

Religiosity, Prosocial Values, and Adjustment among Students in Mennonite High Schools in Winnipeg

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The Consequences of Religious Commitment

Religious groups, such as the Mennonites, have established religious schools in order to promote religious commitment¹ on the premise that the Christian religion is not only true, but also beneficial to the individual and to society (e.g., Friesen, 1983; Kraybill, 1978). Even though this premise may seem almost self evident to Mennonite religious and educational leaders, such a premise has been rejected by many educators, social scientists and psychologists who have argued that religious commitment has bad effects and therefore harms both students and society. For instance: Dittes (1969:637-641) argued that compared to nonreligious persons, religious persons are characterized by more personal inadequacy (e.g., low intelligence, high suggestibility, weak egos, fewer friends). Wulff (1991:309) argued that religious commitment tends to be associated with poor mental health and poor personal adjustment. Others have argued that compared to nonreligious

persons, religious persons endorse harmful social values, such as lack of social compassion (Rokeach, 1969) or right-wing authoritarianism (Altemeyer, 1988:230). These views have been widely accepted and quoted in surveys of the psychology of religion (e.g., Batson, Schoenrade and Ventis, 1993:234; Wulff, 1991:309,225-226). Needless to say, such persons see little value in schools which promote religious commitment in their students (see Thiessen, 1993). There is thus a wide spectrum of opinion as to whether religious commitment promotes or hinders good social and personal adjustment. In view of these arguments, Mennonite educators cannot take for granted as a self evident premise that the religious commitment promoted by their schools has beneficial effects. Therefore it becomes necessary to examine solid empirical evidence related to this premise. Even though this issue is of obvious importance to Mennonite educators and parents, the issue has received surprisingly little research attention in Mennonite schools. The present study had the goal to explore and clarify the relation of religious commitment to prosocial values, and also to social and personal adjustment.

In contrast to these psychologists and social scientists, other social scientists have argued that religious commitment seems to foster prosocial values. For instance, Bibby and Posterski (1992:247-271) observed that religiously active Canadian adolescents and adults endorsed prosocial values (such as honesty, forgiveness and generosity) much more than did the unchurched. They also noted that churches systematically teach such values. Coming from a Mennonite perspective, Kauffmann (1984) pointed out that secular and religious persons define and understand prosocial behaviors differently, but that the Christian world view provides reasons (e.g., obeying God, heavenly reward, demonstrating God's love, compassion) for helping others in need. In their earlier studies of Mennonite- and Catholic-high-schools students, Schludermann and Schludermann found (a) that such students were high in their endorsement of Christian beliefs and practices (Schludermann and Schludermann, 1990) and (b) that the value system of religious-schools students was more congruent to the value system promoted by religious-schools administrators than it was to the value system of public-schools students (Schludermann and Schludermann, 1995). Driedger (2000:148) noted that students in religious schools seemed to have quite different values from Canadian youth in general. He also pointed out that some recent social changes (e.g., toward working parents and adolescents in schools) have reduced the impacts of parents on adolescents and therefore "schools have increasingly taken on the role of inculcating values" (p.142). In contrast, to public schools, religious schools reinforce the values of parents and churches. Religious schools are now in a strategic position of promoting values compatible with their faith. How well are they

succeeding in this task? Do prosocial values enhance the students' adjustment? It was one of the major goals of the present research to explore systematically the relation between religious commitment and the endorsement of prosocial values and attitudes.

The Two Functions of Religiosity

Thomas and his coworkers have suggested theoretical models which specified the mediating links whereby adolescents' religious commitment might promote social adjustment and personal well being. Thomas and Carver (1990) pointed out that religion performs two important functions in the lives of adolescents: (1) a social-control function which sees higher religious involvement as inversely related to antisocial behavior; (2) a social-facilitation function which sees higher religious involvement as positively related to the endorsement of meaningful values and to higher social competence.

Thomas and Carver's (1990) literature review points to strong empirical support for the social-control function (i.e., the higher the religious involvement, the lower the frequency, intensity, or duration of various forms of antisocial behavior). Litchfield, Thomas and Li (1997) tested a complex structural-equation model and found that private religious activity (e.g., private prayer and scripture study) predicted the absence of deviant behaviors more strongly than did public religious activity (e.g., attendance of religious meetings). They also found that adolescents' expectations of future religious activity (i.e., plans for being religious or nonreligious in the future) constituted the strongest inhibitor of deviant behaviors.

Thomas (1988) proposed a theoretical model which conceptualized the much-neglected social-facilitation function of religion in the lives of adolescents. He started with Durkheim's (1915:464) observation that integration into the dominant social spheres (e.g., family, religion, education) and satisfaction in important social orders is related to a sense of well-being. Thomas then proposed a causal model (p.365) whereby religious beliefs and practices facilitate harmonious family relations (i.e., satisfaction with husband-wife relations; satisfaction with parent-child relations) and where family-related satisfaction promotes personal well-being. Thomas (1988) collected data on several religious variables (e.g., home religious observance, personal spiritual devotions) and family variables (e.g., marital satisfaction, parental satisfaction) and found that structural-equation analyses supported the proposed causal model (p.368).

The social facilitation function of religion merits the attention of Mennonite educators. As Thomas and Carver (1990) have pointed out, most research on adolescent religion has focused on its social-control

function; research on its social-facilitation function has been very rare. There are however both practical and theoretical reasons as to why the social-facilitation function should also be more researched. Religious (including Mennonite) schools have the stated educational goal to develop the students' character and to make them socially competent (see endnote 1). Does the promotion of religious commitment enhance such an educational goal? There is also the much broader theoretical issue about the role of religion in the lives of its adherents. Is the role of religion limited to the inhibition of antisocial behavior and of other negative developments, or does it also promote prosocial behavior and other positive developments?

The present authors had as one of their goals to examine the social-facilitation model in greater detail. Their proposed model accepted some features of Thomas' model: (1) religion is expected to facilitate social integration or social adjustment; (2) satisfactory social adjustment leads to a sense of well-being or personal adjustment. The proposed model also made some extensions to Thomas's model: (1) While Thomas's studies of social adjustment focused primarily on family variables, the proposed model also included educational adjustment. (2) The concept of prosocial values was proposed as an essential mediating link whereby religious commitment affects social adjustment. (3) The model was conceptualized as a linear sequence with the following links: parental religious observances, adolescent's religious commitment, endorsement of prosocial values, social adjustment, and personal adjustment.

