Examining the relationship between spirituality and character virtues. An empirical study among a sample of 11- to 16-year-old UK students

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Abstract

The importance of character virtues for shaping personal and social wellbeing remain the subject for both philosophical analysis and empirical investigation. While the identification, conceptualisation, and operationalisation of character virtues remains contested, useful instruments are available. The effect of personality and spirituality on the formation of character virtues is of both theoretical and empirical concern, although the conceptualisation, and operationalisation of both personality and spirituality are also contested constructs. The present study reports on the association of personality, spirituality and character virtues among a sample of 6,749 11- to 16-year-old students attending ten Christian ethos secondary schools in England and Wales, employing an adaptation of the Narnian Character Virtue Scales, the Junior Eysenck personality Questionnaire Revised-Abbreviated, and a single-item measure of spirituality. The data demonstrated the positive effects of spirituality on eight character virtues, after controlling for the effects of age, sex, extraversion, neuroticism, and psychoticism. The eight character virtues are: courage, forgiveness, generosity, hard work, integrity, love, self-control, and wisdom

Keywords: spirituality, personality, character virtues, Narnian Character Virtue Scales, Junior Eysenck personality Questionnaire Revised-Abbreviated

Introduction

The present study was designed to explore the effect of personality and spirituality on the formation of character virtues. Each of these three core constructs is open to multiple interpretations and to multiple operationalisations. The present study needs, therefore, first to be contextualised within the three specific research traditions on which it draws to define and measure character virtues, personality, and spirituality.

Character virtues

Within a diverse literature concerned with character strengths and virtues (Peterson and Seligman, 2004) a range of different conceptualisations and measures of character virtues have emerged. The present study draws on a recent initiative designed specifically to be accessible to young people of secondary school age, namely the conceptualisation and operationalisation of the Narnian Character Virtue Scales (see Francis, Pike, Lankshear, Nesfield, & Lickona, 2017; Francis, Pike, Likona, Lankshear, & Nesfield, 2018). The Narnian Character Virtue Scales had their roots in The Narnian Virtues Character Education Curriculum project (Pike, Lickona, & Nesfield, 2015). This project placed a special emphasis on the potential of literature (Pike, 2015), and specifically the Narnia novels of C S Lewis (Pike, 2013) to enable children and young people to understand and to cultivate a range of virtues underpinning good character. The project drew on three of the Narnia novels, *The lion, the witch and the wardrobe* (Lewis [1950] 1989), *Prince Caspian* (Lewis [1951] 1989), and *The voyage of the 'Dawn Treader'* (Lewis [1955] 1989) to identify passages that exemplified aspects of twelve character virtues, defined as: courage, curiosity, forgiveness, fortitude, gratitude, hard work, humility, integrity, justice, love, self-control and wisdom.

The Narnian Character Virtue Scales were designed to assess the impact of student engagement with the Narnian Character Education Curriculum Project. This was achieved by identifying a pool of accessible items that expressed each of the twelve specified character

virtues in ways consistent with the Narnian narratives. A small working group drawn from the wider research team offered the following definitions (see Francis, Pike, Lankshear, Nesfield, & Lickona, 2017, pp. 863-864).

Courage as a character virtue was thought to be displayed by people: who do not let fear stand in their way; who stay calm in the face of danger; who refuse to panic when things look bad; and who do what is right even when others make fun of them. They are people who do not let other people's anger stand in their way.

Curiosity as a character virtue was thought to be displayed by people: who enjoy finding out new things; who want to know what makes people tick; who ask a lot of questions; and who like to visit new places. They are not people who are afraid to experiment with things.

Forgiveness as a character virtue was thought to be displayed by people: who try to forgive those who hurt them; who do not hold grudges again people; who allow others to make a fresh start; and who do not find it hard to forgive others. They are people who do not believe in hurting those who have hurt them.

Fortitude as a character virtue was thought to be displayed by people: who stand up for what is right, whatever the cost; who can cope with disappointment and setbacks; who complete their tasks in spite of difficulties; and who do not expect things to be always easy. They are people who do not often let difficulties stand in their way.

Gratitude as a character virtue was thought to be displayed by people: who feel grateful for what others do for them; who like to say thank you when someone helps them; who are grateful for what they receive in life; and who feel overall that life is good to them. They are people who feel that they have much in life to be grateful for.

Hard work as a character virtue was thought to be displayed by people: who give what it takes to finish the job; who work hard to do things well; who do not give up until the job is done; and who believe in working hard. They are people who do not stop when work becomes too hard.

Humility as a character virtue was thought to be displayed by people: who own up to their mistakes; who recognise their own faults; who do not set out to be arrogant; and who do not like to tell others about their success. They are not people who like to show off when they get the chance.

Integrity as a character virtue was thought to be displayed by people: who stick to their principles whatever happens; who are honest with others; who can be trusted to keep their promises; and who can be trusted to be fair. They are not people who are willing to lie to get out of trouble.

Justice as a character virtue was thought to be displayed by people: who respect other people's rights; who try to treat people fairly; who find that seeing injustice upsets them; and who feel that it is wrong to let people get away with things. They are people who dislike seeing others treated unfairly.

Love as a character virtue was thought to be displayed by people: who generally put others first; who treat others the way they want to be treated themselves; who want what is best for others; and who give to others without expecting things in return. They are people who will not find it difficult to express love to others.

