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Churchgoing and Christian ethics: An empirical study among
13- to 15-year-old students in England and Wales

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Abstract

This study explores the connections between churchgoing and two fields of Christian moral values (sex-related and substance-related) among 23,714 13- to 15-year-old students in England and Wales who self-identified as either Christian or as of no religion. Bivariate crosstabulation identifies clear patterns of association. Multiple regression analyses confirm that the associations persist after controlling for personal factors (sex and age) and for psychological factors (extraversion, neuroticism, and psychoticism). Multiple regression analyses also suggest that additional variance is explained when two aspects of intrinsic religiosity are added to the model (personal prayer and belief in God) and that much of the variance accounted for by churchgoing is mediated through these aspects of intrinsic religiosity. These findings illuminate the connection between the Christian community and communities of moral values.

Keywords: virtue ethics, Christian ethics, empirical theology, psychology of religion, sociology of religion

Introduction

The title 'churchgoing and Christian ethics' has been unashamedly borrowed from the book published by Gill (1999), and there has been a clear reason for doing this. Empirical investigation of the broader connections between churchgoing and moral attitudes or ethical values has been well established over the years within the secular discipline concerned with the social scientific study of religion, especially the sociology of religion and the psychology of religion. Gill, however, moves the centre of gravity for the empirical investigation of the connections between churchgoing and Christian ethics firmly within the fields of practical theology and Christian ethics. He argues that the theological and philosophical discussion of Christian ethics would be incomplete without accessing information about how real and actual Christian communities function as distinctive ethical or moral communities. Although not aligning himself in the late 1990s explicitly with the developing field of empirical theology, Gill's thinking at that stage had much in common with those of us who were pioneering empirical theology (see Cartledge, 1999). Gill (1999) opens his book by arguing that Christian ethicists have been:

bashful and reluctant to admit that sociology has any constructive role to play in their discipline. It is rare to find a Christian ethicist prepared to examine data about the moral effects of churchgoing. Instead Christian communities have become far too idealised... [T]heologians and sociologists alike have tended to assume that Christian communities, at least in their identifiable form as congregations that meet together and worship regularly, have little (beneficial) moral effect upon churchgoers. (Gill, 1999, pp. 1-2)

Against this background, Gill draws on a range of data to challenge such assumptions. The data that Gill assembled convinced him that:

Whether or not someone goes to church regularly is a very good indicator of a whole range of beliefs and moral attitudes and behaviours. Churchgoers are more distinctive than is often imagined. (Gill, 1999, p. 2)

Building on Gill's work, the first set of aims of the present paper are: to examine the evidence that Gill advanced to support his case; to document compatible sources of evidence charting the connection between churchgoing and moral values; and then to interrogate a new source of data collected from around 27,000 13- to 15-year-old students within England and Wales to examine the extent to which the linkage between churchgoing and moral values continues to persist among an adolescent population. The second set of aims of the present paper is to extend Gill's work in two ways. First, Gill's conclusions rest largely on simple bivariate analyses. Various research traditions suggest that both moral values and churchgoing may be influenced by personal factors (like age and sex) and by psychological factors (like personality). It may be wise, therefore, to control for such factors through multivariate analyses before testing for the direct linkages between churchgoing and moral values. Second, Gill is content to employ just one index or measure of the Christian community, namely churchgoing. Both empirical theology and the social scientific study of religion have recognised that the notion of the Christian community may be more complex than that and, consequently, cannot be captured by a single measure. It may be wise, therefore, to explore whether churchgoing by itself is an adequate operationalisation through which to capture Gill's notion of 'Christian communities'.

Gill's evidence

Gill (1999) set the background for his original analyses of two important British databases (the British Household Panel Survey and the British Social Attitudes Survey) by giving close attention to two earlier analyses of the connection between churchgoing and moral attitudes. The first study was published by Bouma and Dixon (1986) in their book *The*

Religious Factor in Australian Life. Bouma and Dixon distinguished among four levels of churchgoing: never, rarely, occasionally, and regularly. These four levels of churchgoing were reflected in different levels of endorsement across a range of issues, including the following matters of sexual ethics:

- Extramarital sex is *never* justified (42%, 46%, 46%, 66%)
- Homosexuality is *never* justified (31%, 39%, 40%, 57%)
- Prostitution is *never* justified (25%, 32%, 33%, 53%)
- Abortion is *never* justified (17%, 26%, 26%, 51%)

The second study was published by Francis and Kay (1995) in their book *Teenage Religion and Values*. Francis and Kay distinguished among three levels of churchgoing: never, sometimes, and nearly every week. These three levels of churchgoing were clearly reflected in different levels of endorsement across a range of issues. Gill (1999) selects from this range of issues two particular fields that he identified as altruistic and as teleological. Evidence of the altruistic field is offered by the following sentiments:

