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Exploring the trajectory of personal, moral and spiritual values
of 16- to 18-year-old students taking Religious Studies at A level in the UK

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Abstract

This study set out to explore the trajectory of personal, moral and spiritual values of students taking Religious Studies at A level in the UK. A sample of 150 students completed a battery of measures at the beginning of their period of A-level study and again at the end. The data found no difference over this period of time in personal values (purpose in life, self-esteem, and empathy) in some moral values (concerning anti-social behaviour and concerning substance use) and in levels of religious exclusivism or frequency of private prayer. The areas in which significant differences were observed were concerned with attitude toward sex and relationships, religious pluralism, belief in life after death, and mystical orientation. Between the ages of 16 and 18 years, following two years engagement with Religious Studies at A level, the participants became more liberal in their approach toward sex and relationships, less convinced about the truth claims of religious pluralism, less likely to adhere to traditional Christian teaching on life after death, and less open to mystical experience. They are also less certain of ever having had a religious experience, and less frequent in their practice of religious attendance.

Keywords: religious education, adolescent religion, psychology of religion, A-level Religious Studies

Introduction

Sixth-form religion

Within the broader empirical science of religious education, as defined and discussed by Francis and Robbins (2016), the study of 'sixth-form religion' came into prominence in the UK with the publication of the (now classic) study of *Sixth Form Religion* by Edwin Cox (1967). This project, sponsored by the Christian Education Movement, was concerned to discover what the elite group of young people in the second year of the grammar school sixth form thought about the following issues: existence of God, Jesus, life after death, bible, church, religious education, personal religious behaviour and a series of moral behaviours. In total, 96 grammar schools contributed up to 25 pupils each, making a total sample of 2,276 completed questionnaires.

In this analysis, Cox presented the percentage of pupils holding positive and negative opinions on the various topics and gave extracts from the pupils' more extended responses to open-ended questions to demonstrate how they had come to their conclusions. According to Cox, these findings confirmed the general approval of religious education by pupils, although their answers also indicated a desire for reform. The rich source of quantitative data provided by Cox's study could answer many more focused questions than were containable within his book *Sixth Form Religion*. Two subsequent papers explored the relationship between co-education and religious belief (Wright & Cox, 1967a) and between moral judgement and religious belief (Wright & Cox, 1967b).

The questionnaire which Edwin Cox designed for *Sixth Form Religion* helped to shape a future trend in research in religious education. Two sets of studies are of particular significance. First, Cox's original data were collected in 1963. Perhaps for the first time he had provided a detailed and accurate map of sixth form opinion on religious matters. Having provided such a map it would be possible to monitor how things were changing over time.

Thus, in collaboration with Derek Wright, Edwin Cox's original study was replicated seven years later in 1970. The results were reported in two papers concerned with changes in attitude towards religious education and the bible (Wright & Cox, 1971a) and changes in moral belief (Wright & Cox, 1971b). Both analyses demonstrated that traditional values were changing among sixth-formers. For example, while in 1963 77.3% of the girls and 57.5% of the boys agreed with the statutory provision of religious education, by 1970 the proportions had fallen to 45.6% of the girls and 28.5% of the boys. Such comparisons can, of course, only be made if *precisely* the same questions are addressed to samples constituted in the same way at different points in time. Having mapped the changes between 1963 and 1970 it is perhaps to be regretted that Edwin Cox did not repeat the study again.

Second, Edwin Cox's questionnaire was adapted by John Greer in Northern Ireland. During 1968 Greer administered the questionnaire among second year sixth form pupils attending county and Protestant voluntary schools. The results were reported in his book *A Questioning Generation* (1972). This enabled a comparison to be made between England and Northern Ireland. Of even greater significance, however, was Greer's determination to replicate his study at ten-yearly intervals, in 1978 and 1988 (Greer, 1980, 1989). This provides a unique study of change over a 20 year period (see further Francis, 1996). In Northern Ireland pupil support for religious education was increasing, not declining over this period. The proportion of boys in favour of statutory religious education rose from 47.1% in 1968 to 54.6% in 1988. The proportion of girls in favour rose from 63.0% in 1968 to 69.8% in 1988.

