

Ways Religious Orientations Work: A Polish Replication of Measurement of Religious Orientations

Pawel M. Socha

*Institute for the Study of Religions
Jagiellonian University*

Comparative analysis of the psychometric features of the 6 measures of individual religion, Extrinsic, Intrinsic, External, Internal, Quest, and either Orthodoxy or an Individual Religiousness scale (IRS), has been accomplished for Americans (investigated by Batson and his associates), and for two Polish samples. Extrinsic, Intrinsic, External, Internal, and Quest were evaluated for all samples; Orthodoxy was evaluated for the American sample only, and the IRS was evaluated for the Polish samples only. Reliability, correlations between the scales, and several kinds of factor analyses are described. Hypotheses about the essential replicability in Polish of three dimensions of religious orientation, Means, End, and Quest, were mostly supported. However, there were also some differences, supposedly associated with both cultural difference (religion in the Polish Catholics seems to represent the "true and social believer" character) and sample difference (high positive correlation between the Extrinsic and Intrinsic scales in the sample consisting mostly of persons coping with serious problems). There is also some evidence that the Quest items regarding doubts as positive do not work in the Polish participants in the way designed by Batson. The analysis is followed by some suggestions for the future development of Religious Orientations Scales, such as being more grounded in psychological theories.

Applying concepts and methods developed for one culture or religion to another culture and religion raises many questions. Do these concepts describe the same phenomena, and in the same vein? Do these methods measure, even granted the same phenomena, in the same way? Are their units of measurement comparable? Does not a different language contribute too much bias to consider particular state-

Requests for reprints should be sent to Pawel M. Socha, Instytut Religioznawstwa, Jagiellonian University, Rynek Główny 34, 31-010 Krakow, Poland. E-mail: uzsocha@if.uj.edu.pl

ments or questions the same? The study presented here will not resolve these problems; however, it is, I hope, a small step toward the understanding of cross-cultural similarities and differences in the measurement of religious orientations.

In spite of criticisms (Derks, 1986; Gorsuch, 1984; Hood & Morris, 1985; Kirkpatrick, 1989; Kirkpatrick & Hood, 1990; Kojetin, McIntosh, Bridges, & Spilka, 1987; Pargament, 1992; Pargament & Park, 1995), the religious orientation paradigm seems to continue to predominate the field of empirical psychological research on personal religion (cf. Donahue, 1985; Hood, Spilka, Hunsberger, & Gorsuch, 1996, pp. 24–26). Furthermore, the international research that is using those scales continues. It relies on the original scales (e.g., Chamberlain & Zika, 1988; Genia & Shaw, 1991; Magni, 1971; Pargament et al., 1990; Park, Cohen, & Herb, 1990; Socha, 1996; Watson, Morris, & Hood, 1989) or results in the further development of those scales and their underlying concepts (Derks, 1989; Kaldestad & Stiffos-Hanssen, 1993; Weinborn, 1995).

So far, only two exhaustive, multifaceted factor analytic studies on the religious orientation measures have been presented: the first by Batson and Schoenrade (1991b) and the second by Kirkpatrick (1989). The reliability study of Batson and Schoenrade was devoted mainly to the newly developed 12-item version of the Quest scale. However, the factor analyses of the item structure of the three religious orientations (Extrinsic, Intrinsic, and Quest), based on two undergraduate samples with $N = 209$ and 214 , have also been provided. The thorough factor analysis by Kirkpatrick (1989) incorporated 9 samples ranging from 49 to 157 participants, with $N = 1,070$ participants. Kirkpatrick's most remarkable finding was that he obtained a 2-factor solution of the Extrinsic Religious Orientation Scale and developed the Personal-Extrinsic and Social-Extrinsic subscales. However, because Kirkpatrick was interested in the classic Intrinsic–Extrinsic dimension, he did not include the Quest scale in his study.

The Quest dimension of religion is also a fruitful contribution to the understanding of religion as a complex phenomenon. Furthermore, there is still value in examining the universality of the three dimensions of Means, Ends, and Quest religiousness, especially when the scales are applied to samples that are (a) not American, (b) only Roman Catholic, and (c) nonstudents. If differences occur, they may also be due to the improper translation of the items; therefore, some years were spent obtaining the most trustworthy Polish translation of the original English sentences. One example of the translation difficulties would be the Quest item, "I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to this world." The author failed to develop any Polish equivalent that would have been easily and unequivocally understood. In the Polish version of the new Quest scale, this item was replaced with an item from the old version: "My religious development has emerged out of my growing sense of personal identity."

There was the possibility to develop some items in addition to those translated. However, the aim was to obtain Polish versions of Religious Orientations Scales as close as possible to the original ones. This would help in comparing the results of any research where those scales were applied. Five scales of the Religious Life Inventory (RLI) were included in this research: Extrinsic, Intrinsic, External, Internal, and Quest. In brief, the Extrinsic scale is intended to measure religion as means; it is the utilitarian or instrumental use of religion for personal and social ends. The Intrinsic scale is intended to measure religion as an end in itself. The Quest scale is intended to measure religion as the open-ended, questioning approach to a transcendent aspect of life. These three religious orientations form the three-dimensional model of personal religion. Two remaining scales of the RLI, External and Internal, do not represent any separate religious dimensions. They reflect "the importance of authority figures and social institutions in shaping one's religious experience," and "the degree to which an individual's religion is a result of internal needs for certainty, strength, and direction," respectively (Batson, Schoenrade, & Ventis, 1993, p. 169).

The measure of religious Orthodoxy was not included. It was replaced with the Individual Religiousness scale (IRS), a 24-item measure of Roman Catholic piety in terms of religious doctrine, morality, practices, and institution (Latala & Socha, 1981); It is reliable to .97 Cronbach α coefficient (cf. Socha, 1992). This scale works well for Polish Catholics in distinguishing religious from nonreligious persons. It also distinguishes those who firmly keep their faith from those whose religion is more privatized or nondoctrinal.

