

The Influence of Religion on Attitudes toward Nonmarital Sexuality: A Preliminary Assessment of Reference Group Theory*

JOHN K. COCHRAN†
LEONARD BEEGHLEY†

Prior research on the relationship between religion and/or religiosity and nonmarital sexuality (i.e., premarital, extramarital, and homosexual relations) has found an inverse relationship with enough consistency to qualify as an empirical generalization. However, while parsimonious, such a generalization is overly simplistic. Moreover, the research findings on which this generalization is based were biased by specification errors due to the employment of a theoretically inappropriate functional form. In this paper, we propose models, derived from reference group theory, which stress an interactive influence of both religion and religiosity on sexual attitudes, rather than the simple bivariate linear effects common in earlier studies. These models were assessed with data from the NORC General Social Surveys. Our findings, obtained from logistic regression analyses, support our theoretical models: The effects of religiosity on nonmarital sexuality vary predictably by religious affiliation.

INTRODUCTION

The 40-year history of social science research on the relationship between religion and nonmarital sexuality (i.e., premarital, extramarital, and homosexual relations) can be organized into three steadily progressive periods: (1) an early, descriptive period defined primarily by its largely atheoretical nature and a generally low level of analytic sophistication; (2) a simple correlational period identified by an improved theoretical base and slightly more advanced statistical analysis; and (3) the more recent theory-driven period which has emphasized more complex linear correlational analyses and statistical modeling techniques. Given the long-standing Judaeo-Christian doctrine of asceticism and related traditions restricting sexual activity to married heterosexual couples (DeLamater 1981), the consistent finding of inverse relationships between religion/religiosity and nonmarital sexual attitudes and/or behaviors might appear at first glance to be little more than a

**This research was supported by faculty research funds from the Office of Research Administration, University of Oklahoma. An earlier version of this paper was presented at the annual meetings of the Southern Sociological Society, April 13-16, 1989, Norfolk, VA. The authors would like to thank the anonymous reviewers and Bradley Hertel, Bob Bursik, and Mitch Chamlin for their comments on previous drafts. They also wish to acknowledge Linda Casey Matson and Glenna Van Metre for their assistance with the computing and data management. Please direct all communications to the first author.*

†John K. Cochran is an assistant professor in the department of sociology, University of Oklahoma, Norman, OK 73019. Leonard Beeghley is a professor of sociology at the University of Florida, Gainesville, FL 32611.

discovery of the obvious, the empirical validation of common knowledge.¹ Such a charge against this body of research would, in our opinion, be both unfair and inaccurate. To suggest, instead, that these findings produce an empirical generalization, would be more accurate. Yet such an empirical generalization, while parsimonious, is still overly simplistic.

The contemporary mood regarding nonmarital sexual relations has been one of growing liberalism since the 1960s, shifting back more recently toward conservatism, partly due to the AIDS scare. This shifting level of tolerance may at times conflict with the Judaeo-Christian doctrine of asceticism, particularly among the more socially conservative Protestant denominations. These conflicts have not been easily resolved; some churches have addressed the problem by adjusting and softening their stand, while others have steadfastly avoided such secularization. As a result, there are significant differences in the official stands taken toward nonmarital, particularly premarital, sex among the mainstream religious bodies in America.

This reality has been largely ignored or neglected in the extant research literature. Most studies have been conducted from what we infer to be a narrow and tenuous assumption of uniform religious effects. As a consequence, analyses have been biased by specification errors due to the employment of a theoretically inappropriate functional form. It is time now to correct these errors and to consider a move toward a fourth period of research, one which recognizes the variability in religious views and accounts for it by specifying an interactive effect of religion and religiosity on nonmarital sexual permissiveness. That is, as religious proscription increases, the effect of religiosity on nonmarital sexual permissiveness increases. To the best of our knowledge only Ruppel (1970), Hertel and Hughes (1987), and Thornton and Camburn (1987) have tested for any such interactive effects. While both Ruppel and Hertel and Hughes have found evidence of an interactive influence, Thornton and Camburn have not. In this study, we continue this line of inquiry; however, we have grounded our models in a broader theoretical foundation than has been employed in the past: reference group theory.²

RELIGION AND REFERENCE GROUP THEORY

The utility of reference group theory derives in part from the fact that it is premised on an insight at the core of sociology: People's behaviors and attitudes are decisively shaped by the groups in which they participate. Individuals refer to such groups both for an evaluation of their past behavior (comparative reference groups) and for directives to current or future behavior (normative reference groups). While individuals need not actually belong to or participate in these groups for them to affect behavior and attitudes, our focus here is specifically on membership groups. A primary task in this effort is

1. Evidence of direct or indirect effects of religion and/or religiosity on nonmarital sexual attitudes or behaviors can be found in more than 80 studies conducted during the past several decades. A list of these works is available from the first author upon request.

2. Several other studies have also specifically employed reference group theory to explain variation in nonmarital sexual permissiveness (see, for instance, Miranda 1968; Teevan 1972; Walsh et al. 1976; Libby et al. 1978; and Woodroof 1986, 1986), but none has considered that religious bodies may also serve as important normative referents independent of family or peer influences.

the theoretical specification of the conditions under which individuals employ membership groups as points of reference.

