 3.

There were no significant Gender X Cluster interactions on the love styles. Since all the interactions were nonsignificant, this indicates that all cluster-based differences hold equally well for both genders.

⁹Although it was not anticipated from the Rapkin and Luke (1993) article, the statistical package used (SPSS for Windows) asked for the number of clusters to solve for with the hierarchical approach as well as the iterative one. Seven clusters were selected for both.

Table 2. Derivation of Clusters.

Cluster	Cluster Sizes from Iterative (k) Cluster Analysis Specifying 7 Clusters [§]	Number of People from Iterative Cluster Who Would Still Be in Same Cluster Based on Hierarchical Results [^]
Liberal, Except on Homosexuality (LEH)	37	34
Liberal, Across the Board (LAB)	35	33
Less Religiously-Based Conservatism (LRBC)	20	16
Traditional Conservative (TC)*	95	93
Liberal, Except Must Be in Love for Sex (LELS)	37	35
Conservative, Except for Premarital and Teens (CEPT)	61	45

*Highly resembles one of original NHSLS clusters (Michael et al., 1994, p. 234)

[§]One original iterative cluster with 12 cases was abolished because the hierarchical analysis would have put these people into four different clusters.

[^]Number retained in each cluster for major analyses.

Table 3. Means by Cluster and Gender on Love Styles.

Cluster	Male	Female	Overall
Liberal, Except on Homosexuality (LEH) (<u>n</u> = 34)	EROS: 2.33 LUDUS: 3.20 STORGE: 3.36 PRAGMA: 3.14 MANIA: 3.39 AGAPE: 2.56	EROS: 2.31 LUDUS: 3.03 STORGE: 2.99 PRAGMA: 3.28 MANIA: 2.94 AGAPE: 3.31	EROS: 2.32 LUDUS: 3.11 STORGE: 3.16 PRAGMA: 3.21 MANIA: 3.15 AGAPE: 2.96
Liberal, Across the Board (LAB) (<u>n</u> = 33)	EROS: 2.34 LUDUS: 3.66 STORGE: 3.32 PRAGMA: 4.11 MANIA: 3.68 AGAPE: 2.50	EROS: 2.24 LUDUS: 3.57 STORGE: 3.07 PRAGMA: 3.56 MANIA: 3.31 AGAPE: 2.75	EROS: 2.27 LUDUS: 3.60 STORGE: 3.15 PRAGMA: 3.74 MANIA: 3.43 AGAPE: 2.67
Less Religiously-Based Conservatism (LRBC) (<u>n</u> = 16)	EROS: 2.00 LUDUS: 3.54 STORGE: 2.71 PRAGMA: 2.82 MANIA: 3.25 AGAPE: 2.43	EROS: 1.97 LUDUS: 3.69 STORGE: 2.97 PRAGMA: 2.78 MANIA: 3.25 AGAPE: 3.03	EROS: 1.98 LUDUS: 3.63 STORGE: 2.86 PRAGMA: 2.80 MANIA: 3.25 AGAPE: 2.77
Traditional Conservative (TC) (<u>n</u> = 93)	EROS: 2.10 LUDUS: 4.13 STORGE: 2.64 PRAGMA: 2.97 MANIA: 3.59 AGAPE: 2.12	EROS: 1.86 LUDUS: 4.30 STORGE: 2.39 PRAGMA: 2.53 MANIA: 3.26 AGAPE: 2.50	EROS: 1.90 LUDUS: 4.27 STORGE: 2.43 PRAGMA: 2.60 MANIA: 3.31 AGAPE: 2.43
Liberal, Except Must Be in Love for Sex (LELS) (<u>n</u> = 34)	EROS: 1.69 LUDUS: 4.19 STORGE: 3.63 PRAGMA: 3.50 MANIA: 3.00 AGAPE: 1.69	EROS: 1.80 LUDUS: 3.99 STORGE: 2.50 PRAGMA: 2.88 MANIA: 3.27 AGAPE: 2.84	EROS: 1.79 LUDUS: 4.01 STORGE: 2.63 PRAGMA: 2.96 MANIA: 3.24 AGAPE: 2.71
Conservative, Except for Premarital and Teens (CEPT) (<u>n</u> = 45)	EROS: 1.69 LUDUS: 3.94 STORGE: 3.31 PRAGMA: 3.19 MANIA: 3.44 AGAPE: 2.81	EROS: 1.66 LUDUS: 4.18 STORGE: 2.48 PRAGMA: 2.66 MANIA: 3.20 AGAPE: 2.57	EROS: 1.67 LUDUS: 4.16 STORGE: 2.56 PRAGMA: 2.71 MANIA: 3.22 AGAPE: 2.59
Overall	EROS: 2.14 LUDUS: 3.70 STORGE: 3.09 PRAGMA: 3.27 MANIA: 3.46 AGAPE: 2.37	EROS: 1.90 LUDUS: 4.00 STORGE: 2.58 PRAGMA: 2.80 MANIA: 3.22 AGAPE: 2.69	EROS: 1.95 LUDUS: 3.93 STORGE: 2.70 PRAGMA: 2.91 MANIA: 3.28 AGAPE: 2.62

Lower scores indicate greater amounts of the attitude.

Scheffe Comparisons. Since there are 90 potential pairwise cluster comparisons on love styles (15 cells in Table 4 times 6 dependent variables), and the traditional .05 significance level implies that 5 out of every 100 comparisons could be significant just due to chance, something needed to be done to correct for this possibility. To lessen the possibility that the present results are due only to chance, therefore, the conservative Scheffe method, which takes into account the number of tests one is doing, was used. The Scheffe analysis found that the *Liberal Across the Board* (LAB) cluster is less Pragmatic (practical) than the *Less Religiously-Based Conservatism* (LRBC) cluster, the *Traditional Conservative* (TC) cluster, the *Liberal Except Must Be in Love for Sex* (LELS) cluster, and the *Conservative Except for Premarital and Teens* (CEPT) cluster. The LAB cluster was significantly more Ludic than the TC cluster. The *Liberal Except on Homosexuality* (LEH) cluster was more Ludic than the TC cluster, the LELS cluster, and the CEPT cluster. The LEH cluster endorsed Eros less than the CEPT cluster.

