

Religious Behavior and Neuroticism, Spontaneity, and Worldmindedness*

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To determine the relation of religious behavior to certain areas of personality, such as neuroticism, spontaneity, and worldmindedness, dimensions of personal and religious behavior were isolated by factor analysis and interrelated by canonical analysis. Characteristics of religious behavior and personality-religion interaction differ among Jews, Catholics, Protestants, Baha'is, and non-affiliates. The Baha'i interaction redefines religion. The findings are discussed in terms of the definition of religion, psychosocial variables to which religion is related, differences among religious groups, and unity through religion. Studies of religion must distinguish between independent dimensions of religious behavior and their differential correlation with personality in different religious groups.

There is little agreement among psychologists and sociologists about the relation of religious behaviors to other social and personal behaviors. For example, Freud maintained that religion can act as the "universal obsessional neurosis of humanity," fixating individuals in an infantile stage until the illusive doctrine is discarded.¹ On the other hand, Jung noted that participation in a "living religion" and religious conversion may constellate unconscious, integrative processes, having a therapeutic effect on neuroses, and promoting individual growth.² Other investigators have observed that the influence of religion on individual personalities and social groups can be either positive, cohesive, and integrating, or negative, destructive, and disintegrating.³ This lack of agreement and clarity with regard to the relation of religion

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¹ Sigmund Freud, *The Future of an Illusion*, New York: Doubleday, 1964.

² Carl G. Jung, *Modern Man in Search of a Soul*, New York: Harcourt, Brace & World, 1933; *Psychology and Religion*, New Haven: Yale University Press, 1938; and Hans Schaer, *Religion and the Cure of Souls in Jung's Psychology*, London: Routledge & Kegan Paul, 1951.

³ See, for example, Joachim Wach, *Sociology of Religion*, Chicago: University of Chicago

to society and personality seems to be based on several unresolved issues: the definition of religion, the psychological and social variables to which religion is related, and the differences among religious groups.

First, what is meant by the word *religion*? A great variety of behaviors and beliefs have been called religious at many times by many people. Many studies work with only one or two religious behaviors or beliefs and the effect of these is often interpreted as the effect of "religion." When such studies differ widely in both the theoretical and operational definitions of the specific religious practices or ideas examined, it is difficult to synthesize their findings into general statements with empirical basis about the influence of religion. Another approach is to attempt to formulate a single, comprehensive definition of religion, applicable in all cultures, religious groups, and periods of history. Such efforts assume either that religious behaviors not included in the definition are to be redefined as not religious or that all of the diverse religious behaviors and beliefs have some common essence, purpose, or effect. The former possibility can be arbitrary and the latter is questionable in light of the opposite effects of religion noted above. Neither isolated studies of a few specific religious behaviors nor the quest for a singular definition of religion has enabled us to make clear and generally acceptable statements about the place of religion in man's social and personal life.

While it does not seem possible to reduce every religious behavior and belief to one central concept or definition, studies demonstrating multidimensional structures of religious behavior ⁴ suggest the possibility of describing the full diversity of religious behaviors by a few simple dimensions. In order to isolate by factor analysis dimensions of the religious behavior of the individual which are more comprehensive than those found in previous studies, the present study uses a wider variety of specific religious behaviors and beliefs as reported by subjects in a wider variety of religious groups.

Given this improved specification of the basic dimensions which account for the varieties of religious behavior, the next step is to identify social and psychological variables to which these dimensions are most related. Behaviors and attitudes in which integration is theoretically important seem to be good candidates, in view of the above observations of the integrating and disintegrating influences of religious behavior. From many possibilities, the follow-

Press, 1962; J. Milton Yinger, *Religion, Society, and the Individual*, New York: Macmillan, 1960; and Thomas F. O'Dea, *The Sociology of Religion*, Englewood Cliffs, N. J.: Prentice-Hall, 1966.

⁴ Micheal S. Black & Perry London, "The Dimensions of Guilt, Religion, and Personal Ethics," *Journal of Social Psychology*, 69 (June, 1966), pp. 39-54; and V. B. Cline & J. M. Richards, Jr., "A Factor-Analytic Study of Religious Belief and Behavior," *Journal of Personality and Social Psychology*, 1 (June, 1965), pp. 569-578.

ing areas of personality and attitude were chosen: neuroticism as a lack of integration of personality; ⁵ spontaneity as an index of the specific integration of the conscious and unconscious minds; ⁶ and worldmindedness as an attitude conducive to social integration ultimately on a world level.⁷

Although many investigators recognize important differences among religious groups, many discussions of religion are over-simplified and confusing by assuming that the characteristics of religious behavior and its relation to other behaviors and attitudes are the same in all groups. In this study religious behavior and its interaction with the above psychosocial variables will be analyzed separately in each of five religious groups.

Thus, the definition of religion, the variables to which religion is most related, and the differences among religious groups are some of the theoretical issues relevant to the central questions of this exploratory study which are: (a) what are the basic dimensions of religious behavior? (b) how are these dimensions related to certain areas of personality and attitudes? and (c) how does this relation differ in different religious groups?

DIMENSIONS OF RELIGION AND PERSONALITY

TEST INSTRUMENT. Behaviors and ideas related to religion and the psychosocial issues mentioned above were assessed by 113 behavioral, attitudinal, and personal information variables. For the behavioral variables, subjects were asked to rate how often they do what the statement says by circling a number on an eight-point scale, anchored with "Almost Always Do" at one, and with "Almost Never Do" at eight. For the attitudinal variables, subjects marked a number on a similar scale anchored with "Strongly Agree" and "Strongly Disagree."

SUBJECTS. In the Chicago, Illinois and Tulsa, Oklahoma areas, social, educational, and religious groups were requested to participate in the study by providing an occasion for their members to complete the questionnaire. At a meeting of those groups which cooperated, the questionnaire was administered and each subject participated anonymously. On the basis of their indication of the religion to which they belong, the subjects were classified into five groups: Jews (n=98), Catholics (n=130), Protestants (n=245), Baha'is (n=112), and non-affiliates (n=96).

