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Who visits cathedrals? The science of cathedral studies and psychographic segmentation

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This study applied psychographic segmentation theory to explore the psychological type profile of 1082 visitors to four cathedrals (three in England and one in Wales) and to set this profile alongside the published national normative data. Data provided by the Francis Psychological Type Scales demonstrated that among cathedral visitors there were more introverts (60%), sensing types (72%) and judging types (80%), with a balance between thinking types (49%) and feeling types (51%). Comparisons with the population norms demonstrated that extraverts and perceiving types were significantly underrepresented among visitors to these four cathedrals. The implications of these findings are discussed for enhancing the visitor experience of those currently visiting and for attracting those psychological types currently less likely to visit.

Contribution: Situated within the science of cathedral studies, this article demonstrates (by means of applying psychographic segmentation theory and gathering data from four cathedrals) that extraverts and perceiving types were significantly under-represented among cathedral visitors. These data are important for understanding limitations on the reach of cathedrals within the wider community.

Keywords: psychological type; psychographic segmentation; cathedral studies; visitor experience; tourism studies; heritage studies.

Introduction

The Report of the Archbishops' Commission on Cathedrals (1994), *Heritage and Renewal*, placed firmly on the agenda consideration of the opportunities and challenges brought to cathedrals as a consequence of having become 'major centres of tourism' (p. 12). Current statistics highlight the continuing growth of visitor numbers to the 42 cathedrals across the dioceses of the Church of England. For example, the Church of England (2019), in the report *Cathedral Statistics 2018*, highlighted the finding that during 2018, cathedrals reported nearly 10 million visitors, an increase of over 10% on the previous year. This report also noted that 33% of these visitors were either paying or donating for entry. Ecorys (2021), in the report to the Association of English Cathedrals, *The Economic and Social Impact of England's Cathedrals*, estimated over 9.5 million tourists or leisure visitors to cathedrals in 2019, an increase of 15% over the total of 8.2 million estimated in 2014 by Ecorys (2014).

In the opening chapter on the role of cathedrals, the 1994 report *Heritage and Renewal* identified two constituencies within 'the continuous stream of visitors and worshippers':

> For some, the majesty of the buildings themselves is an expression of what might otherwise remain inarticulate, a perception of the holy, an anticipation of eternity … Cathedrals are accessible places, where all can see evidence of effects of Christian truth as living faith. For others cathedrals are a dimension of heritage, an illustration of historical processes, aesthetically satisfying, the sense of artistic and cultural achievement. (Archbishops Commission on Cathedrals 1994:3)

Within the Report, a substantial chapter on 'Mission' identified five components of the cathedral's religious identity: worship, teaching, service, evangelism and witness. In terms of worship, cathedrals were defined as the 'liturgical laboratories of the church' (p. 19), capable of quality across tradition and innovation, meeting those both at the heart of church life and those on the edge. Within this context, both music and preaching were singled out for special attention. In terms of teaching, the role of the cathedral is explored through seminars, lectures and multimedia presentation. In terms of service, the Report draws attention to the Christian witness manifest

through the acts of service offered by the individual members of the congregation and through good practice of corporate service, displaying cathedrals as institutions having real involvement with social need. In terms of evangelism, the Report draws attention to the potential enjoyed by cathedrals that are 'more in touch with nonchurchgoers than any other part of the Church' (p. 31). In terms of witness, the Report draws attention to the dynamic link between 'cultural heritage' and 'the living purpose of the cathedral' (p. 33).

A second substantial chapter within the Report is given to 'Tourism'. Here the report speaks both of 'the importance of Cathedrals to tourism' (pp. 135–137) and 'the importance of tourism to Cathedrals' (pp. 137–142). Cathedrals are important to tourism in three ways: the large number of visitors attracted to cathedrals, the wider economic benefits generated and the contributions which cathedrals make to the sense of British heritage offered to tourists. Tourism is important to cathedrals because of the income generated and because of the opportunities offered to fulfil the core mission of the cathedrals themselves.