The first hypothesis, 1a, stated that respondents who are more Recreational in their sexual attitudes are more likely to endorse a Ludus love style and less likely to endorse an Agape style of love than respondents in the Traditional and Relational categories. The first part of the hypothesis was supported if a person takes into account that this study's clusters did not perfectly match the clusters formed in the Michael et al. (1994) study. The Michael et al. Recreational category contained the most liberal clusters and the Traditional category contained the most conservative clusters. In reference to the first hypothesis, the clusters *Liberal Across the Board* (LAB) (most liberal cluster), and *Liberal Except on Homosexuality* (LEH) were significantly more Ludic than the *Traditional Conservative* (TC) (most conservative cluster). According to the statistically conservative Scheffe method used for this study, Agape was not significantly different on the clusters, failing to support that respondents who are more liberal will be less likely to endorse an Agape style of love compared to the more conservative respondents. These findings support those of Hendrick and Hendrick (1987) in that permissive sexual attitudes were strongly positively related to the Ludus love style.

Table 4. Significant Scheffe Pairwise Differences By Cluster on Love Styles.

	LEH	LAB	LRBC	TC	LELS	CEPT
Liberal, Except on Homosexuality (LEH)	<div></div> <div></div> <div></div>					
Liberal, Across the Board (LAB)		<div></div> <div></div> <div></div>				
Less Religiously-Based Conservatism (LRBC)		Pragma (LAB less Pragmatic)	<div></div> <div></div> <div></div> <div></div>			
Traditional Conservative (TC)	Ludus (LEH more Ludic)	Ludus (LAB more Ludic) Pragma (LAB less Pragmatic)		<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>		
Liberal, Except Must Be in Love for Sex (LELS)	Ludus (LEH more Ludic)	Pragma (LAB less Pragmatic)			<div></div> <div></div> <div></div> <div></div>	
Conservative, Except for Premarital and Teens (CEPT)	Eros (LEH less Erotic) Ludus (LEH more Ludic)	Pragma (LAB less Pragmatic)				<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>

Variable name in a box indicates the two groups differed ($p < .05$) on that variable

Hypothesis 1b stated that Respondents in the Traditional and Relational categories are more likely to endorse a Mania and Eros style of love while respondents in the Recreational category will be less likely than the other categories to endorse these styles of love. The Manic style of love did not show significant differences among the clusters, but the LEH cluster endorsed Eros less than the CEPT cluster.

Hypothesis 2b that stated women will be more likely than men to endorse Mania, Eros, and Pragma styles of love. The only part of this hypothesis that was supported is that that women were found to endorse the Pragma style of love more than men.

Significant differences found that were not stated as hypotheses were that men were significantly more likely to endorse the Agape style of love than women, and women were significantly more likely to endorse the Storge style of love than men. Also, it is interesting to note that the LAB cluster was significantly less Pragmatic than several of the more conservative groups.

Cluster By Gender Analyses on Attraction

ANOVA. Significant main effect cluster differences on attraction criteria emerged for Personal/Parenting, $F(5, 243) = 5.36$, $p < .001$, and Attractiveness/Social Status, $F(5, 243) = 4.20$, $p = .001$. The gender main effects on attraction criteria involved Personal/Parenting, $F(1, 243) = 22.27$, $p < .001$, and Attractiveness/Social Status, $F(1, 240.3) = 7.73$, $p < .01$. There was no Cluster X Gender interaction effect for Attractiveness/Social Status, but there was for Personal/Parenting, $F(5, 243) = 4.15$, $p = .001$. The nature of the interaction was that only in the LELS cluster was the gender difference on Personal/Parenting greater than 1 point (male $M = 6.86$; female $M = 7.94$) and significant at $p < .05$. Also, there were only four males compared to the 31 females in the LELS cluster. Table 5 shows the means by cluster and gender on attraction criteria. Hypothesis 2a was not supported as females were significantly higher on Attractiveness/Social Status than males.

Scheffe Comparisons. Using the Scheffe method, there were significant differences regarding the Personal/Parenting qualities illustrated in Table 6. The

Table 5. Means by Cluster and Gender on Attraction Criteria.

Cluster	Male	Female	Overall
Liberal, Except on Homosexuality (LEH) (n = 34)	P-P: 7.85 Att-SS: 6.72	P-P: 7.84 Att-SS: 7.13	P-P: 7.85 Att-SS: 6.93
Liberal, Across the Board (LAB) (n = 33)	P-P: 7.74 Att-SS: 6.09	P-P: 7.86 Att-SS: 6.34	P-P: 7.82 Att-SS: 6.26
Less Religiously-Based Conservatism (LRBC) (n = 15)	P-P: 6.55 Att-SS: 6.01	P-P: 8.29 Att-SS: 6.67	P-P: 7.59 Att-SS: 6.41
Traditional Conservative (TC) (n = 93)	P-P: 8.17 Att-SS: 5.67	P-P: 8.33 Att-SS: 6.23	P-P: 8.30 Att-SS: 6.13
Liberal, Except Must Be in Love for Sex (LELS) (n = 35)	P-P: 6.86 Att-SS: 4.31	P-P: 7.94 Att-SS: 6.22	P-P: 7.81 Att-SS: 6.00
Conservative, Except for Premarital and Teens (CEPT) (n = 45)	P-P: 7.75 Att-SS: 6.56	P-P: 8.38 Att-SS: 6.74	P-P: 8.32 Att-SS: 6.72
Overall	P-P: 7.71 Att-SS: 6.05	P-P: 8.18 Att-SS: 6.45	P-P: 8.07 Att-SS: 6.36

PP = Personal/Parenting Qualities

Att-SS = Attractiveness/Social Status

Table 6. Significant Scheffe Pairwise Differences By Cluster on Attraction Criteria.

	LEH	LAB	LRBC	TC	LELS	CEPT
Liberal, Except on Homosexuality (LEH)	----- ----- -----					
Liberal, Across the Board (LAB)		----- ----- -----				
Less Religiously-Based Conservatism (LRBC)			----- ----- -----			
Traditional Conservative (TC)			PP (LRBC less desire for PP)	----- ----- ----- -----		
Liberal, Except Must Be in Love for Sex (LELS)				PP (TC more desire for PP)	----- ----- ----- -----	
Conservative, Except for Premarital and Teens (CEPT)			PP (LRBC less desire for PP)			----- ----- ----- -----

Variable name in a box indicates the two groups differed ($p < .05$) on that variable.

respondents in the *Traditional Conservative* (TC) cluster desired Personal/Parenting qualities more than respondents of the *Less Religiously-Based Conservatism* (LRBC) cluster and the *Liberal Except Must Be in Love for Sex* (LELS) cluster. Respondents in the *Conservative Except for Premarital and Teens* (CEPT) cluster significantly desired Personal/Parenting qualities more than respondents in the LRBC cluster. Interestingly, although the ANOVA F -test for cluster was significant on Attractiveness/Social Status, none of the clusters differed from each other on Attractiveness/Social Status in the Scheffe tests, illustrating that the Scheffe test is highly conservative.