The proposed social-facilitation model of religion in the lives of adolescents predicted, (1) that religious involvement of parents promotes religious commitment in adolescents; (2) that religiously committed adolescents endorse prosocial values, (3) that adolescents endorsing prosocial values have good social adjustment; (4) that good social adjustment promotes good personal adjustment. The model also predicted (1) that religious commitment would have the highest correlations with prosocial values, and (2) that religious commitment would have higher correlations with social adjustment than with personal adjustment. Schludermann, Schludermann, and Huynh's (2000) study of 741 students from 3 Catholic high schools with measures which were similar (but not always identical) to those of the present study found that structural-equation analyses supported the proposed model. The present study was designed to explore as to whether the same social-facilitation model is also applicable to Mennonite schools. The justifications for the predicted links of the proposed model are given below.

Because most of the adolescents' religious socialization occurs within the family (e.g., Thomas, 1988:368) parental church attendance was conceptualized as a determinant of adolescents' religiosity (see

also Schludermann and Schludermann, 1990:184). The authors predicted a strong link between religious commitment and prosocial values. Because Judeo-Christian teachings emphasize obligations towards God (e.g., Matthew 22:37, citing Deuteronomy 6:5) and others (e.g., Matthew 22:39, citing Leviticus 19:18), rather than self advancement, therefore religiously involved adolescents were expected to endorse prosocial, rather than individualistic values.

Because (by definition) prosocial values promote integration into social institutions, the prosocial values of religious adolescents were expected to foster a sense of belongingness to their family and school, thus contributing to good social adjustment. In this study, family satisfaction and good school attitudes were selected as indicators of social adjustment. It was expected that religious adolescents who endorse prosocial values would be satisfied with their families and have good attitudes toward education. The authors also predicted that family satisfaction and schools attitudes would be highly correlated, so that one could use both measures to generate the latent variable of "social adjustment" in the structural-equation model.

There are considerable theoretical (e.g., Durkheim, 1915; Thomas 1988) bases and empirical information to support the last predicted link in the model: Successful integration into social institutions, such as family and school, promotes the adolescent's well being or personal adjustment. For instance, Blum and Rinehart (1997) provided strong evidence that connectedness to family and to school represent the strongest protective factors against problem behaviors (e.g., violence, smoking, drug use, sexual behavior) and health problems (e.g., emotional distress, suicide attempts, teen pregnancy). Scales of self esteem and life satisfaction were selected as indicators of personal adjustment. The authors also predicted that measures of self esteem and life satisfaction would be highly correlated, so that one could use them to generate the latent variable of "personal adjustment" in the structural-equation model.

The Characteristics of the Students

A sample of 444 students attending two Mennonite high schools in 1987 (grades 7 to 12) in Winnipeg anonymously completed the Research Questionnaires during regular class hours. In addition to the Research Questionnaires, the students also completed a Demographic Form. Here students were not asked to reveal their names, but were asked to indicate their school, grade, gender, birth date, religious denomination and church congregation they worshipped in. The information on the Demographic form was used to provide a detailed description of the sample.

About 160 students attended a school affiliated with the Conference of Mennonites [today, Mennonite Church Canada] and the remaining 284 students attended a school affiliated with the Mennonite Brethren. There were 192 boys and 252 girls. The sample breakdown according to religious group was as follows: (a) 262 Mennonites (two thirds Mennonite Brethren, the remainder Conference of Mennonites with a few from smaller groups); (b) 136 other church-going Christians (of which Baptists comprised 29%, independent congregations 19%, Christian Reformed 16%, remainder from other Evangelical groups); (c) 46 Unchurched (they either stated on the Demographic Form that they had no religion or that they did not attend any worship services). The Mennonite-schools students expressed a wide range of religious attitudes. When asked to describe the nature of their religion, 6.3% of the students selected the following answers: "I am not a religious person"; 5.2% selected "I find myself interested in a variety of religions, but am not committed to any particular one"; 25.2% selected "I have a mild interest in Christianity and other religions, but I do not see myself as deeply religious"; 1.8% selected "I am deeply committed to a religion other than Christianity"; 61.5% selected "I regard myself as a committed Christian." When asked about how long they had attended a religious private school, 13.5% of the students answered "less than one year", 15.8% "1 to 2 years", 28.4% "3 to 4 years", 19.4% "5 to 6 years", 23.0% "7 or more years."

The Research Questionnaires contained scales which may be grouped into the following categories of measures: (a) religiosity; (b) values and attitudes; (c) social adjustment (i.e., school attitudes and family satisfaction); (d) personal adjustment (life satisfaction and self esteem). Some of the scales administered to the students were shortened and refined.² Wherever it was practical, the present study used multiple measures (scales) of some key variables (e.g., religiosity, prosocial values, self esteem) and used factor analysis to extract the (reliable) variance shared by the measures of a given key variable. Factor scores of some key variables were then used as the input for some statistical analyses.

Among the religion measures, there was a 2-items scale of Parental Church Attendance. The students were asked to indicate how often³ their mother and their father attended worship services. Three scales were used to assess the students' religiosity: (a) Beliefs and Practices⁴ which referred to the endorsement of basic Christian beliefs and private religious practices; (b) Religious Orientation⁵ which referred to the extent to which one's religious faith guides one's daily life; and (c) Function of Religion⁶ which refers to the belief as to whether religion has good or bad effects. The set of the three scales of students' religiosity was factor analyzed and consolidated into a Religiosity Factor⁷ which may be regarded to be an index of overall religiosity.

Factor scores of the Religiosity Factor were used as the input for some statistical analyses.

