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Article

# The New Indices of Religious Orientation Revised (NIROR): A Study among Canadian Adolescents Attending a Baptist Youth Mission and Service Event

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**Abstract:** This study explores the properties of the New Indices of Religious Orientation Revised (NIROR) among a sample of 521 Canadian adolescents attending a Baptist youth mission and service event, ranging in age from 12 to 19 years. This revision simplified the language of the original instrument to increase its accessibility among young people. The data support the internal consistency reliability and construct validity of the three revised nine-item scales designed to operationalise extrinsic religious orientation, intrinsic religious orientation, and quest religious orientation.

**Keywords:** religious orientation; religious motivation; psychometrics; psychology of religion

## 1. Introduction

Religious orientation theory has played a central but somewhat controversial role within the individual differences tradition of the empirical psychology of religion. The controversy was well captured by the subtitle of the paper by Kirkpatrick and Hood [1] who asked whether religious orientation theory was “the boon or bane of contemporary psychology of religion”. Essentially the problems raised by religious orientation theory are within the domains of conceptualisation, operationalisation and application.

Conceptually religious orientation theory has its origins in two somewhat different areas of discourse. The original work by Allport, as captured by Allport [2] and Allport and Ross [3], was concerned to differentiate between two different forms of religious motivation as displayed by individuals who engaged in religious practices such as church attendance and personal prayer. From a perspective of psychological discourse Allport recognises that some were intrinsically motivated (engaged in religion for religion’s sake), and others were extrinsically motivated (engaged in religion for the sake of other objectives). The confusion comes about, however, when Allport also speaks of intrinsic religion as more mature religion. The second stage of the work by Batson, as captured by Batson and Ventis [4], Batson and Schoenrade [5,6] and Batson, Schoenrade, and Ventis [7] is grounded in a perspective influenced by a form of theological discourse concerned to discuss the nature of mature religion. The consequence of merging these two somewhat different discourses is the current conceptualisation of religious orientation theory embracing three religious orientations: intrinsic orientation, extrinsic orientation, and quest orientation. While functionally useful these three

orientations considered together generate neither a coherent nor inclusive account of the potential within the construct of religious orientation itself.

In terms of application, the current notion of religious orientation as embracing three orientations (intrinsic, extrinsic and quest) makes sense only as a way of nuancing the religious motivation of individuals who by other criteria are deemed to be religious. In other words, the measurement of religious orientation only strictly applies among individuals who *practise* religion, especially in the terms of public worship attendance. A number of current empirical studies employing measures of religious orientation are, nonetheless, conducted among diverse populations, embracing both those who practise religion and those who do not practise religion.

It is the use of measures of religious orientation among non-religious or religiously mixed groups that render answers to some of the items in the existing measures meaningless. For example, in terms of the extrinsic orientation, how do non-churchgoers respond to the item “One reason for me going to church is that it helps to establish me in the community?” Churchgoers and non-churchgoers would mean different things by responding negatively to the intrinsic item, “I would allow almost nothing to prevent me from going to church on Sundays”. Churchgoers and non-churchgoers would mean different things by responding negatively to the quest item, “I am constantly questioning my religious beliefs”. Empirical evidence for the different performance of the three religious orientation measures among religious groups and non-religious groups is evidenced by the different patterns of correlations between these variables that emerge in the two contexts of religious and non-religious participants (see Francis [8]). For example, among religious groups there is generally a negative correlation between intrinsic religious orientation and extrinsic religious orientation. This makes sense if the two orientations are assessing opposing motivations among the religiously engaged. Among non-religious groups there is generally a positive correlation between intrinsic religious orientation and extrinsic religious orientation. This too makes sense if the two orientations are assessing general levels of dissent from a religious world view.

In terms of operationalisation, several different attempts have been made to devise measures of the three orientations defined as intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation. The best established of these instruments are those designed by the research groups originally responsible for the conceptualisation of the constructs.