Hypothesis 1c stated that respondents who are more Recreational in their sexual attitudes will seek a partner with Attractiveness/Social Status attributes as opposed to Personal/Parenting qualities, and those who endorse a Ludus love style also will seek a partner based on Attractiveness/Social Status. The first part of this hypothesis was not supported since there were no significant differences among the clusters regarding Attractiveness/Social Status.

Hypothesis 1d stated that respondents who are Traditional in their sexual attitudes will seek a partner with Personal/Parenting attributes as opposed to respondents in the Relational and Recreational categories who will be more likely to seek a partner with Attractiveness/Social Status attributes. This first part of this hypothesis was supported in that respondents in the TC cluster valued Personal/Parenting attributes more than the LRBC and LELS (more liberal) clusters. However, there were no significant differences regarding Attractiveness/Social Status and the sexual attitude clusters.

Cluster By Gender Analyses on Gender Roles (Personal Attributes Questionnaire)

ANOVA. There were no cluster differences on either the masculinity or femininity PAQ scales. There was a gender difference on femininity, $F(1, 242) = 20.93$, $p < .001$. The gender difference was that women ($M = 3.43$) were significantly more feminine than men ($M = 2.96$). Finally, there were no Cluster X Gender interactions. Because there were no significant cluster main effects, no Scheffe tests were conducted.

Examining the Role of Target

To examine whether the major relationships between cluster membership and the dependent variables (i.e., love styles, attraction criteria) vary based on who the respondent is answering the questions in reference to (current, past, or hypothetical partner), cluster by target ANOVA's were conducted. Out of eight possible Cluster X Target interactions (on Eros, Ludus, Storge, Pragma, Mania, Agape, Personal/Parenting, and Attractiveness/Social Status), none reached the conventional .05 significance level. However, three were marginal (between .06 and .08 significance). Some of these interaction results further must be interpreted with caution because of very low cell sizes (e.g., there were zero respondents in the LAB cluster who answered in reference to a hypothetical partner). Given the largely nonsignificant nature of the interactions, it therefore appears that the relationships between cluster membership and the dependent variables do not vary by target.

Correlations Among Continuous Variables

With the exception of the clusters (which are nominal), the other variables were continuous, that is, at least ordinal so that the difference between high scores and low scores is interpretable. Table 7 presents correlations among these continuous variables. There was support for the second part of hypothesis 1c in that there was marginal significance found for those endorsing a Ludus love style are also seeking a partner based on Attractiveness/Social Status (it must be remembered that with the love styles, a lower score indicates more of the construct). There was a significant negative correlation between femininity (FEM) and Eros, meaning that higher femininity goes with higher Eros. FEM was also significantly negatively correlated with Storge, Pragma, and Agape. FEM was correlated significantly positively with Ludus indicating the more FEM the less Ludus. Masculinity (MASC) was significantly negatively correlated with Pragma which indicates the more masculine characteristics of a person, the more Pragmatic

Table 7. Correlations.

	Masc	Fem	Eros	Ludus	Storge	Pragma	Mania	Agape	PP
PAQ Masculine	-----								
PAQ Feminine	.10+	-----							
Eros	-.02	- .24**	-----						
Ludus	-.09	.24**	- .37**	-----					
Storge	-.02	- .22**	.41**	- .23**	-----				
Pragma	-.12*	- .15**	.26**	.00	.26**	-----			
Mania	.06	-.05	-.07	.19**	-.02	.09	-----		
Agape	.08	- .15**	.27**	- .18**	.13*	.14*	.25**	-----	
Personal/Parent	.22**	.45**	- .18**	.23**	-.08	-.14*	.06	.02	-----
Attractiveness/ Social Status	.33**	.10+	.01	-.10+	.04	-.13*	-.05	.14*	.44**

For the six love styles, a lower score indicates more of the construct.

Listwise $N = 313$

+ $p < .10$ (two-tailed)

* $p < .05$ (two-tailed)

** $p < .01$ (two-tailed)

characteristics a person has also (the same with FEM due to the significant negative correlation with Pragma).

Regarding correlations of Personal/Parenting (PP) and Attractiveness/Social Status (Att/SS) attributes, FEM and MASC were significantly positively correlated with PP. However, MASC was significantly positively correlated with Att/SS and FEM was not, unless marginally significant levels are taken into account.

Chi-Square Analysis of Cluster Membership and Gender

The first part of hypothesis 2c said that men, relative to women, would be proportionally better represented in the Recreational category. Table 8 shows a cross-tabulation of the gender and cluster membership. A chi-square test indicates that the gender composition of the clusters differs significantly from what would be expected if the overall sample base rate (77% female, 23% male) applied to every cluster, χ^2 ($df = 5$, $N = 256$) = 26.7, $p < .001$. As can be seen in Table 8, some of the more liberal clusters had percentages of males (47% in LEH, 44% in LRBC) that were clearly higher than the males' base rate of 23% in the full sample. Further, in two of the conservative clusters, females were more highly represented (91% in CEPT, 83% in TC) than the female base rate of 77%. Thus, these findings generally support the notion that men are more likely to be liberal and women conservative. One strong exception was that the LELS cluster was comprised of 89% women.

Supplementary Analyses with Attendance at Religious Services

Because religion has played a role in this study's discussion on sexual attitudes and love styles, further analyses were done to bolster the claim that religion is an important part of cluster membership. Only one of the items that went into making the clusters ("My religious beliefs have shaped and guided my sexual behavior") explicitly invokes religion, thus warranting further exploration.

Table 8. Gender Composition of Clusters.

Cluster	Males % (n)	Females % (n)
Liberal Except on Homosexuality (LEH)	47 (16)	53 (18)
Liberal Across the Board (LAB)	33 (11)	67 (22)
Less Religiously-Based Conservatism (LRBC)	44 (7)	56 (9)
Traditional Conservative (TC)	17 (16)	83 (77)
Liberal Except Must Be in Love for Sex (LELS)	11 (4)	87 (31)
Conservative Except for Premarital and Teens (CEPT)	9 (4)	91 (41)
BASE RATE % FOR FULL SAMPLE	23 (58)	77 (198)

First, a one-way ANOVA compared the six clusters on religious service attendance and found significant differences, $F(5, 250) = 43.20, p < .001$. Although the Scheffe analysis indicated several significant differences, the main finding was that the Traditional Conservative cluster had the highest attendance at religious services ($M = 3.92$ corresponding roughly to "Every week or nearly every week") and the Liberal Across the Board cluster had the lowest ($M = 1.48$ corresponding to between once and several times a year). These results appear to show a strong religious component to the clustering system.