Following his initial studies in 1968, 1978 and 1988, Greer's work in Northern Ireland was further replicated a decade or so later and reported in a series of studies by Francis, Robbins, Barnes, and Lewis (2006a, 2006b), Francis, ap Siôn, Lewis, Robbins, and

Barnes (2006), Francis, Robbins, ap Siôn, Lewis, and Barnes (2007), Francis, Robbins, Lewis, Barnes, and ap Siôn (2007), and Francis, Robbins, Lewis, and Barnes (2008).

Religion at A level

Given that the key aims of the subject at A-level are that students ‘use an enquiring, critical and empathetic approach to the study of religion’ (Edexcel RS GCE ‘A’ level Specification 2007) and that they are encouraged to ‘reflect on and develop their own values, opinions and attitudes in the light of their learning.’ (AQA, Religious Studies A-level specification, 2008), one wonders whether these aims of academic and personal change are achieved, and additionally whether they particularly impact upon those studying their own faith critically for the first time. The popularity of A-level Religious Studies as a whole has maintained a steady increase in numbers since the 1990s (British Religion in Numbers, 2012). From 2000 the A-level qualification was modularised, creating the two-tier qualifications of AS (Advanced Subsidiary) and A-level (Advanced-level). Students study the curriculum in ‘chunks’, being examined on each module of learning. The vast majority of students studying RS at A-level now follow courses in Philosophy of Religion with Ethics. Whether this has affected the development of the critical faculties sought is debatable and under-researched.

In spite of the wide range of interesting issues raised by the experience of studying religion at A level, few studies within the empirical science of religious education have focused specifically on the students engaged in this area of study, apart from: Francis, Fearn, Astley, and Wilcox (1999) who explored the relationship between Christian commitment and motivation to study religion at A level; and Fearn and Francis (2004) who explored the perceptions of students studying religion at A level concerning teaching and learning in theology and religious studies.

Research question

The research tradition pioneered by Cox in England and by Greer in Northern Ireland built on cross-sectional surveys and included a wider range of students. The aim of the present study is to develop this research tradition in two ways. First, the present study concentrated only on students who were engaged in a two-year programme of studying religion at A level. Second, the present study employed a longitudinal model of research whereby the same students completed a survey twice, once at the beginning of their programme of A level study and then again, almost two years later, at the end of their programme of A level study. The research design allows *change* to be monitored in the overall cohort over this period of time. Because the research was conducted *only* among students participating in the study of religion at A level (that is to say without a control group of students not studying religion at A level), observed changes in the students over this period time cannot be causally linked with their experience of A level study. Nonetheless, the findings from the study can be usefully interrogated against the objectives and practices of studying religion at this level.

Further clarification and contextualisation of the research question is now provided by an analysis of the theory and practice of studying religion at A level and by an analysis of the variables selected for inclusion within this longitudinal study.

Personal, moral, and spiritual values

The study of religion at A level embraces the broad interaction of personal, moral, and spiritual values. Since each of these three domains raises complex theoretical and operational issues, it is necessary to clarify how these domains have been operationalised in the present study.

Three areas of *personal* values were included in the study: purpose in life, self-esteem, and empathy. First, purpose in life was brought to the forefront of what has subsequently been known as positive psychological enquiry by Victor Frankl's (1978)

pioneering analysis of the psychological dynamics of the drive for meaning. The construct was originally operationalised by the Purpose in Life Test (Crumbaugh & Maholick, 1969) and subsequently refined by the Purpose in Life Scale (Robbins & Francis, 2000). The Purpose in Life Scale offers a more direct and more robust operationalisation of the construct and recorded in the foundation paper an alpha coefficient of internal consistency reliability (Cronbach, 1951) of around .90.

Second, self-esteem (or self-concept) was brought to the forefront of educational psychology by the development of three separate measures known as the Lipsitt Self-Concept Scale (Lipsitt, 1958), the Coopersmith Self-Esteem Scale (Coopersmith, 1967), and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). All three instruments have been used in a series of studies examining the connection between religion and self-esteem among young people (see Jones & Francis, 1996; Francis, 2005; Penny & Francis, 2014). The Rosenberg measure is particularly appropriate for use among older adolescents.