While Ofshe (1972) has claimed that no criteria exist for determining whether or not a group is a point of reference, the elements of a theory of reference groups have been readily available for several decades. For instance, Merton and Rossi (1968:296-297) have argued that before people can compare themselves to others or use a group's values and norms as a point of reference for their own attitudes or behaviors, they must perceive "some similarity in status attributes" between themselves and members of the group. In addition, Merton (1968:386-394) and Merton and Rossi (1968:301-302) have emphasized that individuals must be oriented to the values of a group. They have also noted (1968:285-286) that sustained interaction is a criterion for group influence. Finally, Merton (1968:391-393) has indicated the importance of significant others for those who would be influenced by a group (such significant others must be both highly visible and capable of articulating group norms and values).

Empirical support for these ideas has infused the research literature examining both comparative and normative reference group processes (Allen and Wilder 1976; Singer 1981). However, it was only recently that these reference group criteria were stated in a formal theoretical proposition (Bock et al. 1983). We have adopted this proposition and present it below:

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 the 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 an individual is in *sustained interaction* with other group members; and (5) the degree to which an individual defines group leaders as *significant others*.

Many religious groups consistently meet these criteria and hence constitute important reference groups for their dedicated members. For instance, the *similarity* criterion is reflected by the fact that people belonging to the same faith group tend to share status attributes, such as social class (Beeghley et al. 1981). The *agreement* criterion is exemplified by the common religious practice of requiring members to profess adherence to a specific doctrine. The *clarity* criterion is met by the fact that such faith group's doctrinal beliefs and behavioral directives are frequently preached about, published, and publicized, and remain relatively stable over time (Salisbury 1964; Chalfant et al. 1981). The *sustained interaction* criterion is also met; it is observed through regular attendance at religious services and membership in church organizations. Finally, the *significant other* criterion is satisfied to the extent that those involved in religious groups listen to their priests, ministers, rabbis, or other leaders at services each week and use them as counselors during times of need (Alston and McIntosh 1979). Thus, the position of a particular religious group toward nonmarital sexuality should have a significant influence on the sexual attitudes held by those who identify themselves as members and employ their faith as a referent.

This issue can be tested empirically because religious views on nonmarital sexuality are varied. Official church doctrines toward nonmarital sex can be used to distinguish, at a minimum, between highly proscriptive and less proscriptive faith groups. All mainstream American faith groups proscribe sexual relations outside of marriage; never-

theless, there is some variation in the level of condemnation expressed in official church doctrines. For highly proscriptive religious affiliations, nonmarital sexual relations are *per se* wrong, and persons who engage in such behavior are sinners who can be saved only through abstinence and penitence. Less proscriptive faith groups, on the other hand, encourage their members to be more compassionate toward such actors, and some allow individuals to use their own judgment in sexual matters. Members of these faith groups are likely to be influenced by such doctrines in their personal attitudes toward premarital, extramarital, and homosexual relations.

Although an individual's specific faith should affect how he or she relates to social issues, religiosity (defined here as the extent to which people are committed to and involved in their faith groups) is the mechanism through which religious groups operate as points of reference. For instance, Greeley (1963) has argued that attendance at religious services, a fundamental measure of religiosity, is a way for members to form primary groups, which in turn provide norms and role images for their members. These norms and role images serve to unite members under a specific church doctrine. Thus, those who express a high degree of religiosity are most likely to employ their religion as a reference group. These persons should also show the greatest consistency between their personal attitudes and official church doctrine.

This constitutes a very persuasive argument for the use of religiosity variables as indicators of the extent to which persons employ their faith groups as points of reference. We are thus led to the following hypothesis: *The effect of religiosity on nonmarital sexual permissiveness will increase as denominational proscriptiveness increases.* This hypothesis is similar to Reiss's (1967:51) traditionalism proposition, which states: "The lower the traditional level of sexual permissiveness in a group, the greater the likelihood that social forces will alter individual levels of sexual permissiveness." As in our reference group argument, Reiss is suggesting that the effect of social forces such as religiosity on attitudes toward nonmarital sexuality are stronger within groups which are traditionally non-permissive or proscriptive.³

In addition, because official church doctrines are more varied in their stands against premarital sex than against extramarital and homosexual relations, we expected to observe stronger denomination*religiosity interaction effects on attitudes toward premarital sex than on attitudes toward extramarital or homosexual relations. That is, in the one area of nonmarital sex in which some churches are considerably less proscriptive than others (premarital sex), religiosity's effect on attitudes should be weaker in the less proscriptive faiths. In the two areas in which nearly all mainstream Judeo-Christian religions are similar (i.e., extramarital and homosexual relations), religiosity's influence should be roughly similar across faith groups.

3. Reiss (1964, 1965), Singh et al. (1976), and Staples (1978) each have found support for this proposition. Reiss and Miller (1979:66-67) have argued that studies by Bell and Chaskes (1970) and Robinson et al. (1972) also support it. However, Hektley and Broderick (1989), Maranel et al. (1970), Ruppel (1970), Middendorp et al. (1970), Walsh et al. (1976), and Libby et al. (1978) all have failed to support Reiss's proposition. See Clayton and Bokemeier (1980) for an excellent review of this literature.