Self-control as a character virtue was thought to be displayed by people: who can control their feelings; who do not lose their temper easily; who rarely eat more than they need; and who know when to say "enough is enough". They are people who do not allow their feelings to run away with them.

Wisdom as a character virtue was thought to be displayed by people: who can generally choose the best course of action; who can usually work out what is true; who most of the time can work out what is right; and who think about things before acting. They are people who will not often make unwise choices.

In a first study, Francis, Pike, Lankshear, Nesfield, and Lickona (2017) developed and tested the twelve scales on data provided by 56 year eight students (12- to 13-year-olds). The five-item scales demonstrated the following alpha coefficients (Cronbach, 1951): courage (.76), curiosity (.48), forgiveness (.83), fortitude (.68), gratitude (.79), hard work (.76), humility (.69), integrity (.62), justice (.67), love (.61), self-control (.76), and wisdom (.65). In a second study, Francis, Pike, Lickona, Lankshear, and Nesfield (2018) administered the set of twelve scale twice to 86 year seven and year eight students (11- to 13-year-olds) before and after participating in the pilot six-week curriculum intervention programme. The five-item scale demonstrated the following test-retest reliabilities: courage (.59), curiosity (.65), forgiveness (.69), fortitude (.47), gratitude (.74), hard work (.56), humility (.53), integrity (.69), justice (.64), love (.68), self-control (.71), and wisdom (.53).

Francis, Pike, Lankshear, Nesfield, and Lickona (2017) and Francis, Pike, Lankshear and Nesfield (2018) recognised that both studies were vulnerable in light of the small number of participants and advocated further testing of the scales on larger samples.

Personality

Within a diverse literature concerned with the conceptualisation and operationalisation of models of personality (Funder, 1997; Hogan, Johnson, & Briggs 1997; Caprara & Cervone, 2000), three models have emerged as standing the test of time, namely the sixteen Personality Factor Questionnaire (16PFQ) proposed by Cattell, Eber, and Tatsuoka (1970), the Big Five Factor Model proposed by Costa and McCrae (1985), and the Three Dimensional Model accessed by the Eysenck Personality Questionnaire (EPQ)

proposed by Eysenck and Eysenck (1975). Among these three models, the Eysenckian three dimensions of personality (extraversion, neuroticism, and psychoticism) have played an important part in the scientific investigation of the connections between personality and various expressions of religion and spirituality.

Eysenck's earliest concern was with assessing neuroticism. His first personality test, the Maudsley Medical Questionnaire (MMQ), focused on this dimension (Eysenck, 1952). The next personality test, the Maudsley Personality Inventory (MPI), established the two-dimensional model of personality, embracing both neuroticism and extraversion (Eysenck, 1959). Following that, the Eysenck Personality Inventory (EPI) proposed more reliable and more independent measures of the same two dimensions, neuroticism and extraversion (Eysenck & Eysenck, 1964). Up to this stage Eysenck was working with a two-dimensional model of personality.

The breakthrough from two dimensions to three came with the development of the Eysenck personality Questionnaire (EPQ) by Eysenck and Eysenck (1975). Now psychoticism was introduced to the family of dimensions, as described by Eysenck and Eysenck (1976) in their book *Psychoticism as a dimension of personality.* As is so often the case when a new member is introduced to a well-established family, the introduction of psychoticism had profound implications for at least one of the longerstanding dimensions of personality. In order to keep the two dimensions of psychoticism and extraversion orthogonal or uncorrelated, Eysenck had to change some of the items in the extraversion scale. Instead of being concerned with a blend of sociability and impulsivity, Eysenck's notion of extraversion settled into sociability, while the impulsivity component found a new home in the measure of psychoticism (see Rocklin & Revelle, 1981).

The most recent form of Eysenck's personality test, and the one most frequently employed in current studies, is known as the Revised Eysenck Personality Questionnaire

(EPQR) first published by Eysenck, Eysenck and Barrett (1985). This test is available in a 100-item full form, a 48-item short form (EPQR-S, and a 24-item abbreviated form (EPQR-A), the latter of which was developed by Francis, Brown and Philipchalk (1992). All three versions propose measures of extraversion, neuroticism and psychoticism.

Alongside this family of tests designed for use among adults, a second family of tests was developed for use among children and young people, including the Junior Eysenck personality Inventory (JEPI: Eysenck, 1965), the Junior Eysenck Personality Questionnaire (JEPQ: Eysenck and Eysenck, 1985), the Junior Revised Eysenck Personality Questionnaire (JEPQR: Corulla, 1990), and the abbreviated Junior Revised Eysenck Personality Questionnaire (JEPQR-A: Francis, 1996).

In a series of early studies Francis concentrated on explaining the connection between religious affect and each of the three Eysenckian dimensions of personality one-by-one: neuroticism (Francis, Pearson, Carter & Kay, 1981a; Francis Pearson & Kay, 1983b), extraversion (Francis, Pearson Carter, & Kay 1981b; Francis, Pearson, & Kay, 1983b; Francis and Pearson, 1985), and psychoticism (Kay, 1981; Francis, 1992). This series of studies led to the suggestion that psychoticism was the dimension of personality fundamental to religiosity. This conclusion has been further crystalised by a number of subsequent studies conducted among different age groups and within different cultures (for review see Lewis & Francis, 2014).

