

Village, Andrew ORCID logoORCID:

<https://orcid.org/0000-0002-2174-8822> and Francis, Leslie J.

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Shaping attitudes toward church in a time of Coronavirus: Exploring the effects of personal, psychological, social, and theological factors among Church of England clergy and laity.

Andrew Village*

York St John University, England, UK

Leslie J. Francis

University of Warwick, England, UK

Author note:

*Corresponding author:

Andrew Village

School of Humanities

York St John University

Lord mayor's Walk

YORK YO31 7EX

UK

Email: a.village@yorksja.ac.uk

Notes

Ethical approval was granted by the Research Ethics Committee for the School of Humanities, Religion and Philosophy at York St John University (approval code: HRP-RS-AV-04-20-01). All participants had to affirm they were 18 or over and give their informed consent by ticking a box that gave access to the rest of the survey.

No conflicts of interest were reported by the authors.

Abstract

This paper reports on the effect of personal, psychological, social, and theological factors in shaping attitudes toward church buildings, the lockup of churches, and the trajectory into virtual church among 4,374 clergy and lay people from the Church of England during the first UK COVID-19 lockdown in 2020. Data from an online survey were used to create three scales, Pro Church Buildings, Anti Church Lockup, and Pro Virtual Church, which were shown to have adequate internal consistency reliability. Five sets of predictor variables were tested using hierarchical multiple regression: personal factors (sex and age), psychological factors (psychological type scores), social location (ordination status, education, geographic location), theological stance (modern versus traditional worship, liberal versus conservative doctrinal belief, liberal versus conservative views on morality), and Church tradition (Anglo-Catholic, Broad Church, Evangelical, and Charismaticism). The three scales were predicted by slightly different sets of variables, but in each case personal factors and psychological factors retained some predictive power after controlling for other sorts of factors. The results suggest that those most likely to embrace a future with a significant role for church life online are women (rather than men), the middle-aged (rather than younger or older people), intuitive (rather than sensing) and feeling (rather than thinking) psychological types, clergy (rather than laity), those living outside the inner cities, those who prefer modern (rather than traditional) forms of worship, those with more liberal (rather than conservative) views on doctrine and morality, and those who embrace Evangelical and Charismatic (rather than Anglo-Catholic) church traditions.

Keywords: Church of England, COVID-19, individual differences, online church, psychological type.

1 Introduction

One of the aims of empirical theology is to use the methods of social science to understand better the nature of beliefs and attitudes related to religion (Francis, 2007; Francis & Village, 2015; van der Ven, 1998). A recognised way to do this is by examining the factors that predict a particular belief or attitude in order to show how it varies within a given sample. Knowing that certain groups of people, or those with certain characteristics, tend to be more or less likely to hold specific beliefs or attitudes may point to how theological views are shaped within any given person. While this cross-sectional survey approach cannot demonstrate with certainty what causes people to acquire specific beliefs or attitudes, detailed knowledge of associations and correlations offers clues about the importance of different factors in shaping or maintaining various types of religious stance or understanding.

This sort of research has a long history in the Church of England, where theological convictions and ecclesial practices have been influenced by historical developments such as the Reformation (Duffy, 2006; Marshall, 2012; Scarisbrick, 1984), the Oxford Movement (Hylson-Smith, 1993; Nockles, 1994), Evangelicalism (Hylson-Smith, 1989; Scotland, 2003), and the Charismatic Movement (Hunt, 2000; Steven, 2002). Typical of the kind of research in this area have been the two *Church Times* surveys (Francis et al., 2005; Village, 2018a), which have sampled readers of the main newspaper of the Church of England. The surveys contained a wide range of items measuring beliefs and attitudes, including core doctrines, attitudes toward marriage and divorce, attitudes toward women's ordination, attitudes toward same-sex relationships, and attitudes towards religious education. Comparing responses to individual items has revealed how beliefs and attitudes vary between contrasting groups such as men and women, young and old, clergy and laity, Anglo-Catholics and Evangelicals, and so on (Francis et al., 2005). A similar approach has been used to compare Anglo-Catholics and Evangelicals in several other studies (Randall, 2005; Rutledge, 2020).

Another useful way to explore such data is to examine the extent to which beliefs or attitudes are associated with different kinds of factors such as personal factors (e.g., sex or age), individual differences (e.g., personality), social factors (e.g., education, location, or ordination status), theological stances (e.g., liberalism or charismaticism), and church tradition (e.g., Anglo-Catholic, Evangelical, or Broad church). For example, a study of 1849 clergy from the 2001 *Church Times* survey used the Eysenck model of personality (Eysenck, 1995) to measure individual differences alongside social factors such as education, stipendiary status, retirement status, income, marital status and location, as well as theological stance and church tradition (Village & Francis, 2009). The beliefs and attitudes tested were ones that have been familiar and often disputed within church circles, such as doctrine, morality, and ecclesial practices. Other studies have used a similar approach on a more limited range of beliefs or practices such as volunteerism (Village & Francis, 2010a), biblical literalism (Village, 2012a), and environmentalism (Village, 2020).