DATA AND METHODS

This study was based upon the cumulative data file consisting of the 13 NORC General Social Surveys conducted between 1972 and 1989. Each survey is an independent probability sample of English-speaking persons 18 years of age or older living in noninstitutional arrangements within the continental United States.⁴

While we would have preferred to have had measures of the behavioral dimensions of nonmarital sexual relations, the NORC-GSS data include only attitudinal measures.⁵ Three items, each four-point ordinal measures of the respondents' attitudes toward a form of nonmarital sexuality, constituted our dependent variables. NORC interviewers premised their queries on these items by stating that "there has been a lot of discussion about the way morals and attitudes about sex are changing in the country." The interviewers then asked the respondents if they thought it was (1) always wrong, (2) almost always wrong, (3) wrong only sometimes, (4) not wrong at all, if: (A) "a man and a woman have sex relations before marriage" - Premarital Sexuality; (B) "a married person has sexual relations with someone other than the marriage partner" - Extramarital Sexuality; and (C) "adults of the same sex" have sexual relations - Homosexuality.

Because these items were not asked in every survey or always in the same surveys, our analyses were based on varying sample sizes. This restriction, as well as losses due to missing data, unusable responses (i.e., "don't know" and "no answer"), and case deletion, reduced our sample size to a maximum of 14,979.⁶

We employed four measures of religiosity, each of which ascertains a different but related dimension of religious involvement and commitment. The first, frequency of attendance at religious services, is a measure of the reference group criterion of sustained interaction and was coded ordinally (0 = never attends, to 8 = attends several times a week). The second, strength of religious identification, a surrogate measure of members' commitment to church doctrine, was coded dichotomously (0 = somewhat strong or not very strong; 1 = strong). The final two religiosity variables are also dichotomous measures: belief in life after death, at least in part a measure of one's belief in supernatural sanctions (0 = do not believe or uncertain; 1 = believe), and membership in a religious organization, another indicator of the reference group criterion of sustained

4. Through the years, NORC has utilized both block-quota, area probability sampling and full probability sampling designs. In some survey years, both sampling strategies were employed. Moreover, there have been occasions upon which purposive oversamples have been drawn (e.g., the 1982 and 1987 black oversamples which have been deleted from this analysis). These varying sampling techniques suggest that some caution is warranted in making comparisons across surveys or when surveys are merged (as in the subgroup analyses we employed). It is our opinion, however, that any observed differences which result from these design differences will be very slight and will not substantially bias our general findings. Our confidence is derived, in part, from the widespread use of these merged files by numerous other social scientists. For a more detailed discussion of the NORC General Social Survey data, see Davis and Smith (1989).

5. The NORC General Social Surveys are some of the very best nationally representative survey data collected to date within the sociology of religion. Given that the nature of our interest is to examine relative and interactive effects of religion and religiosity on attitudes toward nonmarital sexuality, the choice of these data is clearly defensible.

6. This figure represents the maximum number of cases available for analysis. Further reductions in sample size were due to missing data and to our aggregating strategies.

interaction (0 = nonmember, 1 = member). These four religiosity variables were employed as indicators of the salience of a religion as a reference group (Greeley 1963).

The effect of religiosity on attitudes toward nonmarital sexuality was examined and compared across mainstream American religious affiliations (i.e., Jewish, Catholic, Episcopalian, Presbyterian, Lutheran, Methodist, Baptist, and Other Protestants, who are primarily members of fundamentalist sects).⁷ The nonaffiliated were also included in our analyses.⁸ Because we did not have any information on the doctrines of the churches attended by the religiously nonaffiliated, we refrained from inferring any *a priori* reference group effects. We recognize that these religious categories often conflate several religious bodies as one (for example, Missouri and American Lutherans, United and Southern Presbyterians, or Southern and American Baptists) and are therefore a source of potentially serious measurement error. We believe, however, that these rough categorizations serve as a method of tapping the effects of religious identity in terms of broader units of analysis. Therefore, they are sufficient for our purposes, namely for preliminary assessment of the reference group proposition outlined earlier. Moreover, Hertel and Hughes (1987) have found that disaggregation of these broad religious categories into the distinct religious bodies which comprise them produced differences which were often nonsignificant, small, and inconsistent.