Building on this body of research that had securely located individual differences in religiosity within the Eysenckian three dimensions of psychological space, Francis, Pike, Lankshear, Nesfield, and Lickona (2017) proposed explaining the location of character virtues within the same three dimensional model. In their initial study they reported strong negative correlations between psychoticism scores and integrity, love and wisdom, strong negative correlations between neuroticism scores and courage and self-control, and a strong

positive correlation between extraversion scores and courage. Recognising the vulnerability of the small sample on which these correlations were calculated (N=56), Francis, Pike, Lankshear, Nesfield, and Lickona (2017) recommended the replication of this examination among a larger sample.

Spirituality

Within a diverse literature concerned with religion and spirituality (Zinnbauer et al., 1997; Hill, Pargament, Hood, McCullough, Swyers, Larson, & Zinnbauer, 2000; Kapuscinski & Masters, 2010; Westerink, 2012), the tendency in recent years has been to give attention to a shift of emphasis away from religion and toward spirituality. There has, however, been little agreement on the conceptualisation and measurement of spirituality. A classic documentation of this shift in emphasis is located in the introduction to the book, *The spiritual revolution: Why religion is giving way to spirituality*, by Heelas and Woodhead (2005, p.1) who also write in their introduction as follows:

> The declining influence of religion – particularly Christianity – in western societies has been the chief topic of the study of religion for over a century, but in recent years the emergence of something called 'spirituality' has – increasingly – demanded attention. Survey after survey shows that increasing numbers of people now prefer to call themselves 'spiritual' rather than 'religious'.

The case is supported, for example, by studies like that of Fuller (2001) in a book given the title, *Spiritual but not religious: understanding unchurched America.* Fuller found that 21% of all Americans placed themselves in that category of being spiritual but not religious.

According to Forman (2004, p.3) in 2001 59% of Americans described themselves as both religious and spiritual, while a further 20% viewed themselves as solely spiritual. It is this clear overlap between spirituality and religion that is noted by King (2009) in her study, *The search for spirituality.* In debating the overlap between spirituality and religion, King

offers two intriguing assertions. First, she maintains that ‘spirituality is now thoroughly pluralised, yet it is doubtful whether it can be seen as entirely, and permanently, divorced from religion’ (p. 17). Second, she maintains that ‘while spiritualities have now gained a more autonomous place in people’s lives and can exist independently from traditional religious institutions, religion and spirituality are two influential areas of human experience that still remain closely intertwined for hundreds of millions of believers’ (p.18).

The two findings, that a number of people describe themselves as both religious and spiritual and that more people describe themselves as spiritual than describe themselves as religious, are supported by a number of other surveys, generally conducted in the USA. For example, Zinnbauer et al. (1997) reported in their study from eleven different small convenience samples (mainly college students or members of religious groups) that 93% described themselves as spiritual compared with 78% who described themselves as religious. Small proportions described themselves as religious but not spiritual (4%) or as neither religious nor spiritual (3%), but 19% described themselves as spiritual but not religious. Corrigan, McCorkle, Schell, and Kidder (2003) found in their study that 63% described themselves as spiritual and religious, 22% as spiritual but not religious and 4% as religious but not spiritual. Flemming, Overstreet, and Chappe (2006) reported in a study of 11,200 seniors as six Jesuit Catholic Institutions that 81% described themselves as spiritual compared with 60% who described themselves as religious. It is finding of this nature that influence much of the current debate about the distinctiveness and the commonality of the two constructs of religion and spirituality (see, for example, Zinnbauer & Pargament, 2005).

Empirical studies that purport to measure spirituality do so through quite a range of instruments. In a helpful analysis of existing measures, Hyland, Wheeler, Kemble, and Masters (2010) distinguish between three groups of items. The first group of items includes the terms *spiritual* or *spirituality*, allowing respondents to interpret these terms in their own

way (for example, ‘My spirituality is important to me’). The second group of items also includes the terms *spiritual* or *spirituality*, but anchor these terms within a clearly religious context (for example, ‘I find a sense of spirituality in my church’). The third group of items does not include terms like spiritual or spirituality at all but attempts to identify areas that may (or may not) be considered relevant to spirituality (for example, ‘I feel connected with the natural world’). Hyland et al. describe these three groups of items in the following way: the first group as self-perceived spirituality items, the second group as explicit connection items, and the third group as implicit connection items.

While scales constructed to measure spirituality remain complex or contested, a clarity emerges from the studies that invite people to rate themselves in terms of their self-perception of being religious and being spiritual. For example, Francis, Laycock, and Penny (2016) invited 2,728 young people between the ages of 13 and 15 years to rate themselves on a five-point Likert scale against the two items ‘I am a religious person’ and ‘I am a spiritual person’. Combined these two straightforward items allowed multiple categories to be generated in terms of location on two continua. This study also included a wide range of attitudinal, value, and belief statements. Discriminant function analysis was employed to explore whether there were specific combinations of attitudes, values, and beliefs that might help to clarify how young people interpret and apply the notions of spirituality and religiosity and that could distinguish the worldview of the young people who describe themselves as religious but not spiritual (purely religious) from the worldview of young people who describe themselves as spiritual but not religious (purely spiritual). The two clusters of items identified by discriminant function analysis characterised the understanding of the purely religious sub-group as concerned with conventional religious beliefs and practices, and with ideas about God, Jesus, church and prayer; and characterised the understanding of the purely spiritual sub-group as concerned with human rights and human equality across the sexes,

races and sexual orientations, and with a range of eclectic beliefs about spiritual presences and spiritual forces.