Third, empathy has been conceptualised and operationalised within the scientific literature in two somewhat different ways, one concentrating on both cognitive and affective components and the other concentrating primarily on the affective component. It is the latter that offers the clearer and empirically more effective measure. Within this tradition a well-established measure of empathy has been incorporated within the Eysenck Impulsiveness Questionnaire, published by Eysenck and Eysenck (1991) and with its roots in the conceptualisation and measurement of empathy proposed by Mehrabian and Epstein (1972). Together with the junior version of this instrument proposed by Eysenck, Easting and Pearson (1984), this measure has been employed in a series of studies examining the connection between religion and empathy (see, for example, Francis & Pearson, 1987; Francis, 2007; Francis, Croft & Pyke, 2012).

The assessment of *moral* values is a complex area. Previous studies by the present research group has begun to distinguish in a variety of ways among different domains of moral values. For example, in a series of three studies Francis, ap Siôn, and Village (2014), Francis, Lankshear, Robbins, Village, and ap Siôn (2014), and Village and Francis (2016) distinguish between four domains, described as rejection of drug use, endorsing age-related illegal behaviour, racism, and sexual morality. A sequence of multi-level and multi-variate analyses have begun to demonstrate how certain personal, psychological, sociological, contextual and religious variables function differently in respect of different domains of moral values.

Building on this research tradition Village and Francis (in press) distinguished, by means of exploratory factor analysis and confirmatory factor analysis, a three factor model of moral values. This model was operationalised in the Francis Moral Values Scales by three measures: the anti-social behaviour scale (seven items), the sex and relationship scale (seven items) and the substance use scale (five items). The instruments proposed by Village and Francis (in press) to measure these three areas recorded alpha coefficients of internal consistency reliability (Cronbach, 1951) of between .83 and .87.

Four areas of *religious* values were included in the survey: scale of religious pluralism, scale of religious exclusivity, scale of belief in life after death, and scale of mystical orientation. First, the notions of religious plurality and religious exclusivity belong to the domain of the theology of religions. Recently the developing field of empirical theology has taken seriously the theologically informed notions of the ways in which specific religious traditions conceive of, express and formulate their relationships with other religious traditions. The notions of religious pluralism and religious exclusivity capture two very different perspectives within the range of theologies of religions. The notion of religious pluralism includes affirming ideas like, ‘Many religious traditions have valuable knowledge

about God'. The notion of religious exclusivism includes affirming ideas like, 'My religious tradition is the best source for knowledge about God'. The operationalisation of such constructs was explored by Francis and Robbins (2012), where the Francis Index of Theological Exclusivism recorded an alpha coefficient of internal consistency reliability of .82.

Second, the notion of religious belief has been operationalised over the years by a number of instruments (see Hill & Hood, 1999) that embrace very different aspects of religious believing. The complexity of this issue was well rehearsed in an early study by Francis (1984) who argued that styles of religious believing are differentiated both by the context of belief and by the manner in which belief is held and expressed. The approach taken in the present study focuses on the specific area of beliefs in the area of life after death, including notions of heaven, hell, resurrection of the body and immortality of the soul. On this topic a new and experimental instrument is included in the study.

Third, the notion of spiritual and religious experience accesses a field concerned with personal spiritual and religious awareness. The importance of this broad area has been focused in particular by the work of the Alister Hardy Religious Experience Research Centre, as exemplified by studies like Hardy (1979) and Fox (2003, 2008, 2014). Within the broad field of spiritual and religious experience, the notion of mysticism has played a particularly important part as a consequence both of the conceptual clarity brought to the field by studies like Stace (1960) and Happold (1963) and by the sophistication of the Hood Mysticism Scale (Hood, 1975) and the Mystical Orientation Scale (Francis & Loudon, 2000). The Mystical Orientation Scale was designed to operationalise the seven defining characteristics of mysticism proposed by Happold (1963) and has been tested in a number of recent studies, including work reported by Bourke, Francis, and Robbins (2004), Francis, Village, Robbins, and Ineson (2007), Edwards and Lowis (2008a, 2008b), Francis and Littler (2012), Francis,

Littler, and Robbins (2012), Francis, Robbins, and Cargas (2012), and Ross and Francis (2015).