We examined the relative and interactive influence of religion and religiosity on respondents' attitudes toward nonmarital sexuality while controlling for the effects of a wide array of sociodemographic variables. These included respondent's age, race, sex, level of education, occupational prestige, annual family income, marital status, and both urban and regional residency status. Age was coded continuously in years. Race and sex are each dichotomous (0 = black, 1 = white; and 0 = female, 1 = male, respectively). Level of educational attainment was coded continuously in years completed. Hodge-Siegel-Rossi scores were used to measure occupational prestige, while annual family income was measured as the mid-point dollar value (in thousands) of the GSS income categories. Marital status is a dichotomous distinction coded to isolate those who were single or never married (0 = currently married, separated, divorced, or widowed; 1 = single, never married). The two residency variables are also dichotomies. Urban residency status distinguishes SMSA residents from nonSMSA residents (0 = nonSMSA, 1 = SMSA); regional residency status was coded to emphasize southernness (0 = nonsouth, 1 = south). Given the sampling design and other methodological differences across surveys (discussed in footnote four) and the shifting national mood toward nonmarital sexuality during the past two decades, we also included dummy variables for each survey year as additional statistical controls. However, due to the length and complexity of our analysis, and for the sake of brevity, no discussion of the

7. We chose subgroup analysis over the more typical interaction analysis where cross-product terms were included in the regression models. We did so because we were interested in assessing the contextual effects of denomination on the relationship between religiosity and attitudes toward nonmarital sexuality (see Walker and Cohen, 1985).

8. Strength of religious identification was not asked of those who indicated that they were non-affiliated, and therefore could not be included in these models.

effects of these control variables will be undertaken.⁹

Because of the wide array of exogenous variables, a multivariate approach was needed for modeling the interactive effects of religiosity and religion on sexual attitudes. The method of analysis employed in this study was a cumulative homogeneous-effects-logistic-regression algorithm (PROC LOGIST), suitable for ordinal-scale response variables (see SAS 1983:181-202). As is well known, logit models permit analyses of the effects of a set of explanatory variables on a non-interval-scale dependent variable, in a manner analogous to standard linear regression, without violating the conditions necessary to satisfy least-square estimation. This method also addresses the need for an appropriate functional form (Hanushek and Jackson 1977).

Although more commonly applied in cases with dichotomous dependent variables, these models are also appropriate for situations in which the response variable is ranked. Given a C-category ordinal response variable C-1 standard, logit models corresponding to the C-1 adjacent category (or cut point) dichotomizations of this variable can be separately analyzed and compared. This approach may yield varying estimates for each of the effect parameters across these C-1 comparisons. However, it more commonly yields similar estimates of each independent variable's effect upon each comparison (Agresti 1984). This fact suggests that the effect of each explanatory variable is relatively homogeneous throughout the rankings of the response variable. Thus, we were able to combine these C-1 separate logit models into a single model that assumed homogeneous or stable effects for each independent variable on each logit. Such a technique, referred to as cumulative homogeneous-effects logistic regression, gives a more parsimonious and interpretable model than does the fitting of C-1 separate models.

Due to space limitations, only estimates of the relative effects of the religiosity indicators will be discussed.¹⁰ This analysis, however, extends beyond a simple observation of the independent effects of the religion variables, to an examination of their combined or cumulative effect. Thus, predicted probability estimates were computed for two hypothetical cases at opposite ends of a religiosity continuum: the strongly religious (SR) and the weakly religious (WR). Differences in the probabilities predicted for these two hypothetical cases represent the maximum cumulative influence of religiosity on attitudes toward nonmarital sexuality (when evaluated at the means of the control variables).

To compute these probability estimates, one must first solve for each of the C-1 logit coefficients (L_{C-1}) within each model. Each of these coefficients is a function of a model intercept (a_{C-1}) plus the sum of the products of the logistic regression coefficients (b_{ij}) and theoretically selected values of the corresponding explanatory variables

9. For the total sample, all the sociodemographic control variables (with the exception of the effect of occupational prestige on attitudes toward both premarital and extramarital sexual relations) attained statistically significant effects on attitudes toward nonmarital sexuality. Age, marital status, and southern residency were inversely related to nonmarital sexual permissiveness; level of educational attainment, occupational prestige, annual family income, and urban residency were positively related to nonmarital sexual permissiveness. Whites were more favorable toward homosexual relations than were blacks, but blacks were more tolerant of premarital and extramarital sexual relations. Similarly, females were more tolerant toward homosexuality, while males were more tolerant of premarital and extramarital sex.

10. Complete statistical output is available from the first author upon request.

(X_k). That is, $L_{C-1} = a_{C-1} + \sum b_k X_k$. The values of X_k employed in this study are the group means of the control variables and both the maximum and minimum values of the four religiosity variables.

Once the logit coefficients were computed for each hypothetical case, the associated predicted probabilities could be easily calculated by dividing the natural log-inverse of each logit by one plus its natural-log inverse (i.e., $P = e^{L_{C-1}} / (1 + e^{L_{C-1}})$). This transformation formula yielded probability estimates for each of the C-1 adjacent category dichotomizations of the response variable. With a little mathematics, the predicted probability estimates for each of the C categories of the response variable could then be easily derived.

Again, in this study the predicted probabilities of varying attitudes toward non-marital sexuality were computed for both the strongly and weakly religious, two hypothetical cases lying at opposite ends of a religiosity continuum. The differences in the probabilities between the strongly and weakly religious represent the maximum cumulative influence of consequential religiosity, as measured here, on the several sexual attitudes measures. The readers are reminded, however, that the values of these predicted probabilities were also dependent upon the values of all the exogenous variables, including the controls. In this analysis, these probabilities were evaluated as the means of the control variables. Had other values been selected, the probabilities would have been different, but the relative differences between the strongly and weakly religious would have been roughly similar to those reported here.

