Religiosity in youth: A personal control against deviant behavior[1]

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The importance of religiosity as a cognitive dimension of personality has gained new emphasis from recent developments among youth in American society The interest in the teachings of Eastern religions, the growth of the idea of personal religion and the practice of meditation, the quest after mystical experience, and the participation in alternative forms of organized religious activity, such as the Jesus Movement and the Divine Light Mission, have been widely noted While these particular developments suggest an attenuation of conventional and institutionalized types of religious involvement and a search for something to replace them, they raise a more general question about the role played by religiosity in the lives and behavior of young people

It is obvious that an orientation toward religion can serve multiple and diverse functions for an individual, from providing meaning to one's life, to yielding a sense of personal fulfillment, to securing access to social contacts and interpersonal relationships, to offering a set of standards against which to judge and guide one's actions. Our present concern was with one such aspect only, one that would be relevant to conventional as well as nonconventional religious involvement, namely, the function of religiosity as a personal (or personality) control against transgression, social problem behavior, or deviance The aim of this paper is to present evidence of the relationship of religiosity to other personality variables, to attributes of the social environment, and to mea-

1 The data reported here are part of a larger, six-year, longitudinal research project, "The Socialization of Problem Behavior in Youth," supported by National Institute on Alcohol-Abuse and Alcoholism Grant No AA-00232, R Jessor, principal investigator This paper is based upon a project research report by the first author (Rohrbaugh, 1973) and is Publication No 157 of the Institute of Behavioral Science

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sures of problem behavior or deviance that will enable an appraisal of the role of religiosity as a personal control among youth

The complexity of the concept of religiosity has been reflected in the debates in the literature about its semantic reference and about its uni- versus multi-dimensionality With regard to the former, religiosity has been defined in terms as disparate as the feeling of personal inspiration and as the frequency of attendance at religious services The early scholars in the social psychology of religion (Starbuck, 1899, James, 1902, Durkheim, 1915, and Leuba, 1929) were in agreement that the key element in religiosity was a personal belief in a transcendent reality such as a God, a world spirit, or an unseen order More recent scholars have urged a multidimensional view of religiosity, one which acknowledges the centrality of religious beliefs or ideology but which encompasses other aspects as well—the consequential influence of religion on one's daily, secular activities, the affective experience of involvement with religion, and the actual participation in religious ritual such as prayer or attendance at services (Glock & Stark, 1965)

Our own approach was to conceptualize religiosity as an attribute of personality referring to cognitive orientations about a transcendent reality and about one's relation to it, orientations which are directly implicated by the impact they have on daily, secular life, and by participation in ritual practices This conceptualization enables a linkage between religiosity and control against deviance which can be mediated in several different but converging ways. First, participation in religious rituals and observances, by embedding an individual in conventional activities and in an organized sanctioning network (see Jessor et al, 1968), can provide him with social controls which, in turn, can reinforce personal controls Second, involvement with religious teachings can socialize a concern for and an awareness of moral issues and of standards for appropriate conduct Third, religious ideology about the nature of the deity can have important implications for control—the God of wrath as a source of anticipated punishment for transgression, for example, and the God of love as a beneficent ideal to be emulated. Finally, emotional religious experience can generate a devoutness or reverence resulting in an obedience orientation or a "harmonious adjustment" (James, 1902) to the

world Whatever the operative mediation, all should serve to link greater religiosity with lesser engagement in deviance.

The general hypothesis that religiosity functions as a personal control against deviance has received some empirical support from our own previous work and the work of others, but the previous research has been vulnerable to one or both of two major criticisms—either the measure of religiosity was less than adequate in its coverage of the conceptual domain, e.g, relying on single items, such as church attendance frequency, or on the nature of religious beliefs alone (Lindenfeld, 1960, Blum et al, 1969), or else the variables to which religiosity was related were less than comprehensive, few in number, and not encompassing a sufficiently large network of personality, environmental, and behavioral variables to enable a compelling appraisal. In the present effort, we have sought to meet both of these criticisms. Despite the limitations of previous work, however, it should be noted that religiosity has been shown to be associated in youth with less sexual permissiveness (Ruppel, 1969, Cardwell, 1969), with less endorsement of militant activism (Eckhardt, 1970; Connors et al, 1968), and with less involvement with marijuana (Blum et al, 1969, Jessor et al, 1973).