Among the values and attitudes scales, there was an instrument which asked the students to indicate their level of endorsement of 14 basic values.⁸ Schludermann and Schludermann (1995) used factor analysis to identify three distinct sets of values: (a) Self-Development Values⁹, i.e., success, excitement, and a comfortable life; (b) Autonomy Values, i.e., freedom and privacy; (c) Personal Relations Values¹⁰, i.e., friendship, being loved, honesty, reliability, working hard, family life, and politeness. There were also two scales of prosocial attitudes: (a) Offer's Morals¹¹ which measures a person's reluctance to harm others in one-to-one relationships; and (b) Offer's Idealism¹² which measures a person's willingness to make sacrifices for the welfare of persons one does not know. Because the Personal Relations Values, the Morals, and Idealism scales had substantial positive intercorrelations (i.e., from .39 to .56), the set of the three scales was factor analyzed and consolidated into the Prosocial Values Factor¹³ which may be regarded as an overall index of the endorsement of prosocial values. Factor scores of the Prosocial Values Factor were used as the input for some statistical analyses. Acting on the values and attitudes measured by the Prosocial Values Factor does not benefit the individual, but enhances the wellbeing of others and promotes good social relationships.

Two scales were used as indicators of social adjustment: (a) School Attitudes¹⁴ which measures the students' (good) attitudes toward their education; (b) Family Satisfaction¹⁵ which measures the students' satisfaction with different aspects of their family life.

Several scales were used as indicators of personal adjustment: The Life Satisfaction¹⁶ scale measured one's overall satisfaction with one's life situation. The following were used as indicators of self esteem: (a) the Rosenberg Self-Esteem Scale¹⁷ which measures an adolescent's overall self esteem; (b) the Coopersmith Self-Esteem Inventory¹⁸ which also measures an adolescent's overall self esteem; (c) Self Activity Inventory¹⁹ which measures the social-emotional self esteem of adolescents with a focus on unpleasant emotions (e.g., anger, hurt feelings, nervousness, worry); (d) several scales of domain-specific self esteem from Offer's OSIQ (Offer, 1989): (d1) Impulse Control²⁰; (d2) Emotional Tone²¹; (d3) Superior Adjustment²²; (d4) Mastery²³; (d5) Social Relations.²⁴ Because the eight self-esteem scales had substantial intercorrelations, the set of the eight scales was factor analyzed and consolidated into a Self-Esteem Factor²⁵ which may be regarded as an indicator of overall self esteem. Factor scores of the Self Esteem Factor were used as the input for some statistical analyses.

The Findings: The Students' Religiosity, Values and Adjustment

How religious were the students? What was their endorsement of different values? How did they score on indicators of social and personal adjustment? Were there major differences between boys and girls on some of these measures? We tried to answer these questions by transforming the scale scores and then by reporting the Mean scores of the Total Sample. In order to facilitate comparison of scales with different number of items, a linear transformation²⁶ was applied to all 20 scales of this study. The constants were chosen in such a way that the minimum possible score (unfavorable) was 1.0, the middle score or neutral point was 5.0, and the maximum possible score (favorable) was 9.0. Such a linear transformation does not change the correlations between scales or the significance of differences between scale scores.

TABLE 1. Mennonite students' endorsement of religiosity, values and adjustment measures

SCALES	Endorsement	Mean	St. Dev.
Self Development Values	high	6.74	1.48
Autonomy Values	very high	7.52	1.38
Parental Church Attendance	very high	8.20	1.73
Religiosity scales:			
Beliefs and Practices	very high	7.18	1.58
Religious Orientation	high	6.50	1.56
Function of Religion	high	6.64	1.19
Prosocial Values scales:			
Personal Relations Val.	very high	7.59	1.07
Morals	high	6.31	1.08
Idealism	moderate	5.91	1.23
Schools Attitudes	high	6.56	1.53
Family Satisfaction	moderate	5.34	1.47
Life Satisfaction	moderate	5.70	1.54
Self Esteem Measures:			
Rosenberg's Sel. Est.	high	6.21	1.30
Coopersmith Sel. Est.	high	6.12	2.61
Self Activity Invent.	moderate	5.49	1.05
Impulse Control	high	6.02	1.07
Emotional Tone	high	6.54	1.09
Superior Adjustment	high	6.00	0.79
Mastery	high	6.48	0.99
Social Relations	high	6.48	1.04

Note: N = 444. Transformed scores of all scales, have a minimum possible score (unfavorable) of 1, a middle score or neutral point of 5, and a maximum possible score (favorable) of 9. Mean scores above 7.00 were interpreted as being "very high", Means between 6.00 and 6.99 as being "high", and Means from 5.00 to 5.99 as being "moderate".

For the Total Sample ($N = 444$), the Means and Standard Deviations of all scales are reported in Table 1. Several results are worth noting: All Means were on the favorable side of the neutral point of 5.0, but the Means varied greatly between scales. Mean scores above 7.00 were interpreted as being "very high", Means between 6.00 and 6.99 as being "high", and Means from 5.00 to 5.99 as being "moderate". The highest Means was reported for Parental Church Attendance, indicating that most parents attended church very regularly. Among the Religiosity scales, a very high Means was reported for Beliefs and Practices, which indicated that most Mennonite-schools students endorsed Christian beliefs and practiced their religion regularly. Somewhat lower, but still high Means were reported for Religious Orientation and Function of Religion. These findings indicated that most students were guided by their faith in their daily lives and also thought that religion has beneficial effects. Among the values and attitudes scales, very high Means were reported for Autonomy Values and Personal Relations Values, which indicated that most students greatly valued their freedom, but also valued good personal relations. The Means reported for Self Development Values (success, excitement, comfortable life) and Morals (not hurting persons one knows) were high, but the Mean for Idealism (making sacrifices for persons one does not know) was only moderate.

Among social-adjustment scales, the Mean reported for School Attitudes was high, but the Mean for Family Satisfaction was only moderate. These findings indicate that most students took their education very seriously, but were only moderately satisfied with their family life. Among the personal-adjustment scales, a moderate Means was reported for Life Satisfaction, which indicated that most students were moderately satisfied with their life situation. In contrast, the students reported high Means on most scales of overall and domain-specific self esteem, which indicated that most students were satisfied about their personal qualities. The only exception to this pattern was the moderate Mean of the Self Activity Inventory, which indicated that students experienced some difficulties in dealing with negative emotions.