Visitor characteristics and motivations

The Report of the Archbishops' Commission on Cathedrals (1994), *Heritage and Renewal*, recognised the value of survey data on visitor characteristics and motivations and gave serious attention to the limited data then available. This report also recommended that 'qualitative data on visitor characteristics, motivation, expectations and behaviour' (p. 143) should remain important in understanding how to attract and manage tourists and in deciding what should be provided. Nearly 30 years later, in their report to the Association of English Cathedrals, Ecorys (2021) noted:

> Information on visitor characteristics and motivations to visit individual cathedrals was limited in the 2014 study. While a few cathedrals have since explored this issue for themselves, detailed information for each of the 42 cathedrals remains limited in this area. (p. 8)

During the 1990s, there were some notable speculations about the visitor characteristics and motivation, but hard evidence remained quite thin. For example, in an essay subtitled 'A case study of the phenomena of the God-quest among visitors in cathedrals', Rex Davis (1992), writing as sub-dean of Lincoln Cathedral, drew on his personal observations and insights to develop a fourfold typology of cathedral visitors, distinguishing among those whom he characterised as 'gawpers', 'cultured despisers', 'prayer-makers' and 'true believers'. According to Davis' typology, gawpers come to cathedrals as visitors rather than as worshippers. Yet left to explore the cathedral in their own way, they may well experience the wonder generated by the environment and experience some kind of transcendent power. Cultured despisers come to cathedrals with openness, but feel unsettled when issues of religion or God are raised. They may even feel annoyed when once inside the cathedral they find that religion is pushed on them. Prayer-makers come to cathedrals to make use of prayer cards or prayer

boards and ask others to pray on their behalf, making varied requests, from heartfelt prayers for sick and dying loved ones to more materialistic and self-centred requests. True believers come to cathedrals to assert their clear stance on the Christian faith. They come unwilling to have their beliefs challenged and committed to rebut more liberal and more open presentations of the gospel.

In an essay entitled 'Human ebb and flow: Cathedrals and people', Christopher Lewis (1998), writing as dean of St Albans Cathedral, draws on his personal observations to gain insight through the questions that people ask:

> They may ask questions such as 'Where are the dungeons?' or 'Are you open on Christmas day?', which show that they are not very clear where they are – but could it still be that tourists are really earnest seekers after truth? (p. 146)

During the 1990s, Winter and Gasson (1996) published the survey data on which the Archbishops' Commission on Cathedrals had drawn. In this survey, they had mapped the religious affiliation, church attendance and religious belief among a sample of 814 visitors to four cathedrals: Coventry, Ely, Lichfield and Wells. According to these data, 41% of visitors described themselves as affiliated with the Church of England, compared with 27% who described themselves as religiously unaffiliated; 34% of visitors attended church at least once a week, compared with 36% who never attended. Those questioned were also asked to reflect on six statements about their spiritual quest. For example, 62% of visitors agreed with the assertion that people only live once, so they should make the most of it. From these findings, it was clear that cathedrals were receiving visitors who were Christian believers and visitors who were not Christian believers.

In a survey among 483 visitors to five English cathedrals during August 1993, Jackson and Hudman (1995) found that the proportion of visitors stating a religious motivation for visiting varied according to age. While a religious motivation was important to 49% among those 'nearest 60', the proportions fell to 20% among those aged between 30 and 50 years and to 13% among those 'nearest 20' (p. 43).

In a survey among 514 visitors to St Davids Cathedral, Williams et al. (2007) found clear differences between the quest and experiences of visitors who attended church services weekly (styled religious pilgrims) and visitors who never attended church services (styled secular tourists). For example, while 77% of religious pilgrims felt a sense of God's presence from their visit, the proportion fell to 18% among secular tourists. While 72% of religious pilgrims felt a sense of spirituality from their visit, the proportion fell to 31% among secular tourists. While 88% of religious pilgrims felt a sense of peace from their visit, the proportion fell to 50% among secular tourists.

In a survey among 131 visitors who had taken a tour of Chester Cathedral, Thomas Williams (2007) found that the sample was evenly split between male visitors (49%) and female visitors (51%) and that 49% were over the age of 50 years. Those who

took a tour of Chester Cathedral were likely to have visited at least three other cathedrals during the previous 12 months.

In a focus group involving nine people who had visited both Lincoln and other cathedrals within the last 12 months, Voase (2007) found that most visits to cathedrals were not the primary purpose for visiting the city, which was usually shopping or sightseeing. Secondly, members of the focus group desired to look around the cathedral at their own pace, with the possibility of stopping to reflect in silence and to be solitary. They were critical of 'conscience-pricking' and evangelism. Thirdly, members of the focus group left cathedrals feeling empty. They longed for some of the 'human connectedness' of the cathedral rather than just experiencing the cathedral as a piece of history.