These studies show that individual differences in many of the beliefs and attitudes held by English Anglicans can be predicted by a range of factors, many of which are themselves intercorrelated. Personality is known to be related to church tradition (Francis, Village, et al., 2020; Village, 2013; Village et al., 2009) and to theological stance (Village, 2019) and these in turn predict some beliefs and attitudes. Statistical techniques that isolate the independent effects of predictor variables show that church tradition and theological stance tend to be the best single predictors of specific beliefs or attitudes, but personal factors and psychological factors often retain some independent predictive power. This is what we would expect because church traditions, while not always sharply separated, tend to be defined by differences in doctrine and practice that are directly derived from broader theological ideas. It is unsurprising that specific beliefs or attitudes sometimes align closely with these factors, even if those beliefs or attitudes are not necessarily core to defining such

ecclesial or doctrinal positioning. Thus, for example, environmental attitudes tend to have some relationship to affiliations to church traditions (Arbuckle & Konisky, 2015; Hitzhusen, 2007), but this may be because such affiliations are markers of specific beliefs that tend militate against positive environmentalism (Village, 2020). Where individual differences such as personality exert effects on beliefs and attitudes independently of church tradition or theological stance it may be because fundamental psychological preferences dispose individuals to certain types of belief or attitudes, irrespective of their particular church tradition or theological stance. Identifying independent predictors of beliefs and attitudes helps us to see if they are shaped in complex and multi-faceted ways.

The 2020 COVID-19 lockdown offered an opportunity to test attitudes among Church of England clergy and laity that either have not received much attention before, or which were related to the novel circumstances of the pandemic. The UK Government imposed a lockdown in response to the COVID-19 virus outbreak on 23 March 2020. Although the government rules permitted access to religious buildings for private prayer, on the following day, the Church of England closed all its churches completely, to both clergy and lay people (McGowan, 2020). Church of England adherents, along with those of other denominations, were suddenly deprived of their main avenues of religious expression. Online worship soon began to replace worship in churches, and meetings that were previously done face-to-face were now done virtually. These events brought to the forefront the three issues that are the focus of this paper, namely the role of buildings in church life, the action of the church authorities in closing churches completely, and the prospect of virtual church. Our aim was to understand the forces that may have shaped individual differences in attitudes toward these three sets of ideas within the Church of England.

Attitudes towards church buildings in England have deep historical roots (Whiting, 2010; Whyte, 2017; Yates, 2000) and may sometimes surface in local disputes about the re-

ordering or closure of churches (George, 2002). We have reported elsewhere how attitude toward church buildings varied between different denominations in the pandemic (reference withheld). In this paper we examine attitudes just within the Church of England and include measures of psychological type within the analyses.

The complete lockup of churches in March 2020 was an unprecedented decision by the Church of England hierarchy, and responses to it were unlikely to draw directly on long-standing or well-trodden ecclesial traditions. While it is likely that reaction to the lockup of buildings were related to general attitudes towards church buildings, agreement or rejection of the ruling may also have depended on other factors linked to how individuals responded to the church hierarchy telling them what they could or could not do.

The use of digital media for religious purposes is not new, and online churches have existed for several decades. Research into digital religion was developing before the pandemic (Campbell, 2012; Estes, 2009; Helland, 2016; Hutchings, 2010, 2013), but these developments had little consequence for most mainstream denominations before the pandemic. With lockdown, people who were suddenly confronted with the idea of church becoming an online, ‘virtual’ phenomenon in the future may have reacted in ways that drew partly on theological ideas of what church should be, but also on more deep-seated dispositions. Then pandemic has focused debates that were already present in mainstream churches related to the ways that notions of church and the practice of liturgy have to adapt to circumstances that make traditional practices impossible. Summing up contributions to an edited collection on digital ecclesiology that arose from the COVID-19 pandemic (Campbell, 2020), Heidi Campbell and Sophia Osteen note some of the particular issues that needed to be addressed (Campbell & Osteen, 2020). They note that while spiritual communion can be as meaningful as physical communion for some, for others this is not so, and the physicality of of ritual acts is important. Other issues relate to how we define ‘church’ and how virtual

church communities relate to this. The core research question for this paper is how far attitudes in these three areas were shaped by generic factors related to personal factors or to psychological factors, by particular factors linked to social location, or by theological factors related to theological stance and church tradition.

2 Predictors of attitudes

Building on the established research tradition, the predictor variables used in this study depended largely on what has been shown to be relevant in earlier studies of clergy and laity within the Church of England, but also on what was feasible to include in a wide-ranging questionnaire that needed to cover several other aspects of the lockdown.

2.1 Personal factors

Sex has long been shown to predict a range of religious expression (Argyle & Beit-Hallahmi, 1975; Beit-Hallahmi & Argyle, 1997) including beliefs and attitudes recorded in the *Church Times* surveys (Village, 2018a). Age is also important, though this may partly be because it reflects birth cohorts, rather than the effects of ageing per se (Village, 2018a).