We then examined gender differences in the Means of the 20 scales. Analyses of variance²⁷ were run to test the significance of gender differences in Means. Whenever, the Means were significant at $p < .0001$, ω^2 were calculated to estimate the magnitude of the effects²⁸. The results indicated that there were no significant gender differences in Self Development and Autonomy Values, in Parental Church Attendance, in the Religiosity scales, in School Attitudes, in Family Satisfaction, in Life Satisfaction, and in all self-esteem scales. When some scales were consolidated into factor scores²⁹, there were no significant gender differences on the Religiosity Factor³⁰ and on the Self Esteem Factor³¹. On the other hand, girls obtained much

higher scores on the three Prosocial Values scales, with substantial magnitudes of effects³². When the prosocial-values scales were consolidated into factor scores of the Prosocial-Values Factor the gender difference was also very significant with a large magnitude of effect³³. Thus compared to boys, girls endorsed values maintaining interpersonal relationships more, were more reluctant to harm persons whom they did know, and were more willing to do things for persons whom they did not know. Such a finding was expected, because the endorsement of prosocial values is more congruent with the feminine than with the masculine gender role.

Are Religious Students more Caring?

Compared to nonreligious students, do religious students endorse some values more? We tried to answer this question by correlating factor scores of the Religiosity Factor with the values scales. No significant correlations were found between Religiosity versus Self Development Values ($r = -.15$, ns) and Autonomy Values ($r = -.05$, ns). Thus, more-religious students differed little from less-religious students in the endorsement of success, excitement, a comfortable life, privacy and freedom. On the other hand, there was a strong positive correlation between Religiosity and the endorsement of prosocial values.

TABLE 2. Correlations between Religiosity and Prosocial Values.

Values	Correlations (r)
Individual Personal Relations Values:	
1. Honesty	.34
2. Family Life	.32
3. Politeness	.27
4. Working Hard	.27
5. Being Loved	.25
6. Friendship	.19
7. Reliability	.18
Prosocial Values Scales:	
a) Idealism scale	.43
b) Personal Relations Values scale	.40
c) Morals scale	.38
Prosocial Values Factor	.50

Note: For the Total Sample (N = 444), correlations stronger than .18 are significantly different from zero at $p < .0001$.

For the Total Sample, the correlations of the Religiosity Factor with individual Personal-Relations Values, with the prosocial-values scales and with the Prosocial Values Factor are reported in Table 2. The results are very consistent: All correlations were significantly different from zero at the $p < .0001$ level. Consolidating the individual values into the Personal-Relations Values scale and consolidating the three prosocial-values scales into the Prosocial Values Factor increased the magnitude of the correlations³⁴. The results indicate that compared with less-religious students, more-religious students value personal relations more, are more reluctant to harm others whom they know, and are more willing to make sacrifices for others whom they do not know.

Are Religious Students Better Adjusted?

Do the students' religious commitment and their endorsement of prosocial values facilitate their social and personal adjustment? We tried to answer this question by calculating the correlation table of the seven major variables (i.e., Parental Church Attendance, Religiosity Factor, Prosocial Values Factor, School Attitudes, Family Satisfaction, Life Satisfaction, Self-Esteem Factor). For the Total Sample, the correlations between the seven major variables are reported in Table 3.

TABLE 3. Correlations between the major variables

	(1) Parental Church Attend.	(2) Religiosity Factor	(3) Prosoc. Val. Factor	(4) School Attitudes	(5) Family Satisfaction	(6) Life Satisfaction	(7) Self-Esteem Factor
(1) Parental Church Attend.	.	.32	.14	.04	.07	.01	.03
(2) Religiosity Factor	.32	.	.50	.22	.24	.14	.09
(3) Prosoc. Val. Factor	.14	.50	.	.28	.29	.07	.20
(4) School Attitudes	.04	.22	.28	.	.41	.30	.42
(5) Family Satisfaction	.07	.24	.29	.41	.	.41	.45
(6) Life Satisfaction	.01	.14	.07	.30	.41	.	.48
(7) Self-Esteem Factor	.03	.09	.20	.42	.45	.48	.

Note: For the Total Sample ($N = 444$), correlations stronger than .18 are significantly different from zero at $p < .0001$.

A significant correlation was found for Parental Church Attendance with the Religiosity Factor, but no significant correlations were found between Parental Church Attendance and any other variables. Such a finding indicated that regular worship by parents tended to promote adolescents' religiosity, but did not have significant direct effects on other aspects of the adolescents' development.

A very high correlation was found between the Religiosity Factor and the Prosocial Values Factor. In addition, there were also significant correlations between Religiosity and the two social-adjustment variables (i.e., School Attitudes and Family Satisfaction), but at a lower level. Insignificant correlations were found between Religiosity and the two personal-adjustment variables (i.e., Life Satisfaction and the Self-Esteem Factor). Such findings are consistent with the model proposed in the Introduction that religiosity tends to promote social adjustment by fostering the endorsement of prosocial values. The findings also support the view that religiosity is more closely related to social adjustment than to personal adjustment.