These samples were used to compute the dimensions of religious behavior and personality by the factor analysis described later. Since there were dif-

⁵ Gordon W. Allport, *The Individual and His Religion*, New York: Macmillan, 1964.

⁶ Carl G. Jung, *Two Essays on Analytical Psychology*, Cleveland: World, 1961.

⁷ Donald L. Sampson and Howard P. Smith, "A Scale to Measure Worldminded Attitudes," *Journal of Social Psychology*, 45 (February, 1957), pp. 99-106.

ferences among the five samples in age, sex, education, and socio-economic status, group differences in the factor means, variances, and correlations could not be conclusively attributed to differences among the religious groups. So these demographic variables were controlled in the following manner: A subsample of 50 subjects was selected from the total sample for each religious group. These five subsamples were matched across the groups subject by subject in age, sex, education, and socio-economic status. This matching procedure naturally yields equal means and variances for these four demographic variables in the five matched samples. According to analyses of variance, there is less than chance variation among the means of the five matched samples for age ($p > .70$), sex ($p > .70$), education ($p > .90$), and socio-economic status ($p > .95$). According to Bartlett's test for the equality of more than two variances, there is about chance variation among the variances of the five matched samples for age ($p > .40$), sex ($p > .80$), education ($p > .50$), and socio-economic status ($p > .30$). Except for the identification of dimensions of religion and personality in the factor analyses, all the data reported below including the group factor means, variances, and correlations and canonical means are based on these five matched samples. Until future work may demonstrate otherwise, it will be assumed that differences among the five religious groups on these statistics are due to the particular religious behavior and its psychosocial functioning in each group.

In each matched sample, the mean age is 23 years old (s.d.=5 years); 50% are males and 50% are females; 26% attended their last year of school in high school, 61% in college, and 13% in graduate school; and 19% are skilled workers, 24% clerks and kindred workers, 26% semi-professionals, and 30% professionals. If under 25 years old, the subject's occupational status was rated according to his father's occupation. The average subject in the matched samples is a young adult with some college education and with a father employed at the white-collar or semi-professional level.

The orientation of the subjects in the Jewish matched sample is 50% Conservative, 40% Reformed, and 10% Orthodox. The Protestant matched sample is 14% Methodist, 14% Presbyterian, 14% Baptist, 10% Lutheran, 10% Unitarian, 8% Episcopal, and 8% Disciples of Christ. The other 22% of the Protestant matched sample did not specify a denomination.

The Baha'i World Faith is a new religion which still contains its pristine vigor and which is composed of a large proportion of first-generation members.⁸ Recalling Jung's statements on religion mentioned at the outset, these features of the Baha'i group merit its inclusion in the sample.

⁸ Shoghi Effendi Rabbani, *The World Order of Baha'u'llah*, Wilmette: Baha'i Publishing Trust, 1955.

PROCEDURE. The following operations were performed separately on both the 35 religion variables and the 78 personality variables. A covariance matrix for each religious group was calculated. These were pooled and communalities were inserted in the diagonal by the squared multiple covariance method.⁹ The pooled covariance matrices for religion and personality were each factor analyzed. The four largest principal axis factors were extracted from each, accounting for 96 and 59 per cent of the estimated communality of the religion and personality sets respectively. The four religion factors are a very complete expression of the covariance of the religion variables. The fifth factor in the personality set was not extracted because its meaning was not clear enough for it to be useful as a variable in the canonical analyses below. The fifth religion factor was not extracted because its variance was less than the mean variance of the items factored. Each set of four factors contains one big factor accounting for about half of the common variance and three smaller factors. Each set was rotated to Kaiser and Dickman's binormamin criterion of oblique simple structure.¹⁰

RESULTS. Due to the comprehensive scope of the items representing so-called religious behaviors, the four religion factors present a fairly complete picture of the basic dimensions of experience commonly associated with the word *religion*. These factors were discovered in the sense that the investigator was exploring rather than trying to confirm preconceived notions about the general structure of religious behavior. The following descriptions are based on the questionnaire items listed in table 1.

TABLE 1
Rotated Religion Factors

Variables	Factors and loadings ^a				h ²
	1	2	3	4	
Factor 1: Salient/Irrelevant ^b					
Motivating your daily activities with religious feelings and ideas	1.65	-.01	-.02	-.23	2.81
Studying and meditating on sacred scripture—the holy books in your faith	1.47	-.06	.16	.14	2.01
Feeling committed to your religion	1.33	-.05	-.38	-.09	1.99
Contributing to funds (such as those supporting religious institutions)	1.31	-.26	-.05	.29	1.45
Overcoming bad habits through religious experience or insight	1.31	.23	.08	-.03	2.10
Attending religious services and meetings	1.21	-.06	-.01	.33	1.44

⁹ Harry H. Harman, *Modern Factor Analysis*, Chicago: University of Chicago Press, 1960.