First, in terms of the distinction between intrinsic religious orientation and extrinsic religious orientation, Allport and Ross [3] offered the following definitions. Here is their description of the extrinsic orientation.

Persons with this orientation are disposed to use religion for their own ends. Persons with this orientation may find religion useful in a variety of ways—to provide security and solace, sociability and distraction, status and self-justification. The embraced creed is lightly held or else selectively shaped to fit more primary needs ([3], p. 434).

Here is their description of the intrinsic orientation.

Persons with this orientation find their master motive in religion. Other needs, strong as they may be, are regarded as of less ultimate significance, and they are, so far as possible, brought into harmony with the religious beliefs and prescriptions. Having embraced a creed the individual endeavours to internalize it and follow it fully. It is in this sense that he *lives* his religion ([3], p. 434).

Allport and Ross [3] proposed two scales to measure their dimensions of intrinsic and extrinsic orientation. The intrinsic measure contained nine items, the first two of which were: “It is important for me to spend periods of time in private religious thought and meditation”; “If not prevented by unavoidable circumstances, I attend church”. The extrinsic measure contained eleven items, the first two of which were: “Although I believe in my religion, I feel there are many more important things in my life”; “It doesn’t matter so much what I believe so long as I lead a moral life”.

Second, the quest religious orientation gave recognition to a form of religiosity which embraces characteristics of complexity, doubt, tentativeness, and honesty in facing existential questions. Batson and Ventis ([4], p. 150) provided the following description of the quest orientation.

An individual who approaches religion in this way recognises that he or she does not know, and probably never will know, the final truth about such matters. But still the questions are deemed important, and however tentative and subject to change, answers are sought. There may not be a clear belief in a transcendent reality, but there is a transcendent, religious dimension to the individual's life.

Batson and Ventis ([4], p. 145) also provided a six-item instrument to measure the quest orientation, which they originally identified by the name "interactional scale". Two items were: "It might be said that I value my religious doubts and uncertainties"; "Questions are far more central to my religious experience than are answers". Subsequently Batson and Schoenrade [5,6] developed a longer twelve-item quest scale, which dropped one item from the original six-item scale (My religious development has emerged out of my growing sense of personal identity) and introduced a further seven new items.

After reviewing the problems identified in the literature with the measures proposed by Allport and Ross [3], Batson and Ventis [4] and Batson and Schoenrade [5,6], Francis [8] proposed the development of the New Indices of Religious Orientation (NIRO). Francis' objective was to develop scales of equal length to measure the three constructs and to give equal weight to the three conceptual components identified within each construct. Batson and Schoenrade [6] defined the three components of quest orientation as: readiness to face existential questions without reducing their complexity; self-criticism and perception of religious doubt as positive; openness to change. The three conceptual components of extrinsic orientation are: compartmentalisation, or the separation of religion from the rest of life; social support, or the use of religion to achieve social ends; personal support, or the use of religion to gain personal comfort. The three conceptual components of intrinsic orientation are: integration, or the close relationship between religion and the rest of life; public religion, or the importance given to church for religious ends; personal religion, or the importance given to personal prayer and reading for religious ends.

This clear conceptual framework provided an opportunity to assess the original items for relevance, for face validity, and for economy of expression, and then to draft a battery of new items. The new items have been drafted to distinguish different religious orientations among religious people whose religiosity has been shaped by institutionalised Christianity. It is recognised that the scales are less appropriate among people who are themselves not religious, or among people whose religiosity has been shaped by non-Christian traditions.

Following this initial publication by Francis [8], the New Indices of Religious Orientation have been applied and tested in a number of studies including Francis [9], Francis, Jewell, and Robbins [10], Francis, Robbins, and Murray [11], Ross and Francis [12], Williams [13], Kamble, Lewis, and Cruise [14], Walker [15,16], and Francis and Williams [17].