The opportunity for a more systematic and comprehensive examination of religiosity was provided by an ongoing, longitudinal study of the socialization of problem behavior in high school and college youth, directed by the second author. Data in that study were collected on an annual basis and derive from a large number of measures of three major social-psychological systems personality, the perceived social environment, and behavior. The personality system is constituted of three structures of variables: a motivational-instigation structure consisting of values and expectations of goal attainment in areas of affection, achievement, and independence, a personal belief structure consisting of general orientations and beliefs only indirectly linked to problem behavior, beliefs such as self-esteem, internal-external control, and social criticism, and a personal control structure consisting of attitudes and beliefs quite directly regulatory of engagement in problem behavior, e.g., attitudes toward the acceptability of various transgressions, beliefs about the appropriateness of premarital sexual relations, and perceptions of the negative consequences of drug use. It is to this personal control structure of the personality

system that religiosity has been conceptually allocated in our framework.

The perceived environment system is constituted of a distal structure and a proximal structure the former consists of social environment variables conceptually remote from deviance, such as the compatibility of parents and peers in the expectations they have for the subject, and the relative influence of parents versus peers on the views of the subject, the latter consists of variables conceptually proximal to deviance or to specific deviant behaviors, variables such as perceived peer controls against transgression, and perceived models and social support for activism or drug use or sexual intercourse. The behavior system is constituted of measures of engagement in a variety of problem behaviors ranging from general deviance (e g, lying, stealing, aggression), to marijuana use, premarital sexual intercourse experience, and activism participation This social psychology of problem behavior was elaborated initially and most fully in Jessor, Graves, Hanson, and Jessor (1968), more recent work employing this framework is reported in Jessor, Collins, and Jessor (1972), Jessor, R, and Jessor, S L (1973a, 1973b, 1975), Jessor, S L, and Jessor, R (1974, 1975), Jessor, Jessor, and Finney (1973), and Weigel and Jessor (1973) The basic concepts of the approach have their origin in Rotter's social learning theory of personality (Rotter, 1954, Rotter, Chance, & Phares, 1972).

Along with the regularly-collected measures of the variables mentioned, the ongoing study included a measure of religiosity but one that had some of the limitations noted earlier For purposes of the present research, a special effort was made to devise and validate a more adequate measure of religiosity and then to examine its relations with the network of deviance-prone personality and environment measures and with the measures of deviant behavior. The conceptualization of religiosity as a personal control logically implies the hypothesis that it will be negatively associated with measures of deviance proneness and of deviant behavior and that it will be positively associated with measures of conventionality and conformity.

Method

Participants

The participants in the current research were involved in two separate but parallel longitudinal studies, one of high school students

and one of college students in a large state university, both studies being carried out in a small city in the Rocky Mountain region For the high school study, a random sample of 2,220 students, stratified by sex and grade level, was initially designated from the enrollment of three junior and three senior high schools The entire sample was contacted individually by letter and asked to participate for the next four years or until graduation in a study of personality and social development in youth Parents of each designated student were also contacted by letter and asked for signed permission for their child's participation in the research Of the original sample, an initial Year I (April, 1969) cohort of 949 students participated [3] Of those who had not graduated in the interim, 83 percent ($N = 475$, 208 males and 267 females) of the original participants were retained through Year IV (April, 1972) The cross-sectional data reported in this paper were drawn from the Year IV testing

The college study, begun a year after the initiation of the high school study, involved a random sample of 497 freshman students, stratified by sex, drawn from the registration list of the freshman class in the College of Arts and Sciences Of the designated sample, 276 freshmen participated in the Year I (April, 1970) data collection Of this initial cohort of students, 80 percent ($N = 221$, 105 males and 116 females) of the participants were retained through Year III (April, 1972) The cross-sectional data reported for the college study were drawn from the Year III testing, this is the same year, 1972, used for the high school cross-sectional data, and therefore comparisons between the two studies refer to the same point in historical time In both studies, it should be noted, attrition was quite modest once the initial cohorts were established

Procedure

Data were collected by means of an elaborate questionnaire, approximately 50 pages in length, requiring about an hour and a half to complete The questionnaire consisted largely of psychometrically-developed scales or indices assessing personality, environmental, behavioral, and demographic variables, including many concepts in addition to those discussed in this article The questionnaire had been