- I am concerned about the poverty of the third world (59%, 67%, 79%)
- I am concerned about the risk of pollution to the environment (59%, 73%, 74%)

Evidence of the teleological field is offered by the following sentiments:

- I feel my life has a sense of purpose (49%, 60%, 68%)
- I have sometimes considered taking my own life (28%, 26%, 23%)

Gill (1999) also draws from the study by Francis and Kay (1995) evidence for the connection between churchgoing and sex-related issues, as offered by the following statements:

- Pornography is too readily available (28%, 33%, 41%)
- Abortion is wrong (35%, 36%, 50%)
- Divorce is wrong (19%, 20%, 27%)

Building on these foundations, Gill (1999) identified a number of issues within the British Social Attitudes Surveys from which he could profile 'moral order' (pp. 145-170) and explored these issues against four levels of church attendance: never, seldom, monthly, and weekly. Because this survey asked the attendance question only of those who self-identified with a religious group, there remains a fifth category: no religion. In presenting his data Gill sometimes includes this fifth category and sometimes does not. For example, among those who belonged to a religious group Gill reported the following statistics in respect of those who believe that it is 'always or mostly wrong... if a man and a woman have sexual relations before marriage'. In the 1983 database this view was taken by 26% of those who never attended, 28% who seldom attended, 35% who attended monthly, and 64% who attended weekly. In the 1993 database this view was taken by 13% of those who never attended, 15% who seldom attended, 25% who attended monthly, and 64% who attended weekly.

Gill reported the following statistics in respect of those who believe homosexuality to be 'always or mostly wrong'. In the 1983 database this view was taken by 66% of those who never attended, 68% who seldom attended, 66% who attended monthly, and 79% who attended weekly, compared with 56% of those who reported no religious affiliation. In the 1993 database, this view was taken by 69% of those who never attended, 69% who seldom attended, 68% who attended monthly, and 80% who attended weekly, compared with 52% of those who reported no religious affiliation.

Gill reported the following statistics on the question of people who avoid paying income tax in full. According to the 1983 database, 86% of weekly churchgoers agreed that they should not be allowed to get away with it, compared with 64% of non-churchgoers. According to the 1991 database, 56% of weekly churchgoers argued that it was wrong to pay a plumber cash to avoid VAT, compared with 38% of non-churchgoers.

Gill underpinned his understanding of Christian moral order as grounded in love as expressed through altruism. Accordingly Gill derived three distinct tests of altruism from the British Social Attitudes database. The first test of altruism examined whether churchgoers were more involved in voluntary service to the community. Using the 1994 database, Gill found that 15% of weekly churchgoers were members of a community or voluntary group, compared with 3% of non-churchgoers.

The second test of altruism examined whether churchgoers were particularly concerned about the vulnerable and needy. Using the 1989 database, Gill found that 28% of weekly churchgoers cited 'to help others' as the most important factor in choosing a new job, compared with 6% of non-churchgoers. In the 1983 database, 55% of weekly churchgoers agreed that children should look after aged parents, compared with 39% of non-churchgoers. In the combined 1983, 1984 and 1985 databases, churchgoers showed themselves to be less in favour of capital punishment than non-churchgoers. For example, 58% of weekly churchgoers favoured capital punishment for police murder, compared with 76% of non-churchgoers. In the 1993 and 1994 databases, the comparable figures stood at 63% and 74%. Finally, in the combined databases from 1983 to 1987 churchgoers showed themselves to be less prejudiced than non-churchgoers. For example, 76% of weekly churchgoers described themselves as not prejudiced at all against people of other races, compared with 58% of non-churchgoers.

The third test of altruism contained a mixture of attitudes and behaviours. According to the 1993 database, weekly churchgoers took the needs of the poor overseas more seriously than did other people. Thus, 67% of weekly churchgoers gave a high priority to such charitable causes, compared with 32% of non-churchgoers. According to the 1994 database, churchgoers showed greater support for national lottery money helping overseas causes and less support for animal causes at home. Thus, 22% of weekly churchgoers considered that it

was not good to spend lottery money on those starving overseas, compared with 54% of non-churchgoers. At the same time, 35% of weekly churchgoers considered that it was not good to spend lottery money on preventing cruelty to animals in Britain, compared with 14% of non-churchgoers. According to the combined 1991 and 1993 databases, 60% of weekly churchgoers agreed that they cannot refuse when someone comes to the door with a collecting tin, compared with 51% of non-churchgoers.