## 2. Research Question

Although the New Indices of Religious Orientation have been found to record a good level of internal consistency reliability and construct validity, their usage has been largely restricted to adult and articulate populations. The desire to modify these three scales and to test the New Indices of Religious Orientation Revised was stimulated by the opportunity to explore the application of religious orientation theory among a younger population of adolescents participating in a church sponsored mission and service youth event.

Against this background, the three aims of the present study are as follows. The first aim was to critique the items proposed by the New Indices of Religious Orientation and, where desirable or necessary, reformulate items in ways anticipated to be more accessible to young people between the

ages of 12 and 19 years. The second aim was to test the internal consistency reliability of the newly formulated items in terms of the alpha coefficient (Cronbach [18]) and the correlations between the individual items and the sum of the other eight items within the same scale. The third aim was to test the construct validity of the newly generated scales in terms of the hypothesised negative correlation between intrinsic religious orientation and extrinsic religious orientation among groups of religiously engaged individuals and the hypothesised positive correlation between intrinsic religious orientation and extrinsic religious orientation among groups of individuals who are less religiously engaged.

In the present study this research question has been located within the context of a youth mission and service event organised by the Convention of Atlantic Baptist Churches in Eastern Canada. This group of churches is grounded in a clear doctrinal statement which includes an emphasis on serving out one's faith and sharing one's faith with those people encountered in the daily living of one's life. Youth from across the churches affiliated with the Convention of Atlantic Baptist Churches are invited to come together every second summer to live and serve together in the same city or rural area for a week. Generally between 800 and 1000 students and leaders attend this event which includes children's programs, worship gatherings, prayer events, fun events and opportunities for shared meals and celebration. The event is planned and led by the Convention staff along with local paid youth pastors and volunteer youth leaders.

### 3. Methods

#### 3.1. Item Construction

The research team familiar with the conceptual map identifying the three component parts of the three constructs of intrinsic, extrinsic, and quest religious orientation critiqued the 27 items of the original formulation of the New Indices of Religious Orientation (NIRO) and simplified the language as far as possible without distorting the intention of the original items to generate the New Indices of Religious Orientation Revised (NIROR).

#### 3.2. Procedure

All young people attending the 2011 week-long youth mission and service event sponsored by the Convention of Atlantic Baptist Churches in Eastern Canada were invited to complete during one of the sessions a questionnaire that included the 27 newly drafted items proposed for NIROR. The young people attending this youth event were assured that their participation in the survey was voluntary, confidential and anonymous. The participation rate was very high reflecting overall interest in the project. A total of 521 completed questionnaires were submitted, of which 505 contained full responses to the NIROR items.

#### 3.3. Measures

*Religious orientation* was assessed by the 27 re-drafted items (nine for each of the three orientations). These 27 items were randomised and rated on a five-point Likert scale: agree strongly, agree, not certain, disagree, and disagree strongly.

*Frequency of church attendance* was assessed on a four-point scale: never, once in a while, at least monthly, and nearly every week.

*Frequency of personal prayer* was assessed on a five-point scale: never, occasionally, at least once a month, at least once a week, and nearly every day.

*Frequency of Bible reading* was assessed on a five-point scale: never, occasionally, at least once a month, at least once a week, and nearly every day.

### 4. Participants

Of the 521 participants, 199 were male, 318 female, and 4 of undisclosed sex; 75 were under the age of thirteen, 120 were thirteen, 80 were fourteen, 82 were fifteen, 84 were sixteen, 38 were seventeen,

28 were eighteen, and 13 were nineteen and over, with one failing to disclose age. The majority of the participants self-identified as Baptist (94%) and as weekly churchgoers (85%); half prayed nearly every day (49%) with a further 23% praying at least once a week, and one in five read the Bible nearly every day (19%) with a further 24% reading the Bible at least once a week.

## 5. Analysis

The data were analysed by SPSS, using the frequency, reliability, correlation and ANOVA routines.