3 Although persistent follow-up efforts were made to gain the cooperation of the 2,220 respondents initially designated, the fact that parental permission was a necessity and the fact that participation required remaining after school for an hour and a half on a spring afternoon both contributed to the lower than desirable initial percentage of participation The fact that only 42 percent of the originally-designated random sample of students ultimately participated in the research means that findings on the starting cohort cannot be generalized with confidence as descriptive of the school population While this limitation is unfortunate, it does not preclude the testing of the research hypothesis

pretested with samples of students not included in the final studies, and revisions in scale content had been made on the basis of the pretest findings

Questionnaires were administered in small group sessions outside of class hours, and each participant was paid a token two dollars for his assistance each year Instructions given at each session emphasized the importance of frank and honest answers and stressed that all responses would be held in strictest confidence Participants signed their names to the final page of the questionnaires in order to permit annual, longitudinal follow-up, but all name sheets were removed from the questionnaires at completion and stored in a safe deposit vault of a bank, so that all data were subsequently analyzed by code number only Students' written reactions to the questionnaire were solicited each year, and their comments indicated that they found the experience generally interesting and personally worthwhile

Development of Measures

The measure of religiosity The primary objective in constructing the present measure of religiosity was to cover systematically the various aspects of the domain of religious involvement Our previous measure, while having adequate psychometric properties and validity, was deficient in that regard In addition, despite the evidence that even single-item scales of religiosity can demonstrate useful validity (Gorsuch & McFarland, 1972), it was felt that a longer scale would yield greater reliability and be amenable to less ambiguous interpretation Therefore, each of the four dimensions of religiosity conceptualized initially by Glock (1959)—ritual, consequential, ideological, and experiential—were operationalized in two-item subscales, yielding an eight-item, composite religiosity measure This is the measure used in both the high school and college questionnaires in the 1972 testing from which the present data were drawn.

In constructing all of the items, attention was given to wording that would minimize reference to the doctrines of any specific religion[4] and would insure that actual affiliation with a religious institution was not necessary in order to attain a high religiosity score Some of the items were reverse-worded, the order of item presentation was scrambled rather than systematic, and variation in question format was

4 No participant in the high school study reported religious affiliation other than with Judeo-Christian denominations In the college study, somewhat less than 2 percent of the sample indicated non–Judeo-Christian affiliation (i e, Hinduism and Buddhism) Since these latter respondents all scored more than one standard deviation higher on the composite religiosity scale than the mean response of their peers, their data provided some indication that the items are not limited in application only to traditional western religions

utilized so that agreement response set could be controlled and attention to item content could be maintained. In order to maximize discrimination between the dimensions, the two items which operationalized ideology were the only ones to include a stimulus word such as "believe", the experiential items were the only ones that assessed the reported feeling of actual emotions, only the ritual items were directly behaviorally oriented, and only the consequential items focused on secular actions as influenced by religious commitment The eight items and the dimensions they operationalize are.

Ritual religiosity

How often have you attended religious services during the past year? — times.

Which of the following best describes your practice of prayer or religious meditation? a) Prayer is a regular part of my daily life b) I usually pray in times of stress or need but rarely at any other time c) I pray only during formal ceremonies d) Prayer has little importance in my life. e) I never pray

Consequential religiosity

When you have a serious personal problem how often do you take religious advice or teaching into consideration? a) Almost always b) Usually. c) Sometimes d) Rarely. e) Never

How much of an influence would you say that religion has on the way that you choose to act and the way that you choose to spend your time each day? a) No influence b) A small influence c) Some influence d) A fair amount of influence e) A large influence

Ideological religiosity

Which of the following statements comes closest to your belief about God? a) I am sure that God really exists and that He is active in my life b) Although I sometimes question His existence, I do believe in God and believe He knows of me as a person. c) I don't know if there is a personal God, but I do believe in a higher power of some kind. d) I don't know if there is a personal God or a higher power of some kind, and I don't know if I will ever know e) I don't believe in a personal God or in a higher power.

Which of the following statements comes closest to your belief about life after death (immortality)? a) I believe in a personal life after death, a soul existing as a specific individual. b) I believe in a soul existing after death as a part of a universal spirit c) I believe in a life after death of some kind, but I really don't

know what it would be like d) I don't know whether there is any kind of life after death, and I don't know if I will ever know e) I don't believe in any kind of life after death.