Attendance at religious services was also correlated with love styles and attraction criteria. Again, keeping in mind that a lower score on love styles indicates more of the construct, the following significant results were obtained: Greater attendance was associated with increased Eros ($r[315] = -.12, p < .05$), decreased Ludus ($r[315] = .21, p < .01$), increased Pragma ($r[315] = -.22, p < .01$), decreased Mania ($r[315] = .15, p < .01$), and increased Agape ($r[315] = -.11, p < .05$). The only significant result concerning attendance at religious services and attraction criteria was that increased attendance was associated with increased value of Personal/Parenting characteristics ($r[315] = .14, p < .05$) in a potential mate.

Final Note

Some additional variables included in the questionnaire (e.g., whether the respondent was currently taking or had taken a human sexuality class) were not analyzed for this thesis, but may be used for future analyses.

CHAPTER V

DISCUSSION

Major Findings

The clusters derived from this study did not match the clusters exactly derived from the NHSLS. This difference could be due to the different samples obtained. We had six clusters total compared to the NHSLS's seven and there was only one cluster from the present study that closely resembled one of Michael et al.'s (1994) clusters. Michael et al.'s Traditional Conservative cluster was the one that matched one of the present clusters in terms of how the cluster members answered the sexual-moral attitude items (compare Table 1 in this document with Table 18 in Michael et al.). The name "Traditional Conservative" was thus retained in the present study for this cluster. The TC was the largest cluster in the present study representing 93 of 330 respondents. The clusters did vary on conservative and liberal attitudes like the Michael et al. clusters. In demonstrating the uniqueness of this study, the clusters were examined for relationships to love style attitudes and attraction.

There were significant findings concerning sexual attitudes, love styles, and attraction. The love style Ludus was related to permissive sexual attitudes, which is what Hendrick and Hendrick (1987) found in their study on sexual attitudes and love styles. Pragma, the practical style of love, was found to be significantly related to the sexual attitude clusters in that the liberal clusters endorsed Pragma less and the more conservative clusters were associated with increased Pragma. The love style Eros was endorsed more highly by a conservative cluster compared to a more liberal cluster.

Regarding attraction, the most traditional cluster valued Personal/Parenting characteristics more than some of the more liberal clusters. This finding could be due to the relation between religious beliefs guiding the sexual behavior of many of the respondents in the conservative clusters. The Personal/Parenting subscale has characteristics such as "similar values and beliefs" that might be important in seeking a mate for someone whose religious beliefs shape and guide their behavior. There was a

slight correlation between the Ludus style of love and preference for Attractiveness/Social Status. Contrary to one hypothesis, females were more likely to seek a partner based on Attractiveness/Social Status than men.

Femininity was related with increased levels of the love styles Storge, Pragma, and Agape. Femininity was also associated with less Ludic attitudes. Not surprising, women were significantly more feminine than men and endorsed the love style Storge more than men. Also, though not fully consistent, males tend to be more liberal than females according to the clusters. However, in this sample, men endorsed Agape significantly more than women.

Increased church attendance (respondents in the conservative clusters attended church more often than respondents in the liberal clusters) was associated with increased levels of the love styles Agape, Eros, and Pragma. However, less church attendance was associated with the love styles Ludus and Mania. Also, valuing Personal/Parenting characteristics was associated with increased church attendance.

Interpretation of the Findings

Overall, there was support shown for the hypothesis that individuals with more permissive sexual attitudes will be more likely to support a Ludic love style than those who are more conservative in their sexual attitudes. There are serious implications of this finding regarding script theory in what script people follow when making decisions about sexuality, love, and attraction. If the media and other institutions (e.g., teachers, parents) provide a script that promotes permissive sexual attitudes, then it is possible to expect that those who internalize the script will endorse a more game-playing, dishonest type of love. On the other hand, if people are provided scripts from institutions that encourage more conservative sexual attitudes (e.g., church, Bible), then individuals who internalize those would be less likely to endorse a dishonest type of love and may actually be inclined to endorse a selfless, practical, and friendship oriented type of love. Also, there might be more value placed on Personal/Parenting attributes as opposed to Attractiveness/Social Status attributes.

There were gender differences that emerged from the study, even though they were not that large. Women were discovered to endorse the practical and friendship types of love more than men which could fit nicely with social learning/script theory in that women are rewarded in society for not having many partners (game-playing). On the other hand, with men it may be more acceptable in our society to have many different partners. Men were also more likely to fit into the more liberal sexual attitude clusters than women. Men and women having different love style preferences and sexual attitudes could also be attributed to a biological disposition.

There was one hypothesis, that men would value Attractiveness/Social Status attributes more than women in evaluating a potential partner, that was not supported. In fact, women sought Attractiveness/Social Status attributes more in a potential partner than did men. Possible explanations for this unexpected finding were considered. For one thing, the RPAI confounds attractiveness and social status attributes in that physical attractiveness and financial resources are on the same scale. These two attributes are often looked at separately in the attraction literature. As reviewed earlier in the singles ad study, women were more likely to value financial resources in a potential partner and men were more likely to value physical attractiveness in a potential partner (Willis & Carlson, 1993). Supplementary analyses were done with the present data set to probe this matter further. When gender differences were looked at separately for each item (physical attractiveness, sex appeal, social status, financial resources), there were no significant findings between the two genders regarding physical attractiveness and sex appeal, but on financial resources and social status, women were significantly more likely to value these attributes more than men. These two items thus led to women scoring higher than men on the overall four-item index. Since there were no significant findings regarding physical attractiveness and sex appeal, there may be a possible gender shift of women placing more value on these attributes in seeking a romantic partner.

Also, one finding that may require future research to better understand is that men were significantly more Agapic than women. Hendrick et al. (1998) also found that men were more Agapic than women when there were differences found in their studies

(usually no differences were found), but there is not an obvious reason for this finding. On the other hand, since the love styles vary on emotional intensity, and Agape is average on emotion compared to the more highly-charged Eros and Mania, there may be gender differences due to emotion. Also, factors such as self-esteem or being "in love now" when answering the questions might affect predispositions to answering more (higher score) on the love styles (Hendrick & Hendrick, 1986). A supplemental chi-square analysis was done on gender and relationship status and the percentage (relative to baseline) of men who were married compared to women was larger, but not by enough to postulate marriage as the reason men were more Agapic than females. Future analyses on Agape and gender differences will be helpful to the overall research on love styles and gender.