2.2 Psychological factors

The model of psychological type proposed by Jung (1971) and later developed into a four-component model (Myers & Myers, 1980) has been widely used in the study of religion (Francis, 2005; Lewis, 2012; Village, 2011). Each of the four components of the model has two modes of expression: orientation (extraversion, E, and introversion, I), perceiving (sensing, S, and intuition, N), judging (thinking, T, and feeling, F), and attitude toward the outer world (judging, J, and perceiving, P). Of these components, it is the perceiving and judging processes that seem to emerge as most often associated with beliefs or attitudes. For example, people who perceive mainly by sensing tend to prefer the literal interpretation of the Bible, whereas those who perceive mainly by intuition tend to prefer more symbolic or less literal interpretations (Village, 2005, 2012a, 2014). This points to the sensing function's

preference for the familiar, the down-to-earth, and attention to detail, and to the intuitive function's preference for novelty, linking apparently unconnected ideas, and a sense of the wider picture.

The judging process is also associated with biblical literalism, but mainly because it tends to be a marker of general theological conservatism, with feeling types tending to be more liberal than thinking types (Village, 2019). This points to the thinking function's preference for tough-minded, logical decision-making that is based on logic and principles, even if that is upsetting to others, and the feeling function's preference for tender-minded decision-making that is based on values and that seeks for consensus, even at the risk of going against logic or principles. These kinds of preferences might have been important in shaping how individuals responded to the events triggered by the Covid-19 pandemic.

2.3 *Social location*

We have assigned ordination status, education, and geographic location into this group. Although not tightly defined, nor distinct from some personal factors, these factors were used as proxy measures that indicated various aspects of lived experience. Ordination tends to define roles within the church, with clergy and laity having different roles and responsibilities that may have strongly influenced their perception of the pandemic. Education levels indicate a particular sort of experience and understanding that can have important consequences for beliefs and attitudes. In the Church of England, for example, higher levels of education predict less literal interpretation of the Bible in some traditions (Village, 2007). Geographic location, in terms of degree of rurality defines a particular kind of social experience, which has been shown to be important for some aspects of belief, but not others (Village, 2018a). The lockdown of society might have been experienced differently in cities than in the countryside, leading to different attitudes.

2.4 *Theological stance*

Research in the Church of England has recognised that the broad category of liberal versus conservative is a key measure to which a number of beliefs and attitudes are linked. A single item ‘liberal-conservative’ scale has been a widely used measure of this stance (Randall, 2005). A detailed investigation among 9,339 lay and ordained members of the Church of England suggested that there are three main components to this general stance: preference for modern versus traditional worship, liberal versus conservative doctrinal belief, and liberal versus conservative views on morality (Village, 2018b). We have used three separate scales, rather than the usual single generic scale, in this study because the pandemic may have raised issues about worship and doctrine, and these may not necessarily predict the same sets of beliefs or attitudes.

2.5 *Church tradition*

The differences between Anglo-Catholic, Broad Church, and Evangelical wings of the Church of England have long been understood and widely researched (Francis et al., 2005; Randall, 2005; Village, 2012b). A study of the two *Church Times* surveys examined 28 different items of belief, and found in each case significant differences between traditions, so it seems likely that people from these different traditions may have reacted differently to issues raised by the pandemic. Church tradition tends to be related to theological stance, with Anglo-Catholics tending to be more liberal and Evangelicals tending to be more conservative on doctrinal matters or moral issues, but the opposite for worship (Village, 2018b).

Charismatics in the Church of England tend to also identify as Evangelicals, but they hold a slightly distinctive position in terms of worship (Steven, 2002), and this may influence their opinion about closing churches and online services.

3 Method

3.1 Procedure

The *Coronavirus, Church & You* online survey was developed during April 2020 and launched on the Qualtrics XM Platform on 8 May, when the UK had been in lockdown for over a month. A link to the survey was distributed through the online and paper versions of the *Church Times*, the main newspaper of the Church of England, as well as through Church of England dioceses and other denominations, including Baptists and Methodists. The survey closed on 23 July, by which time there were over 7,000 replies, 5,347 of which were from respondents affiliated with the Church of England. Of these, 4,374 had sufficiently complete responses to be used in this analysis.

3.2 Sample profile

The sample profile (Table 1) was similar to other surveys of the Church of England where data were collected through the *Church Times* (Francis et al., 2005; Village, 2018a).

Although not representative of the Church at large, it did include good proportions of clergy (30%) and lay people (70%), men (40%) and women (60%), and those from the three main church traditions. There was an over-sampling of clergy, and an underrepresentation of younger adults and Evangelicals, which reflects the readership of the newspaper. Despite this, the sample included a wide spectrum of members of the Church of England and was the largest single-study sample of the denomination collected during the first lockdown. Our analyses controlled for the cross-sectional nature of the sample, and the over- or under-sampling would not have seriously affected our conclusions.