Experiential religiosity

During the past year, how often have you experienced a feeling of religious reverence or devotion? a) Almost daily b) Frequently c) Sometimes d) Rarely e) Never

Do you agree with the following statement? "Religion gives me a great amount of comfort and security in life" a) Strongly disagree b) Disagree c) Uncertain d) Agree e) Strongly agree

Each item was scored from 0 to 4 (attendance at religious services was categorized according to meaningful breaks in the response distribution) yielding four subscales, each ranging from 0 to 8, and a composite religiosity measure with a score range from 0 to 32, higher scores indicating greater religiosity Psychometric properties of the subscales and of the composite measure were similar in the high school and college and very satisfactory Coefficient alphas (Cronbach, 1951) were over 90 indicating high internal reliability, Homogeneity Ratios (Scott, 1960) averaged 55 indicating item homogeneity to the point of some unnecessary redundancy, and response variance was broad, with an almost eight-point standard deviation on the composite scale.

Preliminary validation of the religiosity measure Four different approaches were used to establish validity of the religiosity measure prior to its use in testing the main hypothesis Known-groups validity was examined in relation to sex and age differences in religiosity scores, since an extensive review of the literature (Moberg, 1971) concluded that females were more religious than males and high school-age students were more religious than those of college-age On the composite measure, both high school females (mean = 17 2) and high school males (mean = 15 2) scored significantly higher than their same-sex counterparts in college (college female mean = 12.7, college male mean = 12 5). Within the high school, the females were significantly higher than the males in religiosity, but there was no sex difference in composite religiosity at the college level With respect to the four subscales, ritual religiosity showed the greatest age-related difference while consequential religiosity showed the least age or sex difference. Overall, these findings provide a degree of validity for the religiosity measure.

External validity was examined by prediction, from a multiple regression using the four subscales, to a 10-point, linear rating scale measure of self-reported religious commitment: "If you were to mark

yourself on a scale of 0 to 10, how religious would you mark yourself?" The multiple *R*s were 78, 81, 83, and 84 for college males, college females, high school males, and high school females, respectively It is of interest to note that, according to the beta weights, the consequential subscale was most predictive and the ritual and ideological subscales were least predictive of the self-rating of religious commitment Although this external criterion is not totally unrelated to the items in the subscales, the multiple *R*s are very high and do contribute some external validity support

Internal validity was examined by intercorrelating the four religiosity subscales in each of the four student groups The average correlation in the four resulting matrices was 69, the Pearson *r*s between scales approximating and sometimes exceeding the reliabilities of the separate subscales These data strongly support the unidimensionality of religiosity and, therefore, the validity of the composite scale

Finally, an approach to discriminant validity was made by examining the relations of the four subscales to two separate measures of the perceived religious environment, a subscale of models for religious involvement among friends and relatives, and a subscale of social support from peers and adults for religious involvement The measure of perceived models, while significantly related to the religiosity subscales, correlated with them much more weakly (average $r = .42$) than they correlated among themselves, and the same was even more true of the measure of perceived support (average $r = .11$) These data indicate that measures of personal religiosity are not coterminous with measures of the religious environment [5]

Together, these efforts provide converging support for the validity of the religiosity measure prior to its use in testing the hypothesis and in establishing its construct validity as a personal control The data reported also support the unidimensionality of religiosity and the combination of the four subscales into a single, eight-item scale

The measures of personality, perceived social environment, and behavior The measures reported in this paper are selected ones focused on the interpretive concern with personal control and are illustrative rather than exhaustive. Most had been devised and validated in earlier research and have been shown to have adequate internal psychometric properties and validity Further description, beyond

5 The two subscales of the perceived religious environment, in addition to serving in this discriminant validation, were also correlated with the various personality, social, and behavioral measures later employed to test the main hypothesis about personal religiosity While those environment subscale results will not be discussed in this paper, it can be indicated that their *pattern* of relations is not too discrepant from the pattern that obtains for the personal religiosity measure. The religious environment, it appears, may function as a social control, paralleling the function of religiosity as a personal control

what is briefly given below, may be found in Jessor (1969) and in the earlier cited publications