¹⁰ *Ibid.*

TABLE 1—*Continued*
Rotated Religion Factors

Variables	Factors and loadings ^a				h ²
	1	2	3	4	
Obedying the laws of the divine revelation in your religion	.95	.35	-.12	.23	1.51
Finding relief from physical pains or ailments through the support of religious faith, conviction, or experience	.90	.29	.08	.15	1.17
Parents teaching you by living the religious teachings themselves Yes <u>x</u> No <u> </u>	.89	-.04	.18	.20	.74
Living in such a way that you would be relatively prepared for death if you were to be faced with it unexpectedly	.86	-.32	.01	-.33	.71
Having a strong sense of meaning and purpose in life	.86	-.14	-.03	-.44	.89
Having regular periods of religious fasting	.85	-.17	-.15	.58	.91
Having "mystical experiences" (such as a feeling of the presence of the divine, or a sudden feeling of divine guidance, etc)	.81	.32	.31	.05	1.02
Seeing the wisdom of renunciation or sacrifice (giving up something you seem to want badly now in order to gain some long run benefits)	.79	-.01	.13	-.27	.71
Wearing or carrying religious symbols (such as holy books, crosses, rings, pendants, etc)	.77	-.07	.05	.70	.94
Meditating seriously about the ultimate concerns in your life	.74	-.14	.21	-.45	.76
Before marriage, people should be chaste (not have sexual intercourse)	.70	.54	-.30	.27	1.52
Affecting your overall appearance because of religious feelings (wearing habits as nuns do, or skull caps as some Jews do, etc)	.55	-.07	.18	.33	.34
Level of formal religious education (low/high)	.49	-.10	-.02	.12	.20
Feeling respect for your priest, minister, rabbi, or religious governing body	.42	.22	.19	-.11	.34
Doing "good works" is just as important and necessary as being "faithful"	.29	.01	-.05	-.03	.09
Factor 2: Spiritual/Secular					
I believe the soul continues to exist in some way after the physical body dies	-.17	1.62	-.02	.15	25.4
I believe in the soul (an intangible, "spiritual" entity in each person)	-.22	1.44	-.09	-.12	1.80
I believe in the existence of God (for example, a creating power in the universe greater than man's conscious will, or, the unknowable essence of the universe)	.00	1.22	.04	-.06	1.47

TABLE 1—*Continued*
Rotated Religion Factors

Variables	Factors and loadings ^a				h ²
	1	2	3	4	
Seeking help or guidance from God (that is, the creating power in the universe greater than man's conscious will)	<i>.83</i>	<i>1.07</i>	.11	-.15	2.75
Praying alone	.77	.97	.19	.03	2.31
Faith and reason are ultimately conflicting	-.38	-.50	.34	.49	.99
Factor 3: Skeptical/Approving					
Questioning the validity of your own religion	-.06	.04	<i>1.33</i>	-.01	1.82
Questioning the validity and usefulness of other religions	.10	-.04	<i>1.32</i>	.00	1.74
Attacking verbally an evil person	.06	-.11	.29	.20	.12
Factor 4: Orthodox/Personal					
The primary force in religion is acceptance of doctrine and creed; inner, personal experience is not most important	.05	-.09	-.23	.70	.58
Ceremonies and rituals are the most important part of religion	.23	-.14	-.11	.69	.51
S is a member of the same religion as one or both of his parents	-.13	.10	.07	.61	.40
Have you ever changed to or converted to a religion as a result of some emotional and/or attitude-changing experience? Yes <u> </u> No <u>x</u>	-.29	.15	.14	.53	.38
Respecting nonbelievers in your religion as much as believers	-.10	-.05	.39	-.44	.44
Factor Variance ^c	21.67	9.59	4.64	4.17	41.39
Per Cent Common Variance	54.1	23.9	11.6	10.4	100.0
Per Cent Estimated Communalities	64.3	13.7	10.1	8.0	96.1

^a *Italicized loadings* represent ten or more per cent of the variance of the item. The mean variance is 4.2.

^b The factor names are adjectives describing behavior and/or attitudes with regard to religion.

^c Due to the oblique rotation, the sum of the factor variances exceeds the sum of the communalities.

Religion factor 1 (Salient/Irrelevant) represents a basic issue regarding the role of religion in the life of modern man. It deals with the importance one ascribes to, and the degree to which one participates in, his religion. Measurement of an individual on this dimension reflects the degree to which he is functioning in the type of meaning-system usually called "religious." A rating of the five groups studied on this factor indicates the extent to which each provides a matrix for such individual functioning (Table 2).

Religion factor 2 (Spiritual/Secular) deals with the intangible notions invariably associated with religious activity. Belief in the afterlife, the soul, and God covaries with praying, premarital chastity, and the view that faith and reason are *not* ultimately conflicting.

If more variables were defining religion factor 3 (Skeptical/Approving), it would be easily distinguished from Secular beliefs in factor 2. The issue in religion factor 3 is questioning the validity of religion, i.e., skepticism, versus not questioning the validity, i.e., approving of religion, regarding religion as worthy, proper, or right.

Religion factor 4 (Orthodox/Personal) describes whether religion is perceived and experienced in the context of doctrine and ritual or in terms of the following personal experiences and attitudes: religious conversion, serious meditation about ultimate concerns, having meaning and purpose in life, and lack of "religious" prejudice (respecting nonbelievers).

The four personality factors¹¹ are not a comprehensive inventory of personality, because the variables were chosen to express the issues of neuroticism, spontaneity, and worldmindedness. The following interpretations of these factors are based on the variables with the highest loadings. The meaning of the first three is clear; the fourth is not so obvious.

Personality factor 1 (Neurotic/Adaptive) is a collection of maladaptive, neurotic behaviors: having unimportant thoughts run through your mind and bother you, having your moods alternate from happy to sad without your control, getting upset easily, having spells of the blues, feeling lonely even when you are with people, feeling left out of things, regretting afterwards things you have done, feeling like a failure when you hear of the success of someone you know well, feeling that people do not tell you what they really think of you, finding it hard to keep your mind on a task or job, having difficulty in starting to do things, doing things that damage your sense of self-respect, feeling that you don't care about anything even though everything is going fine for you, that if I had my life to live over again I would plan it differently rather than live it in the same way, feeling restless, wasting time, and disliking a person unreasonably. In view of the considerable discussion as to what constitutes neurotic behavior, it should be emphasized that the term is used here to refer simply to the behavior pattern characterized by the above items. The variables with negative loadings include making decisions easily, living up to your expectations of yourself, letting people see what you are really like, finding enough energy to face your difficulties, getting to sleep easily at bed time, getting along with the opposite sex, controlling

¹¹ A 4-page table of rotated personality factors is available from the American Documentation Institute.

your feelings, putting others at ease, and getting enough praise. These may be understood as indices of good adaptation, health, or growth. But due to the lack of agreement as to what constitutes health, the negative pole of this factor was given an unassuming name.