In a survey among 352 visitors to Chichester Cathedral, Gutic, Caie and Clegg (2010) found that only 14% gave spiritual reasons for their visit, with 7% mentioning prayer, worship or pilgrimage and a further 7% mentioning a desire for peace and solitude. However, when asked to assess their experience *from* visiting the cathedral, rather than their reason *for* visiting the cathedral, between 35% and 41% gave answers that could be interpreted to indicate a sense of spirituality or emotional involvement.

In a survey among 233 visitors to Canterbury Cathedral, Hughes, Bond and Ballantyne (2013) employed a conceptual model developed by Falk and Storksdiech (2010). This model, originally designed to explore visitors' experiences in settings like museums, zoos and aquariums, distinguished among five motivations concerned not only with why people engage in tourism but also with the benefits derived from this activity. This model identified five distinctive motivational styles: *explorers* are driven by curiosity, with a generic interest in the site; *facilitators* are socially motivated and focus on enabling the experience and learning of others; *professional hobbyists* are motivated by a close link to the site because of their specific passion; *experience seekers* are motivated by accessing what is for them an important destination, and their satisfaction is derived from having 'been there and done that'; and *rechargers* are motivated by seeking out a contemplative, spiritual or restorative experience.

In a survey among 2695 visitors to St Davids Cathedral, Francis, Annis and Robbins (2015) found that 21% claimed no religious affiliation, 24% never attended a place of worship and 28% never prayed. This study was also designed to test the thesis advanced by Heelas and Woodhead (2005) that the retreat from conventional Christianity was being replaced in people's lives by the 'spiritual revolution', by the 'subjective turn' and by the espousal of alternative spiritualities. The data demonstrated that aromatherapy and horoscopes were within the experiences of almost 1 in 5 of the visitors, while at least 1 in 10 had experienced acupuncture, counselling, homeopathy, meditation, reflexology and yoga. These findings helped to nuance appreciation of the spiritual quest of cathedral visitors.

Two other rather different lenses through which to view the motivations, expectations and experiences of cathedral visitors were offered by Burton's (2015) analysis of visitor books and by ap Siôn's (2015a) analysis of prayer requests. In the first of these studies, Burton (2015) analysed 1278 entries in the visitor books from one cathedral in the north-west of England. His analysis confirmed that the cathedral served a double function, both as an historical attraction to secular tourists and as a source of religious experience and spiritual insight. In the second of these studies, ap Siôn (2015a) analysed 1000 prayer cards from Bangor Cathedral and compared these prayer requests with a similar study conducted in Lichfield Cathedral (ap Siôn 2015b). Using the apSAFIP analytic framework, this study demonstrated that there were some significantly different emphases in prayer intentions among those who used the prayerboards in these two cathedrals. For example, while 13% of the prayers in Bangor concerned death, the proportion rose to 27% in Lichfield. While 14% of the prayers in Bangor were concerned with spiritual, religious or moral change or development (styled affective growth), the proportion dropped to 5% in Lichfield.

Sociographic and psychographic visitor segmentation

Cognate fields alongside cathedral visitor studies, concerning heritage studies, tourism analysis, visitor studies and the leisure and hospitality industries, have long been familiar with the utility of sociological theory and sociological segmentation for understanding patterned individual differences in interests, behaviours and expectations (see Apostolopoulos, Leivadi, & Yiannakis 2001; Kozak & Decrop 2008; Kumar 2018; Cohen & Cohen 2019). From sociological perspectives, there are clearly established correlates of sex, age and socio-economic status in choices, behaviours, expectations and consumer patterns within the leisure and tourism industries. The preceding review of the developing field of cathedral visitor studies has demonstrated the appearance of these sociological variables.