Within the motivational-instigation structure of the personality system, three measures of values and three parallel measures of expectation for achieving those same values were used The motivational areas were social love and affection, academic achievement, and independence, each assessed by ten items with responses checked along linear rating scales In the value format, students responded to items such as, "How strongly do I like to be able to decide for myself how to spend my free time?" (value for independence), in the expectations format, items were phrased as, "How strongly do I expect to do well in the more difficult courses here?" (expectation for academic achievement) Within the personal beliefs structure of the personality system, three measures were used a 17-item, Likert-type scale of belief in internal versus external control, a 13-item Likert-type scale of social criticism, the belief that society and its various institutions and intergroup relations are inadequate or should be changed, and a 10-item Likert-type scale of self-esteem covering a variety of areas of self-evaluation Within the personal control structure of the personality system, there were also three measures a 30-item rating scale of attitude toward deviance assessing the degree of *in*tolerance of various transgressions such as lying, stealing, cheating on tests, or aggression against peers, a two-item measure of the acceptability of premarital sexual intercourse both when the partners have a close personal relationship and when they have no special feeling toward each other, and a 10-item, Likert-type scale of the perceived negative functions associated with the use of marijuana, functions which reflect reasons for not using marijuana or for discontinuing its use

Within the distal structure of the perceived social environment system, there were two measures a three-item, Likert-type scale of the perceived agreement between parents and peers in their attitude toward the respondent and his goals in life, and a two-item, Likert-type scale assessing the relative influence of parents versus peers on the respondent's decision-making and general outlook on life Within the proximal structure of the perceived environment, four Likert-type measures were employed a two-item scale of perceived controls exercised by his peers over the respondent's behavior, that is, their strictness of standards and their efforts to dissuade transgression, a two-item scale of perceived peer support for engaging in activist protest, a one-item measure of perceived models among same-sex friends for having engaged in sexual intercourse, and a three-item scale assessing approval (or lack of disapproval) from peers and parents for respondent's use or anticipated use of marijuana

Within the behavior system, assessment was made of reported

participation in political activism including militant protest as well as peaceful demonstration, reported experience of premarital sexual intercourse, reported use of marijuana from none to heavy involvement, self-reported engagement in a variety of deviant behaviors such as lying, stealing, cheating, and aggression, and finally, grade-point average as an indirect indicator of involvement with the conventional area of school achievement behavior

The 23 measures mentioned above provided the network for evaluation of religiosity as a personal control

Results

The primary approach to testing the hypothesis that religiosity functions as a personal control against deviance or problem behavior was to correlate the religiosity measure with the various measures of the personality, perceived social environment, and behavior systems The expectation was that religiosity would correlate negatively with measures of deviance-proneness and deviant behavior and positively with measures of conformity-proneness and conventional behavior. Since the four student samples vary in mean level of religiosity, the correlations were run within each sample separately, thereby providing four replications of the test of the general hypotheses. These correlations are presented in table 1

In general, the findings in table 1 provide strong support for the personal control interpretation of religiosity. The strongest and most consistent relations are those with the three measures in the personal control structure of the personality system religiosity is significantly related, in all four samples, positively to *in*tolerance of deviance, negatively to the acceptability of premarital sex, and positively to the number and strength of reasons against marijuana use Thus, the conceptual allocation of religiosity to the personal control structure receives quite direct empirical support, especially since the other measures in that structure contain no item content that overlaps with the content of the religiosity measure and that could yield spuriously high correlations

Turning next to the behavior system, it can be seen that religiosity functions as a personal control by regulating problem behavior as theoretically expected. in both high school samples, religiosity is negatively related to all four problem behavior mea-

Table 1 Pearson correlations of religiosity with measures of personality, perceived environment, and behavior

	High school study		College study	
	Males ($n = 208$)	Females ($n = 267$)	Males ($n = 105$)	Females ($n = 116$)
Personality system				
Motivational-Instigation Structure				
Value on Social Love and Affection	07	21***	10	19*
Value on Academic Achievement	17*	24***	— 09	01
Value on Independence	— 22**	— 14*	00	— 06
Expectation of Social Love and Affection	02	09	15	.24**
Expectation of Academic Achievement	05	07	— 21*	— 04
Expectation of Independence	— 19**	— 20***	09	— 01
Personal Belief Structure				
Internal versus External Control	17*	08	14	14
Social Criticism	— 17*	— 32***	— 02	— 27**
Self-Esteem	— 12+	— 07	07	10
Personal Control Structure				
Attitude toward Deviance	25***	31***	23*	19*
Acceptability of Premarital Sex	— 45***	— 48***	— 37***	— 38***
Negative Functions of Marijuana Use	25***	38***	32***	37***
Perceived social environment system				
Distal Structure				
Parent-Peer Compatibility	19**	26***	15	26**
Parent versus Peer Influence	— 14*	— 21***	— 12	— 19*
Proximal Structure				
Peer Control	28***	32***	11	27**
Peer Support for Activism	— 05	— 25***	— 18+	— 18*
Friends Models for Premarital Sex	— 23***	— 31***	— 22*	— 19*
Approval for Marijuana Usage	— 31***	— 44***	— 33***	— 38***
Behavior system				
Activism Behavior Report	— 15*	— 14*	— 03	— 10
Premarital Sexual Behavior Report	— 19**	— 22***	— 25*	— 24**
Marijuana Behavior Report	— 29***	— 31***	— 27**	— 23*
Deviant Behavior Report	— 16*	— 22***	— 03	00
Grade-Point Average	11+	05	04	00