Method

Procedure

As part of a wider study concerned with the experiences and attitudes of 16- to 18-year-old students engaged with the study of religion at A level, a snowball sample of 25 schools agreed to invite *all* their students beginning on this A level programme to participate in a questionnaire survey. The survey was conducted during regular class time and students were assured of anonymity and confidentiality. Students who did not wish their data to be included in the analysis were given the option of not submitting their completed questionnaire. A total of 652 thoroughly completed questionnaires were returned by the participating schools.

The schools were also given the option of administering the questionnaire for a second time when this cohort of students was nearing completion of the two-year period of study. A total of 313 questionnaires were returned at this stage. The lower number is a consequence of two factors: not all of the original schools participated in the second round; not all of the original cohort of students enrolled for the two years of the *full* A level programme.

The present analysis is based only on those cases where the second questionnaire could be paired with the first questionnaire. This task was made difficult by the ethical requirement to ensure anonymity. As part of both questionnaires the students were invited to provide their birthday in terms of four digits providing day and month, but not year. This information together with school grouping enabled 150 sets of paired data to be assembled.

Measures

Purpose in life was assessed by the Purpose in Life Scale (Francis & Robbins, 2000), a 12-item measure assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: 'I feel my life has a sense of meaning' and 'My life has clear goals and aims'.

Self-esteem was assessed by the Rosenberg Self-Esteem Scale (Rosenberg, 1965), a 10-item measure assessed (in this instance) on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: 'I take a positive attitude toward myself' and 'I feel I have a number of good qualities'.

Empathy was assessed by the measure included in the Eysenck Impulsiveness Questionnaire (Eysenck & Eysenck, 1991), a 19-item measure assessed on a dichotomous scale, yes (1) and no (0). Example items include: 'Would you feel sorry for a lonely stranger' and 'Does it affect you very much when one of your friends seems upset'.

Attitude toward anti-social behaviour was assessed by the Anti-social behaviour scale (Village & Francis, in press), a seven-item measure assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: 'It is wrong to steal' and 'It is wrong to swear'.

Attitude toward sex and relationships was assessed by the Sex and relationships scale (Village & Francis, in press), a seven-item measure assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: 'It is wrong to have casual sex' and 'Divorce is wrong'.

Attitude toward substance use was assessed by the Substance abuse scale (Village & Francis, in press), a five-item measure assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: 'It is wrong to smoke cigarettes' and 'It is wrong to use heroin'.

Religious pluralism, as a stance within the theology of religions, was assessed by a six-item measure derived from Francis and Robbins (2012), assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: ‘Many religious traditions have valuable knowledge about God’ and ‘God reveals truth in more than one religious tradition’.

Religious exclusivism, as a stance within the theology of religions, was assessed by a five-item measure derived from the Francis Index of Theological Exclusivism (Francis & Robbins, 2012), assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: ‘My religious tradition is the only true source for knowledge about God’ and ‘Other religious traditions are inferior to my own’.

Belief in life after death was assessed by a new and experimental seven-item measure, assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: ‘I believe in the immortality of the soul’ and ‘I believe in heaven’.

Mystical orientation was assessed by the Francis-Louden Mystical Orientation Scale (Francis & Loudon, 2000), a 21-item measure, assessed on a five-point Likert Scale, ranging from disagree strongly (1), through not certain (3), to agree strongly (5). Example items include: ‘Being overwhelmed by a sense of wonder’ and ‘Feeling at one with all living beings’.

Religious attendance was assessed on a five-point scale of frequency: never (1), occasionally (2), at least six times a year (3), at least once a month (4), and at least once a week (5).

Personal prayer was assessed on a five-point scale of frequency: never (1), occasionally (2), at least monthly (3), at least weekly (4), and nearly every day (5).