Wider evidence

Data from the British Social Attitudes Survey has been drawn on by several other commentators in ways that support Gill's analyses linking churchgoing with Christian ethics, including studies by: Johnson and Wood (1985) on bribery; Johnson (1988) on standards of honesty; Curtice and Gallagher (1990) on sexuality; Heath, Taylor, and Toka (1993) on family values; Donnison and Bryson (1996) on euthanasia; Barnett and Thomson (1997) on violence and sex on television; Bryson and Curtice (1998) on sexual liberalism; Stratford, Marteau, and Bobrow (1999) on genetic testing; Hill and Thomson (2000) on sex in the media; Adler, Bromley, and Rosie (2000) on beggars; Clarke and Thomson (2001) on teenage mothers; Heath, Martin, and Elgenius (2007) on sexual values; Clery, McLean, and Phillips (2007) on euthanasia; Duncan and Phillips (2008) on marriage; and Heath, Savage, and Senior (2013) on pre-marital sex.

Personal and psychological factors

Empirical research within both the psychology of religion and empirical theology, concerned with exploring the personal and social correlates of individual differences in religiosity has over the years become increasingly conscious of the ways in which such correlates may be influenced by personal and psychological factors. Personal factors of particular interest are sex and age. Psychological factors of particular interest are personality variables.

In his foundational and pioneering study of the findings established by empirical research in the psychology of religion by the mid-1950s, Argyle concluded that sex differences in religiosity constituted the best-established finding in the field. Overall women reported higher levels of religiosity. Subsequent reviews reported by Francis (1997) and by Francis and Penny (2014) confirm that this remains the case, at least in respect of Christian and post-Christian societies from which most of the evidence has been drawn. Females are more likely than males to attend church, to believe in God, to engage in prayer, and to hold a positive attitude toward religion. It makes good sense, therefore, to control for sex differences before trusting reported associations between churchgoing and moral values.

Age differences constitute a second well-attested finding within empirical research within the psychology of religion, and this emerges in a variety of ways. Studies conducted across the age span of adult life recognise the lower levels of religiosity among the younger age groups (say those in their twenties or thirties) compared with the older age groups (say those in their seventies or eighties). Such factors are well reflected for example in attitude surveys of churchgoers (Francis, Robbins, & Astley, 2005) as well as in population studies (Lee, 2012). Studies conducted among the much narrower age span of childhood and adolescence have also identified considerable shifts in religiosity between the ages of 8 and 16 years (see Kay and Francis, 1996), and even within the narrow range between 13 and 15 years (Francis, 2001). It makes good sense, therefore, to control for age difference before trusting reported associations between churchgoing and moral values.

When Argyle (1958) published his first review of empirical research within the psychology of religion, he concludes that there was insufficient consistent evidence on which to affirm links between individual differences in religiosity and personality. When Beit-Hallahmi and Argyle (1997) reviewed the literature four decades later the field had moved on. They concluded that there was now sufficient empirical evidence to affirm established

links between individual differences in religiosity and the three dimensions of personality proposed by Eysenck and Eysenck (1976) and measured by the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975) and the Eysenck Personality Questionnaire Revised (Eysenck, Eysenck, & Barrett, 1985). Eysenck's dimensional model of personality argues that personality differences can be most adequately and most economically expressed in terms of the three higher-order factors defined by the high scoring poles as extraversion, neuroticism, and psychoticism.

Following the analysis published by Francis (1992), and supported by a number of subsequent studies (Francis, Lewis, & Ng, 2003; Francis, Robbins, ap Siôn, Lewis, & Barnes, 2007; Francis & Hermans, 2009) the conclusion remains stable across a number of cultures that the dimension of personality characterised as psychoticism is fundamental to individual differences in religiosity. Lower scores on the psychoticism scale are associated with higher levels of religiosity. It makes good sense, therefore, to control for personality differences before trusting reported associations between churchgoing and moral values.

Contextualising churchgoing

Gill (1999) was well aware that churchgoing may be only one index defining the Christian community, but he argues that churchgoing is the core religious factor in shaping and sustaining a moral community. He describes this as a 'cultural theory of churchgoing' (p. 64). He argues that this theory:

suggests that it is churchgoing more than religious belief which is the independent variable, that is to say, it is churchgoing which fosters and sustains a distinctive culture of beliefs and values. This culture is not static over time: it does change in relation to broader changes within societies and particularly in relation to global changes across societies. (Gill, 1999, p. 64)

Gill argues that the practice of regular churchgoing, with church congregations acting as moral communities, reinforces distinctive beliefs and values. In turn such beliefs and values generate and sustain individual identity.