Three scales of the RLI, the External, Internal, and the 6-item version of the Quest (cf. Batson & Schoenrade, 1991b), had already been used in the research on the developmental sequence of religious orientation (Socha, 1992, 1996). Cronbach α for the scales were .77, .81, and .58, respectively. In this research of 462 18–19-year-old secondary school last-graders, who were Catholic or were raised in Catholic families, the Internal and External scales correlate with each other as expected ($r = .57, p < .01$), whereas they did not correlated with the Quest scale. Although the Intrinsic and Extrinsic scales were not applied, these correlations suggested the possible proreligious orientation of the young students. Detailed elaboration of the results showed the youths' tendency to grow from the external to internal (internalized) type of personal religion, which was related to some measures of personal autonomy.

The aim of the current analysis was to determine whether the Polish versions of the Religious Orientation Scales have the same psychometric properties as the original American versions and can be used as both theoretically and empirically proven measures in research on Catholics in Poland. It may also allow further tests of the cross-cultural applicability of the Religious Orientations Scales.

It was expected here that (a) reliability coefficients obtained for the investigated samples are comparable to, if not the same as, those obtained for the American

sample; (b) patterns of intercorrelations between the six scales of the Religious Life Inventory are also comparable to, if not the same as, those obtained for the original sample; (c) the factor structure of both English and Polish scales, and the assignment of the individual items of each scale to particular religious orientation, remain the same across the compared samples.

The Polish samples may, however, differ to some extent not only from the American samples, but also from each other; therefore, the pattern of their religious dimensions may also be different. Moreover, the items may provide different meanings because of cultural specificity, including slight, but additive, item-to-item, incompatibilities between the original and translated item sentences. This can result in a different item structure for the scales.

The study of religious orientations in two samples of Polish Catholics consisted of intercorrelations and principal components factor analyses with varimax rotation that follow as much as possible Batson et al. (1993, pp. 172–174). Additionally, the principal axis factor analysis with varimax rotation of the 32 items of three measures, Extrinsic, Intrinsic, and Quest (dropping the External, Internal scales and IRS) was also accomplished.

METHOD

Participants

By following Batson et al. (1993, p. 171),¹ I selected, from the first sample of Polish students and adults ($N = 91$), 78 persons (58 women, 20 men) who declared themselves as “religious” or “very religious”. The age of the participants ranged from 19 to 75 ($M = 27.6$), with 56% aged 24 years or less (graduate students) and 44% above this age. The second sample initially consisted of 419 persons participating in research on religious coping with difficult life situations: unemployment, alcoholism (Alcoholics Anonymous members), and drug addiction (persons under treatment). There were also single mothers with a child (located in the community hostel), and adults who were not threatened with any of these problems. This sample consisted of 217 persons who claimed they were “religious” or “very religious,” including 113 unemployed, 25 in AA, 23 drug addicts under treatment, 28 single mothers, and 30 “not-in-trouble” persons. There were 137 female and 80 male participants aged from 18 to 63 years ($M = 32.2$).

¹The IRS scale item, “I am a believer,” not included in the scale score, was used as the selection criterion here, instead of an additional question.

Procedure

The questionnaires completed and the procedures for data collection differed somewhat for the students/adults and the adult coping samples. For both samples, the participants' data were anonymous, completing the scales took no more than an hour, and the data were collected by trained student investigators who contacted each participant individually. The students/adults sample filled out the Extrinsic, Intrinsic, and Quest parts of the Religious Orientation Scale and the IRS, a measure of conflict, and demographic information. This group served the purpose of pilot testing the Polish version of these scales. The adult coping sample filled out the Extrinsic, Intrinsic, and Quest measures, plus the IRS and a measure of well-being. The student investigators scheduled an appointment with each participant to complete the scales, mostly in the person's home. They were given instructions and asked to complete the forms on their own. They were visited later, and the forms were collected.

RESULTS

By closely following the analysis of the American sample, I compared three kinds of information concerning the RLI scales:

1. Scale means and standard deviations.
2. Three-factor solutions of component factor analysis of the six RLI scales (the last one replaced with IRS).
3. Principal axis factor analysis of the items of three scales, Extrinsic, Intrinsic, and Quest.

Also, some results of the default (eigenvalue = 1.00) item factor analysis were also considered.

Scale Means and Standard Deviations

It is not appropriate to compare the means on the IRS scale with the mean on the Orthodoxy scale (for the two Polish samples, the means were almost the same), so only the means on the five Religious Orientation Scales can be compared (see Table 1). There does not appear to be many differences, but on the Intrinsic, Internal, and Quest scales, Polish participants scored about half a point higher on the nine-point scale. The coping sample is also higher on the Extrinsic scale, with a somewhat higher standard deviation coefficient. Standard deviations for the 78-person sample are also higher.

TABLE 1
Item Means and Standard Deviations for the Student and Coping Samples, Compared to Original Properties for the Religious Life Inventory Scales Acquired by Batson (1993)

Scale	American Undergraduates ^a (N = 424)		Polish Adults (N = 78, Age 19-75, M = 27.6)		Polish Adults Coping With Problems (N = 191-217*; Age 18-63, M = 32.2)	
	M	SD	M	SD	M	SD
Extrinsic	4.54	1.04	4.44	1.55	5.07	1.35
Intrinsic	5.26	1.45	5.61	1.74	5.63	1.37
External	5.80	1.59	5.31	1.81	5.69	1.29
Internal	6.44	1.35	6.68	1.52	6.73	1.10
Quest	4.99	1.17	5.44	1.55	5.43	1.11
Orthodoxy/IRS**	7.37	1.43	6.25	1.64	6.43	1.48

*Size of sample differs in different comparisons because of missing data (from 217 to 191) in particular scale.

**In Batson's research the Orthodoxy scale was used, whereas in the Polish samples, the Individual Religiousness Scale (IRS) was used. To obtain sincere data, subjects were instructed to skip the Religious Orientation Scales whenever they thought they would not feel comfortable.

^aThe data in column 1 are from *Religion and the individual. A social-psychological perspective* (p. 172), by C.D. Batson, P. Schoenrade, & W.L. Ventis, 1993, New York: Oxford University Press. Copyright 1993 by Oxford University Press, Inc. Reprinted with permission.