## 6. Results

Table 1 presents the scale properties of the three scales of the New Indices of Religious Orientation Revised (extrinsic, intrinsic, and quest) in terms of the correlations between the individual items and the sum of the other eight items and the alpha coefficient [18]. All three scales reached the threshold of acceptability proposed by DeVellis [19], and the majority of individual items correlated at least 0.3 with the sum of the other eight items.

**Table 1.** New Indices of Religious Orientation Revised.

	<i>r</i>
<b>Extrinsic Orientation</b>	
<i>Compartmentalisation</i>	
While I believe in the Christian faith, there are more important things in my life	0.30
While I am a Christian, I do not let my faith influence my daily life	0.32
Occasionally I have comprised my Christian beliefs to fit in better with my friends	0.32
<i>Social support</i>	
One reason for me going to church is to connect with others my own age	0.32
A key reason for my interest in church is that it is socially enjoyable	0.53
I go to church because it helps me to feel part of a community	0.42
<i>Personal support</i>	
One reason for me praying is that it helps me to gain relief and protection	0.18
What prayer offers me most is comfort when bad things happen to me	0.19
I pray mainly because it makes me feel better	0.38
Alpha	0.65
<b>Intrinsic Orientation</b>	
<i>Integration</i>	
My Christian faith shapes how I live my daily life	0.58
I try hard to carry my Christian faith over into all other areas of my life	0.56
My Christian faith really shapes the way I treat people	0.60
<i>Public religion</i>	
I allow almost nothing to prevent me from going to church on Sundays	0.39
I go to church because it helps me feel close to God	0.62
The church is most important to me as a place to be part of Christ's family	0.49
<i>Personal religion</i>	
I pray at home because it helps me be aware of God's presence	0.61
I often read books about prayer and the spiritual life	0.36
I pray mainly because it deepens my relationships with God	0.54
Alpha	0.82

Table 1. Cont.

	<i>r</i>
<b>Quest Orientation</b>	
<i>Existentialism</i>	
A growing sense of the problems in my world led me to ask religious questions	0.36
My life experiences have led me to rethink my religious beliefs	0.55
My faith only became very important for me when I began to ask questions about the meaning of my life	0.48
<i>Self-criticism</i>	
I value my religious doubts and questions	0.40
For me, doubting is an important part of what it means to be Christian	0.51
Questions are more important to my Christian faith than are the answers	0.37
<i>Openness to change</i>	
As I grow and change, I expect my faith to grow and change as well	0.17
I am constantly questioning my religious beliefs	0.48
There are many religious issues on which my views are still changing	0.53
Alpha	0.75

Note: *r* = correlation between the individual item and the sum of the other 8 items within the scale.

Tables 2–4 examine the construct validity of the three nine-item scales against three other measures of religiosity: church attendance divided into two groups (weekly attendance and less than weekly attendance), personal prayer divided into three groups (daily, weekly, and less than weekly), and Bible reading divided into three groups (daily, weekly, and less than weekly). The construct theory being tested is that intrinsic religious orientation increases in line with higher levels of religious practice that extrinsic religious orientation decreases in line with higher levels of religious practice, and that quest religious orientation is less closely related to religious practice. The data provide broad support for these three hypotheses. Extrinsic religious orientation decreased with frequency of church attendance, personal prayer and Bible reading. Intrinsic religious orientation increased with frequency of church attendance, personal prayer and Bible reading. Quest religious orientation was significantly related to neither personal prayer nor Bible reading, while weekly churchgoers recorded significantly lower scores of quest religious orientation compared with those who attend church less than weekly.

Table 2. Mean scale scores by church attendance.

Orientation	Weekly (N = 429)		Less than (N = 72)		F	<i>p</i> <
	M	SD	M	SD		
Extrinsic	26.9	5.2	29.1	4.3	11.9	0.001
Intrinsic	34.0	5.4	30.3	5.8	27.2	0.001
Quest	28.7	5.4	30.8	4.3	10.2	0.001

Table 3. Mean scale scores by personal prayer.