The positive end of personality factor 2 (Spontaneous/Inhibited) can be related to Maslow's discussions of peak experiences and spontaneity,¹² to Jung's formulations concerning constructive interaction of the conscious and unconscious,¹³ and to popular ideas of creativity. The defining behaviors are remembering having dreamed the night before, remembering most of the details in a night dream, having experiences in which you are filled with wonder, awe, or fascination, becoming so involved in a piece of music, painting, or play, that you temporarily "forget yourself," expressing your feelings easily, feeling full of energy, understanding the meaning or message behind fairy tales, folk tales, and myths, having vivid dreams which disturb your sleep, standing up for what you think is right, and feeling friendly toward most people. The opposite of this is emotional inhibition, psychological and social rigidity, and anxiety in the Jungian sense—fear of, and inability to deal with, the non-rational, associated with dominating rationalism. According to the loadings, Spontaneity is more characteristic of women than of men.

Personality factor 3 (Worldminded/Ethnocentric) focuses on a key issue facing modern man at the present stage of his social evolution, and is therefore appropriate in a study of the role of religion in social and personal behavior. Characteristic statements are: It would be better to be a citizen of the world rather than of any particular country; We ought to have a world government to guarantee the welfare of all nations; If necessary, we ought to be willing to lower our standard of living to cooperate with other countries in getting an equal standard for every person in the world; It would be a good idea if all the races were to intermarry; and It would (not) be a dangerous procedure if every person in the world had equal rights which were guaranteed by an international charter.¹⁴

The complex behavior pattern described by personality factor 4 (Self-accommodating/Group-accommodating) is common, yet it is not easy to do it justice with a simple construct which will express its basic poles and which will be devoid of positive or negative value connotations. This factor seems to refer to an individualistic as opposed to a group orientation. The former is characterized by smoking, drinking alcoholic beverages, thinking of bizarre ideas, not having your feelings hurt when someone deliberately insults you,

¹² Abraham H. Maslow, *Toward a Psychology of Being*, Princeton: D. Van Nostrand, 1962.

¹³ Jung, *op. cit.*

¹⁴ Sampson & Smith, *op. cit.*

living as you please rather than as someone else pleases, no worry over humiliating experiences, and going on quite serenely in your own mind if people think poorly of you. Self-accommodation seems to be related to ideas of freedom, social independence, and self-sufficiency, especially masculine.

The relation of smoking and drinking to behaviors interpreted as Self-accommodating does not necessarily conflict with observations of a social element in smoking and drinking. Self- and Group-accommodation are conceived to be different modes of individual response to social situations and either may be a shared norm in a given social group.

The purpose of these factor analyses is to isolate a few simple yet basic concepts in the form of factors which describe a wide variety of religious behaviors and a few important areas of personal and social behavior. By an analysis of these eight factors and their interrelationships in the five religious groups in the sample, our strategy is to construct a more comprehensive and comprehensible picture of personality-religion interaction than has been done in the past.

Although this approach has its advantages, a word of caution is in order about the factor labels. In order to obtain the full and legitimate meaning of the data presented below, the specific behaviors and attitudes to which the factor labels refer should be kept in mind.

Significant group differences among Jews, Catholics, Protestants, Baha'is, and non-affiliates are indicated in the personality and religion factor means and variances and in the personality-religion interactions.

Except for the Neurotic/Adaptive and the Spontaneous/Inhibited factors, there are significant differences among the group means on all factors (see Table 2), according to the Scheffé method for post-hoc multiple comparisons.

TABLE 2
Standardized Factor Scores For Five Religious Groups

	Jews	Cath.	Prot.	Baha'i	Non's
Personality Factors					
Neurotic/Adaptive	.09	.20	.00	-.32	.03
Spontaneous/Inhibited	.12	.05	-.10	.05	-.13
Worldminded/Ethnocentric	-.19	-.48	-.51	.99	.20
Self-accommodating/Group-accommodating	-.11	.03	-.12	-.27	.48
Religion Factors					
Salient/Irrelevant	-.28	.34	-.18	1.06	-.93
Spiritual/Secular	-.46	.49	.25	.75	-1.02
Skeptical/Approving	-.08	.10	.09	-.44	.33
Orthodox/Personal	.35	.68	-.11	-.21	-.71

NOTE: Positive values are high scores on the first-stated pole of the factor.

TABLE 3
Personality and Religion Factor Variances

	Jews	Cath.	Prot.	Baha'i	Non's
Personality Factors					
Neurotic/Adaptive	1.33	.91	.96	.73	1.12
Spontaneous/Inhibited	1.19	.85	1.01	.87	1.09
Worldminded/Ethnocentric	1.01	1.06	1.21	.53	1.30
Self-accommodating/Group-accommodating	.78	1.14	1.06	.77	1.31
Religion Factors					
Salient/Irrelevant	1.26	1.51	1.08	.50	.80
Spiritual/Secular	1.34	.51	1.31	.32	2.00
Skeptical/Approving	.72	1.20	.90	.96	1.28
Orthodox/Personal	1.29	.76	1.28	1.07	.69

NOTE: Scaled to unit mean within-groups variance.

The Baha'i group is more Worldminded than the Jewish group ($p < .001$) and the non-affiliates ($p < .005$). The non-affiliates are more Worldminded than both the Protestants and Catholics, the most Ethnocentric groups ($p < .01$). The non-affiliates are more Self-accommodating in comparison to the Baha'is, who score higher on Group-accommodating behavior ($p < .01$).