Note—Correlations significantly different from zero at the following two-tail probability levels $+p \leqslant 10$, $*p \leqslant 05$, $**p \leqslant 01$, $***p \leqslant 001$

sures—activism, premarital sex, marijuana use, and general deviant behavior, in the college samples, the behavioral results are also significant, but only for premarital sex and marijuana use. The anticipated positive correlation with grade-point average as an indirect indicator of conventional behavior did not appear in any sample. With regard to the perceived environment, the proximal structure shows, again as implied by the logic of the proximal-distal continuum (Jessor & Jessor, 1973a), a stronger and more consistent relation to religiosity than does the distal structure. Thirteen of the 16 correlations of religiosity with the proximal measures are significant at the 05 level or better, the more highly

religious the person is, the greater the controls exercised by his peers, the fewer models they provide for sexual experience, and the less support or approval they offer for activism and drug use The distal environment, while not related to religiosity for college males, does show for the other three samples that the more religious the youth the more parent rather than peer influence he acknowledges and the more agreement he perceives between his friends and parents

Finally, in regard to the instigation and belief structures of the personality system, the findings are supportive for the high school samples while being essentially nonexistent for the college samples (except for the negative relation of religiosity and social criticism for the females, and their positive value and expectation for social love and affection correlations) Noteworthy for the high school students is the expected positive correlation with (conformity-prone) value on achievement and the expected negative correlation with (deviance-prone) value on independence, as well as the negative correlation with (deviance-prone) social criticism in both males and females Neither internal versus external control nor self-esteem yielded consistent results In overall summary, then, religiosity has been predictably connected, through these correlations, with diverse and far-separated portions of a nomological network dealing with problem behavior

A secondary approach to assessing the personal control function of religiosity was to examine whether it varied with the length of time that the respondents were involved in a problem behavior, the longer the involvement the lower should be the personal control religiosity score Because of the longitudinal nature of the research project, it was possible to establish, within each of our four samples, a group that was not involved in a particular problem behavior in *either* 1971 or in 1972, a group that was not involved in 1971 but *was* involved in 1972, and a group that was involved in *both* 1971 and 1972 These three groups represent, then, three different lengths of involvement, and they were constituted separately for the behavior of activism, for premarital sex behavior, and for marijuana use The data relevant to this analysis appear in table 2

No significant differences in religiosity appear in relation to the length of involvement with activism, although in both high school groups there is a consistent trend, with higher religiosity scores among the two-year nonactivists, intermediate scores

Table 2 Mean religiosity scores for groups differing in length of involvement with three problem behaviors over a two-year interval, 1971 and 1972

	Length of involvement groups—activism status			
	None	One-year	Two-year	*F* ratio[b]
High school males	16 1 (138)[a]	13 4 (10)	12 1 (18)	2 00
High school females	18.5 (186)	16 3 (19)	14 4 (17)	2 43
College males	13 6 (43)	12 2 (11)	13 7 (11)	18
College females	14 0 (54)	16 8 (7)	10 8 (17)	1 66
	Length of involvement groups—nonvirgin status			
	None	One-year	Two-year	*F* ratio[b]
High school males	$16\ 0_{a}$ (149)	$14\ 9_{ab}$ (37)	$9\ 2_{b}$ (20)	5 30*
High school females	$18\ 4_{a}$ (163)	$15\ 4_{ab}$ (64)	$14\ 9_{b}$ (37)	4 79*
College males	15 4 (24)	11 9 (14)	11 0 (59)	2 98
College females	16 3 (20)	11.5 (14)	11 6 (74)	3 05
	Length of involvement groups—marijuana use status			
	None	One-year	Two year	*F* ratio[b]
High school males	$17\ 1_{a}$ (118)	$15\ 0_{a}$ (25)	$9\ 8_{b}$ (45)	13 08**
High school females	$19\ 2_{a}$ (146)	$17\ 0_{a}$ (30)	$13\ 4_{b}$ (69)	13 82**
College males	$19\ 7_{a}$ (19)	$12\ 3_{b}$ (10)	$10\ 1_{b}$ (66)	14 13**
College females	15 5 (25)	14 3 (9)	11 3 (66)	3 05