Orientation	Daily (N = 246)		Weekly (N = 115)		Less than (N = 141)		F	<i>p</i> <
	M	SD	M	SD	M	SD		
Extrinsic	26.1	5.4	27.9	5.0	28.6	4.0	13.2	0.001
Intrinsic	36.0	4.6	33.1	4.5	29.2	5.5	88.7	0.001
Quest	28.8	5.7	28.9	4.6	29.5	5.1	0.8	NS

**Table 4.** Mean scale scores by Bible reading.

Orientation	Daily (N = 98)		Weekly (N = 178)		Less than (N = 229)		F	p <
	M	SD	M	SD	M	SD		
Extrinsic	26.2	5.6	26.9	4.8	27.8	5.0	4.2	0.001
Intrinsic	37.0	4.6	34.6	4.5	30.9	5.7	56.4	0.001
Quest	28.3	6.1	28.9	5.0	29.4	5.2	1.3	NS

Table 5 examines the theory that intrinsic religious orientation and extrinsic religious orientation relate to each other differently among highly religious individuals and among individuals less highly religious. This table examines the correlates between the three religious orientations among the whole sample and then among subgroups differentiated in terms of frequency of religious practice: church attendance dichotomised into weekly and less than weekly; personal prayer dichotomised into daily and less than daily; and Bible reading dichotomised into daily and less than daily. These statistics support that theory. Intrinsic religious orientation and extrinsic religious orientation are negatively correlated among weekly churchgoers, daily prayers, and daily Bible readers, but positively correlated among those who attend church less than weekly, who prayed less than daily and who read the Bible less than daily. The correlation coefficients also suggest that extrinsic religious orientation and quest religious orientation are significantly correlated across the levels of religious practice. Intrinsic religious orientation and quest religious orientation are independent among those who pray daily and those who read the Bible daily, but positively correlated among those who are less committed to personal prayer and to Bible reading.

**Table 5.** Intercorrelations among different groups.

Group	N	Intrinsic Extrinsic	Intrinsic Quest	Extrinsic Quest
<i>Undifferentiated by religiosity</i>				
Whole sample	505	−0.10 *	0.05	0.38 ***
<i>By levels of public attendance</i>				
Weekly church attendance	429	−0.10 *	0.09 *	0.37 ***
Less than weekly attendance	72	0.18	0.05	0.41 ***
<i>By levels of personal prayer</i>				
Daily prayer	264	−0.15 *	−0.01	0.37 ***
Less than daily prayer	141	0.25 ***	0.22 **	0.37 ***
<i>By level of Bible reading</i>				
Daily Bible reading	98	−0.22 *	0.01	0.42 ***
Less than daily reading	244	0.14 *	0.20 **	0.36 ***

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

## 7. Conclusions

This paper set out to propose and to test a modification of the New Indices of Religious Orientation as originally proposed by Francis [8] in ways that would both protect the structure and clarity of the parent instrument and also make the concepts more accessible to young religiously engaged adolescents between the ages of 12 and 19 years. This objective was set out in three stages.

Stage one involved the careful critique by the research team of the 27 items of the original formulation of the New Indices of Religious Orientation, leading to simplification of the language as far as possible without disturbing the intention of the original items. These revised items have been presented in Table 1 in which the nine items within each of the three religious orientation scales (intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation) have been grouped within the three components that define that orientation. All 27 items received a high

level of completion by the 521 participants indicating that the terminology had achieved an appropriate level of accessibility.

Stage two involved exploring the internal consistency reliability of the three nine-item scales in terms of the alpha coefficient [18] and the correlations between the individual items and the sum of the other eight items within the nine-item scale. These data, also presented in Table 1, demonstrate that all three scales achieved a satisfactory level of internal consistency reliability. At the same time, further refinement of the measure of extrinsic religious orientation could enhance the internal consistency reliability of this measure.