- insert Table 1 about here -

3.3 Instruments

3.3.1 Attitude scales

Attitudes were assessed using three-point Likert scales (Disagree = 1; Not Certain = 2; Agree = 3) covering a range of issues related to the importance of church buildings generally, the way in which the lockdown was handled by Government and church authorities, the possible impact of the pandemic on church life, and the value of online services or ‘virtual church’ more generally. From an initial pool of 40 items, 16 were selected that related to three distinct attitudes: the value of church buildings for faith, the specific lockup of churches in the first lockdown, and the importance of ‘virtual church’. These items were subject to a factor analysis (principal components extraction with varimax rotation), which produced separation of these three sets of items. Three summated-rating scales were produced from the three factors (Table 2), and each showed acceptable levels of internal consistency reliability as measured by Cronbach’s alpha (Cronbach, 1951). The three scales were designated as:

Pro Church Buildings Scale. This six-item scale has been used elsewhere to examine attitude toward buildings across different denominations (reference withheld). A high score indicates someone who views church buildings as an important part of their personal faith identity and faith expression, as structures that should be a high priority, and as an important witness to faith.

Anti Church Lockup Scale. This four-item scale assesses attitude toward the closure of churches in the particular case of the lockdown and in general. A high score indicates someone who viewed the closing of churches for clergy or laity as unacceptable.

Pro Virtual Church Scale. This six-item scale assesses attitude toward online worship, the value of social media for churches, and the opportunity that the lockdown afforded to allow churches to re-examine how they operate. A high score indicates someone who views online and virtual church activity positively and welcomes the opportunity that the crisis presented for the church to embrace new technologies.

- insert Table 2 about here -

3.3.2 *Personal factors*

Variables in this set were sex (0 = male, 1 = female) and age (by decade, treated as continuous variable).

3.3.3 *Psychological factors*

Psychological type preferences were assessed using the Francis Psychological Type Scales (FPTS). This is a 40-item instrument comprising four sets of ten forced-choice items related to each of the four components of psychological type: orientation (extraversion or introversion), perceiving process (sensing or intuition), judging process (thinking or feeling), and attitude toward the outer world (judging or perceiving) (Francis, 2005; Village, In press). Previous studies have demonstrated that this instrument functions well in a range of church-related contexts (for example, see Francis, Edwards, et al., 2020; Francis et al., 2011; Village, 2016). In this sample the alpha reliabilities were .83 for the EI scale, .75 for the SN scale, .73 for the TF scale, and .71 for the JP scale. Scores, rather than binary preferences were used as predictor variable. The scores in each component are complementary, so it is necessary to use only one: in this case scores for E, S, T and J.

3.3.4 *Social location*

These variables comprised ordination status (1 = ordained, 0 = lay), education (highest qualification excluding ordination training, ranging from 1 = no formal qualifications to 6 = doctorate), and location (based on the question ‘Which of these best describes where you live?’ , which had four possible choices, rural, town, suburb, and inner city that were recoded to give two dummy variables, rural and inner city with town/suburb as the reference category).

3.3.5 *Theological stance*

These three measures were based on seven-point semantic scales assessing modern – traditional worship, liberal – conservative doctrine, and liberal – conservative morality, with

high scores in each case indicating a more traditional or conservative stance. They were used in preference to the more widely used ‘liberal – conservative’ scale because these different stances may have related in different ways to the various traditions in the Church of England (Village, 2018b).

3.3.6 Church tradition

Church tradition was assessed using a seven-point bipolar scale labelled ‘Anglo-Catholic’ at one end and ‘Evangelical’ at the other. It has been shown to predict well a wide range of differences in belief and practice in the Church of England (Randall, 2005; Village, 2012b) and was used to identify Anglo-Catholic (scoring 1-2), Broad Church (3-5) and Evangelical (6-7) respondents. Anglo-Catholic and Evangelical were used as dummy variables in the regression analyses, with Broad Church as the reference category. Charismatic expression was also based on a seven-point bipolar scale, this time labelled ‘not charismatic’ at one end and ‘charismatic’ at the other. Experience suggests this measure is best used as a continuous variable indicating the degree of ‘Charismaticism’.

3.4 Analysis

Analysis employed SPSS 26 (IBM_Corporation, 2020). The first stage of analysis was to use bivariate correlation to indicate which predictor variables were correlated among themselves. The second stage was to use hierarchical linear regression to test the effects of predictors after allowing for others in the model. The rationale behind the nested models was to enter variables related to personal factors and psychological factors in the first two models (sex and age, followed by psychological type scores), then those related to social location in the next two models (ordination, education, and geographical location), then those related to theological stance (worship, doctrine, and morality), and finally those related to church tradition (Anglo-Catholic, Evangelical, and Charismaticism). The aim was to identify how far the three different attitudes could be predicted from personal factors or psychological factors

rather than social location, theological stance, or church tradition. Results are reported separately for each of the three attitude scales, giving standardised beta weights.

4 Results

The bivariate correlations indicated variations in the sample that reflected widely known differences related to structural and historical factors in the Church of England, society at large, or psychological factors (Table 3). Women, for example, scored lower on thinking and higher on feeling, which reflects trends in the population at large (Kendall, 1998; Myers et al., 1998). The lower education score for women probably reflects historical gender disparities in education opportunities that are especially apparent in older generations that are prevalent in the Church of England. The lower proportion of women among the ordained reflects the fact that women were barred in the Church of England from ordination to the diaconate until the 1987 and to the priesthood until 1994 (Francis & Robbins, 1999).

