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A Validated Intrinsic Religious Motivation Scale*

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Research on intrinsic and extrinsic religion has been troubled by conceptual diffuseness and questionable scale validity. Hunt and King have proposed greater specificity in conceptualization and measurement in future work. This paper attempts to specify and measure a single crucial dimension identified by Hunt and King, namely ultimate versus instrumental religious motivation. Two validation studies were done utilizing persons nominated by ministers as having either ultimate (intrinsic) or instrumental (extrinsic) religious motivation. A new 10-item Intrinsic Religious Motivation Scale is proposed, and measurement problems are discussed.

Gordon Allport's concepts "intrinsic religion" and "extrinsic religion" have been important in recent research on religion and prejudice (Allport, 1950, 1954, 1966; Allport and Ross, 1967). Reviews of the research by Dittes (1969, 1971) and by Hunt and King (1971) have produced several conclusions and proposals for future work in the field.

An important contribution by Hunt and King is their analysis of different meanings which Allport associated at one time or other with "intrinsic religion" and "extrinsic religion." They demonstrate that Allport progressed toward greater and greater stress on types of *motivation* rather than on religious behavior as such. They argue that Allport's definitions were too unstable and diffuse for research fruitfulness. "(T)he time has come to abandon the early generalized definitions and rough measures in favor of more specific definitions and a complex set of measuring tools." (1971: 351)

Research in this field has been troubled not only by theoretical diffuseness but also by weaknesses in scale construction. Wilson's 15-item scale (1960) had all items stated in the same direction without reversals, so it was criticized as being subject to response-set bias. Feagin's scale (1964) included items stated in both directions, but the item-to-scale correlations were weak, and in a factor analysis two factors appeared. On the first factor all items loading high were stated in the intrinsic direction, and on the second all items loading high were stated in the extrinsic direction. Feagin concluded that two separate dimensions were being measured. Whether the problems attending item-reversals produced the two separate factors or whether two distinct dimensions were in fact being measured was unclear. Allport and Ross (1967) similarly found that the

*This project was carried out in a seminar at Princeton Theological Seminary whose members were Ronald Brockway, Jeffrey Faue, Donald Landis, Donald Luidens, Ronald Wallen, and Galen Yoder. It is part of a larger study of religion and prejudice (cf. Hoge and Carroll, 1972). I would like to thank C. Daniel Batson and Jackson Carroll for comments on an earlier version of this paper.

scale was not unidimensional and had to be broken into two parts. They phrased their explanation of the two separate dimensions in cognitive, not motivational terms. They agreed with Feagin that some reformulation is needed (1967: 437).

The researcher today is faced with the question—is the weakness of the existing scales due to Allport's theoretical imprecision, or is it due to poor scale construction which allowed "uninvited" factors to enter into the measurements? There is evidence supporting both contentions. On the theoretical side, Hunt and King have shown the multiple components in Allport's theoretical statements and in the items he and his students put into the scales. On the operational side, there is evidence of problems in scale construction by Feagin and by Allport and Ross. Item-to-scale correlations reported by both tended to be low, indicating poor scale reliability. And the two subscales found by both were defined in effect by the *direction* in which the items were stated. Allport and Ross conclude that the problem of reversed items was central to the weakness of their scale:

The problem is essentially the same as that encountered by the many investigators who have attempted to reverse the wording of items comprising the F scale . . . Uniformly the effort has proved to be frustrating, since so many subjects subscribe to both the positive and negative wording of the same question. (1967: 437)

We agree with Hunt and King that future work must begin with greater theoretical specification and if possible better measures. Also past research has included, so far as we know, no validation studies of any measures. In this paper we isolate one single dimension emphasized by Allport and attempt to construct for it a new scale having maximal validity and reliability. By isolating, measuring, and testing single dimensions we believe the relationships between religiosity and prejudice can be clarified. We do not enter into the discussion of the meaning and unidimensionality of existing scales but assume, in general, that the overall field described by Allport contains various dimensions in need of specification and testing.

We agree with Hunt and King that the component Allport stressed most strongly after 1966 was religion as ultimate versus religion as instrumental in the individual's motivation system. Our work is based on this component, which is labeled Component VIII, "Ultimate Versus Instrumental" by Hunt and King (1971: 342). It is clearly a measure of motivation for religious behavior rather than the behavior itself. And the "religion" in question here is organized American Christianity. We call this dimension "intrinsic religious motivation." At one extreme there is strong intrinsic religious (Christian) motivation and at the other the absence of any. Following Allport we shall use the term "extrinsic motivation" for the latter end of the dimension.