The Baha'is score higher than the Catholics on the Salient factor ($p < .01$). The Jews and Protestants participate in religious activity (Salient) less than the Catholics ($p < .05$). The non-affiliates participate less (Irrelevant) than the Jews and Protestants ($p < .005$). The Baha'is, Catholics, and Protestants believe in the afterlife, the soul, and God (Spiritual) more than the non-affiliate and Jewish groups ($p < .001$). The non-affiliates are more Skeptical of religion than the Baha'is, who are more Approving ($p < .005$). The Catholic and Jewish samples are more Orthodox in their approach to religion than the Baha'is and Protestants, who are more Personal ($p < .001$). The non-affiliates score even higher than the Baha'is and Protestants on the Personal factor ($p < .05$). In sum, at the extremes, the non-affiliates score highest on behaviors and attitudes which are Irrelevant, Secular, Skeptical, and Personal with regard to religion. Conversely, the Baha'is are most characterized by the Salient, Spiritual, and Approving tendencies in religious behavior.

Table 3 reports the variance of each group on each factor. The significance of several differences among the group variances was determined with an F test. The Baha'is are the most homogeneous of the groups in Worldmindedness ($p < .01$), in the Salience of religion (compared with non-affiliates, $p = .05$; with Protestants, $p < .005$), and in Spiritual versus Secular beliefs (compared with Catholics, $p = .05$; with Protestants, $p < .001$). In their ex-

treme ratings on the Orthodox/Personal factor, the Catholics and non-affiliates have less variability in comparison to the Jews and Protestants ($p < .05$).

PERSONALITY-RELIGION INTERACTION

PROCEDURE. Using the personality and religion factors as input variables, a canonical analysis was performed for each matched sample and for all subjects in the five matched samples together, thus including within- and among-group covariance. For purposes of interpretation, "canonical variate patterns" were obtained from the usual canonical coefficient matrices by calculating the right general inverses of the transposes of the coefficient matrices scaled to unit variance.¹⁵ A canonical variate pattern, unlike the usual canonical coefficients, provides loadings for estimating the input variables (personality and religion factors) from the variates, and can be interpreted like a factor pattern. A canonical variate pattern consists of a correlated pair of personality and religion variates, defined by factors.

The loadings of a variate represent its variance in either the personality or religion variable sets. On the other hand, the variate correlations reflect their shared interset covariance. In the canonical variate patterns, the standardized loadings and correlations will be evaluated as high if .71 or more, as moderate if .50 or more, and as low if .32 or more, accounting for 50, 25, and 10 per cent of the variance respectively. In the presentation of these patterns in Table 4, the factors were reoriented when necessary to state explicitly the pole of the variate on which the group scores highest (see Table 5), and to make the loadings and correlations positive. For the two patterns based on all of the matched samples together, the explicitly stated poles of the variates are those for which the majority of the groups score positively.

RESULTS. For each group there is at least one more or less unique personality-religion interaction, represented by a canonical variate pattern, which is statistically significant according to the Wilks Lambda test¹⁶ (see Table 4). The canonical variate patterns are combinations of the personality and religion factors which have been selected and grouped by canonical analysis into patterns of personality-religion interaction, expressing the strongest relationships among the personality and religion factors for each group. The significant correlations between personality and religion combinations in each group indicate that there is a substantial relation between the religious dimensions and the areas of personality considered. The nature of this relation differs from group to group. The following descriptions of the personality-religion

¹⁵ Suggested by Micheal S. Black, personal communication, 1965.

¹⁶ William W. Cooley and Paul R. Lohnes, *Multivariate Procedures for the Behavioral Sciences*, New York: Wiley, 1962.

interaction for each group are based on the canonical variate patterns in Table 4.

Jews. In the Jewish group, an Orthodox perception of religion, belief in the afterlife, the soul, and God (Spiritual), and religious participation (Salient) is correlated with a pattern of Group-accommodating and Ethnocentric behavior. Conversely, those Jews who are Self-accommodating and Worldminded, tend to have a Personal approach to religion, to disbelieve in the afterlife, the soul, and God (Secular), and to participate little in religious

TABLE 4
Personality-Religion Interactions

Group & p	Personality Patterns		r	Religion Patterns	
	Loading	Factor		Loading	Factor
Jews p<.05	.65	Group-accommodating	.60	.78	Orthodox
	.63	Ethnocentric		.73	Spiritual
	.31	Inhibited		.51	Salient
Catholics—1 p<.0005	.62	Neurotic	.74	.90	Irrelevant
	.61	Self-accommodating		.46	Secular
	.32	Ethnocentric		.25	Orthodox
	.25	Inhibited			
Catholics—2 p<.005	.58	Ethnocentric	.61	.67	Orthodox
	.48	Group-accommodating		.62	Spiritual
	.47	Neurotic		.38	Salient
	.46	Spontaneous			
Protestants p<.025	.96	Group-accommodating	.64	.80	Salient
	.28	Spontaneous		.72	Spiritual
				.42	Approving
				.39	Personal
Baha'is p<.0005	.74	Worldminded	.74	.72	Salient
	.52	Spontaneous		.67	Personal
	.41	Adaptive		.38	Approving
Non-affiliates p<.01	.83	Worldminded	.64	.78	Secular
	.33	Adaptive		.51	Personal
	.26	Self-accommodating		.31	Approving
All subjects—1 p<.0001		Ethnocentric	.64	.60	Irrelevant
	.48	Neurotic		.55	Orthodox
	.34	Self-accommodating		.38	Skeptical
All subjects—2 p<.001		Group-accommodating	.38	.82	Spiritual
	.41	Ethnocentric		.71	Salient
				.65	Orthodox
			.32	Approving	

activity (Irrelevant). Perhaps a Worldminded outlook is incompatible with full participation in Jewish religious activities.

CATHOLICS. 1. Catholics who score low in religious participation (Irrelevant) and in belief in the afterlife, the soul, and God (Secular) tend to be at once Neurotic, Self-accommodating, and Ethnocentric. On the other hand, a high rating on the Salient and Spiritual factors predicts Adaptive, Group-accommodating, and Worldminded behaviors.