Although much less visible than these sociologically defined variables (sex, age and socio-economic status), psychological theory and psychological segmentation have also been shown to function as significant predictors of patterned individual differences in interests, behaviours and expectations relevant both to the leisure industry and to the tourism industry. Among the psychological variables brought to these fields of study, the big five factor model of personality proposed by Costa and McCrae (1992) and the major three-dimension model of personality proposed by Eysenck and Eysenck (1991) have proved fruitful, alongside other focused psychological constructs (Driver & Knopf 1977; Lee-Hoxter & Lester 1988; Nolan & Patterson 1990; Furnham 1990; Madrigal 1995; Ross 1998; Frew & Shaw 1999; Plog 2002; Weaver 2012; Abbate & Di Nuovo 2013; Tan & Tang 2013; Kvasova 2015). It was within this context that Gountas and Gountas (2000) introduced psychological type theory to

research in leisure and tourism studies by exploring the psychological type profile of passengers from 12 United Kingdom (UK) airports to a variety of European and long-haul destinations. Their data indicated that different psychological types prefer different holiday and leisure activities. The connection between psychological type, leisure preferences and tourism behaviours has been further explored and discussed by Gountas and Gountas (2001), Gountas (2003) and Laesser and Zehrer (2012).

Building specifically on the research tradition established by Gountas and Gountas (2000), Francis et al. (2008) introduced psychographic segmentation theory to the field of cathedral visitor studies by exploring the psychological profile of visitors to one cathedral. Their initial study was expanded by further studies reported by Francis et al. (2010), Francis et al. (2012) and Francis, Robbins and Annis (2015).

The specific psychological theory on which first Gountas and Gountas (2000) and then Francis et al. (2008) built their psychographic segmentation of visitors was psychological type theory. While psychological type theory is rooted in the work of Jung (1971), the theory has been developed and modified by a series of psychometric instruments, including the Keirsey Temperament Sorter (Keirsey & Bates 1978), the Myers-Brigg Type Indicator (Myers & McCaulley 1985) and the Francis Psychological Type Scales (Francis 2005; Francis, Laycock, & Brewster 2017). Jung's theoretical model of human functioning focuses on distinguishing between two different sources of energy and distinguishing between two fundamental psychological processes, styled the perceiving process and the judging process.

In psychological type theory, the two sources of psychological energy (the orientations) distinguish between extraversion and introversion. Extraverts (E) are orientated towards the outer world; they are energised by the events and the people around them. They enjoy communicating and thrive in stimulating environments. Their focus is on what is going on around them. Introverts (I) are orientated towards their inner world; they are energised by their inner ideas and concepts. They enjoy solitude, silence and contemplation. Their focus is on what is happening in their inner life.

In psychological type theory, the perceiving process is concerned with gathering information and not with evaluating that information. It is for this reason that Jung styles perceiving as the irrational process. For Jung the perceiving process distinguishes between two opposing functions, styled as sensing and as intuition. Sensing types (S) focus on the realities of a situation as perceived by the senses. They focus on specific details, rather than on the overall picture. Intuitive types (N) focus on the possibilities of a situation, perceiving meaning and connections. They focus on the overall picture, rather than on specific facts and data.

In psychological type theory, the judging process is concerned with the evaluation of information. It is for this reason that Jung styled judging as the rational process. For Jung, the judging process distinguishes between two opposing functions, styled as thinking and feeling. Thinking types (T) make decisions and judgements based on objective, impersonal logic. They are known for their truthfulness and for their desire for fairness. They value integrity and justice. For them, the mind is more important than the heart. Feeling types (F) make decisions and judgements based on subjective, personal values and interpersonal concerns. They are known for their tactfulness and for their desire for peace. They value compassion and mercy. For them the heart is more important than the mind.

In psychological type theory, the four functions can each be expressed in the inner world or in the outer world. Individuals who extravert their preferred judging function (either thinking or feeling) are styled as judging types (J), and individuals who extravert their preferred perceiving function (either sensing or intuition) are styled as perceiving types (P). Judging types seek to order, rationalise and structure this outer world, as they actively judge external stimuli. They prefer to make decisions quickly and to stick to their decisions once made. They enjoy routine and established patterns. Perceiving types do not seek to impose order on the outer world, but are more open and reflective as they perceive external stimuli. They enjoy change and spontaneity. They have a flexible, open-ended approach to life.

The four components of psychological type theory can be employed in a variety of ways, focusing on the four dichotomies individually (the two orientations, I and E; the two perceiving functions, S and N; the two judging functions, T and F; the two attitudes to the outer world, J and P), combining the four dichotomies into 16 complete types (for example, ISTJ or ENFP), identifying the strongest or dominant type preferences for individuals (dominant sensing, dominant intuition, dominant thinking or dominant feeling) and drawing on the work of Keirsey and Bates (1978) to consider the four temperaments (SJ, SP, NT and NF).