Reliability and Intercorrelations of the Scales

In the same way, as reported by Batson and Schoenrade (1991, p. 436), the item correlations, item-to-total scale (excluding the item) correlations, alpha, alpha if item deleted, and the item factor structure of each of the five scales were investigated before deciding which items should account for the score on a particular scale. Regrettably, one item from the Internal scale and one item from the External scale did not match; therefore, in the Polish version, those scales consisted of eight and five items, respectively. This may also be the reason for the low reliability of the External scale in the coping sample. Reliability of the Quest scale still does not seem good, although—if counted only for the unemployed group—the alpha is as high as .90. One finding is that in the One-Way Analysis of Variance analysis for three groups (Active Unemployed, Passive Unemployed, and the Contrast group), the Active Unemployed group was significantly less religious than the Contrast “not-in-trouble” group on the IRS scale ($F = 4.10, p < .02$), but scored significantly higher on the Quest scale ($F = 3.28, p < .04$; Socha, 1997).

Also, the reliability coefficient for the Extrinsic scale was low in the Polish students and adults sample. It consisted of the 11 Allport-Ross scale's original items, but the size and age bias may have accounted for the high variance ($SD = 1.55$, as

opposed to $SD = 1.04$ in the American sample). The Extrinsic scale's α was good in the coping sample, but the most striking difference was that, compared to both the Polish students/adults and the American undergraduates, it correlates very significantly and positively with the Intrinsic and External scales, as well as with the IRS ($p < .05$).

Generally, as shown in Table 2, the patterns of intercorrelations are the same for the American undergraduates and the students/adults, whereas the pattern of

TABLE 2
Correlation Matrices of the Religious Life Inventory and, for the Student Sample, the Correlations of the Religious Life Inventory Scales with the Religious Conflict Scale; for the American Undergraduates, Polish Students and Adults, and Coping Samples

Scales	Extrinsic	Intrinsic	External	Internal	Quest	Orthodoxy
American Undergraduates ($N = 424$) ^a						
Extrinsic	.72 ^b	-.05	.03	-.12	.16	-.04
Intrinsic		.83	.59	.73	-.05	.55
External			.79	.62	-.17	.49
Internal				.84	-.22	.68
Quest					.78	-.25
Orthodoxy						.91
Polish students and adults ($N = 78$)						
Extrinsic	.56 ^b	-.25*	-.04	-.26*	.03	-.17
Intrinsic		.83	.63***	.69***	-.16	.80***
External			.69	.67***	-.08	.76***
Internal				.84	-.03	.84***
Quest					.62	-.11
IRS						.96
Conflict ^c	.14	.07	.11	.16	.35***	.09
Coping Polish sample ($N = 217$)						
Extrinsic	.85 ^b	.66***	.19**	.06	-.01	.14*
Intrinsic		.91	.74***	.74***	-.01	.53***
External			.66	.67***	-.13	.73***
Internal				.81	-.14*	.66***
Quest					.63	-.19**
IRS						.97
Well-being	-.01	.14*	.07	.14*	.00	.03

Note. 2-tailed significance: * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

^aThe data in the first part of the table are from: *Religion and the individual. A social-psychological perspective* (p. 172), by C.D. Batson, P. Schoenrade, & W.L. Ventis, 1993, New York: Oxford University Press. Copyright 1993 by Oxford University Press, Inc. Reprinted with permission.

^bReliability coefficient Chronbach α are printed along the diagonal.

^cReliability coefficient Chronbach $\alpha = .62$.

intercorrelations for the coping sample is somewhat different. This seems to be associated with the problems those persons deal with. A suggestion is that, in that respect, Pargament's (1992, pp. 216–217) idea that to “view each orientation as a disposition to use particular means to attain particular ends in living” may be partly correct here. Correlations of the Extrinsic with the Intrinsic and External scales may result from the conviction that religion is a kind of lifestyle comprising “two ends,” the satisfaction of personal and social needs and the more spiritual ones, as it seems for the End dimension of religion. This may be the reason for the positive correlations of both Intrinsic and Extrinsic scales with the IRS.

Additional results, including significant but not highly positive correlations of the Intrinsic and Internal scales with the Well-Being scale (Socha, 1997), and negative correlations of the External and Internal scales with the scales of the State-Trait Anxiety Inventory (cf. Spielberger, Gorsuch, & Lushene, 1970), are consistent with previous results concerning the End dimension of religion (cf. Batson et al., 1993, p. 287), and suggest the role of this particular “two-ends” form of religion in coping with life problems.

Factor Analysis of the Scales

Keeping close to the original method of analysis, the principal component analysis with varimax rotation of the acquired factors was done. The results, shown in Table 3, show that the patterns of the component loadings for the 3-factor solution look

TABLE 3

Component Loadings of Six Religious Orientation Scales for Three Samples: (1) American Undergraduates, (2) Polish Students and Adults, and (3) Polish People Coping with Life Problems

Scales	Components								
	Religion as Means			Religion as End			Religion as Quest		
	1 ^a	2	3	1 ^a	2	3	1 ^a	2	3
Extrinsic	.991*	.983*	.988*	-.023	-.108	.098	.084	.011	.000
Intrinsic	-.068	-.201	.117	.876*	.845*	.921*	.118	-.145	.083
External	.106	.121	.130	.797*	.873*	.872*	-.086	-.023	-.073
Internal	-.115	-.193	-.115	.895*	.884*	.870*	-.120	.044	-.087
Quest	.087	.011	.000	-.109	-.108	-.077	.975*	.995*	.994*
Orthodoxy/IRS	.003	-.074	.155	.777*	.950*	.877*	-.253	-.053	-.144

^aHighest factor loading for a given component of religious orientation on each scale.

^aThe data in column 1 of each part of the table are from *Religion and the individual. A social-psychological perspective* (p. 173), by C.D. Batson, P. Schoenrade, & W.L. Ventis, 1993, New York: Oxford University Press. Copyright 1993 by Oxford University Press, Inc. Reprinted with permission.