In a subsequent study, Francis, Lewis, and McKenna (2017) employed the item 'I am a spiritual person' to explore the effect of self-designated spirituality among young people who placed themselves outside the reach of religion. In this study, Francis, Lewis, and McKenna (2017) drew on data provided by 3,860 young people between the ages of 13 and 15 years drawn from the four nations of the UK who identified themselves as having no religious affiliation. These participants also completed the abbreviated form of the Junior Eysenck Personality Questionnaire Revised proposed by Francis (1996) and the empathy scale of the Junior Eysenck Impulsiveness Questionnaire proposed by Eysenck, Easting, and Pearson (1984). The data demonstrated a positive correlation between self-perceived spirituality and empathy, after controlling for personality, sex, and age. This finding suggests that, in regard to enhancing empathy within the lives of young people, spirituality is fulfilling the same function as that served by religion in the lives of others as documented by previous research (for review see Francis, Croft, & Pyke, 2012).

Francis, Laycock, and Penny (2016) and Francis, Lewis, and McKenna commended the face validity and the empirical utility of the single-item measure 'I am a spiritual person', and advocated the use of this single-item measure in future research designed to explore the effects of self-perceived spirituality among young people.

Research question

Against this background, the present study proposes to examine the connections between character virtues, personality and spirituality by the specific operationalisation of: character virtues through a selection of the Narnian Character Virtue Scales (Francis, Pike, Lankshear, Nesfield, & Lickona, 2017); personality through the abbreviated form of the

Junior Eysenck Personality Questionnaire Revised (Francis, 1996); and spirituality through the single-item measure proposed by Francis, Laycock, and Penny (2016).

Method

Procedure

Ten Christian ethos secondary schools were selected to participate in the project from among a wider range of schools on the basis of the account that they gave of their distinctive emphasis on spirituality. These ten schools included eight Church of England schools, one joint Anglican-Catholic school, and one school operated by a Christian foundation. These ten schools represented a range of admissions policies. The schools were asked to administer the questionnaire in normal class groups to all year-seven, year-eight, year-nine, year-ten, and year-eleven students throughout the school. Students were asked not to write their name on the booklet and to complete the inventory without discussing it with their peers. They were assured of confidentiality and anonymity. Although students were given the choice not to participate very few declined to do so.

Participants

Of the 6,749 students who provided full data for this survey, 3,230 were male and 3,519 were female; 1,428 were in year seven (11- to 12- year-olds), 1,404 in year eight (12- to 13-year-olds), 1,401 in year nine (13- to 14-year-olds), 1,318 in year ten (14- to 15-year-olds) and 1,198 in year eleven (15- to 16-year-olds).

Measures

The questionnaire contained the following measures, in addition to sex (male = 1 and female = 2) and school year (year seven = 1, to year eleven = 5).

Character virtues were assessed by eight five-item scales slightly modified from the Narnian Character Virtue Scales proposed by Francis, Pike, Lankshear, Nesfield, and Lickona (2017), operationalising the character virtues of courage, forgiveness, generosity,

hard work, integrity, love, self-control and wisdom. The items were randomised and rated on the standard five-point Likert scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1). The score for each scale could range between 5 and 25.

Personality dimensions were assessed by the abbreviated form of the Junior Eysenck Personality Questionnaire Revised (JEPQ-R (A); Francis, 1996). This instrument proposes four six-item indices of extraversion, neuroticism, and psychoticism. The items were rated on a dichotomous scale: yes (1) and no (0).

Spirituality was assessed by the single-item measure (I am a spiritual person) rated on the standard five-point Likert scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1).

Analyses

The data were analysed by the SPSS, utilising the frequencies, reliability, correlation and regression routines.

Results and discussion

- insert table 1 about here -

Table 1 presents the mean scale scores, standard deviations and alpha coefficient (Cronbach, 1951) for the eight Narnian Character Virtue Scales, concerning courage, forgiveness, generosity, hard work, integrity, love, self-control, and wisdom. Six of these eight scales generated an alpha coefficient in excess of the threshold of .65, although the measures of integrity and wisdom were less satisfactory.

- insert table 2 about here -

Table 2 provides greater detail about the psychometric properties of the eight Narnian Character Virtue Scales in terms of the correlations between the individual items and the sum of the other four items, and the item endorsement in terms of the sum of the agree and agree strongly responses.

- insert table 3 about here -

Table 3 presents the main scale scores, standard deviations and alpha coefficient (Cronbach, 1951) for the three Eysenckian personality scales, concerning extraversion, neuroticism, and psychoticism. Two of these three scales generated an alpha coefficient in excess of the threshold of .65. The poorer performance of the psychoticism scale is consistent with the known difficulties in operationalising this construct, especially with short measures (see Francis, Brown, & Philipchalk, 1992; Francis, Robbins, Louden, & Haley, 2001).

- insert table 4 about here -

Table 4 presents the frequency responses to the single item concerned with self-assessed spirituality. This item suggests about two-fifths of the participants regard themselves as a spiritual person (41%), about one third are uncertain (34%), and about one quarter regard themselves as not being a spiritual person (26%).