Note —Subscripts within each row refer to mean religiosity scores which differ at $p \leqslant 05$ from scores in that row with different subscripts by Tukey's (a) test (Winer, 1971, p 198), thus *a* is significantly different from *b*, but *ab* is not significantly different from either

[a]Numbers in parentheses are the *ns* for each group

[b]Significance of *F* ratios $*p \leqslant 01$, $**p \leqslant 001$

among the one-year activists, and lower scores among the two-year activists With regard to length of involvement with sexual experience, there is a significant trend in the direction of lower religiosity scores within both high school samples, and a nonsignificant trend within the two college samples Finally, longer involvement with marijuana is significantly associated with lower religiosity scores for high school males and females and for college males, with a nonsignificant trend for college females These findings, while not always significant, are highly consistent and provide an additional type of empirical support for inferring the personal control function of religiosity

Discussion

Perhaps the most important outcome of the present study was the clarification of the personal control function of religiosity.

The consistent and substantial correlations of the religiosity measure with other measures in the personal control structure of the personality system argue strongly for such a conceptual inference The inference was strengthened by the negative correlations of religiosity with attributes of the proximal environment conducive to deviance, such as models and support, and by the negative correlations with actual engagement in various problem behaviors. The relations of religiosity to a distal parent-peer environment tending to promote conformity, and to higher value on achievement, lower value on independence, and lower social criticism—a pattern supporting conventionality—all add to the coherence of the empirical findings The four samples provided consistent replications of the results, and, while the relationships were strongest at the high school level, they were also significant at the college level, especially for the females

Since the relations of religiosity to its correlates in this study could conceivably be a function of a "third variable," especially background, social origin variables, it was deemed important to examine that possibility Although our samples are predominantly middle-class and, therefore, restricted in socio-economic background variation, correlations were run between religiosity and a set of five measures of socio-economic status father's education and occupation, mother's education and occupation, and the Hollingshead two-factor index of social position Of the 20 possible correlations across the four samples, only two reached significance, both were for high school females, and neither accounted for more than three percent of the variance on the religiosity measure. Thus, socio-economic background, in our samples at least, was unrelated to variation in religiosity.

A more relevant background variable, perhaps, than socio-economic status was denominational affiliation, especially when considered along a "fundamentalism" dimension. The various denominations to which students belonged had been earlier classified along a liberalism-fundamentalism scale by six local clergymen Correlations between religiosity and this scale for our four samples averaged 45 In view of this, it seemed necessary to demonstrate that fundamentalism of denomination was not mediating the religiosity-personal control relationships. For this purpose, the denominations were split into a high and a low fundamentalism category, and the correlations of religiosity with

the 23 variables in the network were run again, now within the high and within the low category, for all four samples Of the 92 high fundamentalism-low fundamentalism pairs of correlations generated by this procedure, only six pairs were significantly different in magnitude In short, the relation between religiosity and its correlates held, for the most part, within the high and the low fundamentalism categories, making fundamentalism of denomination incapable of accounting for or of limiting the interpretation of the major findings

The salient characteristic of the religious person which has emerged from this study is a general conventionality a relative acceptance of social institutions as worth conserving as they are, a set of values that sustain conformity and eschew self-assertion and autonomy, and a social context that minimizes both opportunity and support for departure from conventional norms This is a somewhat different picture than the one drawn by Dittes (1971) in his review of research on religion and personality. A heavy emphasis was placed, in that review, on maladjustment, on the sense of personal inadequacy, and on ". . . desperate and generally unadaptive defense maneuvers Here perhaps, are the sick souls and divided selves, two types of religious predispositions described by William James. " (Dittes, 1971, pp 367–368) Our own data do not support this maladjustment emphasis, as can be seen in table 1, religiosity does not vary with low self-esteem nor with feelings of external control (in fact, the trend is toward a positive relation with internal control) Examining the correlation of a slightly different measure of religiosity with a 13-item measure of alienation in a slightly smaller sample of high school and college males and females, the correlations are all negative, with one, that for college females, reaching significance, $r = -19$ Thus, although this is clearly not a systematic appraisal of the maladjustment thesis, the data that we have provide no support for it while providing, instead, consistent and substantial support for the conventionality thesis.