TABLE 4

Principal Axis Factor Analysis of the 32 Items of Extrinsic, Intrinsic, and Quest Religious Orientations (3-Factor Solution), and Comparison of Factor Loadings by Three Religious Dimensions for the Three Samples: (1) 214 American Undergraduates "Replication Sample", (2) Polish Students and Adults, and (3) Coping Adults Samples

<i>Extrinsic Items</i>	<i>Means</i>			<i>End</i>			<i>Quest</i>		
	<i>1^a</i>	<i>2</i>	<i>3</i>	<i>1^a</i>	<i>2</i>	<i>3</i>	<i>1^a</i>	<i>2</i>	<i>3</i>
1. Although I believe in my religion, I feel there are many more important things in my life.	.19	.22	.14	-.59*	-.45*	-.44*	.21	.22	.03
2. It doesn't matter what I believe so long as I lead a moral life.	.19	.09	.32	-.38*	-.46*	-.48*	.19	.15	.08
3. The primary purpose of prayer is to gain relief and protection.	.60*	.42*	.37	.05	.01	.40*	.03	.00	-.04
4. The church is most important as a place to formulate good social relationships.	.53*	.22	.13	.18	.71*	.72*	.13	.12	-.12
5. What religion offers me most is comfort when sorrows and misfortune strike.	.39*	.22*	.22	.26	.13	.37*	.10	-.01	.04
6. I pray chiefly because I have been taught to pray.	.50*	.41*	.54*	.01	-.15	-.13	-.03	.05	.06
7. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.	.28	.37	.33	-.38*	-.54*	-.34*	.08	.06	.28
8. A primary reason for my interest in religion is that my church is a congenial social activity.	.66*	.57*	.33	-.05	.44	.68*	.04	.07	-.01
9. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.	.37*	.42*	.40*	-.15	-.21	-.06	.29	-.03	.24
10. One reason for my being a church member is that such membership helps to establish a person in the community.	.72*	.39*	.35	-.08	-.10	.43*	-.01	-.02	.09
11. The purpose of prayer is to secure a happy and peaceful life.	.60*	.00	.56*	.24	.35*	.37	.07	-.25	-.05
<i>Intrinsic Items</i>									
1. It is important for me to spend periods of time in private religious thought and meditation.	-.05	-.14	-.18	.68*	.60*	.61*	.16	.18	.25
2. If not prevented by unavoidable circumstances, I attend church.	.28	-.16	.00	.51*	.53*	.46*	-.25	.03	-.15
3. I try hard to carry my religion into all my other dealings in life.	.10	-.09	-.16	.78*	.83*	.77*	.04	.00	.11

(continued)

TABLE 4 (continued)

<i>Intrinsic Items</i>	<i>Means</i>			<i>End</i>			<i>Quest</i>		
	<i>I^a</i>	<i>2</i>	<i>3</i>	<i>I^a</i>	<i>2</i>	<i>3</i>	<i>I^a</i>	<i>2</i>	<i>3</i>
4. The prayers I say when I am alone carry as much meaning and personal emotion as those said by me during service.	.10	-.28*	-.03	.31*	.27	.46*	.02	.02	-.03
5. Quite often I have been keenly aware of the presence of God or the Divine Being.	.13	-.11	-.26	.58*	.52*	.68*	.09	-.06	.14
6. I read literature about my faith (or church).	.05	-.02	-.15	.59*	.71*	.59*	.08	-.01	.06
7. If I were to join a church group I would prefer to join a Bible study group rather than a social fellowship.	-.05	.11	.05	.44*	.29*	.22*	.01	-.19	.05
8. My religious beliefs are what really lies behind my whole approach to religion.	.12	-.25	-.02	.77*	.83*	.72*	-.03	-.07	-.02
9. Religion is especially important to me because it answers many questions about the meaning of my life	.16	-.12	.32	.78*	.63*	.52*	.11	.01	.05
<i>Quest Items</i>									
Readiness to face existential question without reducing their complexity									
1. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.	.13	.34	.18	.10	-.31	.12	.50*	.39*	.48*
2. I have been driven to ask religious questions out of a growing awareness of the tensions in my world and in my relation to my world/My religious development has emerged out of my growing sense of personal identity.**	.00	.05	-.13	.28	.23	.33*	.48*	.45*	.20
3. My life experiences have led me to rethink my religious convictions.	-.12	.21	-.18	.23	.10	.35	.63*	.47*	.37*
4. God wasn't very important for me until I began to ask questions about the meaning of my own life.	.15	.03	.15	.04	-.10	.09	.53*	.29*	.40*
Self-criticism and Perception of Religious Doubts as Positive									
5. It might be said that I value my religious doubts and uncertainties.	.07	-.25	-.27	-.18	.06	-.14	.66*	.43*	.53*
6. For me, doubting is an important part of what it means to be religious.	.03	-.08	-.07	-.24	-.04	-.25	.48*	.44*	.52*
7. (-) I find religious doubts upsetting.	-.08	-.27*	-.14	-.35*	.09	-.34*	.08	-.06	-.18

(continued)

TABLE 4 (continued)

Quest Items	Means			End			Quest		
	1 ^a	2	3	1 ^a	2	3	1 ^a	2	3
8. Questions are far more central to my religious experience than are answers.	.19	-.09	.05	-.01	-.05	-.22	.46*	.53*	.36*
Openness to change									
9. As I grow and change, I expect my religion also to grow and change.	.09	-.33*	-.14	.07	.12	-.01	.50*	.18	.46*
10. I am constantly questioning my religious beliefs.	.00	.03	.07	-.09	-.44	.10	.69*	.46*	.57*
11. (-) I do not expect my religious convictions to change in the next few years.	-.11	-.23	.09	-.17	-.41*	-.31*	.45*	.08	.21
12. There are many religious issues on which my views are still changing.	-.01	-.01	-.06	.00	-.07	-.22	.61*	.48*	.45*
Eigenvalues of consecutive factors	3.17	1.89	2.37	5.39	5.64	5.88	4.56	2.07	1.80

*First three factors accounted for 41% of variance for the first sample, 30.0% for the second, and 31.4% for the third. Highest loading on particular dimension for each sample marked with asterisk.

**In the Polish version of the Quest scale, original item 2 has been replaced with the item from the previous version because of the ambiguous understanding of the new version by many participants.