There were some differences found between the current study and the NHSLs, but also some similarities. The respondents in the current study were more liberal overall on the item, "Premarital sex among teenagers is always wrong." However, the respondents in the NHSLs were more liberal than respondents in the current study on the two items concerning abortion. Both samples were extremely similar in their attitudes toward homosexuality. It is not unusual there were some differences and similarities in the respondents' attitudes in that the current study examined a college population and the NHSLs examined a national one.

Within many of the sexual attitude clusters formed from this study, there were internal inconsistencies among the attitude items. For example, one of the clusters formed was *Liberal Except on Homosexuality*. This cluster was consistently liberal on all the items until the members answered whether homosexuality was wrong or right, and then the cluster appeared very conservative on this item. This type of inconsistency has long been documented in the political attitudes literature. Converse (1964) uses a term called "constraint" to mean "the success we would have in predicting, given initial knowledge that an individual holds a specified attitude, that he holds certain further ideas and attitudes" (p. 207). In other words, one attitude "constrains" a person to have other, consistent attitude positions. However, Converse found a *lack* of constraint in the

American public's political attitudes (e.g., people's liberalism on employment had virtually no correlation with their liberalism on housing). Just as Converse found a lack of constraint in citizens' political attitudes, both the NHSLS and the present study found a lack of constraint regarding moral-sexual attitudes.

Strengths and Weaknesses

There are different strengths and weaknesses relevant to this study. One of the strengths of the study is that existing measures were used to gain information from the college students. Also, to our knowledge, no other study has used the NHSLS sexual attitude items and related them to love styles and attraction criteria. The NHSLS sexual attitude items not only looked at the act of sex but morally related issues (e.g., abortion, religion). Another strength of the study was that the respondents were anonymous and able to answer in a confidential manner through the use of self-report questionnaires. Lastly, this study provides opportunities for many more analyses to be performed on the data.

There were various weaknesses with this study. One of the more obvious weaknesses is that there was not a random sample conducted similar to the Michael et al. (1994) study, which did not lead to full replication of their study. Also, the college population the sample was drawn from was biased compared to all the adults in the United States in that there is a narrower age range and the respondents came from students taking classes in one department of the university. There might also be different political attitudes that are not well represented with this sample due to the specified region of the country from which the sample was drawn. Also, the sample size could be increased to ensure a more normal distribution of individuals in the clusters. Another weakness in this study is that it failed to assess sexual behaviors in order to keep this study relatively short, and due to ethical concerns. The last weakness in this study is that causation of attitudes, love styles, and attraction cannot be stated because of the use of human subjects (i.e., people cannot be randomly assigned to hold particular sexual-moral attitudes, as would be necessary for a true experimental design).

Future Directions

This study was admittedly limited in that it gained information from just college students at Texas Tech University. In the future it would be beneficial to gain information from a national sample and examine how their sexual attitudes, love styles, and attraction are intertwined. Longitudinal (panel) studies would be one option to use in trying to make a stronger (though not full) case for causal direction, and would help gain information on factors leading to development of sexual-moral attitudes. Also, more research in the area of how similar sexual attitudes and behavior are in people would be beneficial to social science. The field is open for college studies attempting to link sexual- moral attitudes with behavior through the use of random sampling of multiple colleges or other sampling schemas. The repercussions of not behaving in ways that reflect a person's attitude would also be a interesting phenomenon to examine.

One of the areas that needs to be studied more is the place that religion plays in people's lives as it relates to sexuality, love, and attraction. This study found significant results when analyzing attendance of religious services and how it was correlated with practical and selfless types of love and valuing personal/parenting qualities in a potential mate. Religion can play a defining role in a person's life and can guide the decisions that are made from the scripts it could provide.

Sexual and moral attitudes are not limited to social science, but also play a part in a person's every day life to policies of the government. Gaining as much information about the effects of sexual and moral attitudes is beneficial to researchers and policy makers. Also, studying the effects that a Ludus or Agape love style, or a liberal or conservative sexual attitude, has on a culture would be helpful to various institutions in knowing what scripts to provide for people.

In summary, this study has contributed to our understanding of how sexual attitudes, love styles, and attraction are linked. It has supported the idea that one aspect of how we approach relationships (sexual-moral attitudes) is linked to other aspects (love styles, attraction) and vice versa; therefore, it would be helpful to the overall research on these phenomena to be studied as such. Studying the influences that attitudes toward

sexuality, love, and mate selection have on each other and together helps us to gain a fuller understanding of where and why people have different attitudes and approach life from different viewpoints.

REFERENCES

- Alston, J. (1974). Attitudes of white Protestants and Catholics toward nonmarital sex. Journal for the Scientific Study of Religion, 13(1), 73-74.
- Berscheid, E. (1994). Interpersonal relationships. Annual Review of Psychology, 45, 79-129.
- Berscheid, E. (1995). Help wanted: A grand theorist of interpersonal relationships, sociologist or anthropologist preferred. Journal of Social and Personal Relationships, 12(4), 529-533.
- Bond, J.C. (Undated). Power calculator. [posted on the World Wide Web]. Los Angeles: UCLA Statistical Consulting Center. Retrieved June 30, 1999 from the World Wide Web: <http://www.stat.ucla.edu/~jbond/HTMLPOWER/index.html>
- Buss, D. & Barnes, M. (1986). Preferences in human mate selection. Journal of Personality and Social Psychology, 50(3), 559-570.
- Byrne, D. (1971). The attraction paradigm. New York: Academic Press.
- Carpenter, L. (1998). From girls into women: Scripts for sexuality and romance in *Seventeen* magazine, 1974-1994. The Journal of Sex Research, 35(2), 158-168.
- Clark, M., & Reis, H. (1988). Interpersonal processes in close relationships. Annual Review of Psychology, 39, 609-672.
- Cochran, J., & Beeghly, L. (1991). The influence of religion on attitudes toward nonmarital sexuality: A preliminary assessment of reference group theory. Journal for the Scientific Study of Religion, 30(1), 45-62.
- Converse, P. (1964). The nature of belief systems in mass publics. In D.E. Rapter (Ed.), Ideology and discontent (pp. 206-261). New York, NY: The Free Press of Glencoe.
- Davis, K., & Latty-Mann, H. (1987). Love styles and relationship quality: A contribution to validation. Journal of Social and Personal Relationships, 4, 409-428.
- Desrochers, S. (1995). What types of men are most attractive and most repulsive to women? Sex Roles, 32(5-6), 375-391.
- Eagly, A., Makhijani, M., & Klonsky, B. (1992). Gender and the evaluation of leaders: A meta-analysis. Psychological Bulletin, 111(1), 3-22.