2. However, if this high rating on the Salient and Spiritual factors is coupled with an Orthodox view of religion, it is related to a pattern of Ethnocentric, Group-accommodating, Neurotic, and Spontaneous behaviors. In other words, for Catholics, an Orthodox approach to religion tends to reverse two of the correlates of full religious participation (Salient and Spiritual) from Adaptive and Worldminded behavior to Neuroticism and Ethnocentrism. Conversely, though less frequent in the Catholic group, a Personal approach to religion tends to reverse the same two correlates of lack of full religious participation (Irrelevant and Secular) from Neuroticism and Ethnocentrism to Adaptive and Worldminded behaviors.

In sum, the Salient/Irrelevant and Spiritual/Secular factors covary with Group-accommodation/Self-accommodation and Spontaneity/Inhibition. The Orthodox/Personal dimension is most related to the Ethnocentric/Worldminded and Neurotic/Adaptive dimensions. The Salient/Irrelevant factor is also related to the Neurotic/Adaptive factor. Hence, an Orthodox approach to religion is related to Neuroticism, while religious participation (Salient) is associated with Adaptive behavior. These relations are an example of how two kinds of religious behavior (Orthodox and Salient), both prevalent in the same religious group, can have opposite effects on the personal well-being of its members, as expressed by the Neurotic/Adaptive factor.

PROTESTANTS. For Protestants, Salience of religion, belief in the afterlife, the soul, and God (Spiritual), Approval of religion, and a Personal approach to religion predict Group-accommodating behavior. A Protestant who is more Self-accommodating tends toward the Irrelevant, Secular, Skeptical, and Orthodox poles of religious activity.

BAHA'IS. For Baha'is, engaging in behaviors Salient to religion with a Personal and Approving outlook on religion is highly correlated with a pattern of Worldminded, Spontaneous, and Adaptive behaviors. According to the group scores in Table 5, these Baha'i personality and religion patterns are not typical in the other groups studied. Furthermore, these two patterns are highly interrelated only in the Baha'i group (see Table 4). Hence, these personality and religion patterns and their intercorrelation are unique to the Baha'i group. This personality-religion interaction may be considered

TABLE 5
Standardized Canonical Scores For Five Religious Groups

Group	Variate		Group				
	No.	Set	Jews	Cath.	Prot.	Baha'i	Non's
Jews	1	P	.29	.96	1.30	-1.84	-.70
		R	.33	1.46	.17	-.02	-1.94
Cath.	1	P	-.36	.88	.41	-2.65	1.71
		R	.64	.25	.26	-1.87	.72
	2	P	1.14	1.13	.48	-1.03	-1.71
		R	-.01	1.81	.25	-.39	-1.66
Prot.	1	P	.50	-.40	.10	1.81	-2.01
		R	-.69	.02	-.03	2.00	-1.31
Baha'i	1	P	.05	-.91	-1.20	2.28	-.21
		R	-.55	-.73	-.22	1.54	-.03
Non's	1	P	-.23	-1.35	-.93	3.04	-.53
		R	.16	-1.37	-.31	-.07	1.59
All	1	P	-.02	1.16	.90	-2.91	.89
		R	.48	.89	.38	-1.85	.10
	2	P	.69	.35	.73	.21	-1.98
		R	-.06	1.18	-.03	1.08	-2.17

NOTE: The canonical variates are defined in Table 4.

an additional, new definition of religion in terms of a unique pattern of religious behavior with a unique personality correlate.

The Neurotic/Adaptive and the Ethnocentric/Worldminded factors are correlated with the Orthodox/Personal factor for the Catholics and Baha'is. Unlike the Catholics, Baha'is are more typically characterized by the combination of Worldminded, Adaptive behavior and a Personal approach to religion. To consider a variable important in the Orthodox/Personal factor, 71 per cent of the Baha'i sample has "changed to or converted to a religion," while only 16 per cent of the other subjects have. The high score of the Baha'is on Worldminded and Adaptive behavior in this interaction might be partly explained by referring to this difference in their personal religious experience, which involves the adoption of a new religion through sacrificing old ties and establishing new commitments. This interaction seems to support Jung's association of religious conversion with an adaptive transformation of personality.

NON-AFFILIATES. Non-affiliates who tend to disbelieve in the afterlife, the soul, and God (Secular), but who have a Personal and Approving outlook on religion, tend to be Worldminded and Adaptive. Those who are more char-

acterized by Ethnocentrism and Neuroticism tend to believe in these Spiritual notions, although they are Skeptical of religion which is perceived as doctrine and ritual (Orthodox). For both non-affiliates and Catholics, belief in the afterlife, the soul, and God (Spiritual) is related to Ethnocentrism.

ALL SUBJECTS. The last two personality-religion interactions in Table 4 are based on all the subjects in the matched samples from the five religious groups. This means that these interactions express differences among as well as within the groups.

1. In the first interaction, the group scores in Table 5 indicate that the major distinction is between the Baha'i group and the Catholics, Protestants, Jews, and non-affiliates. For the latter groups, when religion is Irrelevant, is perceived as Orthodox, and is questioned (Skeptical), it is correlated with a pattern of Ethnocentrism, Neuroticism, and Self-accommodation. Conversely, though less frequently, when religion is Salient, Personal, and Approved, it correlates with Worldminded, Adaptive, and Group-accommodating behavior.

2. The group scores in Table 5 suggest that the second interaction distinguishes primarily between the formally organized religious groups and the non-affiliates. For the former, Spiritual beliefs, Salience of religion, an Orthodox perception of religion, and Approval of religion are correlated with Group-accommodating, Ethnocentric behavior.