Following the earlier work of Allport (1966) and Allport and Ross (1967) the broader field of the psychology of religion has been less sanguine about the adequacy of churchgoing to capture the essence of the Christian community. Allport and Ross (1967) argued that the key factor to take into account was not the activity of churchgoing, but the motivation behind that activity. In their conceptualisation and measurement Allport and Ross (1967) distinguished between two different motivations (or in their language, religious orientations) underpinning churchgoing that they characterised as extrinsic orientation and as intrinsic orientation. The crucial finding is that they found these two orientations related to social attitudes in different ways. Extrinsic religiosity was associated with higher levels of prejudice, while intrinsic religiosity was associated with lower levels of prejudice. Religious orientation theory was subsequently developed by Batson and Ventis (1982) to embrace a third orientation (quest religiosity) and re-operationalised by Francis (2007) to produce new measures (New Indices of Religious Orientation).

When the research context does not facilitate the introduction of religious orientation measures (as is often the case in broad surveys conducted within the sociology of religion or the social psychology of religion) a couple of routine questions may help to nuance the useful measure of church attendance. Those who attend church for intrinsic purpose are also those who are more likely to pray at home and to nurture a strong belief in God, while those who attend church for purely extrinsic reasons are less likely to prioritise personal prayer and personal belief (see Francis, 2007). When exploring the connection between churchgoing and moral values, therefore, it also makes good sense to see how much of the common variance

between these two variables may either be increased by or routed through the two intrinsic indicators afforded by personal prayer and by personal beliefs in God.

Research plan

Against this background the aim of the present study is to draw on data generated by a survey conducted during the second decade of the twenty-first century among over 27,000 13- to 15-year-old students in England and Wales, to explore in some detail the connection between churchgoing and Christian ethics or moral values. This survey was designed to replicate the earlier survey of over 30,000 13- to 15-year-old students in England and Wales conducted during the last decade of the twentieth century, initially reported by Francis (2001), that led to a series of detailed analyses summarised by Robbins and Francis (2010). From a range of themes available within the data two areas will be selected for scrutiny: sex-related moral attitudes, and substance-related moral attitudes. In order to clarify the analyses, attention will be focused only on those students who self-identify as of no religion or as Christian, excluding those self-identifying with other faith traditions. These data will be employed to address two research questions.

The first research question focuses on the bivariate association between frequency of church attendance and moral values. This first research question is addressed by cross tabulation and the classic chi square test of statistical significance. The second research question examines two theories: the extent to which the effect of churchgoing on moral values may be influenced by personal and psychological factors; and the extent to which the effect of churchgoing on moral values may be augmented by or mediated through personal prayer and personal belief. This second research question is addressed by more complex multivariate statistical procedures.

Method

Procedure

In order to obtain a good representation of churchgoing students the project over sampled schools with a religious character (mainly Anglican and Catholic schools within the state-maintained sector). Participating schools were asked to follow a standard procedure. The questionnaires were administered in normal class groups to all year nine (13- to 14-year-old) and year ten (14- to 15-year-old) students throughout the school. Students were asked not to write their names on the booklet and to complete the inventory under examination-like conditions. Although the students were given the choice not to participate, very few declined to do so. They were assured of confidentiality and anonymity. A total of 163 schools participated in the project, with thoroughly completed responses from 27,524 students.

Instrument

The Young People's Values Survey contained a range of questions modelled in the tradition of the CYMCA Attitude Survey (Francis, 1982a, 1982b) and the Teenage Religion and Values Survey (Francis, 2001). The present study drew on the following components.

Moral values were assessed by a sequence of questions in the style of 'Abortion is wrong', and 'It is wrong to get drunk'. Each item was rated on a five-point Likert scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1). The specific moral values selected were five sex-related issues (sex before marriage, homosexuality, pornography, divorce, and abortion) and five substance-related issues (getting drunk, drinking alcohol, smoking cigarettes, using ecstasy, and using cannabis).

Religious affiliation was assessed by the question 'What is your religion?' followed by the checklist: none, Christian, Buddhist, Hindu, Jewish, Muslim, Sikh, and other. Those who identified as Christian were invited to specify 'with which group do you identify?' followed by the check-list: none, Baptist, Church of England/Church in Wales, Jehovah's Witnesses, Methodist, Pentecostal (Assemblies of God, Elim), Roman Catholic, Salvation Army, URC/Presbyterian, and other.

Church attendance was assessed by the question ‘How often do you attend a place of religious worship (e.g. church, mosque, temple, etc.)?’ rated on a five-point scale: nearly every day (5), once a week (4), once a month (3), occasionally (2), and never (1).

Personal prayer was assessed by the question ‘Do you pray by yourself?’ rated on a five-point scale: nearly every day (5), at least once a week (4), at least once a month (3), occasionally (2), and never (1).