- Ericksen, J.A. (1998). With enough cases, why do you need statistics? Revisiting Kinsey's methodology. The Journal of Sex Research, 35(2), 132-140.
- Feigenbaum, R., Weinstein, E., & Rosen, E. (1995) College students' sexual attitudes and behaviors. Journal of American College Health, 44(3), 112-118.
- Feingold, A. (1990). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. Journal of Personality and Social Psychology, 59, 981-993.
- Fletcher, G., Simpson, J., Thomas, G., & Giles, L. (1999). Ideals in intimate relationships. Journal of Personality and Social Psychology, 76(1), 72-89.
- Frey, K., & Hojjat, M. (1998). Are love styles related to sexual styles? The Journal of Sex Research, 35(3), 265-271.
- Glenn, N., & Weaver, C. (1979). Attitudes toward premarital, extramarital, and homosexual relations in the U.S. in the 1970s. Journal of Sex Research, 15, 108-118.
- Hatfield, E., & Sprecher, S. (1986). Measuring passionate love in intimate relations. Journal of Adolescence, 9, 383-410.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. Journal of Personality and Social Psychology, 52, 511-524.
- Hendrick, C., & Hendrick, S. (1986). A theory and method of love. Journal of Personality and Social Psychology, 50(2), 392-402.
- Hendrick, C., & Hendrick, S. (1989). Research on love: Does it measure up? Journal of Personality and Social Psychology, 56(5), 784-794.
- Hendrick, C., Hendrick, S., & Dicke, A. (1998). The love attitudes scale: Short form. Journal of Social and Personal Relationships, 15(2), 147-159.
- Hendrick, S., & Hendrick, C. (1987). Love and sexual attitudes, self-disclosure and sensation seeking. Journal of Social and Personal Relationships, 4, 281-297.
- Hendrick, S., & Hendrick, C. (1995). Gender differences and similarities in sex and love. Personal Relationships, 2, 55-65.
- Hendrick, S., Hendrick, C., Slapion-Foote, M., & Foote, F. (1985). Gender differences in sexual attitudes. Journal of Personality and Social Psychology, 48(6), 1630-1642.

- Henshaw, S. & Van Vort, J. (1989). Teenage abortion, birth and pregnancy statistics: An update. Family Planning Perspectives, 21, 85-88.
- Herd, G., & Stoller, R. (1990). Intimate communications: Erotics and the study of culture. New York: Columbia University Press.
- Hester, C. (1996). The relationship of personality, gender, and age to adjective check list profiles of the ideal romantic partner. Journal of Psychological Type, 36, 28-35.
- Hevener, F. (1990). College students' attitudes toward censorship of sexual explicitness. College Student Journal, 24(2), 167-172.
- Hite, S. (1976). The Hite Report. New York: Dell.
- Janus, S., & Janus, C. (1993). The Janus Report on Sexual Behavior. New York: John Wiley and Sons.
- King, K., Abernathy, T., Robinson, I., & Balswick, J. (1976). Religiosity and sexual attitudes and behavior among college students. Adolescence, 11, 535-539.
- Knox, D., & Schacht, C. (1992). Sexual behaviors of university students enrolled in a human sexuality course. College Student Journal, 26(1), 38-40.
- Krueger, R., & Caspi, A. (1993). Personality, arousal, and pleasure: A test of competing models of interpersonal attraction. Personality & Individual Differences, 14(1), 105-111.
- Lee, J. (1973). The colors of love: An exploration of the ways of loving. Don Mills, Ont.: New Press.
- Longmore, M. (1998). Symbolic interactionism and the study of sexuality. The Journal of Sex Research, 35(1), 44-57.
- Lottes, I., Wienberg, M., & Weller, I. (1993). Reactions to pornography on a college campus: For or against? Sex Roles, 29(1-2), 69-89.
- Mahoney, E. (1978). Age differences in attitude change toward premarital coitus. Archives of Sexual Behavior, 7, 493-501.
- Martin, J., & Westbrook, M. (1973). Religion and sex in a university sample: Data bearing on Mol's hypothesis. Australian Journal of Psychology, 25, 71-79.
- Masters, W., & Johnson, V. (1966). Human Sexual Response. Boston: Little, Brown.

- Miles, J. (Undated). Getting the sample size right: A brief introduction to power analysis. [posted on the World Wide Web]. Derby, United Kingdom: Institute of Behavioural Sciences, University of Derby. Retrieved June 30, 1999 from the World Wide Web: <http://ibs.derby.ac.uk/~jeremym/power.htm>
- Montgomery, M., & Sorell, G. (1997). Differences in love attitudes across family life stages. Family Relations, 46, 55-61.
- Moore, K., & Stief, T. (1991). Changes in marriage and fertility behavior: Behavior versus attitudes of young adults. Youth and Society, 22(3), 362-386.
- Morell, M., Twillman, R., & Sullaway, M. (1989). Would a type a date another type a? Influence of behavior type and personal attitudes in the selection of dating partners. Journal of Applied Social Psychology, 19(11), 918-931.
- Ortner, S., & Whitehead, H. (1981). Sexual Meanings: The cultural construction of gender and sexuality, Cambridge: Cambridge University Press.
- Pilkington, N., & Lydon, J. (1997). The relative effect of attitude similarity and attitude dissimilarity on interpersonal attraction: Investigating the moderating roles of prejudice and group membership. Personality and Social Psychology Bulletin, 23(2), 107-122.
- Rapkin, B., & Luke, D. (1993). Cluster analysis in community research: Epistemology and practice. American Journal of Community Psychology, 21(2), 247-277.
- Shaffer, D., & Bazzini, D. (1997). What do you look for in a prospective date? Reexamining the preferences of men and women who differ in self-monitoring propensities. Personality and Social Psychology Bulletin, 23(6), 605-616.
- Simpson, J., & Gangestad, S. (1992). Sociosexuality and romantic partner choice. Journal of Personality, 60(1), 31-49.
- Spence, J. (1991). Do the BSRI and the PAQ measure the same or different concepts? Psychology of Women Quarterly, 15, 141-165.
- Spence, J., & Helmreich, R. (1974). The Personal Attributes Questionnaire: A measure of sex role stereotypes and masculinity-femininity. Abstracted in the JSAS Catalog of Selected Documents in Psychology, 4, 43.
- Sprecher, S., & Duck, S. (1994). Sweet talk: The importance of perceived communication for romantic and friendship attraction experienced during a get-acquainted date. Personality & Social Psychology Bulletin, 20(4), 391-400.