- insert table 5 about here -

Table 5 presents the bivariate correlation coefficients between each of the eight Narnian Character Virtue Scales and each of the six key predictor variables: sex, school year, extraversion, neuroticism, psychoticism, and spirituality. The majority of these associations are statistically significant.

- insert table 6 about here -

Table 6 presents the bivariate correlation coefficients between the personal factors (sex and school year), the psychological factors (extraversion, neuroticism, and psychoticism) and spirituality. The complex pattern of associations confirms the need for multivariate analysis to separate out the unique impact of spirituality on character virtues.

- insert table 7 about here -

Table 7 presents the beta weights for the final stage of a three step regression model in respect of each of the eight character virtues (courage, forgiveness, generosity, hard work,

integrity, love, self-control, and wisdom). Step one entered the personal factors into the model (sex and school year). Step two entered the psychological factors into the model (extraversion, neuroticism, and psychoticism). Finally, step three entered spirituality into the model. Table 7 also presents the additional variance explained by the entry of each successive step. The main conclusion generated by these models is that spirituality contributes toward the development of each of the character virtues.

Discussion

It is the correlation matrix presented in table 5 and the regression model presented in table 7 that deserve discussion. The effect of personal factors (sex and school year), psychological factors (extraversion, neuroticism and psychoticism), and spirituality will be discussed in turn.

Personal factors

The correlation coefficients draw attention to significant sex differences in the development of character virtues: females recorded higher scores than males on the indices of forgiveness, generosity, integrity, and love; males recorded higher scores than females on the indices of courage, self-control, and wisdom. No sex differences emerged in respect of hard work. The beta weights demonstrate that this pattern persisted when the other factors were also in the model. Sex differences in character virtues are not simply the function of differences in personality. Social and cultural factors seem to be involved as well.

The correlation coefficients draw attention to significant age effects (school year) in the development of character virtues. Self-perception of all eight character virtues deteriorates throughout the five years of secondary schooling. After five years secondary schooling students are less likely to feel that they display courage, forgiveness, generosity, hard work, integrity, love, self-control, or wisdom. The beta weights demonstrate that this pattern persisted when the other factors were in the model for seven of the eight character

virtues, but not for wisdom. The apparent effect of school year on wisdom may be attributable to the effect of other factors in the model.

Psychological factors

The beta weights draw attention to the major effect of psychoticism scores on all eight character virtues. Higher scores on character virtues are associated with lower scores on the psychoticism scale, and this is particularly evident for the scales of forgiveness, integrity, and love. This pattern, also displayed in the correlation coefficients, is consistent with Eysenck's historic account of the connection between low psychoticism scores and tenderminded social attitudes (Eysenck, 1975, 1976).

The beta weights also draw attention to the effects of neuroticism scores when all the other factors are in the model. Read alongside the correlation coefficients these data demonstrate a strong connection between low neuroticism scores and higher scores on courage and on self-control. Although less prominent, there are significant negative associations between neuroticism scores and forgiveness, generosity, hard work, integrity and wisdom. On the other hand, there are significant positive associations between higher neuroticism scores and higher levels of generosity and love.

The beta weights demonstrate that extraversion also has a part to play in shaping seven of the eight character virtues. There are significant positive associations between higher extraversion scores and courage, forgiveness, generosity, hard work, integrity, love and wisdom. Only self-control does not appear to attract an independent effect from extraversion.

Spirituality

The correlation coefficients draw attention to the positive effect of scores recorded on the single-item measure of spirituality on all eight character virtue scales. The beta weights demonstrate that this pattern persisted when the other factors were also in the model. This

finding indicates that the positive effect of spirituality on character virtues is not an artefact of the other personal factors or psychological factors.

Conclusion

The present study was designed to explore the effect of personality and spirituality on the formation of character virtues. Recognising that each of these three core constructs is open to multiple interpretations and to multiple operationalisations, this broad research question was focused and crystalised by the specific operationalisation of: character virtues through a selection of eight of the Narnian Character Virtue Scales (Francis, Pike, Lankshear, Nesfield, & Likona, 2017), namely courage, forgiveness, generosity, hard work, integrity, love, self-control, and wisdom; personality through the abbreviated form of the Junior Eysenck Personality Questionnaire Revised (Francis, 1996) that proposes scales of extraversion, neuroticism, and psychoticism; and spirituality through the single-item measure proposed by Francis, Laycock, and Penny (2016). Three main conclusions emerged from the analysis provided by the response of 6,749 11- to 16-year-old students who completed all three measures.

The first conclusion is that character virtues, as conceptualised by the Narnian Character Virtue Scales, record significant differences between male and female students. Male students recorded higher scores than female students on the indices of courage, self-control, and wisdom, while female students recorded higher scores than male students on the indices of forgiveness, generosity, integrity, and love. No sex differences emerged in respect of hard work. Regression models demonstrated that sex differences in character virtues are not simply the function of differences in personality, and suggested that social and cultural factors seem to be involved as well. This finding deserves further investigation.

The second conclusion is that character virtues, as conceptualised by the Narnian Character Virtue Scales, are significantly related to the three dimensions of personality as

conceptualised by the Eysenckian model. Consistent with Eysenck's (1975, 1976) original theory connecting personality with social attitudes, psychoticism scores emerged as the strongest predictor of individual differences in scores on the character virtues scales. Higher scores on all eight character virtues are associated with lower scores on the psychoticism scale, and this is particularly evident for the scales of forgiveness, integrity, and love. At the same time, high neuroticism scores are associated with higher scores on the scales of generosity and love, and with lower scores on the other six scales, and especially so for scores on courage and self-control.