Stage three involved exploring the construct validity of the three measures in terms first of exploring the association between scale scores and different levels of personal religious engagement. These data are presented in Tables 2–4 in terms of frequency of church attendance, frequency of personal prayer and frequency of Bible reading respectively. The data confirm the hypothesised higher levels of intrinsic religious orientation and lower levels of extrinsic religious orientation among those more religiously engaged, in terms of weekly church attendance, daily prayer, and daily Bible reading. The hypothesised lack of differences in quest religious orientation scores according to levels of religious engagement (among those nonetheless religiously engaged) was supported in terms of different levels of personal prayer and different levels of Bible reading, but not in terms of different levels of church attendance. The majority of the participants who attended church weekly ( $N = 429$ ) recorded significantly lower levels of quest religious orientation compared with the minority of the participants who attended church less than weekly ( $N = 72$ ). This finding may be related to the kind of religious teaching promoted within the church tradition from which the participants were drawn and in which questioning of the religious tradition may be less encouraged. The present study now deserves replication among young people engaged with a liberal church tradition in order to test this interpretation.

The second way in which the construct validity of the three measures was explored concerned examining the intercorrelations of the three measures among subgroups of the participants differentiated in terms of frequency of religious practice: frequency of church attendance, frequency of personal prayer, and frequency of Bible reading. These data, presented in Table 5, confirm the hypothesised negative correlation between intrinsic religious orientation and extrinsic religious orientation among those highly engaged in religious practice and a positive correlation between intrinsic religious orientation and extrinsic religious orientation among those less highly engaged in religious practice.

Both strategies for testing the construct validity of the New Indices of Religious Orientation Revised supported the construct validity of the three scales of intrinsic religious orientation, extrinsic religious orientation and quest religious orientation.

A further finding from the correlation matrix displaying the pattern of relations between the three measures of religious orientation according to different levels of religious engagement deserves further scrutiny. This concerns the consistent positive association between extrinsic religious orientation and quest religious orientation across different levels of religious engagement. All the correlation coefficient indicates is that these two variables co-vary in step: as extrinsic religious orientation increases, so quest religious orientation increases. What the correlation coefficient does not indicate is the direction of causality. Different hypotheses could be constructed to offer different causal accounts. If quest religious orientation were to be the independent variable, an hypothesised causal link might look like this in connection with the doctrinal climate of Baptist churches. As young people become more aware of tensions and contradictions within the Christian tradition, if the church to which they belong does not encourage full acceptance and explorations of such issues, their growing quest for religious orientation may force them more to the margins of the life of their local church. In this sense they sustain contact now more for extrinsic than for intrinsic motivational factors. If extrinsic religious orientation were to be the independent variable, an hypothesised causal link might look like this in connection with the doctrinal climate of the Baptist churches. As young people become more aware of the inadequate

response offered to the proclamation of the Christian Gospel by an extrinsic religious orientation, their uncertainties and doubts about the Christian message diminish and they also withdraw from espousing a quest religious orientation. Adjudication between these two conflicting hypotheses would involve replication of this study among young people involved in a more liberal church tradition.

In summary, this study has supported the development and testing of the New Indices of Religious Orientation Revised (NIROR) among a sample of over 500 adolescents between the ages of 12 and 19 years participating in a youth mission and service event organised by the Convention of Atlantic Baptist Churches in Eastern Canada. Since the notion of religious orientation concerns the different motivations within the religiously engaged individuals, this is an appropriate sample with which to have worked. The data have supported the internal consistency reliability and construct validity of the three measures of intrinsic religious orientation, extrinsic religious orientation, and quest religious orientation. The clear limitation of the study concerns the focus on one specific group of churches that follow a clear doctrinal position. Further replication of this empirical investigation would now be desirable among a significantly different group of religiously engaged young people.

**Author Contributions:** Bruce G. Fawcett and Dale Stairs conceived and designed the project; Leslie J. Francis and Mandy Robbins analyzed the data; Leslie J. Francis wrote the paper.

**Conflicts of Interest:** The authors declare no conflict of interest.

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