Belief in God was assessed by the item ‘I believe in God’, rated on a five-point Likert scale: agree strongly (5), agree (4), not certain (3), disagree (2), and disagree strongly (1).

Personality was assessed by the abbreviated form of the Junior Eysenck Personality Questionnaire Revised (Francis, 1996). This instrument proposes three six-item scales to measure extraversion, neuroticism, and psychoticism, together with a six-item lie scale. Each item is rated on a two-point scale: no (0) and yes (1), with negatively-phased item recoded. Among the present sample the three personality scales recorded the following alpha coefficients: neuroticism, $\alpha = .72$; extraversion, $\alpha = .66$; psychoticism, $\alpha = .56$.

Sex and *school year* were both treated as dichotomous variables: male (1) and female (2); year nine (1) and year ten (2)

Participants

The present analyses were conducted on data provided by the 23,714 students who identified their religion either as Christian (N = 13,475) or as none (N = 10,239). Among those who identified as Christian, the largest denominational affiliation was as Church of England/Church in Wales (N = 5,648), followed by Roman Catholic (N = 3,102), Baptist (N = 1,194), Pentecostal (N = 471), and Methodist (N = 386). Of these 23,714 participants, 48% were male (N = 11,452) and 52% were female (N = 12,262); 55% were in year nine (N = 12,957) and 45% were in year ten (N = 10,757).

Analyses

In order to address the first research question, the analysis collapsed the scores recorded on the five-point Likert-type scale into two categories: combining the *agree strongly* and *agree* responses to express agreement with each of the statements concerning ethical behaviour, and combining the *not certain*, *disagree*, and *disagree strongly* responses to express non-agreement with each of the statements. Church attendance frequency was collapsed into three categories: combining nearly every day and once a week into weekly; combining monthly and occasionally into sometimes; and retaining never as the third category. The statistical significance of the differences in the level of agreement according to frequency of church attendance was tested by the chi-square statistic.

In order to address the second research question, the analysis employed the full range of the five-point Likert-type responses for each of the moral values as dependent variables. Then block wise multiple regression was employed to test the incremental effect of four blocks: personal factors (sex and age), psychological factors (extraversion, neuroticism, and psychoticism), church attendance, and religious factors (prayer and belief). This sequence allowed two research questions to be tested. The first research question tested the predictive power of church attendance after taking into account the effects of personal factors or psychological factors. The second research question tested the extent to which the apparent effect of church attendance may have been mediated by and augmented by prayer and by belief.

Results

Religious profile

The 23,714 students who self-identified as Christian or as affiliated with no religion reflected considerable diversity of terms of religious belief and practice. Responses to the question 'I believe in God' revealed that: 44% would style themselves as atheists (30% disagreed strongly and 14% disagreed), 24% would style themselves as agnostic (checking

the not certain category), and 32% would style themselves as theists (16% agreed strongly and 16% agreed). In terms of personal prayer, 11% prayed daily, a further 8% prayed at least monthly, and 21% prayed occasionally, leaving 60% who never prayed. In terms of church attendance, 17% attended weekly, a further 6% attended at least monthly, and 28% attended occasionally, leaving 48% who never attended.

Sex-related attitudes

- insert table 1 about here -

Table 1 presents the percentage endorsement (sum of agree and agree strongly responses) for each of the five sex-related attitudes according to the three levels of church attendance (never, sometimes, weekly). There are significant differences according to levels of church attendance across all five sex-related attitudes. The contrasts between those who never attend church and those who attend church weekly are striking. While 4% of non-attenders consider that it is wrong to have sex before you are married, the proportion rises to 32% among weekly attenders, an increase of 28%. While 28% of non-attenders consider that pornography is wrong, the proportion rises to 52% among weekly attenders, an increase of 24%. While 12% of non-attenders consider that divorce is wrong, the proportion rises to 32% among weekly attenders, an increase of 20%. While 28% of non-attenders consider that abortion is wrong, the proportion rises to 48% among weekly attenders, an increase of 20%. While 17% of non-attenders consider that homosexuality is wrong, the proportion rises to 32% among weekly attenders, an increase of 15%.

- insert tables 2, 3, 4, 5 and 6 about here -

Tables 2 to 6 provide the detailed reports on the five regression models. Points of note are that females are significantly more against sex before marriage, pornography and abortion. Males are significantly more against homosexuality and divorce. There is significant liberalisation across all five areas between year nine (13- to 14-year-olds) and year

ten (14- to 15-year-olds). The personality variables add predictive power across all five moral values, although the three dimensions of personality contribute differently to different domains. Adding church attendance to the model explains significant additional variance across all five moral values. The impact of church attendance is strongest in relation to sex before marriage. Adding personal prayer and belief in God adds further predictive power across all five moral values. Again the additional impact of these further religious variables is strongest in relation to sex before marriage. Across all five moral values adding personal prayer and belief in God reduced the strength of the relationship with church attendance, suggesting that at least some of the effect of church attendance is mediated through these indicators of intrinsic religiosity.