The third conclusion is that spirituality has a positive effect across all eight character virtues (courage, forgiveness, generosity, hard work, integrity, love, self-control, and wisdom), as conceptualised by the Narnian Character Virtue Scales. This effect holds true after the effects of personal factors (sex and age) and of psychological factors (extraversion, neuroticism, and psychoticism) have been taken into account. This finding supports the role of spirituality within personal formation.

There are two limitations with the present study that need to be addressed by future research. The first limitation concerns the Narnian Character Virtue Scales. These scales represent a recent addition to the field of instruments designed to measure character virtues, and the present study represents the first large scale survey to have deployed these scales. Generally, the alpha coefficients were acceptable for five-item scales, although two scales (integrity and wisdom) fell below the threshold of .65. Future research should consider testing additional items for these scales. The second limitation concerns the choice of using the abbreviated (six-item) form of the Junior Eysenck Personality Questionnaire. Future research should consider employing either the short-form or the full-form of this instrument (Corulla, 1990).

In spite of these acknowledged limitations, the core finding from this study, connecting spirituality with the development of character virtues, offers a challenge to the educational curriculum to take seriously the place of spirituality within schools. For example, in England and Wales the commitment of schools to promoting the spiritual development of students was firmly embedded within the Education Reform Act 1988, although the implementation of this requirement has been both problematic and contested (see further Francis & Robbins, 2005).

References

Caprara, G. V., & Cervone, D. (2000). *Personality: Determinants, dynamics, and potentials.* Cambridge: Cambridge University Press.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. M. (1970). *Handbook for the sixteen personality factor questionnaire (16PF)*. Champaign, IL: Institute for Personality and Ability Testing.

Corrigan, P., McCorkle, B., Schell, B., & Kidder, K. (2003). Religion and spirituality in the lives of people with serious mental illness. *Community Mental Health Journal, 39,* 487-499.

Corulla, W. J. (1990). A revised version of the psychoticism scale for children. *Personality and Individual Differences, 11,* 65-76.

Costa, P. T., & McCrae, R. R. (1985). *The NEO Personality Inventory*. Odessa, FL: Psychological Assessment Resources.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Eysenck, H. J. (1952). *The scientific study of personality*. London: Routledge and Kegan Paul.

Eysenck, H. J. (1975). The structure of social attitudes. *British Journal of Social and Clinical Psychology*, *14*, 323-331.

Eysenck, H. J. (1976). *Sex and personality.* London: Open Books.

Eysenck, H. J. (1976). Structure of social attitudes. *Psychological Reports, 39,* 463-466.

Eysenck, H. J., & Eysenck, M. W. (1985). *Personality and individual differences: A natural science approach*. New York: Plenum Press.

Eysenck, H. J., & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire (adult and junior)*. London: Hodder and Stoughton.

Eysenck, H. J., & Eysenck, S. B. G. (1976). *Psychoticism as a dimension of personality*. London: Hodder and Stoughton.

Eysenck, S. B. G. (1965). *Manual of the Junior Eysenck Personality Inventory*. London: University of London Press.

Eysenck, S. B. G., Easting, G., & Pearson, P. R. (1984). Age norms for impulsiveness in children. *Personality and Individual Differences, 5*, 315-321.

Eysenck, S. B. G., & Eysenck, H. J. (1964). An improved short questionnaire for the measurement of extraversion and neuroticism. *Life Sciences, 3*, 1103-1109.

Eysenck, S. B. G., Eysenck, H. J., & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Individual Differences, 6*, 21-29.

Flemming, J., Overstreet, D., & Chappe, S. (2006). Measuring the mission: Insights gained through the Boston College Questionnaire about the undergraduate experience. *Current Issues in Catholic Higher Education, 25*, 237-263.

Forman, R. (2004). *Grassroots spirituality: What it is, why it is here, where it is going*. Exeter: Imperial Academic.

Francis, L. J. (1992). Is psychoticism really a dimension of personality fundamental to religiosity? *Personality and Individual Differences, 13*, 645-652. doi.org/10.1016/0191-8869(92)90235-H

Francis, L. J. (1996). The development of an abbreviated form of the Revised Junior Eysenck Personality Questionnaire (JEPQR-A) among 13- to 15-year-olds. *Personality and Individual Differences, 21*, 835-844. doi:10.1016/S0191-8869(96)00159-6

Francis, L. J., Brown, L. B., & Philipchalk, R. (1992). The development of an abbreviated form of the Revised Eysenck Personality Questionnaire (EPQR-A): Its use among students in England, Canada, the USA and Australia. *Personality and Individual Differences, 13*, 443-449.

Francis, L. J., Croft, J., & Pyke, A. (2012). Religious diversity, empathy and God images: Perspectives from the psychology of religion and empirical theology shaping a study among adolescents in the UK. *Journal of Beliefs and Values, 33*, 293-307.

Francis, L. J., Laycock, P., & Penny, G. (2016). Distinguishing between spirituality and religion: Accessing the worldview correlates of 13- to 15-year-old students. *Research in the Social Scientific Study of Religion, 27*, 43-67.

Francis, L. J., Lewis, C. A., & McKenna, U. (2017). Spirituality and empathy: A study among religiously unaffiliated adolescents within the UK. *Spirituality of a Personality, 3*(78), 325-345.