FINDINGS

The distribution of attitudes toward nonmarital sexuality within each religious affiliation is presented in Table 1. These figures indicate that the American adult population is considerably more tolerant of premarital sexuality than of extramarital sexuality or homosexuality, with a fairly consistent pattern of increasing opposition and intolerance from the non-affiliated, Jews, and Episcopalians (the most tolerant and liberal), to the slightly more intolerant and moderate views of the Catholics and Presbyterians, to the yet even more oppositional stance of the Lutherans and the Methodists. The most conservative and intolerant attitudes toward nonmarital sexual relations are those of the Baptists and other Protestants. This pattern is similar to that observed by Hertel and Hughes (1987). It is quite telling, for it shows that members' attitudes are highly consistent with the official doctrines and normative stands of their respective faith groups.¹¹ Members of highly proscriptive religions are the most opposed to nonmarital

11. Classifying religious denominations has historically been a highly subjective and difficult yet crucial task to the scientific study of religion. The following is a brief synopsis of our attempt to classify mainstream American religious bodies by their level of proscriptiveness toward nonmarital sexuality, as represented in their "official" doctrines. We interviewed as many local ministers, priests, and rabbis as we could and queried them on the stands taken by the governing bodies of their faiths regarding premarital, extramarital, and homosexual relations. We asked about the nature of sanctions, if any, typically employed against transgressors; we also asked each religious leader to rank-order the following religious bodies according to how intolerant or proscriptive the respondent perceived these faiths to be on the issue of nonmarital sex: Jewish, Catholic, Episcopalian, Presbyterian, Lutheran, Methodist, Baptist, and Protestant Fundamentalist. In addition to these local interviews, we contacted the national offices of many of these faiths, and we consulted a wide range of written works

sexuality, while members of the less proscriptive faiths are less intolerant. This pattern of attitudes suggests some initial, though indirect, support for our reference group hypothesis. It is possible, however, that the more permissive attitudes toward nonmarital sexuality may be due to a lack of involvement in or commitment to these Judaeo-Christian religions. Therefore, we will now turn our attention to an examination across faith groups of the influence of religiosity on these attitudes.

*Religious Affiliation and the Effects of Religiosity
on Nonmarital Sexual Permissiveness*

Table 2 presents the results of logistic regression analyses in which attitudes toward premarital sexuality were modeled by the four religiosity variables, by the dummy variables for year of survey, and by the nine sociodemographic control variables for each religious affiliation. The figures reported in Table 2 present only the independent and combined effects of the four religiosity measures. Due to the rough categorizations of faith groups and the high potential for measurement error which could bias the findings, readers are again reminded that these are preliminary findings. Blanket generalizations are not appropriate.

When the relative effects of the four religiosity variables on attitudes toward premarital sex across faith groups are examined, only the attendance measure attains a statistically significant, inverse effect among the nonaffiliated and members of the Jewish, Episcopalian, and Presbyterian faiths. Both attendance and strength of religious identification were significantly and inversely related to premarital sexual permissiveness among Catholics, Methodists, and the other Protestants. Among Lutherans, attendance, strength of religious identification, and membership in a religious organization were significantly and inversely related to attitude toward premarital sex. Finally, for Baptists, attendance, strength of religious identification, and belief in an afterlife were inversely related to premarital sexual permissiveness. Generally, then, an increasing

produced by these bodies (i.e., resolution passed by general assemblies and conventions, position papers, policy statements, etc.). Based upon the information gained from each of these sources, we concluded that all mainstream Judaeo-Christian faiths proscribe sexual relations outside of marriage. While sex is commonly recognized as a "beautiful gift from God," it is beautiful only when "affirmed by the church" and "sanctified by marriage." However, we also found, as we suspected, that subtle but important differences exist in the degree to which these groups proscribe nonmarital sex, particularly premarital sex.

On the basis of the subtle differences we observed in these "official" stands on nonmarital sexuality, we chose to classify faith groups as either "highly proscriptive" (e.g., Protestant Fundamentalist and Baptist), "moderately proscriptive" (e.g., Methodist, Lutheran, and Catholic), or "less proscriptive" (e.g., Presbyterian, Episcopalian, and Jewish). Interestingly, this is essentially the same classification scheme suggested by each of the religious leaders we interviewed. All of them coded Protestant Fundamentalists as the least tolerant and most proscriptive, and Baptists as the next most proscriptive. All of the respondents also identified the Methodist, Lutheran, and Catholic faiths as somewhat intermediate in their stands on nonmarital sexuality (please note however that there was some dissensus as to the internal rank-ordering of the faiths within this intermediate category). Likewise, all of our respondents tended to classify the Presbyterian, Episcopalian, and Jewish faiths as least proscriptive and most tolerant (again, however, there was a slight dissensus in rank-ordering faiths within this category on the position of the two Protestant faiths; moreover, three of our respondents classified Presbyterians as intermediate). We recognize that these classification schemes are based upon subjective attributions. However, the high degree of consistency across the sources we consulted suggests that our classification of mainstream religious bodies based on "official" doctrines is accurate and useful for our purposes.