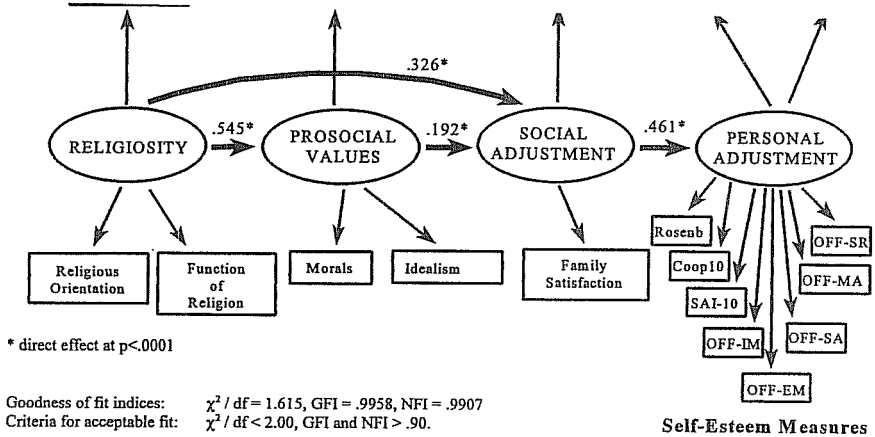
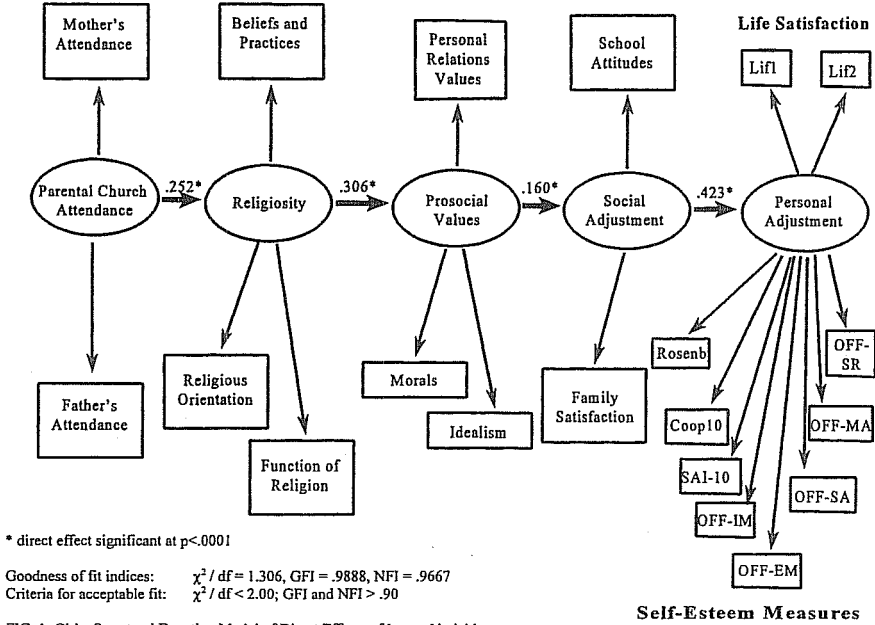
As was expected, significant correlations were found between Prosocial Values and the two social-adjustment variables (i.e., School Attitudes and Family Satisfaction), but insignificant or low significant correlations were found between Prosocial Values and the personal-adjustment variables (Life Satisfaction and the Self-Esteem Factor). Such findings support the view that the endorsement of prosocial values contributes to good social adjustment, but only indirectly to good personal adjustment. After all (by definition), prosocial values focus on concern about the welfare of others, rather than on self fulfilment.

As expected, very high correlations were found between social-adjustment variables (i.e., School Attitudes and Family Satisfaction) and personal-adjustment variables (i.e., Life Satisfaction and the Self-Esteem Factor). Such findings support the view that being well connected with social institutions (i.e., school and family) promotes adolescents' sense of wellbeing.

The findings are all consistent with the model proposed in the 'Introduction', but the model requires a more rigorous test, such as can be done by structural-equation analyses (see next section).

The Social-Facilitation Function of Religiosity

According to a structural-equation modeling strategy³⁵, a specific model about the effects of variables on each others was proposed and the data were analyzed as to determine whether they fitted the proposed model³⁶. In the proposed social-facilitation model of religion in the lives of adolescents, Parental Church Attendance promotes adolescents' Religiosity, then Religiosity promotes Prosocial Values,



Prosocial Values promote Social Adjustment (School Attitudes and Family Satisfaction) and Social Adjustment promotes Personal Adjustment (Life Satisfaction and Self Esteem). The proposed model was tested on three samples: (1) the Total Sample of 444 students; (2) 192 boys; and (3) 252 girls. The results indicated that the data on the Total Sample³⁷ and on girls fitted the proposed social-facilitation model of religion very well.

The results on girls are reported in the path diagram of Figure 1. Several findings are worth noting. There was a linear path model with 5 latent variables (from Parental Church Attendance to Personal Adjustment). This model met all the criteria for a tight fit with the data. All path coefficients were highly significant at $p < .0001$.

When the structural-equation analysis was run on the boys's data, a moderate discrepancy was found between the proposed model and the data. Thus, several modifications were made to the proposed model by adding and/or deleting paths and by running structural-equation analyses on the modified models until one arrived at a modified model which tightly fitted the boy's data.

The model which fitted the boy's data is reported in Figure 2. Several findings are worth noting. The boy's data still supported a social-facilitation model of religion (a path from Religiosity to Personal Adjustment with intervening links). However, the boy's model differed from the girl's model in two ways: (1) Parental Church Attendance was not part of the boy's model. (2) In addition to the indirect effect of Religiosity on Social Adjustment mediated via Prosocial Values (found also with girls), the boys' model also showed a strong direct effect of Religiosity on Social Adjustment. Thus, among boys, being religious directly fostered good school attitudes and satisfaction with one's family life³⁸. The boy's model met all the criteria for a tight fit. All the path coefficients were significant at $p < .0001$.

Summary of the Results

The major findings of the Mennonite-schools study can be summarized as follows: (1) Religiosity: The students (a) were very high in their endorsement of Christian Beliefs and religious practices, (b) were strongly guided by their religious faith in their daily lives, and (c) strongly believed that their religion had beneficial effects. (2) Values and attitudes: The students (a) very highly endorsed autonomy values and personal-relations values, (b) highly endorsed self-development values and the principle that one should not harm persons whom one does know, (c) and only moderately endorsed the principle that one should make sacrifices for persons one does not know. (3) Social adjustment: The students (a) endorsed good school attitudes highly, but (b) were only moderately satisfied with their family life. (4) Personal adjustment: The students (a) tended to be highly satisfied with their personal qualities, but (b) were only moderately satisfied with their overall life situation. (5) Gender: There were no significant gender differences in self-development and autonomy values, in religiosity, in social adjustment and in personal adjustment. However, compared to boys, girls endorsed prosocial values and attitudes much

more. (6) Religiosity was found to be significantly correlated with the endorsement of all prosocial values; that is, more-religious students endorsed all prosocial values much more than did less-religious students. (7) Correlations: (a) Religiosity most strongly correlated with prosocial values, correlated significantly but at a lower level with social adjustment, and correlated least with personal adjustment. (b) Prosocial values correlated highly with social adjustment and to a lesser extent with personal adjustment. (c) Social adjustment correlated strongly with personal adjustment. (8) The Mennonite-schools data strongly supported social-facilitation models of religiosity in the lives of adolescents: (a) Religiosity fostered the endorsement of prosocial values; (b) prosocial values enhanced social adjustment and (c) good social adjustment contributed to good personal adjustment.