^aThe data in column 1 of each part of the table are from "Measuring religion as quest: 2. Reliability concerns," by C. D. Batson & P. Schoenrade, 1991b, *Journal for the Scientific Study of Religion*, 30, 442-444. Copyright 1991 by the Society for the Scientific Study of Religion. Reprinted with permission.

more or less the same. However, when the default solution was ordered, only one factor appeared in the students/adults sample (eigenvalue = 3.27, the factor accounts for 54.6% of total variance), because the next two factors were slightly below the default eigenvalue level (.99 and .98). Also, for the coping sample, the third factor's eigenvalue was .98, and when the default solution was ordered, the result of the varimax rotation was surprising. Two factors resulted, and the Quest and Extrinsic scales fell into the second factor. These "free solution" results do not undermine the fact that three factors were noticeable in both samples, but emphasize the second side of one coin. For those samples, one religious dimension (probably the End dimension) was much more significant than the other two. Again, it is possible that this reflects a somewhat different understanding of that End by the Polish participants.

Factor Analysis of the Items

In the same vein, the principal axis factor analysis with 3-factor solution and varimax rotation was done for 32 items of the Extrinsic, Intrinsic and Quest scales. Table 4 shows the results for three samples, one American and two Polish. As one can see in the first line of the Table 4, there are some interesting differences in the

eigenvalues acquired for the consecutive factors. Whereas the eigenvalues for the End (Intrinsic) factor are similar in all samples, there are more differences for the Means (Extrinsic) factor, and many more differences for the Quest factor. The Means dimension seems to be less relevant in the students/adults sample. The Quest dimension seems to be less cohesive for both Polish samples (ratios of eigenvalues for the American sample and the Polish ones were about 2.2 and 2.5, respectively).

With very few exceptions, the Intrinsic scale had similar and appropriate loadings on the End factor; therefore, it can be recognized as the most universal measure of the religious orientation of this type. In contrast, many Extrinsic scale items loaded more on the End than on the Means factor, or the loadings were split. Items 1, 2, and 7 loaded more with the negative sign (likely they are negatively correlated with the Intrinsic scale). Item 4 in both Polish samples (and Item 11 in the students/adults sample) appears to belong to the End dimension,² and Items 3, 5, 8, 10, and 11 seem to have split loadings in the Polish samples, more often in the coping one (Items 8 and 10 loaded more on the End factor). However, for the American sample also, Items 5 and, partly, 11 seem to share loadings between Means and End. It is then possible that some part of religion measured by the Extrinsic scale is also understood as the religious end for the participants (seeking comfort and protection, and—in the Polish samples—belonging to, or identifying with, the church). This finding provides a possible explanation for the significant, positive correlation between the Extrinsic and Intrinsic and External scales in the coping sample.

The loadings acquired for the Quest scale items were also sometimes split. This was true for Item 2 (in all samples), which shared loadings between Quest and End factors, partly for Item 3, and (mostly for the students/adults sample) for Item 1. Items 5, 7, and 9 had negative loadings on the Means factor (negative correlation with the Extrinsic scale) for the smaller Polish sample. Also, Items 7 and 11 (reverse scored, but reflecting one's dislike of changes in his or her religion), and for the first and third samples, Items 6 and 7 had the split negative loadings on the End factor (so they may mean just a dislike). In the light of Batson et al.'s (1993, pp. 163–164) interpretation of the Intrinsic (End) religion as including a “true believer” kind, it seems possible and justifiable that, except for being a part of the Quest religious dimension, such characteristics as a dislike for religious doubts and for being too curious about the ultimate answers (as already revealed, or “given” to believe as religious mystery) belong to the End dimension. Moreover,

²It raises question about the tone of Item 4: “The church is most important as a place to formulate good social relationships” (and to some extent, Item 8). It is possible that its Polish meaning is more concerned with the word “church,” identified as inclusive to religion, whereas the intended English meaning emphasizes rather the availability to form “good social relationships” in the church. Then, the difference in loadings for this item becomes more understandable.

Item 2 (only the “old” version of this item is interpreted here) probably adds some meaning of the religious identity of a person to this dimension also. Similarly, some disapproval for changes in one’s religion may be a part of the Means dimension because those changes would not be useful for seeking a safe base for social and personal needs.

Default Factor Solutions

As one can see in the header of Table 3, the percentages of variance the 3 factor-solutions account for are not high, especially for the two Polish samples (30.0% and 31.4%). This means that more than 60% of the variation remained beyond consideration. To expand the amount of variance explained, the default (eigenvalues ≥ 1) principal axis factor analysis of the 32 items of the Three Religious Orientation Scales was conducted for the Polish samples (see Table 5). Nine factors appeared in this solution, and they accounted for 48% of the total variance. However, before rotation, another three factors had eigenvalues over .80, and eigenvalues of the next six factors decreased gradually to .60.

The varimax rotation of the nine-factor solution that converged only after 78 iterations, provides a different structure than the three-factor solution. The strongest factor (supposedly the End dimension, explaining 18.8% of the total variance, whereas the second accounted for 8%, and each subsequent factor accounted for even less) consisted of the items from both the Extrinsic and Intrinsic scales (Items 4 and 3, respectively); two Extrinsic item loadings were negative, and their meaning suggests the “true believer” contents of this factor. The strength of this religious attitude can also be supported by the fact that Item I-8—perhaps the core meaning of the Intrinsic religious orientation—had split loadings on four other factors. The second factor (which should stand for the Means dimension) seems to have a strong social-defensive meaning (religious affiliation for personal protection and rejection of doubts).