- insert Table 3 about here -

Other correlations are worth highlighting because they point to links between religious commitments and psychological factors. Conservative theological stances were generally associated with tendencies towards sensing, thinking and judging, associations that have been observed in other studies (see, for example, Village, 2019). Theological stance is related to church tradition in complex ways in the Church of England (Village, 2018b) and these trends were apparent in this sample. Anglo-Catholics, for example, tended to be more traditional in worship but more liberal on matters of morality, while Evangelicals tended to the opposite and also to be more conservative in matters of doctrine. Charismaticism tends to be associated with evangelicalism in the Church of England and Charismatics showed many of the same trends with theological stance as did Evangelicals.

These correlations among predictor variables suggested that multiple regression would be necessary to isolate the individual effects of each on the three attitude scales.

4.1 *Pro Church Building Scale*

Three personal and psychological factor variables were significantly associated with a positive attitude toward church buildings: women were less positive than men, and those with high sensing and high judging scores were more positive than those with high intuition or high perceiving scores (Table 4). People with preferences for sensing and judging are often regarded as the ‘guardians of tradition’ (Keirse, 2021), and it may be that these two correlations point to the importance of the SJ temperament in shaping attitude toward church buildings. For social location, clergy were less positive about church buildings than laity, and those from inner cities were more positive about church buildings than those from elsewhere. These trends were reduced in effect size when theological stance and church tradition variables were added in models 5 and 6, but remained statistically significant. The main association in the final model was the more positive attitude toward church buildings among those with a preference for traditional rather than modern worship, though this was also true of conservative stance to doctrine. The more positive attitude toward church buildings among Anglo-Catholics, together with the less positive attitude among Evangelicals, has been reported elsewhere and shown to align with wider trends Roman Catholics and Free Church members (reference withheld). Charismaticism remained a significant predictor of a more negative attitude toward church buildings, even after controlling for Evangelical affiliation.

- insert Table 4 about here -

4.2 *Anti Church Lockup Scale*

Unsurprisingly, those who score high on the Pro Church Buildings Scale also tended to score high on the Anti Church Lockup Scale ($r = .467, p < .001$), but the two attitudes were related to slightly different sets of predictors. Sex was again a predictor of scores on the Anti Church Lockup Scale, with men more opposed to the lockup than were women, but there was also a

positive correlation with age (Table 5). The most consistent predictor of scores on the Anti Church Lockup Scale among psychological type variables was the positive correlation with thinking scores. Opposition to church lockup was also associated positively with sensing and negatively with judging, but these trends were weak and varied depending on what else was in the model. The same was true for some of the social location variables, although the greater opposition to church lockup among laity rather than clergy was apparent in all models. Opposition to church lockup was not associated with doctrinal stance, but was more prevalent among those who preferred traditional worship or who held conservative views on morality. This latter effect increased when controlling for traditions, where Anglo-Catholics opposed church lockup and Evangelicals, and/or Charismatics, tended to support church lockup.

- insert Table 5 about here -

4.3 *Pro Virtual Church Scale*

Those who scored higher on the Pro Virtual Church Scale tended to score lower on the Pro Church Buildings Scale ($r = -.462, p < .001$) and lower on the Anti Church Lockup Scale ($r = -.330, p < .001$). Women tended to be more positive about virtual church than were men, but there was no indication of a relationship with age (Table 6). This seemed surprising given the likely greater familiarity of younger people with the online world, so we examined the trend in more detail graphically. The lack of a correlation may have been because there was a marked curvilinear relationship, with positivity to virtual church peaking among the 40- and 50-year-olds (Figure 1).

- insert Table 6 about here -

- insert Figure 1 about here -

The negative correlation between scores on the Pro Virtual Church Scale and sensing suggests that intuitive types may have been more positive about virtual church. There was a

positive correlation with extraversion, but this was not significant in model 6, probably because Charismatics, who tended to be more extravert than non-Charismatics, were also more in favour of virtual church. The strongest effect of psychological type was for those with lower thinking scores (and therefore high feeling scores) to view virtual church more favourably. Among social location variables, ordination had no significant effect, but those with higher education tended to be less favourably disposed toward virtual church, as were those living in inner cities. All three theological stances showed less favour for virtual church among conservatives and more among liberals. Anglo-Catholics tend to be less favourable towards virtual church, while Evangelicals, and especially Charismatics, were more favourable toward virtual church.

5 Discussion

This analysis of attitudes during the first COVID19 lockdown among 4,374 clergy and lay people from the Church of England has shed some light on the how these attitudes varied among the sample. In general, the amount of variance explained by various predictors of attitudes was fairly low, as is often the case in these kinds of survey data, where instruments may be fairly crude proxy measures of underlying constructs. Despite this, the results did suggest that all of the groups of factors shaped the three attitudes to some extent, usually in ways that are consistent with what we know about the characteristics of psychological type, various social locations, or theological and ecclesial positions. Using three different attitude scales has shown how different factors can shape specific attitudes in different ways.

5.1 Personal factors

Differences between men and women were apparent in all three scales. Compared to women, men had a more positive attitude toward church buildings, were more strongly opposed to the lockup of churches, and were less positive about the possibilities of virtual church. These differences remained after controlling for known sex differences in psychological type

preferences and the different ratios of men and women among ordained and lay or among different church traditions. We could not tell what drives this difference from our data, though we have explored this in more detail elsewhere (reference withheld).