Substance-related attitudes

- insert table 7 about here -

Table 7 presents the percentage endorsement (sum of agree and agree strongly response) for each of the five substance-related attitudes according to the three levels of church attendance (never, sometimes, weekly). There are significant differences according to levels of church attendance across all five substance-related attitudes. The contrasts between those who never attend church and those who attend church weekly are striking. While 15% of non-attenders consider that it is wrong to get drunk, the proportion rises to 38% among weekly attenders, an increase of 23%. While 49% of non-attenders consider that it is wrong to smoke cigarettes, the proportion rises to 65% among weekly attenders, an increase of 16%. While 56% of non-attenders consider that it is wrong to use cannabis (hash/pot), the proportion rises to 69% among weekly attenders, an increase of 13%. While 11% of non-attenders consider it is wrong to drink alcohol, the proportion rises to 22% among weekly attenders, an increase of 11%. While 61% of non-attenders consider that it is wrong to use ecstasy, the proportion rises to 71% among weekly attenders, an increase of 10%.

- insert tables 8, 9, 10, 11 and 12 about here -

Tables 8 to 12 provide the detailed reports on the five regression models. Points of note are that females are significantly more against the use of ecstasy and cannabis. Males are significantly more against drinking alcohol, getting drunk, and smoking cigarettes. There is a significant liberalisation across all five areas between year nine (13- to 14-year-olds) and year ten (14- to 15-year-olds). The personality variables add predictive power across all five moral values, although the three dimensions of personality contribute differently to different domains. Adding church attendance to the model explains significant additional variance across all five moral values. The impact of church attendance is strongest in relation to getting drunk. Adding personal prayer and belief in God adds further predictive power across all five moral values. Across all five moral values adding personal prayer and belief in God reduces the strength of the relationship with church attendance, suggesting that at least some of the effect of church attendance is mediated through these indicators of intrinsic religiosity.

Discussion and conclusion

This paper set out to build on and to extend Robin Gill's classic study of churchgoing and Christian ethics (Gill, 1999). Gill argued that theological and philosophical discussion of Christian communities as distinctive ethical or moral communities needed to be contextualised within accurate information about how real and actual Christian communities function in relation to ethical and moral values. Gill was seeking active dialogue between practical theology (concerned with the discussion of Christian ethics) and empirical social sciences (concerned with investigation of Christian communities). Gill envisaged a role for empirical theology as theology embracing within its own disciplinary boundaries the investigative tools of the social sciences.

Working on data provided by 23,714 13- to 15-year-old students in England and Wales who self-identified as either Christian or as of no religion, the present study explored

the connection between churchgoing on two domains of moral values (sex-related issues and substance-related issues) through two analytic lenses routinely employed within the social sciences. The first lens employed cross tabulation and the classic chi square test to address the first research question concerning the bivariate association between frequency of church attendance and moral values. These statistics demonstrated a strong connection between churchgoing and moral values across both domains.

The second lens employed multiple regression as a modelling tool to address the second research question concerning two theories. The first theory concerned the effect of personal factors (age and sex) and of psychological factors (extraversion, neuroticism, and psychoticism) before checking the association between church attendance and moral values. The data demonstrated that both personal factors and psychological factors were indeed significant predictors in individual differences in moral values and that, after taking these factors into account, churchgoing continued to function as a significant predictor of a distinctive profile across both domains of moral values (sex-related and substance-related). As a consequence of this analysis greater confidence can be placed in the secure connection between church attendance and moral values.

The second theory concerned the way in which churchgoing by itself may not adequately conceptualise or operationalise the distinctiveness of the Christian community. Drawing on Allport and Ross' (1967) distinction between extrinsic religiosity and intrinsic religiosity as characterising different motivations supporting churchgoing, and regarding both personal prayer and belief in God as ways of capturing intrinsic motivation, the data offered two important qualifications to the assumption that churchgoing by itself was an adequate means of identifying the Christian community as a distinctive ethical or moral community. The first qualification came from the recognition that both personal prayer and belief in God explained additional variance across both moral domains (sex-related issues and substance-

related issues) after churchgoing had been taken into account. This suggests that all three measures are complementary and cumulative in mapping Christian distinctiveness. The second qualification came from recognition that when personal prayer and belief in God were entered into the model the direct path between churchgoing and moral values was reduced in strength. This suggests that some of the variance thought initially to be explained by churchgoing was in fact mediated through personal prayer and belief in God. Churchgoing may indeed be important in nurturing and sustaining personal prayer and belief in God (as indicators of intrinsic religiosity), but it is these intrinsic factors rather than churchgoing *per se* that are most important in nurturing the distinctive profile of Christian communities as distinctive ethical or moral communities.