TABLE 1

RELATIVE FREQUENCY DISTRIBUTION OF ATTITUDES TOWARD NONMARITAL SEXUALITY
(IN PERCENTS)

	Always Wrong	Almost Always Wrong	Wrong Only Sometimes	Not Wrong At All
Premarital Sexuality:				
Non-Affiliated (n = 1047)	7%	3%	21%	68%
Jewish (n = 358)	13	5	25	58
Catholic (n = 3795)	25	11	25	39
Episcopalian (n = 380)	13	12	34	41
Presbyterian (n = 655)	23	13	29	35
Lutheran (n = 1201)	28	12	26	34
Methodist (n = 1709)	31	12	24	33
Baptist (n = 3081)	39	10	18	34
Other Protestant (n = 2525)	44	11	19	27
TOTAL SAMPLE (N = 14,979)	30	10	23	37
Extramarital Sexuality:				
Non-Affiliated (n = 1011)	44%	22%	23%	11%
Jewish (n = 319)	50	25	20	5
Catholic (n = 3757)	72	15	10	3
Episcopalian (n = 388)	60	25	12	3
Presbyterian (n = 704)	70	19	9	2
Lutheran (n = 1086)	75	15	7	2
Methodist (n = 1724)	76	15	8	2
Baptist (n = 3121)	80	10	8	3
Other Protestant (n = 2578)	81	12	7	1
TOTAL SAMPLE (N = 14,937)	73	15	9	3
Homosexuality:				
Non-Affiliated (n = 976)	42%	7%	14%	38%
Jewish (n = 299)	37	6	14	43
Catholic (n = 3620)	71	6	8	15
Episcopalian (n = 358)	57	9	14	20

TABLE 1 (continued)

RELATIVE FREQUENCY DISTRIBUTION OF ATTITUDES TOWARD NONMARITAL SEXUALITY
(IN PERCENTS)

	Always Wrong	Almost Always Wrong	Wrong Only Sometimes	Not Wrong At All
Presbyterian (n = 668)	69	7	9	15
Lutheran (n = 1043)	75	6	7	13
Methodist (n = 1854)	78	6	6	10
Baptist (n = 3045)	86	3	4	8
Other Protestant (n = 2518)	82	4	5	9
TOTAL SAMPLE (N = 14,417)	74	5	7	14

number of religiosity indicators attained statistically significant, inverse effects as denominational proscriptiveness increased.

The combined effect of the four religiosity measures, indicated in the lower panel of Table 2 by the predicted probability estimates, reveals a similar pattern. Greater opposition toward premarital sex was predicted among the strongly religious (SR) as denominational proscriptiveness increased. Likewise, the differences in opposition between the strongly and the weakly religious (SR - WR) showed notable increases as denominational proscriptiveness increased.

Tables 3 and 4 present the results of logistic regression analyses for attitudes toward extramarital sexuality and homosexuality, respectively. Again, as in Table 2, separate models were estimated for each religious affiliation. Likewise, these models employed dummy variables for year of survey and the nine sociodemographic variables as statistical controls. Again, attention was focused only on the independent and combined effects of the four religiosity measures.

When we examine the independent effects of the four religiosity measures across religious affiliations, both Table 3 and 4 reveal more variability in religiosity effects across faith groups than was predicted. Only one religiosity measure (attendance) ever attained a statistically significant, inverse effect among the nonaffiliated and members of the Jewish and Episcopalian faiths. Typically, two of the four religiosity indicators were significantly and inversely related to these nonmarital sexual attitudes for Catholics, Presbyterians, Lutherans, and Methodists. For Baptists and other Protestants, three of the four independent religiosity effects were statistically significant. This pattern of effects is inconsistent with our prediction of more uniform effects on these two equally proscribed forms of sexual conduct.

However, a different pattern is revealed in the overall or combined influence of the four religiosity measures on attitudes toward extramarital sexuality and homosexuality, indicated in the lower panels of Tables 3 and 4 by the predicted probability estimates for the strongly and weakly religious. Differences in the predicted probabilities of

TABLE 2
EFFECTS OF RELIGIOSITY ON ATTITUDES TOWARD PREMARITAL SEXUALITY
(CUMULATIVE LOGISTIC REGRESSION ANALYSIS)

	No Affiliation (n = 1047)	Jewish (n = 353)	Catholic (n = 3736)	Episcopalian (n = 380)	Presbyterian (n = 655)	Lutheran (n = 1201)	Methodist (n = 1709)	Baptist (n = 3081)	Other Protestants (n = 2526)	TOTAL SAMPLE (N = 14,979)
Relative Effects^a:										
ATTEND	-.13*	-.17*	-.18*	-.21*	-.15*	-.24	-.19*	-.20*	-.31*	-.22*
STRENGTH	—	-.42	-.50*	-.02	-.38	-.36*	-.38*	-.40*	-.72*	-.47*
AFTERLIFE	-.02	-.09	-.10	.17	-.22	.06	-.24	-.31*	-.14	-.22*
MEMBER	-.70	-.28	-.16	-.34	-.06	-.43*	-.13	-.19	.17	-.18*
Predicted										
Probabilities:	SR	SR	SR	SR	SR	SR	SR	SR	SR	SR
	WR	WR	WR	WR	WR	WR	WR	WR	WR	WR
	.22	.30	.43	.25	.37	.56	.53	.63	.73	.56
P (Y = 1)	.09	.10	.17	.21	.20	.17	.17	.12	.11	.14
always wrong										
P (Y = 2)	.37	.34	.25	.38	.29	.19	.20	.14	.10	.19
almost always wrong										
P (Y = 3)	.32	.26	.15	.16	.14	.08	.10	.11	.06	.11
wrong only sometimes										
P (Y = 4)										
not wrong at all										

* Indicates significance at the .05 level.