Religious experience was assessed by the question, 'Have you ever had something you would describe as a religious/spiritual experience?' assessed on a four-point scale: no (1), perhaps, but I am not really sure (2), probably, but I am not certain (3), and yes, definitely (4).

Participants

Of the 150 participants for whom paired data were assembled, at the first completion of the questionnaire 77% were 16 years of age, 21% were 17 years of age and 2% were 18 years of age; 79% were female and 21% were male; 53% reported Christian affiliation and 47% reported no religious affiliation. In terms of religious attendance, 12% reported attending at least once a week, 7% at least once a month, 7% at least six times a year, and 33% occasionally. The remaining 41% never attended. In terms of personal prayer, 10% reported praying nearly every day, 8% at least weekly, 2% at least monthly, and 23% occasionally. The remaining 57% never prayed. In terms of ever having had something they would describe as a religious or spiritual experience, 15% reported yes definitely, 5% probably but not certain, and 20% perhaps but not really sure. The remaining 60% were clear that they had never had such an experience.

Analysis

The data were analysed by SPSS, using the frequency and paired t-test routines.

Results and discussion

The first step in data analysis concerned testing the scale properties of the ten scales employed in the study. The information provided in table 1, calculated on the 652 participants who completed the survey fully at time one, makes it clear that all ten instruments achieved a satisfactory level of internal consistency reliability as reported in terms of the alpha coefficient (Cronbach, 1951). On this basis it is reasonable to proceed with analysing the variations between the mean scores recorded at time one and time two on these ten scales.

- insert table 1 and table 2 about here -

While there clearly is not space to permit the publication of tables showing the properties of all ten scales in terms of the correlations between the individual items and the sum of the other items and in terms of item endorsement, there is value in reporting item endorsement for some of the key items in each scale in order to illustrate what is really being said by these 16- to 18-year-old students studying religion at A level. Three items will be selected from each measure.

The purpose in life measure finds fewer than two-thirds of the students express confidence that their lives have meaning or purpose. Thus, 62% say they feel their life has a sense of meaning; 63% say they feel their life has a sense of purpose; and 54% say their life has clear goals and aims.

The self-esteem measure demonstrates that around three-quarters of the students assert confidence in their self-esteem. Thus, 73% say they feel they are people of worth, at least on an equal plane with others; 75% say that they are able to do things as well as most other people; and 79% feel that they have a number of good qualities.

The empathy measure demonstrates that nearly nine out of every ten of the students are sensitive to the feelings of others. Thus, 86% say that it affects them very much when one of their friends seems upset; 87% say that they can get very interested in their friends' problems; and 89% would feel sorry for a lonely stranger.

The measure of attitude toward anti-social behaviour shows some wide variation in the moral values of the students. While 86% say that it is wrong to steal, the proportions fall to 56% who say it is wrong to take a bribe, and to 40% who feel that it is wrong to keep money or things you find.

The measure of attitude toward sex and relationships shows that there are two issues that attract higher levels of agreement than the others. Thus, 40% agree that it is wrong to

have sex with lots of partners and 40% agree that pornography is wrong, whereas only 12% agree it is wrong to have sex before marriage.

The measure of attitude toward substance abuse also shows how moral judgement varies from one substance to another. While 73% agree that it is wrong to use heroin, the proportions fall to 50% who agree that it is wrong to smoke marijuana, and to 34% who agree that it is wrong to smoke cigarettes.

The measure of religious pluralism demonstrates a high commitment to valuing knowledge about religious traditions, but less commitment to the view that spiritual benefit derives from such knowledge. While 87% agree that it is important to learn about other religious traditions, the proportions fall to 45% who agree that God reveals truth in more than one religious tradition, and to 36% who agree that knowledge of more than one religious tradition enhances their own spirituality.

The measure of religious exclusivism reveals that up to one-fifth of the students espouse this position. Thus, 14% say that their religious tradition is the only true source for knowledge about God; 17% say that knowledge of more than one religious tradition only leads to confusion; and 20% claim that their religious tradition is the best source for knowledge about God.