The variable is one of motivation, not behavior, cognitive style, or perception. Religious motivation cannot be inferred from theological positions or external behavior but requires some intimate knowledge of the subject. The discernment of intrinsic religious motivation can probably best be done by a judge who is well acquainted with the person in question and can understand his system of motivation. In the present study we excluded items asking about specific religious behavior, for example, church attendance or religious reading, for two reasons. First, such behavior is not a very reliable indicator of intrinsic religious motivation. Second and more

important, it seems preferable in analyses of religious variables today to keep religious behavior separate conceptually and operationally. A scale for measuring intrinsic religious motivation should, we believe, be maximally free of attitude items fitting more precisely into other dimensions of religiosity.

METHOD

From Allport's writings we wrote a three-page summary including several direct quotes.¹ It stressed Allport's formulations in his 1966 article and in Allport and Ross (1967). Central emphasis was on ultimate versus instrumental religious motivation, and it stressed that church attendance, church involvement, devotionism, or particular doctrinal beliefs are not necessarily indicators of intrinsic motivation. Members of our seminar gave the summary to ministers and assistant ministers in the area and asked them to read it and nominate several persons they knew who fit the intrinsic or the extrinsic extremes of the continuum. In this manner we gathered subjects for a preliminary validation study. A total of 51 responses were received, 32 from persons judged to have intrinsic motivation and 19 from persons seen as having extrinsic motivation. About 60 per cent of the subjects were women. After examination of the results we made a final validation study in a similar way. We approached different ministers and asked them to nominate up to eight persons each. Forty-two questionnaires were completed, 21 from intrinsics and 21 from extrinsics. Twenty-four were from women and 18 from men. The subjects were called by telephone and asked if they would help us pretest a questionnaire; none were told exactly why they had been chosen. Over 85 per cent of the questionnaires sent out were completed. No names were asked on the questionnaires. All respondents were adult Protestants, and the majority were Presbyterians.

The preliminary validation questionnaire included 30 items, the eight with highest item-to-scale correlations in the Allport and Ross study and 22 new items.² Correlations were calculated between each item and the ministers' judgments. Then in the final validation study all 21 items used by Feagin were included alongside the 9 best new items. The final study also included items asking about church attendance and religious reading, even though they were not being considered for a new scale.

RESULTS

Table 1 lists the 30 items in the final study, with correlations between the responses and the ministers' judgments.³ Corresponding correlations are also shown for the preliminary study. All extrinsically stated items (labelled "E") are reversed, so

1. The summary is available to interested persons upon request.

2. The 22 new items were selected by item-to-item correlations and factor analysis from an initial set of 38 new items written in the seminar and pretested informally with fellow students and neighbors.

3. The first 28 items in Table 1 are of the Likert form, with four responses: strongly agree; agree; disagree; and strongly disagree; scored 1, 2, 4, and 5. Item 2 was changed slightly in form from the earlier studies to conform to the Likert response system. Items 29 and 30 were presented separately from the Likert items; they had four responses scored from 1 to 4.

expected correlations between all items and ministers' judgments (scored 1 for intrinsic and 2 for extrinsic) are positive. The 21 Feagin items are marked with an asterisk.

TABLE I
CORRELATIONS BETWEEN TRIAL ITEMS AND MINISTERS' JUDGMENTS
OF INTRINSIC-EXTRINSIC MOTIVATION

Item	Correlations	
	Preliminary Validation Study	Final Validation Study ^b
1. Church is important as a place to go for comfort and refuge from the trials and problems of life. (E) ^c	.22	-.10
*2. If I were to join a church group I would prefer to join a Bible study group rather than a social fellowship. (I)	.45	-.06
3. My faith involves all of my life. (I)	.37	.47
4. Sunday morning can often be spent more profitably than in regular churchgoing. (E)	.23	.02
5. One should seek God's guidance when making every important decision. (I)	.40	.30
6. In my life I experience the presence of the Divine. (I)	.41	.44
7. If I have the opportunity to explain my beliefs to a non-Christian group, I do it. (I)	.36	.22
8. Prayer influences my dealings with other people. (I)	.39	.27
*9. What religion offers most is comfort when sorrow and misfortune strike. (E)	.15	-.02
*10. Religion helps to keep my life balanced and steady in exactly the same way as my citizenship, friendships, and other memberships do. (E)	.01	.00
11. My faith sometimes restricts my actions. (I)	.36	.34
12. Nothing is as important to me as serving God as best I know how. (I)	.34	.34
*13. I try hard to carry my religion over into all my other dealings in life. (I)	a	.48
*14. My religious beliefs are what really lie behind my whole approach to life. (I)	.28	.48
*15. One reason for my being a church member is that such membership helps to establish a person in the community. (E)	.07	.00
*16. The purpose of prayer is to secure a happy and peaceful life. (E)	a	.11
*17. The church is most important as a place to formulate good social relationships. (E)	-.21	.14
*18. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during services. (I)	a	-.21
*19. It is important to me to spend periods of time in private religious thought and meditation. (I)	.07	.11
*20. The primary purpose of prayer is to gain relief and protection. (E)	.27	.06
*21. It doesn't matter so much what I believe as long as I lead a moral life. (E)	a	.39
*22. Quite often I have been keenly aware of the presence of God or of the Divine Being. (I)	a	.30
*23. Although I am a religious person, I refuse to let religious considerations influence my everyday affairs. (E)	a	.52
*24. Although I believe in my religion, I feel there are many more important things in life. (E)	a	.52
*25. I pray chiefly because I have been taught to pray. (E)	a	.17