^a Logistic regression coefficients. Please note that all statistics presented in this table represent estimated religiosity effects with controls for the effects of age, race, gender, level of education, occupational prestige, family income, marital status, both urban and regional residency status, and year of survey.

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TABLE 3
EFFECTS OF RELIGIOSITY ON ATTITUDES TOWARD EXTRAMARITAL SEXUALITY
(CUMULATIVE LOGISTIC REGRESSION ANALYSIS)

	No Affiliation (n = 1011)		Jewish (n = 319)		Catholic (n = 3757)		Episcopalian (n = 388)		Presbyterian (n = 704)		Lutheran (n = 1088)		Methodist (n = 1724)		Baptist (n = 3121)		Other Protestants (n = 2878)		TOTAL SAMPLE (N = 14,937)			
	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR		
Relative Effects^a:																						
ATTEND	-.16*		-.07		-.18*		-.11		-.16*		-.23*		-.12*		-.18*		-.20*				-.17*	
STRENGTH	-		-.01		-.57*		-.14		-.60*		-.48*		-.71*		-.51*		-.67*				-.51*	
AFTERLIFE	-.26		.63		.06		-.48		-.36		.01		-.08		-.33*		-.33*				-.28*	
MEMBER	.37		-.49		.01		.00		.48		.40		-.18		.03		.04				.01	
Predicted																						
Prohibitions:	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR
P (Y = 1) always wrong	.65	.37	.64	.54	.87	.59	.75	.40	.84	.51	.90	.53	.93	.65	.93	.59	.94	.58	.90	.53	.90	.53
P (Y = 2) almost always wrong	.19	.26	.23	.28	.08	.22	.18	.34	.11	.29	.07	.25	.05	.22	.04	.18	.04	.24	.06	.24	.06	.24
P (Y = 3) wrong only sometimes	.12	.26	.11	.15	.04	.15	.06	.21	.04	.16	.02	.13	.02	.11	.02	.17	.02	.15	.03	.18	.03	.18
P (Y = 4) not wrong at all	.04	.11	.02	.03	.01	.04	.01	.05	.01	.04	.01	.04	.00	.02	.01	.06	.00	.03	.01	.05	.01	.05

^aIndicates significance at the .05 level.

^bLogistic regression coefficients. Please note that all statistics presented in this table represent estimated religiosity effects with controls for the effects of age, race, gender, level of education, occupational prestige, family income, marital status, both urban and regional residency status, and year of survey.

TABLE 4
EFFECTS OF RELIGIOSITY ON ATTITUDES TOWARD HOMOSEXUALITY
(CUMULATIVE LOGISTIC REGRESSION ANALYSIS)

	No Affiliation (n = 976)		Jewish (n = 299)		Catholic (n = 3629)		Episcopalian (n = 356)		Presbyterian (n = 668)		Lutheran (n = 1043)		Methodist (n = 1654)		Baptist (n = 3046)		Other Protestants (n = 2518)		TOTAL SAMPLE (N = 14,417)		
	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	SR	WR	
Relative Effects^a:																					
ATTEND	-.08		-.31*		-.13*		-.12		-.13*		-.21*		-.12*		-.18*		-.26*		-.19*		
STRENGTH	-		-.11		-.34*		-.04		-.32		-.39		-.09		-.52*		-.29		-.30*		
AFTERLIFE	-.06		-.14		.16		-.18		-.20		-.29		-.24		-.24		-.51*		-.29*		
MEMBER	.32		.14		-.12		.07		-.38		.11		-.18		.54*		-.12		-.03		
Predicted Probabilities:																					
P (Y = 1)	.49	.39	.74	.17	.86	.62	.71	.46	.89	.55	.92	.54	.91	.70	.94	.75	.96	.67	.91	.56	
always wrong																					
P (Y = 2)	.09	.09	.06	.06	.04	.09	.08	.11	.04	.10	.02	.10	.03	.09	.02	.05	.01	.08	.03	.09	
almost always wrong																					
P (Y = 3)	.16	.17	.09	.15	.04	.11	.11	.18	.04	.14	.03	.13	.03	.09	.07	.07	.01	.11	.03	.12	
wrong only sometimes																					
P (Y = 4)	.26	.35	.11	.62	.06	.18	.10	.25	.03	.21	.02	.23	.03	.12	.03	.13	.02	.24	.03	.23	
not wrong at all																					

^aIndicates significance at the .05 level.