- Stangor, C. (1998). Research methods for the behavioral sciences. Boston, MA: Houghton Mifflin Company.
- Sternberg, R.J. (1986). A triangular theory of love. Psychological Review, 93, 119-135.
- Sternberg, R., & Beall, A. (1991). How can we know what love is? An epistemological analysis. In Fletcher, J., & Fincham, F. (Eds.), Cognition and close relationships (pp. 257-278). Hillsdale, NJ: Erlbaum.
- Stice, E., Schupak-Neuberg, E., Shaw, H., & Stein, R. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. Journal of Abnormal Psychology, 103(4), 836-840.
- Surra, C. (1990). Research and theory on mate selection and premarital relationships in the 1980s. Journal of Marriage and the Family, 52, 844-865.
- Thompson, S. (1990). Putting a big thing into a little hole: Teenage girls' accounts of sexual initiation. The Journal of Sex Research, 27, 341-361.
- Thompson, S. (1994). Teenage girls' narratives about sex. In A. S. Rossi (Ed.), Sexuality across the life course (pp. 209-232). Chicago: University of Chicago Press.
- Thompson, S. (1995). Going all the way: Teenage girls' tales of sex, romance, and pregnancy. New York: Hill and Wang.
- Torres, A., & Forrest, J. (1988). Why do women have abortions? Family Planning Perspectives, 20, 169-176.
- Walfish, S., & Myerson, M. (1980). Sex role identity and attitudes toward sexuality. Archives of Sexual Behavior, 9(3), 199-203.
- Weis, D., Rabinowitz, B., & Ruckstuhl, M. (1992). Individual changes in sexual attitudes and behavior within college-level human sexuality courses. The Journal of Sex Research, 29(1), 43-59.
- Willis, F., & Carlson, R. (1993). Singles ads: Gender, social class, and time. Sex Roles, 29(5-6), 387-404.

APPENDIX

Thank you for your participation in this research.

This research is interested in gaining your opinion and viewpoints on various aspects of sexuality, love and dating. You may participate in this research project if you are at least 18 years old. This questionnaire is completely anonymous and no identification will be requested or written on the questionnaire booklet or Scantron. Because some of the questions deal with sexuality, you may find some of them to be of a sensitive nature. Accordingly, you may refuse to answer any questions you don't want to answer or may withdraw from the study at any time without penalty (i.e., you would still get extra credit, if offered).

If your professor is offering extra credit, he/she will keep track of who participated through a separate sign-up sheet or other method. If your professor does not choose to offer extra credit, he/she will leave the room during administration of the survey, so participation will not affect your course grade in any way.

Although the risk of physical harm through filling out questionnaires is nonexistent, the University requires inclusion of the following statement:

"If this research project causes any physical injury to participants in this project, treatment is not necessarily available at Texas Tech University of the Student Health Center, nor is there necessarily any insurance carried by the University or its personnel applicable to cover any such injury.

Financial compensation for any such injury must be provided through the participant's own insurance program. Further information about these matters may be obtained from Dr. Robert M. Sweazy, Senior Associate Vice President for Research, 742-3884, 203 Holden Hall, Texas Tech University, Lubbock, Texas 79409-1035"

Any questions about this project should be directed to Rachel (Saul) Lacey at 742-3031 ext. 282, or her faculty advisor, Dr. Alan Reifman at 742-3000 or Areifman@hs.ttu.edu (e-mail).

This questionnaire should take approximately fifteen minutes to complete. Happy filling out!!

Some of the demographic items give you the option of checking "other" and specifying your answer in writing. As noted earlier, we would like to re-use the questionnaire form with other classes so we prefer that there be no writing on the questionnaire form. Thus, we are giving you this sheet to write in your own answers to the questions that offer the "other" option. If your preferred answers were already among the choices on the questionnaire form, then you will not need to use the present sheet.

- 3. Other (race) _____
- 4. Other (religious affiliation) _____
- 5. Other (denomination) _____
- 7. Other (major) _____

Thank you for taking the time to fill out this questionnaire. Remember that the opinion items have no right or wrong answers and you should just give what you personally feel is your best answer. This survey is anonymous so you should not put your name or other identifying information anywhere on the questionnaire or Scantron. Since the researcher will be using the questionnaires in other classrooms besides this one, please do not mark the question form in any way. Feel free to ask the researcher any questions along the way if any items are unclear to you.

1. What is your gender?

- 0) Male
- 1) Female

2. Which age group do you fit into?

- 0) 18-19
- 1) 20-21
- 2) 22-23
- 3) 24-25
- 4) 26-29
- 5) 30-39
- 6) 40-49
- 7) 50-59
- 8) 60 and over

3. What is your race?

- 0) White
- 1) Black/African-American
- 2) Hispanic
- 3) Middle Eastern
- 4) Asian/Pacific Islander
- 5) Native American/American Indian
- 6) Other (Specify) _____

4. What is your religious preference?

- 0) Protestant
- 1) Roman Catholic
- 2) Jewish
- 3) Hindu, Muslim, or other Eastern Religion

- 4) Other religion (Please Specify)_____
- 5) None

5. What specific denomination is that, if any?

- 0) Baptist
- 1) Methodist
- 2) Lutheran
- 3) Presbyterian
- 4) Episcopalian
- 5) None/not applicable
- 6) Other (Specify)_____

6. How often do you attend religious services?

- 0) Never
- 1) About once or twice a year
- 2) Several times a year
- 3) About once a month
- 4) Every week or nearly every week
- 5) Several times a week

7. What is your major at Texas Tech University?

- 0) Undecided
- 1) Human Development or Family Studies or both
- 2) Another major in the college of Human Sciences
Please Specify_____
- 3) A major in the Social Sciences (Anthropology, Sociology, Psychology, etc.)
Please Specify_____
- 4) Other major
Please Specify_____

8. Which class are you in right now

- 0) Human Sexuality
- 1) Basic Interpersonal Skills
- 2) Research Methods (or a similar class such as Strategies of Human Development)
- 3) Adolescent related class (ex. Adolescent Development)
- 4) Adult related class (ex. Adult Development)
- 5) Children related class (ex. Child Development)