TABLE 1—(Continued)

TABLE 1

CORRELATIONS BETWEEN TRIAL ITEMS AND MINISTERS' JUDGMENTS
OF INTRINSIC-EXTRINSIC MOTIVATION

Item	Preliminary Validation Study	Final Validation Study ^b
*26. Religion is especially important to me because it answers many questions about the meaning of life. (I)	a	.31
*27. A primary reason for my interest in religion is that my church is a congenial social activity. (E)	a	-.07
*28. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being. (E)	a	-.25
*29. If not prevented by unavoidable circumstances, I attend church at least once a week or oftener, two or three times a month, once every month or two, rarely. (I)	a	.46
*30. I read literature about my faith (or church) frequently, occasionally, rarely, never. (I)	a	.33

^aNot included.

^bIn the final validation study correlations over .36 are significant at the .01 level and over .29 at the .03 level.

^cItems stated in the extrinsic direction, labelled (E), are reversed in scoring so that predicted correlations are all positive.

*Feagin item.

From the items in the final validation study we sought out the single scale having highest validity, reliability, item-to-item correlations, and item-to-scale correlations. We also used factor analysis to aid in item selection.⁴ The best scale on these criteria is a 10-item scale composed of items 3, 5, 6, 11, 12, 13, 14, 21, 23, and 24. It correlates with the ministers' judgments at .585. All 10 items correlated as predicted with ministers' judgments beyond the .03 significance level whenever tested and beyond the .015 level in at least one validation study. The dangers of post-hoc item selection are virtually eliminated, since all the new items in the new scale were successful in two validation studies.

The scale's reliability as measured by the Kuder-Richardson formula 20 is .901. Item-to-item correlations range from .132 (items 12 by 23) to .716 (5 by 14); of the 45 item-to-item correlations, 22 are stronger than .5. Means, standard deviations, and item-to-scale correlations are shown in Table 2.

4. A short report on the factor analysis is available to interested persons upon request. In the principal components solution the first factor was very large, and the items in the new scale loaded strongly on it. Factor II had several strong loadings on extrinsically-stated items emphasizing religion as personal comfort and relief. Factor III had loadings on extrinsically-stated items emphasizing the relation of church-going to social status in the community. Because of low subject-to-variable ratio the loadings are not very stable.

TABLE 2
DESCRIPTION OF THE TEN ITEMS IN THE I.R.M. SCALE
BASED ON THE FINAL VALIDATION STUDY

Item Number	Mean Before Reversals	S.D.	Item-to-Scale Correlation ^a
3	1.83	1.08	.71
5	1.71	0.97	.59
6	2.07	1.05	.70
11	2.40	1.21	.48
12	2.19	1.13	.64
13	1.83	0.96	.66
14	1.95	1.10	.74
21	3.88	1.17	.65
23	4.33	0.93	.55
24	4.12	1.15	.80

^aItems 21, 23, and 24 are reversed before calculating these correlations. In each correlation the specific item is deleted from the scale. Without such deletions the item-to-scale correlations with the total 10-item scale range from .60 to .85.

Items 21, 23, and 24 must be reversed before scoring the scale; they should be mixed among the other items when using the scale. A mean of the items is the scale score, and a high score indicates extrinsic motivation. The persons judged by the ministers to be intrinsic had a mean scale score of 1.51 and S.D. of .44; those judged to be extrinsic had a mean of 2.42 and S.D. of .79 ($p < .001$). The problem of yea-saying or nay-saying response set is only partially eliminated by the presence of three reversed items in the 10-item scale. Unfortunately only three of the extrinsic items tested turned out to be usable. Researchers concerned about the response set problem should delete item 11 from the scale to reduce the ratio of intrinsically-stated to extrinsically-stated items. When this is done the Kuder-Richardson alpha becomes .902 and predictive validity becomes .582.