Francis, L. J., & Pearson, P. R. (1985). Extraversion and religiosity. *Journal of Social Psychology, 125*, 269-270.

Francis, L. J., Pearson, P. R., Carter, M., & Kay, W. K. (1981a). The relationship between neuroticism and religiosity among English 15- and 16-year olds. *Journal of Social Psychology, 114*, 99-102.

Francis, L. J., Pearson, P. R., Carter, M., & Kay, W. K. (1981b). Are introverts more religious? *British Journal of Social Psychology, 20,* 101-104.

Francis, L. J., Pearson, P. R., & Kay, W. K. (1983a). Neuroticism and religiosity among English school children. *Journal of Social Psychology, 121*, 149-150.

Francis, L. J., Pearson, P. R., & Kay, W. K. (1983b). Are introverts still more religious? *Personality and Individual Differences, 4*, 211-212.

Francis, L. J., Pike, M. A., Lankshear, D. W., Nestfield, V., & Lickona, T. (2017). Conceptualising and testing the Narnian Character Virtue Scales (NCVS): A study among 12- to 13-year-old students. *Mental Health, Religion and Culture, 20*, 860-872.

Francis, L. J., Pike, M. A., Lickona, T., Lankshear, D. W., & Nestfield, V. (2018). Evaluating the Narnian Virtues Character Education Curriculum Programme: A study among 11- to 13-year-old students. *Journal of Beliefs and Values, 39,* 233-249.

Francis, L. J., & Robbins, M. (2005). *Urban hope and spiritual health: The adolescent voice.* Peterborough: Epworth.

Francis, L. J., Robbins, M., Louden, S. H., & Haley, J. M. (2001). A revised psychoticism scale for the Revised Eysenck Personality Questionnaire: A study among clergy. *Psychological Report, 88*, 1131-1134.

Fuller, R. (2001). *Spiritual but not religious: Understanding unchurched America*. New York: Oxford University Press.

Funder, D. C. (1997). *The personality puzzle*. New York: W.W. Norton.

Heelas, P., & Woodhead, L. (2005). *The spiritual revolution: Why religion is giving way to spirituality*. Oxford: Blackwell.

Hill, P. C., Pargament, K. I., Hood, R. W. Jr, McCullough, M. E., Sayers , J. P., Larson, D. B., & Zinnbauer, B. J. (2000). Conceptualising religion and spirituality: Points of departure. *Journal for the Theory of Social Behaviours, 30,* 51-77.

Hogan, R., Johnson, J., & Briggs, S. (Eds.) (1997). *Handbook of personality psychology*. London: Academic Press.

Hyland, M. E., Wheeler, P., Kamble, S., & Masters, K. S. (2010). A sense of 'special connection: Self-transcendent values and a common factor for religious and non-religious spirituality. *Archive for the Psychology of Religion, 32*, 293-326.

Kapuscinski, A. N., & Masters, K. S. (2010). The current status of measures of spirituality. *Psychology of Religion and Spirituality, 2*, 191-205.

Kay, W. K. (1981). Psychoticism and attitude to religion. *Personality and Individual Differences*, *2*, 249-252.

King, U. (2009). *The search for spirituality: Our global quest for meaning and*

fulfilment. Norwich: Canterbury Press.

Lewis, C. A., & Francis, L. J. (2014). Personality and religion among female university students in France. *Psychology, Society and Education, 6*(2), 68-81.

Lewis, C. S. (1950/1989). *The lion, the witch and the wardrobe*. London: Collins.

Lewis, C. S. (1951/1989). *Prince Caspian.* London: Collins.

Lewis, C. S. (1955/1989). *The voyage of the 'Dawn Treader'.* London: Collins.

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. New York: Oxford University Press.

Pike, M. A. (2013). *Mere education: C. S. Lewis as teacher for our time.* Cambridge: The Lutterworth Press.

Pike, M. A. (2015). *Ethical English: Teaching English as spiritual, moral and religious education.* London: Bloomsbury.

Pike, M. A., Lickona, T., & Nesfield, V. (2015). Narnian virtues: C. S. Lewis as character educator. *Journal of Character Education, 11*, 71-86.

Rocklin, T., & Revelle, W. (1981). The measurement of extraversion: A comparison of the Eysenck Personality Inventory and the Eysenck Personality Questionnaire. *British Journal of Social Psychology, 20*, 279-284.

Westerink, H. (2012). Spirituality in psychology of religion: A concept in search of its meaning. *Archive for the Psychology of Religion, 34*, 3-15.

Zinnbauer, B. J., & Pargament, K. I. (2005). Religiousness or spirituality. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 21-42). New York: Guildford Press.

Zinnbauer, B. J., Pargament, K. I., Cole, B., Rye, M. S., Butler, E. M., Belavich, T. G., Hopp, K. M., Scott, A. B., & Kador, J. R. (1997). Religion and spirituality: Unfuzzing the fuzzy. *Journal for the Scientific Study of Religion. 36*, 549-584.