Conclusions: Implications for Mennonite Educators

The Mennonite-schools data revealed a strong and very consistent relation between religious commitment and the endorsement of prosocial values. The structural-equation analyses also indicate that this relation represents a strong direct effect whereby religious commitment promotes prosocial values. The strong link between religious commitment and prosocial values has some implication for Mennonite educators. In their mission statements (Mennonite Brethren Collegiate Institute [MBCI], 2000; Westgate Collegiate, 2000), both schools mention the promotion of "Christian values" (presumably prosocial values) as an important educational goal. The results of the present study indicate that this goal is facilitated by the promotion of religious commitment. In their religion classes, Mennonite schools can provide an explicit religious rationale as to why acting on prosocial values is important for religious believers. Kauffmann (1984:56) argued that religious schools can promote prosocial behaviors in their students "by increasing the salience of Christian responsibility for compassionate service to a broader range of situations". A religion-based rationale may be needed, because acting on prosocial values does not give any immediate benefits to the adolescent and may also compete with other strong values related to the adolescent's self interest (e.g., success, excitement, comfortable life, freedom). The problem is not to help the adolescent to know what is good, but motivating the adolescent to do the good, even if there is a personal cost involved. The Christian faith provides a consistent rationale for making sacrifices for others (especially those one does not know). The strong correlation between religiosity and idealism seems to indicate that the Christian faith has been more successful in providing such a rationale than have some nonreligious ideologies.

The relation between religiosity and prosocial values has to be seen in a broader social context. According to recent surveys (e.g., Bibby and Posterski, 1992:13-30), the endorsement of prosocial values has significantly declined among Canadian adolescents and adults, as general attitudes have become more individualistic. Moreover, broad social trends indicate that governments have become increasingly reluctant to spend resources to help the disadvantaged. The government expects voluntary organizations, especially churches, to assume increasing responsibility for dealing with social problems (e.g., shelters for homeless, food banks). Mennonite churches will not be able to face these future responsibilities, unless they have many members who endorse prosocial values (such as generosity, compassion and idealism). Mennonite schools which explicitly stress the link between religious commitment and prosocial values can be expected to make valuable contributions to this future mission of Mennonite churches.

The Mennonite-schools study also provided strong support for the social-facilitation function of religion in the lives of adolescents. Most previous research on adolescent religiosity focuses on the social-control function and tended to neglect the social facilitation function. In contrast to Dittes (1969) and Wulff (1991), the Mennonite-schools data indicate that strong religious commitment tends to be associated with good (rather than poor) adjustment. Even though the correlations between religiosity and adjustment variables were not always significant, they are always positive and never negative. As was expected, religiosity showed stronger correlations with indicators of social adjustment (i.e., school attitudes and family satisfaction) than it did with indicators of personal adjustment (i.e., life satisfaction and self esteem). The findings showed that the main effect of religious commitment is the endorsement of prosocial values, which in turn promote good social adjustment. Thus religious adolescents who endorse honesty, generosity, compassion, reliability, working hard, and sacrifice for others, tend to function better in their schools and in their families. Mennonite schools, where religion is systematically taught and where the implications of one's faith are explicitly pointed out, have the potential to promote greater social competence of their students. One of the schools studied (MBCI, 2000) mentioned in its mission statement the provision of "an environment nurturing physical, mental, emotional and spiritual health." A clear awareness of the social-facilitation function of religiosity can help Mennonite educators to be more explicit about the changes they want to promote in their students and what strategies can be expected to be effective in promoting such changes.

Notes

- ¹ Westgate (2000, p.3) mentioned among the aims of the school: "...inspire and empower students to live as people of God." "...interpret the world and the meaning from a Christian perspective," "...to stress Christian values," "...to achieve a thoroughly Christian perspective" "...develop in each student a faith in Jesus Christ," MBCI (2000, p.2) described its school as "an environment nurturing physical, mental, emotional and spiritual health."
- ² The shortening of the scales involved item analyses (i.e., calculation of interitem correlations and elimination of items having low correlations with other items) followed up by factor analyses (i.e., factor analyzing the surviving items and eliminating items with insignificant loadings on the first principal-axes factor). The resulting shortened scales were much shorter than the original scales (e.g., School Attitudes from 85 to 20 items), but the shortened scales had much better methodological properties (e.g., much larger Cronbach's, 1951, alpha values).
- ³ Five response categories from "almost never" to "almost every week".
- ⁴ Seven-items scale (see Schludermann and Schludermann, 1994:3). The items were selected from the questionnaires of national surveys of Canadian high-school students (e.g., Bibby and Posterski, 1985, 1992; Posterski, 1985). Alpha was .87. Examples: "Do you believe....: that Jesus was the divine son of God?"(+) The 5 response alternatives ranged from "definitely not" to "yes definitely". "How often do you....: pray privately at home?"(+) The 5 response alternatives ranged from "never" to "very often".
- ⁵ Eight-items scale. Items identified by Hoge (1972) as the best items of intrinsic religiosity were reworded to be relevant to and to be within the reading comprehension of younger high-schools students (see Schludermann and Schludermann, 1994:4). Alpha was .88. Examples: "How much do you agree or disagree with the following statements?" "I think that God is interested in all aspects of my life (e.g., school, family, friendships, entertainment)."(+) "I want to become the person God is calling me to be."(+) The 5 response alternatives ranged from "strongly disagree" to "strongly agree".
- ⁶ Ten-items scale with equal number of positive and negative items. The items of Gustafsson's (1974) scale were reworded to be relevant to and within the reading comprehension of younger high-school students (see Schludermann and Schludermann, 1994:5-6). Alpha was .80. Examples: "How much do you agree or disagree with the following statements?" "Religion helps people to lead good moral lives."(+) "Religion discourages people from making the best of their abilities and good qualities."(-). The 5 response alternatives ranged from "strongly disagree" to "strongly agree".
- ⁷ The factor loadings of the three scales ranged from .62 to .87 on the first principal-axes factor.
- ⁸ Starting with the sets of basic values of Rokeach's (1973) and Bibby and Posterski (1985, 1992), Schludermann and Schludermann (1995) selected values of special relevance to adolescents. Examples: "How important are the following to you?" "success", "honesty". The 5 response alternatives ranged from "not important" to "very important".
- ⁹ Three-items scale. Alpha was .68.
- ¹⁰ Seven-items scale. Alpha was .79.
- ¹¹ The 10-items scale is a subscale from Offer's Self-Image Questionnaire (OSIQ) for Adolescents (Offer, 1989). Alpha was .63. Examples: "The statement describes me:" "I do not care how my actions affect others, as long as I gain something."(-) "I do not believe in taking revenge if someone hurts me."(+) The 5 response alternatives ranged from "not at all" to "very well".