Table 3 shows the correlations between the earlier scales and the 10-item I.R.M. Scale. The Feagin Intrinsic Scale and the Allport-Ross Intrinsic Subscale are strongly correlated with the new scale, partly due to items common to both. No earlier scale approaches the I.R.M. Scale in predicting the ministers' judgments, though the Feagin and Allport-Ross intrinsic subscales are stronger than their extrinsic subscales. This finding is at variance with Hunt and King's suggestion that Feagin's Extrinsic Scale is still the best measure of ultimate versus instrumental motivation (1971: 352).

TABLE 3
CORRELATIONS BETWEEN EARLIER SCALES,
THE I.R.M. SCALE, AND MINISTERS' JUDGMENTS^a

	I.R.M. Scale	Ministers' Judgments
Feagin Total Int-Ext Scale	.852	.388
Feagin Factor I Scale (Int.)	.871	.386
Feagin Factor II Scale (Ext.)	.388	.073
Allport-Ross Total Int-Ext Scale	.874	.358
Allport-Ross Intrinsic Subscale	.863	.382
Allport-Ross Extrinsic Subscale	.710	.266

^aExtrinsic items have been reversed.

MEASUREMENT PROBLEMS

Future research requires measurement scales maximally free from problems of cognitive diffuseness, response-set bias, and social desirability. We have sought to minimize cognitive diffuseness and response-set bias in the I.R.M. Scale. Social desirability arises as a problem because in the Judeo-Christian tradition extrinsic religious motivation is strongly criticized as being idolatry—it subordinates God and His Word to other deified objects such as nation, family, career, property, or fame. As a result subjects responding to scales such as this are quite conscious of the social desirability of certain responses. Users of the I.R.M. Scale should preface it with a statement such as “There is no consensus about right or wrong attitudes on these items,” but even with such a statement social desirability will be a source of measurement error.

For an exploratory assessment of this error we included in the final validation study a shortened version of the Crowne and Marlowe Social Desirability Scale (1960). Four judges selected the 15 items from the scale appearing most suitable for our study, and using them we divided the sample into equal-sized groups high, medium, and low on the need to give socially desirable responses. To test if social desirability had contributed to the breaking of the Feagin and Allport-Ross scales into two subscales we correlated the subscale scores with each other within the groups high and low in need for social desirability. We expected that the subscales would correlate more poorly in the group highest in social desirability need, and this tended to be the case. The two Feagin subscales correlated at .30 for the low group (N=15) and .26 for the high group (N=14); the two Allport-Ross subscales correlated at .62 for the low group and .45 for the high group; a mean of the three extrinsically-stated items in the new scale correlated with a mean of the seven intrinsically-stated items at .78 for the low group and .64 for the high group. With our low N these differences in *r*'s are not very significant and should be seen as suggestive only. But social desirability is apparently a factor in the nonscalability of many reversed intrinsic-extrinsic religiosity items. Conversations with several of the validation study subjects afterwards confirmed that they were quite self-conscious about social desirability when answering the items. It is noteworthy that two of the three extrinsically-stated items which proved usable in the new scale include what might be called “social desirability disclaimer clauses”: “Although I am a religious person, . . .” and “Although I believe in my religion, . . .” Apparently such clauses reduce the effect of social desirability needs in the responses.

TYPES OF EXTRINSIC RELIGIOUS MOTIVATION

Brown (1964) makes the useful suggestion that extrinsic religious motivation may be of two types, “inner” and “outer.” Both were noted by Allport. The inner type involves the use of religion as a personality support or a help in crisis; it coincides with the comment that for some persons religion is a “crutch.” The outer type involves the use of religious membership and participation for social purposes such as meeting the right people, gaining social standing and acceptance in the community, or selling insurance. The two types appear quite different, and the distinction may be fruitful in

future studies. We would speculate that the outer type would be more visible to ministers and would tend to underlie their judgments in our validation studies. It is interesting, however, that the extrinsic items in our validation studies which explicitly mentioned either inner or outer extrinsic motivation failed to scale well and had to be dropped. The three extrinsically-stated items which could be used are vague as to whether they refer to inner or outer extrinsic motivation. Perhaps the vagueness weakened the social desirability factor. If so, the social desirability problem will hinder future attempts to distinguish forms of extrinsic religious motivation.

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