6) Other (Please Specify)_____

9. Which of the following choices best describes your current marital/relationship status?

- 0) Never married, not cohabiting, not dating
- 1) Never married, not cohabiting, casually dating
- 2) Never married, not cohabiting, seriously dating
- 3) Never married, cohabiting
- 4) Engaged
- 5) Married
- 6) Divorced/separated/widowed not cohabiting
- 7) Divorced/separated/widowed cohabiting

10. What is the length of your current relationship (if you are in one)?

- 0) Less than 3 months
- 1) 3 to 6 months
- 2) 7 to 12 months
- 3) 13 to 18 months (roughly 1 - 1 ½ years)
- 4) 19 to 24 months (roughly 1 ½ - 2 years)
- 5) 25 to 36 months (roughly 2-3 years)
- 6) 3 to 5 years
- 7) 5 to 10 years
- 8) 10 years and over
- 9) Not in a current relationship

11. In the next section, we will be asking you to answer questions about your relationship attitudes. Please select only one of the partner options listed below:

- 0) I am now in a romantic relationship, so I'll be answering questions in reference to this partner.
- 1) I am not now in a romantic relationship, but I've had a previous romantic relationship, so I'll be answering questions in reference to my most recent partner.
- 2) I've never been in a romantic relationship, so I'll be answering questions in reference to my most realistic expectations for a partner.

Listed below are several statements that reflect different attitudes about love. For each statement fill in the response on the Scantron answer sheet that indicates how much you agree or disagree with that statement.

For each statement:

- 0=Strongly agree with the statement
- 1=Moderately agree with the statement
- 2=Neutral-neither agree nor disagree
- 3=Moderately disagree with the statement
- 4=Strongly disagree with the statement

- 12. My partner and I have the right physical 'chemistry' between us.
- 13. I feel that my partner and I were meant for each other.
- 14. My partner and I really understand each other.
- 15. My partner fits my ideal standards of physical beauty/handsomeness.
- 16. I believe that what my partner doesn't know about me won't hurt him/her.
- 17. I have sometimes had to keep my partner from finding out about other lovers.
- 18. My partner would get upset if he/she knew of some of the things I've done with other people.
- 19. I enjoy playing the 'game of love' with my partner and a number of other partners.
- 20. Our love is the best kind because it grew out of a long friendship.
- 21. Our friendship merged gradually into love over time.
- 22. Our love is really a deep friendship, not a mysterious, mystical emotion.
- 23. Our love relationship is the most satisfying because it developed from a good friendship.
- 24. A main consideration in choosing my partner was how he/she would reflect my family.
- 25. An important factor in choosing my partner was whether or not he/she would be a good parent.
- 26. One consideration in choosing my partner was how he/she would reflect on my career.

27. Before getting very involved with my partner, I tried to figure out how compatible his/her hereditary background would be with mine in case we ever had children.
28. When my partner doesn't pay attention to me, I feel sick all over.
29. Since I've been in love with my partner I've had trouble concentrating on anything else.
30. I cannot relax if I suspect my partner is with someone else.
31. If my partner ignores me for awhile, I sometimes do stupid things to try to get his/her attention back.
32. I would rather suffer than let my partner suffer.
33. I cannot be happy unless I place my partner's happiness before my own.
34. I am usually willing to sacrifice my own wishes to let my partner achieve his/hers.
35. I would endure all things for the sake of my partner.

Listed below are 15 attributes that people generally consider when choosing a romantic partner (dating, marriage, etc.). For each attribute fill in the response on the Scantron answer sheet that indicates on a scale from 0 to eight how important each attribute is when selecting a romantic partner.

For each statement:

0	1	2	3	4	5	6	7	8
not at all				neutral				extremely
important								important

36. Kindness and understanding
37. Faithfulness and loyalty
38. Stable personality
39. Responsibility
40. Sense of humor
41. Similar values and beliefs
42. Qualities of a good parent
43. Sex appeal
44. Physical attractiveness
45. Social status
46. Financial resources
47. Fun and exciting personality
48. Desire for children
49. Quality of health
50. Intelligence

For the following questions, fill in the response on the Scantron answer sheet that indicates your opinion.

Always wrong. 0
Almost always wrong. . . . 1
Wrong only sometimes. . . . 2
Not wrong at all. 3

- 51. When a man and a woman have sexual relations before marriage, it is.....
- 52. When teenagers have sex relations before marriage, it is.....
- 53. If a married person has sexual relations with someone other than the marriage partner, it is.....
- 54. Sexual relations between two adults of the same sex is.....

For the following statements, fill in the response on the Scantron answer sheet that indicates how much you agree or disagree with the statement.

Strongly agree 0
Agree 1
Disagree 2
Strongly disagree. 3

- 55. There should be laws against the sale of pornography to adults (persons 18 years of age and older).
- 56. I would not have sex with someone unless I was in love with them.
- 57. My religious beliefs have shaped and guided my sexual behavior.

For the following questions, fill in the response on the Scantron answer sheet that indicates your opinion.

Yes.....1
No.....2
Don't know.....3
Not applicable.....4

- 58. A woman should be able to obtain a legal abortion if she was raped.
- 59. A woman should be able to obtain a legal abortion if she wants it for any reason.

For the following questions there is a five-point scale which describes a variety of psychological characteristics. For each one, rate yourself in the degree from not at all (characteristic) to very (characteristic) on a 0 to 4 number scale. Match the number that best describes you on that characteristic to the corresponding number on the Scantron.

Not at all 0 1 2 3 4 Very

- 60. Independent
- 61. Warm in relation to others
- 62. Understanding of others
- 63. Emotional
- 64. Active
- 65. Competitive
- 66. Can make decisions easily
- 67. Aware of feelings of others
- 68. Never gives up
- 69. Kind
- 70. Self-confident
- 71. Gentle
- 72. Feels superior
- 73. Helpful to others
- 74. Stands up well under pressure
- 75. Able to devote self to others

For the following statements, fill in the response on the Scantron answer sheet that indicates how much you agree or disagree with the statement.

Strongly agree. 0
Agree. 1
Disagree. 2
Strongly disagree. 3

76. **People** should not have sex with someone unless they are in love with them.

77. **People** should let their religious beliefs shape and guide their sexual behavior

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Agree (Permission is granted.)

Student's Signature

Date

Disagree (Permission is not granted.)

Student's Signature

Date