- ¹² The 6-items scale is a subscale from Offer's Self-Image Questionnaire (OSIQ) for Adolescents (Offer, 1989). Alpha was .49. Examples: "The statement describes me:" "I am going to devote my life to helping others."(+)" "There is nothing wrong with putting oneself before others."(-) The 5 response alternatives ranged from "not at all" to "very well".
- ¹³ The factor loadings ranged from .54 to .69 on the first principal-axes factor.
- ¹⁴ After administering the original 85-items scale (Danley, Wick, Smith, Dolan and Enos, 1980) to the Mennonite-schools students, correlational and factor analyses were used to shorten the scale to 20 items. Alpha of the 20-items scale was .90. Examples:" How do you feel about the following statements?" "I sometimes don't pay attention in school, because most subjects are too difficult."(-) "I don't care about school and plan to stop as soon as I can."(-) The 4 response alternatives ranged from "never agree" to "always agree". According to the scoring system, high scores indicate good attitudes toward education.
- ¹⁵ The 14-items scale is one of the scales from Olson's Family Inventories (Olson and Wilson, 1982). Alpha was .90. Examples: "How satisfied/dissatisfied you are with the following aspects of your family life?" "with how close you feel to the rest of your family?"(+)" "with the number of things your family does together?"(+)" The 5 response alternatives ranged from "dissatisfied" to "extremely satisfied".
- ¹⁶ The 7-items scale was developed by Diener, Emmons, Larsen and Griffin (1985). Alpha was .84. Examples: "Please indicate your agreement or disagreement with the following statements:" "In most ways my life is close to what I really want it to be."(+)" "My life is pretty miserable."(-) The 5 response alternatives ranged from "strongly disagree" to "strongly agree".
- ¹⁷ The 10-items scale (equal number of positive and negative items) was developed by Rosenberg (1965). Alpha was .84. Examples: "Indicate your degree of agreement or disagreement." "On the whole, I am satisfied with myself."(+)" "I certainly feel useless at times."(-) The 5 response alternatives ranged from "strongly disagree" to "strongly agree".
- ¹⁸ The original 50-items scale (Coopersmith, 1981) was administered to the Mennonite-Schools students and then shortened to a 10-items scale. Alpha of the 10-items scale was .80. Examples: "How well do the statements describe you:" "There are lots of things about myself I would change, if I could."(-) "I often wish I were someone else."(-) The 2 response alternatives were: "This statement describes a person like me" and "This statement describes a person not like me".
- ¹⁹ The original scale of 54 items (Worchel, 1957) was shortened by correlational and factor analyses to 10 items. Alpha of the 10-items scale was .80. Examples: "I am a person who..." "is afraid to try something new."(-) "worries about whether other people like him/her."(-) The 5 response alternatives ranged from "never" to "very often".
- ²⁰ Nine-items scale. Alpha was .67. Examples: "The statement describes me:" "I can take criticism without resentment (hurt feelings)."(+) "I get violent, if I don't get my way."(-) The five response alternatives ranged from "very well" to "not at all".
- ²¹ Ten-items scale. Alpha was .78. Examples: "The statement describes me:" "I feel tense most of the time."(-) "I feel relaxed under normal circumstances."(+)" The 5 response alternatives ranged from "very well" to "not at all".
- ²² Fourteen-items scale. Alpha was .51. Examples: "The statement describes me:" "Working closely with another person never gives me pleasure."(-) "Whenever I fail in something, I try to find out what I can do in order to avoid another failure."(+)" The 5 response alternatives ranged from "very well" to "not at all".
- ²³ Ten-items scale. Alpha was .67. Example: "The statement describes me:" "If I

- put my mind to it, I can learn almost anything.”(+) “I find life an endless series of problems without solution in sight.”(-) The 5 response alternatives ranged from “very well” to “not at all”.
- 24 Nine-items scale. Alpha was .66. Examples: “The statement describes me:” “I do not mind being corrected, since I can learn from it.”(+) “If others disapprove of me, I get terribly upset.”(-) The 5 response alternatives ranged from “very well” to “not at all”.
- 25 The factor loadings ranged from .54 to .81 on the first principal-axes factor.
- 26 The formula used varies somewhat with the number of response alternatives of scale items. For instance, when there were 5 response alternatives, the following formula was used for the linear transformation: transformed score = [scale score * (2/n)] - 1, where n is the number of items in the scale. The decision as to what the minimum, middle and maximum values of the transformed scores should be was an arbitrary one and was based on selecting convenient numbers.
- 27 The analysis of variance yields an F-value which is related to the significance level of the group differences. In general, for a given sample size, larger F-values tend to be associated with more stringent significance levels. The partial omega-squared values or ω^2 are magnitude-of-effects estimates; larger ω^2 indicate more substantial group differences.
- 28 The ω^2 had to be larger than .010 for the gender differences to be judged substantial enough for practical significance.
- 29 The overall Mean of factor scores is 0.00 and the overall Standard Deviation is close to 1.0. Above-average scores are positive and below-average scores are negative.
- 30 $F = 7.30$, ns.
- 31 $F = 1.15$, ns.
- 32 Personal Relations Values: boys $M = 7.27$, $SD = 1.22$; girls $M = 7.84$, $SD = 0.87$; $F = 33.33$, $p < .0001$, $\omega^2 = .068$.
Morals: boys $M = 5.92$, $SD = 1.10$; girls $M = 6.61$, $SD = 0.96$; $F = 49.33$, $p < .0001$, $\omega^2 = .098$.
Idealism: boys $M = 5.41$, $SD = 1.29$; girls $M = 6.29$, $SD = 1.03$; $F = 64.09$, $p < .0001$, $\omega^2 = .124$.
- 33 $F = 81.24$, $p < .0001$, $\omega^2 = .153$.
- 34 The interpretation of the positive correlation between religiosity and prosocial values deserves several comments: First, the results from other samples indicate that the significant ($p < .0001$) positive correlation between religious commitment and the endorsement of prosocial values is highly replicable. All studies mentioned below included the 3 Religiosity scales and the 3 Prosocial Values scales used in the present study, but some studies have used some additional scales. The findings can be tabulated as follows: (A) 741 Catholic-schools students, Religiosity Factor (4 scales), Prosocial Values Factor (3 scales) $r = +.41$ (see Schludermann et al., 2000). (B) 485 University of Manitoba students, Committed Religiosity Factor (6 scales), Prosocial Values Factor (5 scales), $r = +.32$ (data from Korchoski, 1999). (C) 507 University of Manitoba students, Religiosity Factor (4 scales), Prosocial Values Factor (3 scales), $r = +.33$ (Schludermann et al., unpublished). (D) 443 students from two Evangelical colleges, Committed Religiosity Factor (5 scales), Prosocial Values Factor (5 scales), $r = +.53$ (Schludermann, Schludermann, Needham & Mulenga, 2001). Second, the simple correlation coefficients of the Religiosity Factor with the Prosocial Values Factor do not specify the direction of influence between the two factors, i.e., does religiosity promote the endorsement of prosocial values or does the endorsement of prosocial values promote religiosity? However, the models tested by structural-equation analyses do specify the direction of influences. Wherever it was possible to run structural-equation analyses (present study, and Catholic-schools study), the direction of influences in the confirmed models always went from religiosity to prosocial