Age predicted greater opposition to the lockup of churches, but there was no overall effect on the Pro Church Buildings Scale or the Pro Virtual Church Scale. We have shown elsewhere (reference withheld) that the reason for the lack of correlation between attitudes toward church buildings and age is due to differences between traditions, such that among Anglo-Catholics and Roman Catholic young people had a more positive attitude toward church buildings, whereas in Broad Church or Evangelicals there was little correlation with age and the trend, if anything, was in the opposite direction. This did not explain the lack of a main effect for age on the Pro Virtual Church Scale, which seemed to arise because of the curvilinear relationship (Figure 1). The decline that takes place from the age of 50 onwards is perhaps not surprising, but the much lower positivity of younger people (which was apparent in all church traditions) might be because they may not want a form of church that is indistinguishable from how they interact for most of the week.

5.2 *Psychological factors*

Psychological type predicted some attitudes in ways that may fit with what we understand about the various preferences. It was the sensing and judging preferences that predicted more positive attachment to buildings. This combination of preferences, sometimes referred to as the SJ or Epimethean temperament (Keirsey & Bates, 1978), which is a typical profile for many in the Church of England (Francis et al., 2007; Francis, Edwards, et al., 2020; Francis et al., 2021; Francis & Village, 2012). Epimetheans are also termed ‘guardians’ and described as “... the cornerstone of society, for they are the temperament given to serving and preserving our most important social institutions” (Keirsey, 2021). This may explain why it was those scoring most highly on sensing and judging who most valued church buildings,

perhaps the most visible and evocative symbol of the historic and institutional roots of the Church of England.

Other type preferences were better predictors of the other attitude scales. Opposition to the lockup meant flying in the face of Church of England stipulations, and perhaps the majority public opinion, and may have required the kind of tough-mindedness that comes more easily to thinking types than to feeling types. Preference for feeling rather than thinking has been shown to correlate with agreeableness in the five-factor model of personality (Crump et al., 2003; McCrae & Costa, 1989). A recent study of 110,000 people in 55 countries that examined their obedience to rules about staying at home in the early months of the pandemic found a positive correlation with agreeableness (Götz et al., 2021), which is in line with our findings that those with high thinking (low feeling) scores were most likely to oppose the lockup rule. Thinking types also tend to make decisions using evidence, logic, and principles, and they may have been unconvinced that these things were evident in the Archbishops' decision to close churches completely.

Thinking scores, and to some extent sensing scores, were negatively correlated with positive attitude toward virtual church. This may partly be about sensing types valuing the physical world of face-to-face meetings, and thinking types finding the nature of online interactions less appealing than did feeling types. The lockdown was a time when many online services stressed the need to connect and empathise with others, employed more imaginative use of novel visual symbols and imagery, and reduced sermons to shorter 'reflections', all of which may have suited intuitive and feeling types more than sensing and thinking types.

5.3 *Social location*

Attitudes also varied according to factors related to a person's location within the church, within society, or geographically. Clergy were less positive about church buildings and more

in favour of the lockup of churches than were laity, but no different in attitude toward virtual church. Clergy might experience more of their faith expression away from the church building itself, compared with those laity whose may contact is Sunday worship. Education had little relationship to attitudes, apart from those with higher education qualifications being less positive about online worship. It is not clear why this was, but it might point to something about the content and style that may be different and may be less appealing, as it seemed to be for those with higher thinking scores. Geographically, people from inner cities tended to be most in favour of church buildings and least in favour of virtual church. This might point to a way of living in such areas that relies heavily on meeting people face to face, and where the loss of direct contact and the lockdown of activity is most obvious. Elsewhere we have shown that it was people in inner cities, rather than those living in other environments, who suffered most in terms of psychological wellbeing during the lockdown (reference withheld).

5.4 *Theological stance*

In theory, theological convictions should be more closely related to specific church-related attitudes than are more general dispositions such as personality, and this seemed to be the case for preference for traditional rather than modern worship. It seemed that preference for traditional worship, tied to familiar liturgies and hymns, is strongly associated with the ambience of being in a church building. This predictor tended to reduce (but not eliminate) the effects of others in the model, as was the case for thinking on the Anti Church Lockup Scale and the Pro Virtual Church Scale, and for sensing on the Pro Church Buildings Scale. Sensing types tend to prefer traditional worship, and traditional worship is closely tied to the nature and presence of church buildings as the sacred liturgical space. Theological stance may have partly mediated the effects of personality, but the effects were usually partial, rather than complete, so both types of factor could exert independent effects on attitudes.

5.5 *Church tradition*

The differences between Anglo-Catholics and Evangelicals on a range of beliefs and attitudes is well known and widely reported (Francis et al., 2005; Rutledge, 2020; Village, 2018a;

Village & Francis, 2010b), including elsewhere for this study (references withheld).