The measure of belief in life after death demonstrates that up to half of the students believe in some form of life beyond death. Thus, 49% believe in heaven, and 48% believe in the immortality of the soul, while 29% believe in hell.

The measure of mystical orientation shows that up to two-fifths of the students have experienced some of the recognised components of mysticism. Thus, 30% have been moved by a power beyond description; 37% have been aware of more than they could ever describe; and 40% have been overwhelmed by a sense of wonder.

The second step in data analysis concerned testing the statistical significance of the differences between the mean scale scores recorded at time one and at time two on these ten scales (assessing purpose in life, self-esteem, empathy, anti-social behaviour, sex and relationships, substance use, religious pluralism, religious exclusivism, belief in after life, and mystical orientation) and also on the three single-item measures of religious experience, frequency of personal prayer and frequency of religious attendance. The information provided in table 2 makes it clear that no significant differences were reported between time one and time two in terms of the three measures of personal values (purpose in life, self-esteem, and empathy), in terms of two of the three measures of moral values (attitude toward anti-social behaviour and attitude toward substance use), in terms of one of the four measures of religious values (religious exclusivism), and in terms of the measure of prayer frequency.

On the other hand, significant differences were found in terms of the following variable: sex and relationships, religious pluralism, belief in life after death, and mystical orientation. Significant differences were also found in terms of reported religious experience and frequency of religious attendance. Between the ages of 16 and 18 years, following two years engagement with A level study of religion, the participants had become more liberal in their approach to sex and relationships, less convinced by the truth claims of religious pluralism, less likely to adhere to traditional Christian teaching on life after death, less open to mystical experience, less certain of having had a religious or spiritual experience, and less frequent in their practice of religious attendance.

Conclusion

This study set out to explore the trajectory of personal, moral and spiritual values of students studying religion at A level. A sample of 150 students completed a battery of measures at the beginning of their period of A level study and again at the end. Personal values were assessed by measures of purpose in life, self-esteem and empathy. Moral values

were assessed by measures of attitude toward anti-social behaviour, sex and relationships, and substance abuse. Spiritual and religious values were assessed by measures of religious pluralism, religious exclusivism, belief in life after death and mystical orientation. Measures were also included to assess frequency of religious attendance, frequency of personal prayer, and reported religious experience.

Before drawing conclusions on the basis of the data generated from this study, two limitations with the study need to be acknowledged. The first limitation concerns the difficulty of producing paired data from the two administrations of the survey when the ethics of such research requires anonymity. The cases have been paired on the basis of information provided about the day and month of birth only on the occasions when there is no ambiguity about these data and no possibilities of mismatching. This has reduced the number of participants to 150. The second limitation is that the scope of the project did not allow for a control group of students who were not taking Religious Studies at A level. For this reason, while the study is able to describe the trajectory of the students taking Religious Studies at A level over a two year period the causation of this trajectory cannot be directly ascribed to the experience of studying religion at this level. With this caveat in mind, four main conclusions can be drawn about the trajectory of these students across personal, moral and social values.

First, in respect of personal values, no significant change took place across the three measures included in the study: purpose in life, self-esteem and empathy. In other words, students emerged from this two year period of study with their sense of purpose or meaning in life neither enhanced nor diminished, with their sense of self-esteem, self-concept or self-worth neither stronger nor weaker, and with their capacity to empathise with or to walk in the shoes of others neither improved nor worsened. The conclusion that can be drawn from this is that there is no evidence here to suggest that the experience of studying religion at A level has any positive impact on enhancing these three areas of personal values.

Second, in respect of moral values, no significant change took place across two of the three measures included in the study: anti-social behaviour and substance use. In other words, students emerged from this two year period of study with their views unchanged on issues like stealing, taking a bribe or keeping money or things that they found; and with their attitudes unchanged toward substances like heroin, marijuana and tobacco. On the other hand, there was a significant reduction in the mean score on the measure of attitude toward sex and relationships. In other words, students emerged from the two year period of study with slightly more liberal views on issues like sex with multiple partners, pornography and divorce. The conclusion that can be drawn from this is that there is no evidence here to suggest that the experience of taking Religious Studies at A level inculcates more conservative moral values.