Two implications emerge from these findings. The first implication is conceptual. While the original title of Gill's book *Churchgoing and Christian Ethics* remains catchy and inviting, it may also in an empirical sense be somewhat misleading. The evidence is more complex than the title suggests. Nonetheless, Gill's basic thesis remains sound. Christian communities sustain clear and distinctive ethical and moral communities. Gill's challenge, therefore, also remains sound for theological and philosophical discussion of Christian communities as distinctive ethical or moral communities to take the empirical evidence regarding real and actual Christian communities into account.

The second implication is empirical. While the present analyses have generated new and helpful insights into the way in which real and actual Christian communities sustain distinctive ethical and moral communities, there remain two serious limitations with the data employed. The first limitation concerns the restricted nature of the sample, namely 13- to 15-year-old students. Similar analyses need to be conducted on data generated by a wider age range of participants. The second limitation concerns the inadequacy of the measures intended to capture the sophisticated distinctions between extrinsic religiosity and intrinsic

religiosity as two different motivations underpinning churchgoing, namely personal prayer and belief in God. Future research specifically established to take further the empirical investigation of the connections between churchgoing and Christian ethics would be advised to include within the research design the measures proposed by the New Indices of Religious Orientation as proposed by Francis (2007) or by the New Indices of Religious Orientation Revised as proposed by Francis, Fawcett, Robbins, and Stairs (2016).

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Table 1

Sex-related attitudes and church attendance

	Never %	Sometimes %	Weekly %	X ²	p <
It is wrong to have sex before you are married	4	6	32	28371.1	.001
Homosexuality is wrong	17	15	32	542.2	.001
Pornography is wrong	28	37	52	747.3	.001
Divorce is wrong	12	17	32	797.0	.001
Abortion is wrong	28	31	48	561.1	.001

Table 2

It is wrong to have sex before you are married

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	.04***	.04***	.05***	.04***	.04***
Age	-.05***	-.05***	-.04***	-.04***	-.04***
<i>Psychological factors</i>					
Extraversion	-.16***		-.15***	-.14***	-.14***
Neuroticism	.01		-.04***	-.05***	-.07***
Psychoticism	-.13***		-.10***	-.07***	-.05***
<i>Church attendance</i>					
Frequency	.37***			.36***	.14***
<i>Religious factors</i>					
Personal prayer	.40***				.18***
Belief in God	.40***				.19***
R ²		.00	.04	.17	.23
Δ		.00***	.04***	.13***	.07***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3

Homosexuality is wrong

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	-.25***	-.25***	-.21***	-.21***	-.22***
Age	-.03***	-.02***	-.03***	-.03***	-.02***
<i>Psychological factors</i>					
Extraversion	.03***		.03***	.03***	.03***
Neuroticism	-.13***		-.05***	-.06***	-.06***
Psychoticism	.15***		.10***	.11***	.12***
<i>Church attendance</i>					
Frequency	.14***			.17***	.06***
<i>Religious factors</i>					
Personal prayer	.15***				.08***
Belief in God	.15***				.09***
R ²		.06	.08	.10	.12
Δ		.06***	.01***	.03***	.01***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Pornography is wrong

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	.44***	.44***	.41***	.41***	.41***
Age	-.05***	-.05***	-.05***	-.05***	-.04***
<i>Psychological factors</i>					
Extraversion	-.09***		-.10***	-.10***	-.10***
Neuroticism	.14***		-.02*	-.02**	-.03***
Psychoticism	-.27***		-.16***	-.15***	-.14***
<i>Church attendance</i>					
Frequency	.21***			.17***	.06***
<i>Religious factors</i>					
Personal prayer	.23***				.08***
Belief in God	.24***				.11***
R ²		.20	.23	.26	.28
Δ		.20***	.04***	.03***	.02***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Divorce is wrong

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	-.11***	-.11***	-.14**	-.14***	-.14***
Age	-.05***	-.05***	-.05***	-.05***	-.04***
<i>Psychological factors</i>					
Extraversion	-.04***		-.01*	-.01	-.01
Neuroticism	.02*		.06***	.05***	.04***
Psychoticism	-.03***		-.06***	-.04***	-.03***
<i>Church attendance</i>					
Frequency	.23***			.23***	.09***
<i>Religious factors</i>					
Personal prayer	.23***				.07***
Belief in God	.26***				.16***
R ²		.01	.02	.07	.10
Δ		.01***	.01***	.05***	.03***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 6