values. It is thus reasonable to interpret the prosocial values as being the consequences of religious commitment. Third, one may ask as to whether all measures of religiosity are positively correlated with prosocial values. Studies (B) and (D) tried to answer this question, by including at least 10 different religiosity scales and by developing a preliminary typology of religiosity measures through factor analyses. Factor analyses of all the religiosity scales resulted in 2 major factors: (a) Committed Religiosity (e.g., the three religiosity scales from the present study, Attitude towards Christianity, Christian Orthodoxy, Allport's Intrinsic Religiosity); (b) Tentative Religiosity (Batson's Religious Quest, Dudley and Cruise's Religious Maturity, items of Fowler's higher stages of religious reasoning). Two scales did not fit into the two major factors: Allport's Extrinsic Religiosity (using religion for social benefits) and Unconventional Religiosity (occult beliefs). As has been mentioned above, Committed Religiosity was always positively correlated with prosocial values. However, Tentative Religiosity (an indicator of religious exploration) was positively correlated with prosocial values among university students ($r = +.20$, $p < .0001$, see Korchocki et al., 2000), but among religious-colleges students the correlation was insignificant ($r = -.10$, ns). As to Extrinsic Religiosity, the correlation with prosocial values was insignificant among university students ($r = +.05$, ns) and significant and negative among religious-colleges students ($r = -.18$, $p < .0001$). Thus, the positive correlation of religiosity and prosocial values seems to refer primarily to indicators of Christian religious commitment, rather than to indicators of other aspects of religion.

- 35 Because many readers may not be familiar with structural-equations modeling, it is helpful to give a simplified explanation of the procedure. The PROCALIS program used for the structural-equation modeling, distinguishes between measured variables (i.e., scales or parts of scales) and latent variables derived from measured variables. The path model refers only to the paths between latent variables. At least two measured variables are needed to calculate the corresponding latent variable. For major variables defined by factor scores (i.e., Religiosity Factor and Prosocial Values Factor) the factor score is the latent variable. Where there is only a single scale to define the latent variable (e.g., Parental Church Attendance), that scale was subdivided into two parts (measured variables: Mother's Attendance and Father's Attendance) which were used to calculate the latent variable (i.e., Parental Church Attendance). In order to increase the weight of Life Satisfaction against several self-esteem measures when calculating the latent variable of Personal Adjustment, the Life Satisfaction scale was subdivided into two measured variables (LIF1 = first 3 items of the scale, and LIF2 = last 4 items of the scale). In the structural-equations analyses, the correlation between any two latent variables (e.g., Religiosity and Social Adjustment) is broken down into two components: (1) a direct effect (e.g., Religiosity to Social Adjustment) and (2) an indirect effect mediated by an intervening variable (e.g., Religiosity to Prosocial Values to Social Adjustment). The results of the structural-equation modeling are expressed by a path diagram which indicates the direct effects of the latent variables on each other. In a path diagram, the measured variables are represented by rectangles and the latent variables are represented by ellipses. The path coefficients (near the arrows between ellipses) indicate the strength of the direct effects (paths) between any two latent variables, with larger path coefficients indicating stronger effects. One can calculate the significance levels of path coefficients (e.g., $p < .0001$). The structural-equation analyses involved (1) the specification of the overall model, (2) the calculation of indicators of goodness of fit between the proposed model and the data ($\chi^2/[\text{degrees of freedom}]$, GFI and NFI), (3) breaking down the

correlations between variables into direct effects and indirect effects, and (4) the calculation of the level of significance of the direct effects.

- ³⁶ The generally accepted criteria for a good fit between the model and the data are that: (1) χ^2/df (i.e., chi-squared divided by degrees of freedom) should be less than 2.00, and (2) the GFI (i.e., Goodness of Fit Index) and the NFI (i.e., Normed Fit Index) should be greater than .90.
- ³⁷ Because there were 252 girls against 192 boys in the Total Sample, the results of the Total Sample were more similar to the results of girls than the results of boys. The results on the Total Sample are not reported in this paper.
- ³⁸ In a study of 741 students attending Catholic schools with similar variables, structural-equation analyses revealed a direct effect of Religiosity on Social Adjustment among boys, but not such a direct effect among girls (Schludermann et al., 2000). The finding of similar gender differences in the structural-equations models among Mennonite-schools and Catholic-schools students indicates that these differences should be taken as real, rather than as statistical artifacts.

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