Third, in respect of spiritual and religious values, no significant change took place on one of the four measures included in the study: religious exclusivism. In other words, students who believed that their own religious tradition held exclusive claims to religious truth emerged from this two year period of study with their view unchanged. On the other hand, there were significant reductions in the scores recorded on the measures of religious pluralism, belief in life after death, and mystical orientation. In other words, students emerged from the two year period of study less convinced that knowledge of more than one religious tradition enhances their own spirituality, less convinced about life after death or the immortality of the soul, and less open to mystical experience. The conclusion that can be drawn from this is that there is no evidence here to suggest that the experience of taking Religious Studies at A level undermines conservative belief systems (like religious exclusivism).

Fourth, in respect of religious practice and religious experience, no significant change took place across one of the three measures included in the study: personal prayers. In other

words, students emerged from this two year period of study maintaining the same level of commitment to frequency of prayer with which they entered it. On the other hand, there was a significant reduction in the frequency of worship attendance and in the affirmation of religious experience. In other words, students emerged from this two year period of study attending church less frequently and being less confident that they had ever had something they would describe as a religious or spiritual experience. The conclusion that can be drawn from this is that there is no evidence here to suggest that the experience of taking Religious Studies at A level undermines commitment to the personal practice of prayer.

Further research building on the present study would benefit from being able to make two adjustments to the present research design. The first adjustment would involve convincing the ethics committee that it is acceptable to record students' names in order to achieve a full matching of surveys returned at time one and at time two. The second adjustment would involve attracting sufficient funding to permit a proper control group of students not taking Religious Studies at A level to be recruited alongside a group of students who are taking Religious Studies at A level.

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Table 1

Scale properties

Scale	N items	α	Mean	SD
Purpose in life scale	12	.92	45.3	8.8
Self-esteem scale	10	.88	35.0	7.2
Empathy scale	19	.70	13.8	3.2
Anti-social behaviour scale	7	.83	24.5	5.2
Sex and relationships scale	7	.84	17.1	6.1
Substance use scale	5	.87	17.2	5.1
Scale of religious pluralism	6	.75	21.3	4.1
Scale of religious exclusivism	5	.72	11.9	3.8
Scale of belief in life after death	7	.88	20.9	6.7
Mystical orientation scale	21	.94	49.2	18.3

Table 2

Paired t-test for mean difference of scale scores at time 1 and time 2 (whole sample)

Scale	Time 1		Time 2		Difference		<i>t</i>
	Mean	SD	Mean	SD	Mean	95% CL	
Purpose in life	45.95	8.52	45.79	9.00	0.17	-1.11—1.44	0.26
Self-esteem	35.25	7.60	35.09	7.55	0.16	-0.88—1.20	0.30
Empathy	14.63	3.90	14.45	3.29	0.18	-0.43—0.79	0.59
Anti-social behaviour	24.93	4.47	24.40	4.82	0.53	-0.08—1.15	1.72
Sex and relationships	16.98	5.26	15.91	5.12	1.07	0.33—1.51	2.85**
Substance abuse	17.27	5.00	17.07	5.05	0.21	-0.57—0.98	0.53
Religious pluralism	21.47	3.86	20.69	4.99	0.78	0.00—1.56	1.99*
Religious exclusivism	11.84	3.55	11.73	3.86	0.11	-0.54—0.75	0.33
Life after death	20.99	6.95	19.92	6.94	1.07	0.22—1.91	2.49*
Mystical orientation	52.65	16.86	48.28	20.97	4.37	1.06—7.67	2.61*
Religious experience	1.76	1.10	1.56	0.97	0.20	0.04—0.37	2.39*
Prayer frequency	1.93	1.37	1.81	1.22	0.13	-0.03—0.29	1.59
Attendance frequency	2.15	1.35	2.01	1.25	0.15	0.01—0.28	2.14*

Note. N = 150. * = $p < .05$; ** = $p < .01$.