Stability of the quest dimension seems to be evident because the eight Quest scale items formed two separate factors, 4 and 5. Factor 4 contained items from all three aspects: two from “Openness,” two from “Self-criticism,” and one from “Readiness.” (Batson designed the Quest scale with the underlying aim to include some aspects of Allport’s (1950) mature religious sentiment, supposedly missing in the Intrinsic scale. They have been expressed as the three aspects of the quest dimension: “Openness to change,” “Self-criticism and perception of religious doubts as positive,” and “Readiness to face existential problems without reducing their complexity”; cf. Batson & Schoenrade, 1991b, p. 436). Factor 5 appears to signify “Readiness,” seemingly contradictory to Factor 3, which could be described as “Experiential,” with rejection of questions in that experience (negative loading on the Q-8 item “Questions are far more central...”). These observations

TABLE 5

Loadings of Factors Found for the Coping Adults Sample ($N = 191$): Default (Eigenvalue ≥ 1 or more) Principal Axis Factor Analysis of the 32 Items of Extrinsic, Intrinsic, and Quest Religious Orientations

Factor Items	Factor								
	1	2	3	4	5	6	7	8	9
Factor 1									
E-8. A primary reason for my interest in religion is that my church is a congenial social activity.	.68	.43	.01	-.08	.10	.10	.18	.03	.13
E-4. The church is most important as a place to formulate good social relationships.	.60	.27	.19	-.06	.16	.09	.31	-.10	.20
E-1. Although I believe in my religion, I feel there are many more important things in my life.	-.57	-.01	-.10	-.06	.16	-.22	.03	.03	.05
I-6. I read literature about my faith (or church).	.57	.05	.37	-.07	.17	-.11	.14	-.18	-.08
I-8. My religious beliefs are what really lies behind my whole approach to religion.	.50	.24	.23	.08	-.06	.20	.38	-.07	-.01
E-2. It doesn't matter what I believe so long as I lead a moral life.	-.36	.10	-.32	.03	.05	-.35	-.07	.10	.14
I-7. If I were to join a church group I would prefer to join a Bible study group rather than a social fellowship.	.27	-.02	.09	-.04	.10	-.04	.04	-.03	.26
Factor 2									
E-11. The purpose of prayer is to secure a happy and peaceful life.	.15	.63	-.05	-.15	.16	.18	-.04	-.07	.13
E-10. One reason for my being a church member is that such membership helps to establish a person in the community.	.32	.57	-.04	.14	-.09	-.10	.10	-.04	.10
E-3. The primary purpose of prayer is to gain relief and protection.	-.02	.56	.25	-.13	.08	.18	.14	.05	.01
E-6. I pray chiefly because I have been taught to pray.	-.02	.36	-.26	-.08	.14	-.29	-.09	.10	.21
Q-7. (-) I find religious doubts upsetting.	-.23	-.30	-.16	-.16	.00	-.10	-.07	-.17	.09
Factor 3									
I-3. I try hard to carry my religion into all my other dealings in life.	.45	.15	.53	.09	.04	.11	.34	-.12	.04
I-5. Quite often I have been keenly aware of the presence of God or the Divine Being.	.37	-.04	.52	.10	.13	.38	.21	-.13	.12
Q-2. My religious development has emerged out of my growing sense of personal identity.	.11	.01	.48	.06	.12	.11	-.01	.05	.02
I-1. It is important for me to spend periods of time in private religious thought and meditation.	.37	.14	.48	.17	.17	.00	.17	-.19	-.09
I-9. Religion is especially important to me because it answers many questions about the meaning of my life.	.10	.38	.47	.05	-.05	.11	.21	-.02	-.07

(continued)

TABLE 5 (continued)

Factor Items	Factor									
	1	2	3	4	5	6	7	8	9	
Factor 4										
Q-9. As I grow and change, I expect my religion also to grow and change.	-.15	.07	.13	.65	-.02	-.15	.06	-.13	.02	
Q-5. It might be said that I value my religious doubts and uncertainties.	.05	-.28	-.05	.60	.09	.06	-.18	.03	.06	
Q-10. I am constantly questioning my religious beliefs.	.12	.09	.12	.51	.12	.10	-.11	.31	.11	
Q-6. For me, doubting is an important part of what it means to be religious.	-.01	-.04	-.09	.50	.16	-.18	-.22	.24	-.35	
Q-3. My life experiences have led me to rethink my religious convictions.	.23	.04	.25	.36	.19	.01	.05	-.25	.04	
Factor 5										
Q-1. I was not very interested in religion until I began to ask questions about the meaning and purpose of my life.	.00	.19	.20	.12	.75	-.05	-.18	-.04	.00	
Q-4. God wasn't very important for me until I began to ask questions about the meaning of my own life.	.02	.03	.06	.09	.63	.05	.00	.11	.06	
Q-8. Questions are far more central to my religious experience than are answers.	-.05	-.14	-.31	.29	.36	.04	.06	.25	-.09	
Factor 6										
I-4. The prayer I say when I am alone carry as much meaning and personal emotion as those said by me during service.	.13	.14	.27	-.01	.03	.55	.13	-.01	.02	
E-5. What religion offers me most is comfort when sorrows and misfortune strike.	.00	.36	.09	-.07	.17	.46	.19	.01	-.02	
Q-12. There are many religious issues on which my views are still changing.	-.19	-.10	.11	.37	.17	-.43	.00	.04	.08	
Factor 7										
I-2. If not prevented by unavoidable circumstances, I attend church.	.31	.13	.02	-.04	-.04	.05	.58	-.03	-.04	
Q-11. (-) I do not expect my religious convictions to change in the next few years.	-.06	-.02	-.14	.11	.07	-.11	-.47	.06	.02	
Factor 8										
E-7. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.	-.23	.02	-.08	.05	.15	-.09	-.11	.80	.14	
Factor 9										
E-9. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.	-.02	.22	-.10	.19	.00	-.06	-.13	.24	.61	

do not change the previous results, but support the presumption that the pervasive meaning of religion in the coping sample is a “true and social believer” oriented dimension, which is the kind of religious lifestyle, merging firm but not reflective religious beliefs with the daily conduct and holiday practices. Means orientation seems to be slightly overlapping with the End one, whereas the Quest dimension appears quite separate. However, four Quest scale items almost completely fell to other factors, possibly because of the better (but negative) correlation of items expressing doubts with factors that describe the unalterable kind of religion. In the default principal axis factor analysis, performed separately for the 12 Quest scale items, by using data from the coping sample, four factors appeared (they account for 35.6% of variance after varimax rotation, but with a very small overlap of loadings on other factors). One factor was strong (eigenvalue = 2.23), and three other were gradually weaker (starting from eigenvalue = .96). The first factor consisted of Items 6, 5, 8, 10, and 11 (the first three from the “Self-criticism” component of Quest, and the next two from the “Openness” component). Factor 2 consists of two “Readiness” items, Factor 3 of two “Openness” items, and Factor 4 of two “Readiness” and one “Self-criticism” items. This may be further evidence of the importance of the doubting aspect—no matter whether it is understood positively or negatively—for the coping sample.