Table 1

Character Virtues Scales: Psychometric properties

	N Items	alpha	Mean	SD
Courage	5	.68	17.6	3.4
Forgiveness	5	.70	17.3	3.6
Generosity	5	.68	19.3	3.1
Hard work	5	.75	19.4	3.2
Integrity	5	.64	19.0	3.1
Love	5	.66	19.0	2.9
Self-control	5	.68	15.5	3.9
Wisdom	5	.60	19.1	2.5

Table 2

Character Virtues Scales: Scale properties

	r	Yes %
Courage		
I do not let fear stand in my way	.48	54
I stay calm in the face of danger	.50	46
I do what I think is right, even when others make fun of me	.28	66
I refuse to panic when things look bad	.51	38
I do not let other people's anger stand in my way	.39	65
Forgiveness		
I try to forgive those who hurt me	.51	64
I believe in hurting those who have hurt me **R**	.45	21
I do not hold grudges against people	.46	42
I find it hard to forgive others **R**	.49	33
I allow others to make a fresh start	.41	75
Generosity		
I try to avoid giving money to charities **R**	.40	9
I enjoy sharing my things with others	.37	68
I like to treat my friends	.38	82
I like to spend time helping others	.55	76
I enjoy being involved in charity events	.51	58
Hard work		
I believe in working hard	.48	89
I don't give up until the job is done	.59	60
I give what it takes to finish the job	.59	68
I stop when work becomes too hard **R**	.45	20
I work hard to do things well	.55	84
Integrity		
Others can trust me to be fair	.38	83
I am honest with others	.43	78
I am willing to cheat to win a game **R**	.44	19
I can be trusted to keep my promises	.33	85
I am willing to lie to get out of trouble **R**	.45	37

	r	Yes %
Love		
I generally put others first	.50	71
I treat others the way I want to be treated	.40	77
I often give to others without expecting things in return	.42	70
I want what is best for others	.47	83
I believe in putting my own needs first **R**	.31	24
Self-control		
I allow my feelings to run away with me **R**	.30	41
I do not lose my temper easily	.44	39
I do not allow others to get to me	.36	47
I can control my feelings	.57	57
I find it hard to keep control of myself **R**	.52	32
Wisdom		
I can generally trust my own judgement	.30	78
Most of the time I can work out what is right	.43	85
I can usually work out what is true	.38	80
I can generally choose the best course of action	.45	66
I think about things before acting	.28	53

Note: **R** signifies these items were reverse coded to calculate the correlation between the individual item and the sum of the other items.
r signifies correlation between item and sum of the other items
% Yes is the sum of the agree strongly and agree responses

Table 3

Junior Eysenck Personality Questionnaire revised (Abbreviated form): Psychometric properties

	N Items	alpha	Mean	SD
Extraversion	6	.73	4.4	1.7
Neuroticism	6	.73	3.2	1.9
Psychoticism	6	.57	0.8	1.1

Table 4

I am a spiritual person: Response frequency

	%
Agree strongly	17.6
Agree	23.0
Not certain	33.7
Disagree	12.1
Disagree strongly	13.6

Table 5

Correlations between Character Virtue Scale and personal factors, psychological factors and spirituality

	Sex *r*	Year *r*	Ext *r*	Neu *r*	Psy *r*	Spirit *r*
Courage	-.24***	-.14***	.18***	-.35***	.01	.14***
Forgiveness	.09***	-.15***	.05***	-.17***	-.36***	.23***
Generosity	.15***	-.22***	.15***	.01	-.28***	.28***
Hard work	-.01	-.17***	.13***	-.19***	-.24***	.20***
Integrity	.15***	-.21***	.07***	-.21***	-.37***	.19***
Love	.18***	-.12***	.03*	.04***	-.34***	.19***
Self-control	-.14***	-.12***	.10***	-.47***	-.23***	.10***
Wisdom	-.05***	-.06***	.09***	-.15***	-.17***	.17***

Note: $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 6

Correlations between personal factors, psychological factors, and spirituality

	Sex *r*	Year *r*	Ext *r*	Neu *r*	Psy *r*
Spirituality	.07***	-.13***	.04***	.01	-.10***
Psychoticism	-.23***	.09***	.07***	.02***	
Neuroticism	.29***	.11***	-.23***		
Extraversion	-.01	-.13***			
Year	.03*				

Note: $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 7 Regression models

	Cour β	Forg β	Gene β	Hard B	Inte β	Love β	Self β	Wisd β
Personal factors								
Sex	-.176***	.053***	.082***	-.031	.097***	.093***	-.061***	-.064***
School year	-.075***	-.088***	-.154***	-.101***	-.150***	-.078***	-.042***	-.003
Psychological factors								
Extraversion	.101***	.024**	.153***	.092***	.047***	.051***	.007	.072***
Neuroticism	-.269***	-.064***	.036**	-.150***	-.115***	.039***	-.441***	-.115***
Psychoticism	-.015***	-.318***	-.235***	-.230***	-.323***	-.301***	-.216***	-.172***
Spiritual factor								
Spirituality	.142***	.181***	.223***	.166***	.129***	.140***	.082***	.149***
Variance explained								
Step one Δ	.078***	.033***	.072***	.029***	.066***	.048***	.033***	.006***
Step two Δ	.088***	.137***	.076***	.092***	.124***	.091***	.238***	.053***
Step three Δ	.020***	.032***	.048***	.025***	.016***	.019***	.006***	.022***
Total R^2	.186	.201	.197	.146	.206	.158	.277	.081

Note: Cour = courage; Forg = forgiveness; Gene = generosity; Hard = hard work; Inter = integrity; Love = love; Self = self-control; Wisd = wisdom. $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$