^bLogistic regression coefficients. Please note that all statistics presented in this table represent estimated religiosity effects with controls for the effects of age, race, gender, level of education, occupational prestige, family income, marital status, both urban and regional residency status, and year of survey.

opposition between the strongly and the weakly religious were either relatively equal across faith groups or varied idiosyncratically. Thus, with regard to attitudes toward extramarital sexuality and homosexuality, the reference group hypothesis received somewhat mixed support.

DISCUSSION

We opened this study by suggesting that the extant research on religion and non-marital sexuality has so consistently produced evidence of a direct, inverse, linear relationship that the findings qualify as an empirical generalization. However, we argued, such a generalization is theoretically simplistic. Moreover, the findings from which this generalization was produced have been biased due to specification errors common to analyses which employ inappropriate functional forms.

Nearly all of the studies to date have assumed that the effects of religiosity on non-marital sexuality are invariant across distinctly different religious bodies. Yet, the official doctrines of mainstream American religions toward nonmarital sex often vary. Thus, the appropriate functional form should examine variable effects of religiosity across these religious bodies. Our analysis acknowledged this and specified an interactive effect of religion and religiosity on attitudes toward nonmarital sexuality. Moreover, we grounded the models within the broader theoretical base of reference group theory.

The findings, for the most part, confirmed this argument.¹² As predicted, we observed a pattern of increasingly stronger religiosity effects on attitudes toward premarital sex as denominational proscriptiveness increased. That is, the influence of religiosity on premarital sexual permissiveness is weakest among members of those faiths which have the most tolerant official stands on this issue. This effect is slightly stronger within those faiths which are somewhat less tolerant and is strongest within the most intolerant denominations. With regard to attitudes toward extramarital and homosexual relations, the independent effects of the individual measures of religiosity do vary slightly across faith groups; however, their overall or combined effect is, as predicted, quite stable and weaker than that observed for premarital sexual permissiveness. This finding reflects the fact that such forms of sexual conduct are more uniformly proscribed by mainstream Judaeo-Christian faiths.

Thus, these findings suggest that the effects of religiosity on attitudes toward non-marital sex are variable in two theoretically important ways. First, religiosity effects vary across faith groups in a manner consistent with the arguments of reference group

12. We also examined the effects of religiosity on nonmarital sexual permissiveness across levels of religious conservatism/fundamentalism. The more recent GSS cumulative data files now include a trichotomous measure of religious fundamentalism based on research conducted by Tom Smith of the NORC (see Smith 1990). This variable classifies mainstream American religious bodies as either liberal, moderate, or fundamentalist; those faith groups which could not be classified into this scheme were coded as missing and were deleted from the analysis. The findings revealed a pattern of results identical to those reported here and which consistently supported the reference group hypothesis. The effect of religiosity on attitudes toward premarital sex was strong and increased significantly as fundamentalism increased. With regard to attitudes toward extramarital and homosexual relations, these findings again supported the reference group hypothesis by showing weaker and less variant religiosity effects across categories of religious fundamentalism. Complete statistical information from these analysis is available upon request from the first author.

theory. Where official church doctrines differ (e.g., on premarital sex), the effects of religiosity also differ noticeably across faith groups; where these official doctrines are more similar (e.g., on extramarital and homosexual relations), the effects of religiosity are also more stable across faith groups.

Second, religiosity effects vary according to the phenomena under study. Burkett and White (1974) and Cochran (1988) have argued that the impact of religion is most decisive where secular values fail to define clearly a religiously proscribed activity as immoral. Thus, religion is relevant primarily for those actions which run counter to a religious tradition of asceticism but are tolerated or only ambiguously condemned by secular influences (e.g., premarital sexuality). Where secular standards also clearly prohibit anti-ascetic behaviors, as with extramarital and homosexual relations, the influence of religion is not as evident because it has been duplicated and masked by more proximate secular influences. Consistent with this line of argument, others have found that religiosity is more strongly related to abstinence vs. use of alcohol than to use vs. misuse/abuse (Bock et al. 1987; Cochran et al. 1988).

The findings in this paper also support this "anti-asceticism" argument. Moreover, the findings support what we believe to be a salient but neglected perspective within the sociology of religion, namely, reference group theory. To date, most reference group research in the sociology of religion has examined the influence of religious family members or peers on a respondent's religiosity, attitudes, or behaviors. Few, if any, have considered religious affiliation itself as a relevant and independent normative referent. Consistent with other works (see, for instance, Bock et al. 1983, 1987; Cochran et al. 1988; Van Metre et al. 1989; Clark et al. 1990; and Beeghly et al. 1990), our research suggests that religious bodies can and do serve as important normative referents which guide and shape both the behaviors and the attitudes of their committed members. We have also observed, here and in the other studies noted above, that while churches and denominations often operate as powerful normative referents, they do not work in isolation from other influential referent forces. It seems clear that the next line of research should examine the relative and comparative reference group effects of religions. The role of religion needs to be assessed relative to that of the family, the peer group, and the work group, as well as to that of ethnicity, social class, birth cohorts, and other potential influences.

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