Abortion is wrong

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	.05**	.05***	.03**	.03***	.03
Age	-.11***	-.11***	-.11***	-.11***	-.11***
<i>Psychological factors</i>					
Extraversion	-.01		.00	.01	.00
Neuroticism	.05***		.04***	.04***	.03***
Psychoticism	-.03***		-.02**	-.00	.01
<i>Church attendance</i>					
Frequency	.18***			.17***	.04***
<i>Religious factors</i>					
Personal prayer	.21***				.09***
Belief in God	.22***				.14***
R ²		.02	.02	.05	.07
Δ		.02***	.00***	.03***	.03***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 7

Substance-related attitudes and church attendance

	Never %	Sometimes %	Weekly %	X ²	p <
It is wrong to get drunk	15	20	38	1016.2	.001
It is wrong to drink alcohol	11	13	22	33.7	.001
It is wrong to smoke cigarettes	49	56	65	291.2	.001
It is wrong to use ecstasy	61	68	71	168.1	.001
It is wrong to use cannabis (hash/pot)	56	65	69	257.1	.001

Table 8

It is wrong to get drunk

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	-.04***	-.04***	-.06***	-.06***	-.06***
Age	-.12***	-.12***	-.11***	-.11***	-.10***
<i>Psychological factors</i>					
Extraversion	-.25***		-.22***	-.22***	-.22***
Neuroticism	.01		-.02**	-.03***	-.03***
Psychoticism	-.21***		-.20***	-.18***	-.16***
<i>Church attendance</i>					
Frequency	.24***			.22***	.08***
<i>Religious factors</i>					
Personal prayer	.25***				.08***
Belief in God	.27***				.15***
R ²		.02	.11	.16	.18
Δ		.02***	.10***	.05***	.03***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 9

It is wrong to drink alcohol

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	-.01*	-.01	-.03***	-.03***	-.03***
Age	-.10***	-.10***	-.10***	-.09***	-.09***
<i>Psychological factors</i>					
Extraversion	-.20***		-.18***	-.18***	-.18***
Neuroticism	.02**		-.01	-.01*	-.02**
Psychoticism	-.15***		-.14***	-.12***	-.11***
<i>Church attendance</i>					
Frequency	.16**			.14***	.04***
<i>Religious factors</i>					
Personal prayer	.17***				.03***
Belief in God	.21***				.15***
R ²		.01	.07	.09	.10
Δ		.01***	.06***	.02***	.02***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 10

It is wrong to smoke cigarettes

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	-.06***	-.06***	-.09***	-.09***	-.10***
Age	-.06***	-.06***	-.06***	-.05***	-.05***
<i>Psychological factors</i>					
Extraversion	-.16***		-.12***	-.12***	-.12**
Neuroticism	-.01*		-.02*	-.02***	-.03***
Psychoticism	-.22***		-.23***	-.22***	-.21***
<i>Church attendance</i>					
Frequency	.13***			.10***	.04***
<i>Religious factors</i>					
Personal prayer	.13***				.06***
Belief in God	.13***				.05***
R ²		.01	.08	.09	.09
Δ		.01***	.07***	.01***	.01***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 11

It is wrong to use ecstasy

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	.06***	.06***	.02*	.02*	.01*
Age	-.02*	-.02**	-.01	-.01	-.01
<i>Psychological factors</i>					
Extraversion	-.06***		-.04***	-.04***	-.04***
Neuroticism	.01*		-.01	-.01	-.02**
Psychoticism	-.23***		-.22***	-.21***	-.21***
<i>Church attendance</i>					
Frequency	.09***			.07***	.00
<i>Religious factors</i>					
Personal prayer	.11***				.04***
Belief in God	.13***				.07***
R ²		.00	.05	.06	.06
Δ		.00***	.05***	.00***	.01***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 12

It is wrong to use cannabis (hash/pot)

	<i>r</i>	model 1	model 2	model 3	model 4
<i>Personal factors</i>					
Sex	.09***	.09***	.04***	.04***	.04***
Age	-.08***	-.09***	-.08***	-.08***	-.07***
<i>Psychological factors</i>					
Extraversion	-.11***		-.08***	-.08***	-.08***
Neuroticism	.02***		-.02***	-.02**	-.02***
Psychoticism	-.28***		-.26***	-.25***	-.24***
<i>Church attendance</i>					
Frequency	.11***			.08***	.02*
<i>Religious factors</i>					
Personal prayer	.11***				.01
Belief in God	.14***				.09***
R ²		.02	.09	.10	.10
Δ		.02***	.07***	.01***	.01***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$