Evangelical and charismatic orientations tended to be associated with less positive views of church buildings, more compliance with the lockup of churches, and more positive attitudes towards virtual church, with Anglo-Catholics showing the opposite trends. These findings are in line with some of the historic emphases of these various traditions, with Anglo-Catholic stressing the sacredness of physical objects, including sacred places, and Evangelicals and Charismatics stressing personal salvation and holiness. The latter's greater preference for modern styles of worship might also explain why Charismatics were particularly open to the possibilities of virtual church.

5.6 *Responses to lockdown*

These results indicate how, even within a single denomination like the Church of England, there was a diversity of responses to the COVID-19 pandemic. How people responded to being locked out of churches, and to the prospect of being part of an online church, depended on basic dispositions such as sex and personality, as well as where they were located within the social and ecclesial structures of the Church. The relationships we observed suggest that certain groups were more opposed to the changes than others. These included men, sensing types, thinking types, and judging types, lay people, those in inner cities, those with conservative views on worship and doctrine, and Anglo-Catholics. Others might find a transition from church buildings to online church easier. These include women, intuitive types, feeling types, clergy, those who enjoy modern worship, and who have more liberal views on doctrine, Evangelicals, and Charismatics. An important task for the Church of England, as it moves out of the pandemic period, is to use what we have learnt to inform

theology and practice in the future. This might mean making allowances for the force of long-standing traditions, theological convictions, and individual differences, which will all have a part to play in helping or hindering the process of change.

6 Conclusions

This study of 4,374 Anglicans in England during the first COVID-19 lockdown has added significantly to our understanding of the forces shaping attitudes towards church buildings, the lockup of churches, and the prospect of virtual church. In particular it shows that these attitudes can be predicted from a range of factors related to personal factors, psychological factors, social location, theological stance, and church tradition. Although the three attitudes are related, they were predicted by slightly different combinations of factors in ways that support the known dispositions of psychological types and the various traditions within the Church of England. Looking ahead, the results suggest that those most likely to embrace a future with a significant role for church life online are women (rather than men), the middle-aged (rather than younger or older people), intuitive types (rather than sensing types) and feeling types (rather than thinking types), clergy (rather than laity), those living outside the inner cities, those who prefer modern (rather than traditional) forms of worship, those with more liberal (rather than conservative) views on doctrine and morality, and those who embrace Evangelical and Charismatic (rather than Anglo-Catholic) church traditions.

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Table 1

Profile of the Church of England participants in the survey

		%
Sex	Female	60.3
	Male	39.7
Age	20s	2.9
	30s	6.3
	40s	13.1
	50s	21.3
	60s	29.4
	70s	22.5
	80s+	4.4
Ordained	Laity	70.3
	Clergy	29.7
Education	No formal qualifications	0.8
	School-level	6.4
	Certificate/diploma	17.7
	Bachelor's degree	39.9
	Master's degree	27.0
	Doctorate	8.1
Location	Rural	36.1
	Town/suburb	54.7
	Inner city	9.2
Tradition	Anglo-Catholic	29.2
	Broad Church	52.0
	Evangelical	18.8

Note. $N = 4,374$

Table 2

Attitude scales used as dependent variables

	Percentage			
	DA	NC	AG	CITC
<i>Pro Church Buildings</i> (alpha = .78)				
The local church building is crucial for my identity as a Christian [Minister]	39	33	28	.63
I need the church building to fully express my faith/vocation	43	25	32	.65
Church buildings are central to our witness in the community	12	23	65	.49
The lockdown has shown that church buildings are an unnecessary burden*	70	23	7	.47
Many people will lose faith without church buildings in which to gather for worship	44	32	24	.43
Forced closure of churches has focused us on proper priorities	28	35	37	.48
<i>Anti Church Lockup</i> (alpha = .87)				
Churches should stay open, whatever the crisis	55	18	27	.74
My denomination at the national level went too far in closing churches	50	15	35	.77
Closing churches to everybody was the right thing to do*	35	14	51	.76
Clergy should always be allowed into their churches	24	19	57	.63
<i>Pro Virtual Church</i> (alpha = .79)				
The lockdown has helped the Church to move into the digital age	6	16	78	.52
Online worship is a great liturgical tool	13	28	59	.63
Online worship is the way ahead for the next generation	33	47	20	.52
Social media is a great pastoral tool	18	38	44	.53
Social media is a great evangelistic tool	14	42	44	.55
The lockdown is a great chance to re-think the Church's future	10	25	65	.48

Note. $N = 4,374$. DA = Disagree; NC = Not Certain; AG = Agree; CITC = Corrected Item-Total Correlation. * These items were reverse coded.