DISCUSSION

DEFINITION OF RELIGION. Four issues in the role of religion in the life of modern man were isolated: should one participate in religious activity (Salient/Irrelevant)? should one accept the intangible notions invariably associated with religious activity, such as the afterlife, the soul, and God (Spiritual/Secular)? should there be religion at all (Skeptical/Approving)? and should religious participation be based on socially orthodox factors or on personal factors (Orthodox/Personal)?

Some of these dimensions are similar to prevalent kinds of definitions of religion or emphases in studies of religion. The Salient factor corresponds to studies of religious behavior and practices, such as feeling committed to religion and attending religious services. Beliefs such as those in the Spiritual factor which involve notions about intangible or supernatural things have been the subject of many studies and the core of many definitions of religion. For example, Wach sees religion as an "experience of the Holy."¹⁷ O'Dea emphasizes the concern for the "beyond" in his discussion of religion.¹⁸ Durk-

¹⁷ Wach, *op. cit.*

¹⁸ O'Dea, *op. cit.*

heim takes both practices and beliefs into account in his definition of religion.¹⁹

Our findings suggest that the Orthodox/Personal dimension is involved in Freud and Jung's implicit definitions of religion. It was found that an Orthodox experience of religion is related to maladaptive behavior, while a Personal experience of religion is related to Adaptive behavior. The former relation may be viewed as that particular effect of "religion" on personality which Freud discussed. Hence, religion for Freud is Orthodoxy. The latter relation suggests Jung's description of the therapeutic effects of living religion, which involves conversion, meditation about ultimate concerns, meaning and purpose, and lack of religious prejudice. Religion for Jung is a Personal, inner experience. The discrepancy between the Freudian and Jungian approaches to religion is hereby explained by noting that each concentrated on opposite poles of a dimension of personality-religion interaction: Neurotic, Orthodox behavior versus Adaptive, Personal behavior. In this example, two well-known studies of religion seemed to be contradictory because the full scope of religious activity was only partially treated in each one.

With four more or less independent dimensions of religious behavior, it is not sufficient to describe population differences *among* the groups as well as *within* the groups with only one concept, dimension, or definition of religion. As for differences among the groups, the group scores on the religion factors suggest, for example, that the Orthodox component of religious activity may be more meaningful in the Jewish group, while another factor, the belief in the afterlife, the soul, and God (Spiritual), is of more interest in the Protestant group. In the description of differences within the groups, the group variances on the religion factors indicate that the Skeptical/Approving issue is a more discriminating factor in the Catholic group, while the Protestants display more diversity on the Orthodox/Personal dimension, perhaps due to the variety of denominations represented. The Baha'i group has very low variances on the Salient/Irrelevant and the Spiritual/Secular factors. Although these are the two largest factors, they do not distinguish the most meaningful religious differences among Baha'is. Still other concepts or dimensions of religion which are not apparent in the four religion factors in this paper, are required to describe the structure of religious behavior for Baha'is.²⁰

A single concept or definition of religion is also insufficient to describe religion in terms of its psychological and social functions. For example, in a

¹⁹ Emile Durkheim, *The Elementary Forms of the Religious Life*, Glencoe: Free Press, 1947.

²⁰ James J. Keene. "Baha'i World Faith: Redefinition of Religion," *Journal for the Scientific Study of Religion*, 6 (Fall, 1967); and "Unsuspected Effects of Religion on Your Personality," *World Order*, in press.

given religious group, different psychosocial variables were correlated with different dimensions of religious behavior. In addition, different religious dimensions can have opposite relations to the same area of personality in a given group. For instance, in the Catholic group, Salience of religion correlates with Adaptation and an Orthodox view of religion correlates with Neuroticism. A further complication is that a given religious dimension can have opposite relations to the same psychosocial variable in different groups. For example, participation in religion (Salient) is correlated with Worldmindedness in the Baha'i group and with Ethnocentrism in the Jewish group. Such differences may appear because each group perceives and enacts differently the behaviors defining the religion factor in question. Considering the Salient factor (see Table 1), we might ask of each group: What feelings and ideas motivate them? Whose scripture do they study? What is the nature of the group to which they are committed? How reasonable are the religious laws they obey? An examination of such specific behaviors in each group is a next step in understanding group differences in personality-religion interaction. For instance, certain principles, writings, group characteristics, and laws, which are prevalent only in the Baha'i Faith,²¹ might be largely responsible for the simultaneously Worldminded, Spontaneous, and Adaptive behavior pattern found only in the Baha'i group.

In sum, with the plurality of religion factors and their differential frequency, variability, and correlation with personality variables in different religious groups, any one concept or definition of religion alone is of little use in studying the full range of religious activity. Our data suggest that it is useful to distinguish, define, and analyze at least four kinds of religious behavior.

RELIGION AND PSYCHOSOCIAL VARIABLES. The relation of religion to certain areas of personality and attitude is clarified when observed in terms of the above dimensions of religious behavior. Single correlations between two factors considered below are significant at least at the .05 level. When a specific group is not mentioned, the correlation is based on all the subjects, thus including variance among as well as within the religious groups.

Religious participation (Salient) correlates with Adaptive behavior, yet an Orthodox approach to religion is correlated with Neuroticism. This seems to be a conflict in the relation between the Neurotic/Adaptive factor and religion, particularly in groups such as the Catholics in which both Salience of religion and Orthodoxy are typical. However, by taking into account a third correlation between Skepticism of religion and Neuroticism, the cognitive balance in the triad of an individual, his religious participation, and his

²¹ John Ferraby, *All Things Made New: A Comprehensive Outline of the Baha'i Faith*, Wilmette: Baha'i Publishing Trust, 1966.

Orthodox conception of religion can be simply described. We might say that the individual is positively related to his religious participation since it is associated with his personal Adaptation. He would be negatively related to his Orthodoxy because of its associated Neuroticism. In order for this triad to be balanced according to the theory of cognitive balance,²² there must be a negative or inconsistent relationship between the Orthodox views and the religious participation of the individual. The inconsistency between these two aspects of his religious activity can be expressed in increased Skepticism of religion, which itself is correlated with Neuroticism. Thus for example, members of the Catholic group tend to be more Neurotic as their Orthodoxy is more intense, and consequently more Skeptical of the consistency of this Orthodox outlook and their participation in religious activity. In a group with high religious participation without an Orthodox conception of religion, such as the Baha'is, there is correspondingly little Skepticism of religion.