At least some of the problem behaviors we have examined, as well as others such as drinking, are obviously age-related, that is, more likely to occur or to be engaged in at older than at younger ages. Insofar as this is true, it suggests that personal controls, including religiosity, may well decline with age The longitudinal nature of our research enabled us to examine this possibility al-

though with our original measure of religiosity rather than with the one developed for this study, and with college and high school samples defined somewhat differently than, but overlapping with, the samples used in this paper Those data do, indeed, reveal a developmental trend for a decline in religiosity. For the high school males and females, there is a difference between their religiosity scores in 1969 and in 1971, the latter means being significantly lower, for college males and females, there is a difference between their religiosity scores in 1970 and in 1972, significant at the $p < .10$ level for females but not for males (These developmental trends for religiosity are, incidentally, paralleled by a similar developmental trend for attendance at church services, decline in church attendance is significant for all samples over a four-year interval) The developmental decline in religiosity, thus, is consistent with the observable developmental increase in engagement in sex, marijuana use, drinking, and other age-related problem behavior

If, as just indicated for religiosity (and as our other data show for another personal control measure, attitude toward deviance), there is a decline with growth and development, an interesting question is raised about the nature of the personal controls that may characterize later stages of development It seems clear, reflecting on both religiosity and attitude toward deviance, that they are both conventional in content, referring to institutionalized standards and conventional ideas of right and wrong. It may well be that the process of development can lead to alternative kinds of personal controls, ones reflecting more abstract principles as a guide for action, what Kohlberg (1973) has termed postconventional morality. Unfortunately, not initially anticipating this kind of issue, we did not develop measures that would enable us to go beyond mere speculation.

As noted earlier, the measurement of religiosity has been subjected to lively controversy around the issue of uni- versus multidimensionality In the present study, the relationships that obtained among the four subscales were not too different from those reported by others (Clayton, 1971, Faulkner & DeJong, 1966, Gibbs & Crader, 1970, Cardwell, 1969). What seems apparent is that those arguing for multidimensionality on the basis of such data have failed to take note of the fact that relations between subscales are limited by the reliability of the individual

scales In our own data, the interrelations approached the scale reliabilities, providing a strong argument for unidimensionality Further, when each subscale was correlated with our 23 other measures and these correlation sets were in turn correlated with each other, the correlations of correlations yielded Pearson *r*s between 89 and 99, indicating that the four subscales related in highly similar fashion to the 23 outside criteria This, too, argues strongly for unidimensionality At least at the measurement level, religiosity has emerged consistently as a unidimensional variable, in view of this, our own construction of a composite religiosity scale seems to have been the logical and appropriate strategy to follow

The focus of our present work has, of course, been on just one aspect of religiosity, its function as a personal control Our strategy of embedding religiosity in a network of personality, social, and behavioral attributes was a revealing one in garnering support for our hypothesis But it must be clear from observation of contemporary variation in religious activity—and from even a cursory view of religious history—that there are other important and different functions that religious involvement must play in human life. Perhaps the application of a similar strategy to those other important functions of religiosity would be similarly revealing

Summary

The hypothesis that religiosity functions as a personal control against transgression was examined in samples of high school and college males and females A measure of religiosity, constructed to encompass its ideological, ritual, consequential, and experiential aspects, was correlated with other measures of personal controls as well as with a variety of personality, perceived environment, and behavioral measures of deviance and of deviance proneness Religiosity correlated positively and significantly with other measures of personal controls (*r*s ranged from 19 to 48), and negatively with measures of deviance proneness and deviant behavior The obtained relations were shown to hold when controls for differences in social origin variables, such as socio-economic status, or in religious fundamentalism were applied. The research also demonstrated that religiosity, as a cognitive attribute of personality, is best considered to be uni- rather than multidimensional in nature

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Manuscript received April 15, 1974