Table 3

Correlation matrix independent variables

	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2
1 Sex (female)	.11***	-.01	-.14***	-.04**	-.11***	-.08***	-.06***	.05**	-.13***	-.18***	.01	-.18***	.08***	.05**	.02
2 Age	-.13***	-.05**	-.02	.07***	-.09***	.06***	-.17***	.18***	-.22***	-.10***	.01	-.01	.14***	.00	
3 Extraversion	.13***	.07***	-.03*	.00	-.01	-.09***	.01	.04*	-.06***	.03	-.19***	-.16***	-.09***		
4 Sensing	-.13***	.01	-.05**	.17***	.09***	.13***	-.06***	.04*	-.25***	-.24***	.45***	.06***			
5 Thinking	-.11***	.00	.05***	.05**	.08***	.12***	.02	-.05**	.16***	-.10***	.29***				
6 Judging	-.15***	-.01	.02	.08***	.08***	.12***	-.03*	-.03	.01	-.14***					
7 Ordained	.11***	-.02	.11***	-.07***	.04**	-.13***	.05**	.01	.23***						
8 Education	-.04**	-.06***	.11***	-.15***	-.04*	.00	.11***	-.11***							
9 Rural	.03	-.02	-.07***	.06***	-.04**	-.01	-.24***								
10 Inner city	-.05**	-.03*	.10***	-.06***	.03	.06***									
11 Traditional worship	-.44***	-.33***	.32***	.01	.10***										
12 Conservative doctrine	.14***	.27***	.00	.65***											
13 Conservative morality	.18***	.33***	-.14***												
14 Anglo-catholic	-.34***	-.31***													
15 Evangelical	.39***														
16 Charismatic															

Note. $N = 4,374$. * $p < .05$; ** $p < .01$; *** $p < .001$

Table 4

Hierarchical linear regression of the Pro Church Buildings Scale

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Personal factors</i>						
Sex (female)	-.151***	-.156***	-.175***	-.170***	-.138***	-.116***
Age	.012	-.002	-.006	.012	.000	-.022
<i>Psychological factors</i>						
Extraversion		.019	.020	.020	.039**	.052***
Sensing		.101***	.085***	.086***	.060***	.054**
Thinking		.029	.011	.010	-.010	-.012
Judging		.074***	.070***	.072***	.056**	.043**
Ordained			-.118***	-.118***	-.080***	-.093***
<i>Social location</i>						
Education			.028	.020	.006	-.006
Rural				-.025	-.023	-.019
Inner city				.093***	.066***	.053***
<i>Theological stance</i>						
Traditional worship					.346***	.209***
Conservative doctrine					.059**	.084***
Conservative morality					-.074***	-.009
<i>Church tradition</i>						
Anglo-Catholic						.119***
Evangelical						-.108***
Charismatic						-.151***
R^2	.023	.045	.057	.067	.189	.240
ΔR^2	.023***	.024***	.012***	.010***	.120***	.054***

Note. $N = 4,4374$. * $p < .05$; ** $p < .01$; *** $p < .001$. Coefficients are standardised beta weights.

Table 5

Hierarchical linear regression of the Anti Church Lockup Scale

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Personal factors</i>						
Sex (female)	-.142***	-.124***	-.135***	-.135***	-.112***	-.094***
Age	.136***	.130***	.131***	.133***	.120***	.107***
<i>Psychological factors</i>						
Extraversion		.003	.005	.003	.013	.021
Sensing		.046**	.040*	.040*	.014	.013
Thinking		.118***	.105***	.104***	.090***	.088***
Judging		-.032	-.036*	-.034	-.044*	-.053**
<i>Social location</i>						
Ordained			-.077***	-.079***	-.054***	-.069***
Education			.033*	.032*	.035*	.026
Rural				.029	.026	.031*
Inner city				.046**	.033*	.023
<i>Theological stance</i>						
Traditional worship					.203***	.104***
Conservative doctrine					.003	.013
Conservative morality					.063**	.110***
<i>Church tradition</i>						
Anglo-Catholic						.132***
Evangelical						-.063***
Charismatic						-.087***
R^2	.037	.005	.055	.057	.099	.134
ΔR^2	.037***	.014***	.006***	.002**	.042***	.032***

Note. $N = 4,4374$. * $p < .05$; ** $p < .01$; *** $p < .001$. Coefficients are standardised beta weights.

Table 6

Hierarchical linear regression of the Pro Virtual Church Scale

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Personal factors</i>						
Sex (female)	.172***	.158***	.157***	.154***	.123***	.106***
Age	-.021	-.013	-.024	-.034*	-.024	-.009
<i>Psychological factors</i>						
Extraversion		.048**	.045**	.046**	.033*	.025
Sensing		-.055**	-.068***	-.069***	-.039*	-.034*
Thinking		-.095***	-.084***	-.083***	-.063***	-.062***
Judging		-.034	-.028	-.030	-.017	-.007
<i>Social location</i>						
Ordained			.024	.025	-.005	.003
Education			-.066***	-.061***	-.060***	-.052**
Rural				-.001	.000	-.004
Inner city				-.069***	-.050**	-.041**
<i>Theological stance</i>						
Traditional worship					-.270***	-.181***
Conservative doctrine					-.053**	-.065**
Conservative morality					-.018	-.058**
<i>Church tradition</i>						
Anglo-Catholic						-.092***
Evangelical						.042*
Charismatic						.110***
R^2	.023	.045	.057	.067	.189	.240
ΔR^2	.023***	.024***	.012***	.010***	.120***	.054***

Note. $N = 4,4374$. * $p < .05$; ** $p < .01$; *** $p < .001$. Coefficients are standardised beta weights.

Figure 1 Pro Virtual Church scores by age