DISCUSSION

At this point, most of the Religious Orientation Scales in their Polish application have met expectations, except for the reliability of the Extrinsic, External, and Quest scales, which is uncertain. The first assumption underlying this study was partly supported. However, the consistency problems of the Extrinsic and Quest scales seem to have been caused by the specificity of the Polish samples, particularly of the coping one. Similarly, the second assumption was supported during this analysis, with the exception of the apparent overlap between Extrinsic and Intrinsic with the External scales in the coping sample, seemingly caused by its different character. The stressful situations of the participants might contribute to this. Relatively less support was found to confirm the third assumption. Although the evidence suggests factor consistency in the End dimension, and relative consistency in the Quest dimension, with some reservations concerning the “Self-criticism” component, the Means dimension appeared to partially overlap the End dimension more in the Polish samples.

Except for the considerable support for the universality of the Allport–Ross–Batson’s three-dimensional theory of religious orientations for Christian religions, there seems also to be a very interesting bias coming from the differences of individual religion in the Polish sample. The thesis is that it results in a much stronger End dimension because it includes compound meanings, origi-

nally ascribed both to End and Means dimensions. In this light, despite the similar understanding of its "Readiness" and "Openness" components, the Quest dimension appears less relevant, or sometimes only important with regard to rejection of any doubts and questioning, but correlated with the End or Means dimension. According to the findings described here, the Polish Catholic faith looks like the American "civil religion," where, according to Hood et al. (1996, p. 23), "it is simply 'unAmerican' not to believe in God", what is called "a habitual religion, a mechanical religion, a convenient religion." Likewise, for many Poles, "it is simply 'un-Polish' not to be a Catholic," with the exception that it does not necessarily mean "mechanical," but rather idiosyncratic in comparison with the increasing pluralism in the Polish society.

Given the metaphors that underlie the concepts of religious orientation (Wulff, 1992), the further refinement of the Religious Orientations Scales would seem to be in order. Furthermore, not all of the items of the Means religious dimension are clearly the "means," and not all of the items of the End religious orientation are clearly the "end" goals. The Quest religious orientation likewise needs new items, ones that more adequately reflect the open-minded, existential search and acceptance of the risks of such a search for one's religious ideals. Perhaps some of the items that evaluate "Self-criticism and perception of religious doubts as positive," should be replaced by ones that, while affirming an attitude of doubt, acknowledge that there are potential costs involved in it. Such items would be useful at least for Polish participants, for whom doubt is seldom understood as a desirable state. Of the four items assessing this aspect of Quest, only the statement without the word *doubt* in it was unproblematic in the process of assigning items to factors.

The reported observations seem to put some light on the nature of the Quest religious orientation. Quest is not a period of doubt or of transition to the Intrinsic religious orientation; nor does it represent the positive conflict within oneself. Any conflict may be considered negative, but some instances may lead to positive change. The statement that "Questions are far more central to my religious experience than are answers" should be supplemented with items that endorse a complex and open-minded way of being religious and express an understanding of its risks and costs. As evidenced by Kojetin et al. (1987) and Nielsen (1995), and by this analysis (see Table 2, additional row following the intercorrelations for the students/adults sample), the Quest religious orientation, at least as Batson measured it, appears to be related to conflict (cf. Batson & Schoenrade, 1991a). This relation, if it is not a result of particular measures, may be understood in terms of Dabrowski's (1964) theory of positive disintegration, according to which crisis and suffering are the unavoidable costs of the transformation and reintegration of personality (see also Batson et al., 1993, pp. 184-185).

Speaking more generally about religious orientations, I postulate that the psychology of religion needs a nontheological or non-normative interpretation of the

metaphor of an ideal of being religious (as opposed to a religious ideal), in functional terms of personal integration, growth, and empowerment, rather than in the normative terms of "religious maturity," or of "religion-for-itself." This seems still to be an unfulfilled Allport's (1961, pp. 376–391) dream on the unity of personality in its dialectic of dividing and uniting.

There seems to be one crucial point in the conceptualization of religious orientations. One must distinguish between where do we go—to religious means, to religious ends, or to religious–existential quest (these are theologically established and value-laden notions, then, the matter of choice, and not the indispensability of psychological processes), and how do we go there. This is a psychological issue. If mature forms of personal religion are of interest to us, then reinterpreting religious orientations in terms of the principles of internalization (see Moll, 1994; Schafer, 1968) and integration-through-positive-disintegration (Dabrowski, 1964) would be worth considering if these principles are to make evident the developmental process that culminates in such forms. These perspectives could provide insights comparable to those offered by the attribution theory (see Spilka & McIntosh, 1995); into the cognitive side of religious orientation; and, by attachment theory (see Kirkpatrick, 1995), into the emotional side.

Psychologists of religion must acknowledge, of course, the cultural setting, and its rootedness in a particular tradition, of personal religion. They must view it first of all as a psychological phenomenon, and thus seek to understand it by beginning with psychological principles of one kind or another. If a normative–theological interpretation is to be introduced, it must be grounded to some degree in these principles.

ACKNOWLEDGMENTS

This article was written during the author's stay in the United States, supported by the Fulbright Program. The author is indebted to Professor C. Daniel Batson, The University of Kansas, Lawrence, Kansas, for his thorough, seminal, and most friendly criticism and help in preparation of this article. Also, many thanks to Professor Kenneth I. Pargament, Bowling Green State University, Bowling Green, Ohio, and to Professor David M. Wulff, Wheaton College, Massachusetts, for their fruitful suggestions and support.