Except in the Jewish group, Spontaneity is related to participation in religious activity (Salient). In the Catholic group, Spontaneity is related to belief in the afterlife, the soul, and God (Spiritual).

It is interesting to note that Worldminded attitudes and Adaptive behavior are correlated with the same set of religious behaviors: a Personal approach to religion, Salience of religion, and Approval of religion. These data suggest that the attitudes people hold about the world and religion can be important factors in their personal well-being, as expressed by the Neurotic/Adaptive factor.

Self-accommodating behavior is correlated with the Irrelevance of religion, Secular beliefs, Skepticism of religion, and a Personal approach to religion. On the other hand, the Salient, Spiritual, Approving, and Orthodox factors are each correlated with Group-accommodating behavior.

DIFFERENCES AMONG RELIGIOUS GROUPS. Differences among the five religious groups studied were observed in the frequency and variability of the four kinds of religious behavior and in personality-religion interaction. A distinction among the groups which seems to pervade all this data is between the older established religion and the new religion. Comparing the religion factor means of the Jews, Catholics, and Protestants as opposed to Baha'is, in the new religion the individual participation is greater, the belief in the afterlife, the soul, and God is stronger, the Approval of religion is greater, and the approach to religion is more Personal. This pattern of religious behavior correlates with Worldmindedness, Adaptation, and Group-accommodation in the first personality-religion interaction based on all subjects in Table 4. This interaction portrays this distinction between the older established

²² Leon Festinger, *A Theory of Cognitive Dissonance*, New York: Harper & Row, 1957.

religion and the new religion. A further difference which was mentioned above is that the concepts or dimensions which fully describe religious activity in the Baha'i group are different from those reported in this paper. Because based on a sample of one group, this characterization of a new religion as opposed to an older established religion may not generalize to other new religious groups.

Another distinction which reappears throughout the data is between the members of established religious groups and the collection of individuals not formally affiliated with any religion. Compared with the Catholics, Protestants, and Jews on the religion factor means, the non-affiliates participate much less in religious activity, disbelieve in the afterlife, the soul, and God, have a more Personal approach to religion, and are more Skeptical of religion. This religion pattern correlates with Self-accommodation and Worldmindedness in the second personality-religion interaction based on all subjects in Table 4, which describes the main distinction between those who are and are not formally affiliated with an old established religion.

RELIGION AND UNITY. Many studies discuss the relation of religion to unity or integration on the psychological and social levels, yet there has not been systematic treatment of the kinds of evidence which might be used to indicate the presence or absence of unity. In the context of the data in this study, the concept of unity through religion can be operationally defined in the following ways.

First, interpreting factors as forces underlying or affecting behavior, the presence of four religion factors instead of just one implies that religion today is generally not a unitary force. The great variety of patterns of religious behavior described by the plurality of religious dimensions often come into conflict, both within and among religious groups. In the Catholic group, the Orthodox outlook seems to conflict with religious participation, because each has opposite relations to the Adaptivity of behavior. Instances of conflict among religious groups are too familiar to require citation.

Second, unity through religion can be inferred when particular religious dimensions are related to psychosocial behaviors which are thought to express integration. Assuming that Adaptive behavior is integrated behavior and that Worldminded attitudes lead to increased unity on the world level, then those religious behaviors related to these psychosocial variables may themselves be said to be unifying.

Third, the unity of a social group can be described in terms of shared population characteristics which are thought to be important by the members of the group, such as their race or values. Unity within a religious group can be inferred from low variances on religious and psychosocial issues. For example, while the Catholics tend to disagree on whether one should partici-

pate in religious activity and question the validity of religion, there is greater agreement and hence unity in belief in the afterlife, the soul, and God (see Table 3). In comparison with the other samples, the Baha'i matched sample is most heterogeneous on the demographic variables of race, nationality, and religious background, while they are most homogeneous in their positions on the Salient/Irrelevant, the Spiritual/Secular, and the World-minded/Ethnocentric factors. How might these facts be explained? While every human group requires homogeneity on certain variables to provide the unity necessary for group maintenance, groups also require heterogeneity on certain *other* variables for dynamic and creative interaction necessary for growth and goal achievement. For Baha'is, the function of group maintenance is fulfilled by unity in personal and religious orientations, so the demographic diversity and the associated Worldminded attitude are not threats to group unity. Instead they may be harnessed for goal achievement. Since the other groups do not exhibit a unity of position on the personal and religious issues, group maintenance requires homogeneity on some other variables. The main candidates seem to be the demographic characteristics of race, nationality, and religious background. An Ethnocentric attitude probably helps to maintain this necessary demographic homogeneity. Hence, the Ethnocentric tendency in these groups may be understood as a condition for group maintenance. Also, the development of a Worldminded outlook in these groups might involve weakening group unity or finding a new basis for it.

Finally, the questionnaire item "feeling committed to your religion" defines unity through religion in terms of group cohesion, the sum of the forces attracting members to their group. Comparing the means of the religious groups on this item, the Baha'is show much more commitment to their religion (i.e., cohesion) than Catholics, Protestants, and Jews ($p < .001$ according to the Scheffé method for multiple comparisons).

Turning our attention for a moment to the prospects for future research, the present study could be expanded in three directions. First, subjects who are older and lower in socio-economic status could be included in samples, and the effects of age, sex, education, and occupation on personality-religion interaction could be clarified. Second, other religious groups might be studied to discover new aspects of personality-religion interaction. Third, a wider and more comprehensive selection of personality and social variables could be examined to identify other areas of human behavior in which religion is important.