REFERENCES

- Allport, G. W. (1950). *The individual and his religion*. New York: Macmillan.
- Allport, G. W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart & Winston.
- Batson, C. D., & Schoenrade, P. (1991a). Measuring religion as Quest: Validity concerns. *Journal for the Scientific Study of Religion*, 30, 416–429.
- Batson, C. D., & Schoenrade, P. (1991b). Measuring religion as Quest: Reliability concerns. *Journal for the Scientific Study of Religion*, 30, 430–447.

- Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual. A social-psychological perspective*. New York: Oxford University Press.
- Chamberlain, K., & Zika, S. (1988). Religiosity, life meaning, and well-being: Some relationships in a sample of women. *Journal for the Scientific Study of Religion*, 27, 411-420.
- Dabrowski, K. (1964). *Positive disintegration*. Boston: Little, Brown.
- Derks, F. (1986). Religious attitudes: A practical approach (1). In J. A. van Belzen, & J. M. van der Lans (Eds.), *Current Issues in the Psychology of Religion. Proceedings of the Third Symposium on the Psychology of Religion in Europe* (pp. 193-199). Amsterdam: Rodopi.
- Derks, F. (1989). Means, end and quest revisited: Validation of the support, witnessing and development scales. In J. van der Lans, & J. A. van Belzen (Eds.), *Proceedings of the Fourth Symposium on the Psychology of Religion in Europe* (pp. 17-23). Nijmegen, The Netherlands: Department of Culture Psychology and Psychology of Religion, University of Nijmegen.
- Donahue, J. M. (1985). Intrinsic and extrinsic religiousness: Review and meta-analysis. *Journal of Personality and Social Psychology*, 48, 400-419.
- Genia, V., & Shaw, D. G. (1991). Religion, intrinsic-extrinsic orientation, and depression. *Review of Religious Research*, 32, 274-283.
- Gorsuch, R. L. (1984). Measurement: The boon or bane of investigating religion. *American Psychologist*, 39, 228-236.
- Hood, R. W., Jr., & Morris, R. J., (1985). Conceptualization of quest: A critical rejoinder to Batson. *Review of Religious Research*, 42, 413-417.
- Hood, R. W., Jr., Spilka, B., Hunsberger, B., & Gorsuch, R. (1996). *The psychology of religion: An empirical approach* (2nd ed.). New York: Guilford.
- Kaldestad, E., & Stifflös-Hanssen, H. (1993). Standardizing measures of religiosity for Norwegians. *The International Journal for the Psychology of Religion*, 3, 111-124.
- Kirkpatrick, L. A. (1989). A psychometric analysis of the Allport-Ross and Feagin measures of Intrinsic-Extrinsic religious orientation. In M. L. Lynn & D. O. Moberg (Eds.), *Research in the scientific study of religion, Vol. 1* (1-31). Greenwich, CT: JAI.
- Kirkpatrick, L. A. (1995). Attachment theory and religious experience. In R. W. Hood, Jr. (Ed.), *Handbook of religious experience* (pp. 446-475). Birmingham, AL: Religious Education Press.
- Kirkpatrick, L. A., & Hood, R. W., Jr. (1990). Intrinsic religious orientation: The boon or bane of the contemporary psychology of religion? *Journal for the Scientific Study of Religion*, 29, 442-462.
- Kojetin, B. A., McIntosh, D. N., Bridges, R. A., & Spilka, B. (1987). Quest: Constructive search or religious conflict? *Journal for the Scientific Study of Religion*, 26, 111-115.
- Latala, A., & Socha, P. (1981). A technique for the measurement of individual religiousness. *Zeszyty Naukowe UJ: Studia Religiológica*, 6, 119-141.
- Magni, K. G. (1971). The fear of death: Studies of its character and concomitants. *Lumen Vitae*, 5, 129-142.
- Moll, I. (1994). Reclaiming the natural line in Vygotsky's theory of cognitive development. *Human Development*, 37, 333-342.
- Nielsen, M. E. (1995). Further examination of the relationships of religious orientation to religious conflict. *Review of Religious Research*, 4, 369-381.
- Pargament, K. I. (1992). Of means and ends: Religion and the search for significance. *The International Journal for the Psychology of Religion*, 2, 201-229.
- Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., Van Haitsma, K., & Warren, R. (1990). God help me (I): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology*, 18, 793-824.
- Pargament K. I., & Park, C. L. (1995). Merely a defense? The variety of religious means and ends. *Journal of Social Issues*, 51, 12-32.
- Park, C., Cohen, L. H., & Herb, L. (1990). Intrinsic religiousness and religious coping as life stress moderators for Catholics vs. Protestants. *Journal of Personality and Social Psychology*, 59, 562-574.

- Schafer, R. (1968). *Aspects of internalization*. Madison, CT: International Universities Press.
- Socha, P. (1992). *Development of the religious and world view orientations* (Polish; includes English summary). Kraków: Jagiellonian University Publishers.
- Socha, P. (1996). A model of sequential development of religious orientation as a criterion of mental health. In H. Grzymala-Moszczyńska, & B. Beit-Hallahmi (Eds.), *Religion, psychopathology and coping* (pp. 139–157). International Series in the Psychology of Religion. Amsterdam-Atlanta, GA: Editions Rodopi, B. V.
- Socha, P. M. (1997). The role of religion in coping with unemployment: Defensive, empowering, or irrelevant? Unpublished manuscript.
- Spielberger, C. D., Gorsuch, R., & Lushene, R. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Spilka, B., & McIntosh, D. N. (1995). Attribution theory and religious experience. In R. W. Hood, Jr. (Ed.), *Handbook of religious experience* (pp. 421–445.) Birmingham, AL: Religious Education Press.
- Watson, P. J., Morris, R. J., & Hood, R. W. Jr. (1989). Interactional factor correlations with means and end religiousness. *Journal for the Scientific Study of Religion*, 28, 337–347.
- Weinborn, M. (1995). *A means and ends approach to religious orientation*. Unpublished master's thesis, Bowling Green State University, Bowling Green, OH.
- Wulff, D. M. (1992). Reality, illusion or metaphor? Reflections on the conduct and object of the psychology of religion. *Journal of the Psychology of Religion*, 1, 25–51.