Psychological type profile of cathedral visitors

In the first study to apply psychological type theory to cathedral visitors, Francis et al. (2008) reported on the psychological type profile of 381 visitors to St Davids Cathedral in Wales, using the Francis Psychological Type Scales (Francis 2005). These data demonstrated that there were more introverts (57%) visiting this cathedral than extraverts (43%), more sensing types (72%) than intuitive types (28%) and more judging types (81%) than perceiving types (19%), but there were similar numbers of thinking types (51%) and feeling types (49%). In their interpretation of these findings, Francis et al. (2008) suggested two key implications arising from these data for those managing the tourism side of St Davids Cathedral. The first implication concerned recognition of the preferences and needs of the constituency with which the cathedral already had significant contact, namely those who display preferences for introversion, sensing and judging, alongside an equal balance of those who prefer feeling or thinking. The second

implication concerned identifying ways in which the cathedral may extend its appeal to reach more of those individuals who are not so readily attracted to it, namely those who prefer extraversion, intuition and perceiving.

The clear limitation with the initial study reported by Francis et al. (2008) was that the findings were restricted to just one cathedral. In a second study, Francis et al. (2010) addressed the problem by conducting a similar survey in a second cathedral. In this study they reported on the psychological type profile of 157 visitors to Chester Cathedral in England, also using the Francis Psychological Type Scales (Francis 2005). The surprising finding from this second study concerned the very close outcomes from the studies in two very different cathedrals. In St Davids Cathedral, introversion was preferred by 57%, sensing by 72%, thinking by 51% and judging by 81%, while in Chester, introversion was preferred by 60%, sensing by 68%, thinking by 51% and judging by 82%.

The clear limitation with the first two studies is that, even when considered together, the total sample was only 538 visitors. In a third study, Francis et al. (2012) address this problem by conducting and reporting on a much more sustained survey, again in St Davids Cathedral, and this time involving 2327 visitors. The surprising finding from this third study concerned the very close outcomes from all three studies. In the third study, 58% of visitors preferred introversion, compared with 57% and 60% in the two earlier studies. In the third study, 72% of visitors preferred sensing, compared with 72% and 68% in the two earlier studies. In the third study, 54% of visitors preferred thinking, compared with 51% in both of the two earlier studies. In the third study, 82% of visitors preferred judging, compared with 81% and 82% in the two earlier studies.

The clear limitation with all three studies is that in none of them was the profile of cathedral visitors set against the normative data for the profile of the UK population published by Kendall (1998). While the sample sizes in the first two studies may have made such contextualisation vulnerable, the large sample reported in the third study was ideal for such comparative purposes.

Research question

Against this background, the present study has two aims. The first aim is to generate a fourth psychological type profile of cathedral visitors drawing on over 1000 participants. The second aim is to locate the profile generated by this new study and the profile generated by the 2327 visitors to St Davids Cathedral alongside the UK population norms published by Kendall (1998).

Method
Procedure

Permission was received from four cathedrals (three in England and one in Wales) for the second author to invite visitors to these cathedrals to complete 'The Cathedral and You' survey booklet following a similar procedure to that described by Francis et al. (2010) in order to ensure compatibility between the two sets of data. The booklet introduced the survey in the following way:

> This survey explores the thoughts and feelings of visitors to cathedrals. Please be honest, we want to know your views. Please do not pause for too long over any one question, and try to answer every question. Everything you tell us is completely confidential and anonymous. Thank you for your help and cooperation.

Instrument

Psychological type was assessed by the Francis Psychological Type Scales (FPTS: Francis 2005; Francis et al. 2017). This is a 40-item instrument comprising four sets of 10 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 towards the outer world (judging or perceiving). Recent studies have demonstrated that this instrument functions well in church-related contexts. For example, Francis, Craig and Hall (2008) reported alpha coefficients of .83 for the EI scale, .76 for the SN scale, .73 for the TF scale and .79 for the JP scale. Participants were asked for each pair of characteristics to check the:

> box next to that characteristic which is closer to the real you, even if you feel both characteristics apply to you. Tick the characteristics that reflect the real you, even if other people see you differently.

Participants

The 1082 participants comprised 483 men, 595 women and 4 who did not disclose their sex. They ranged in age from 20 to 87 years; 11% were under the age of 30 years, 10% were in their 30s, 18% in their 40s, 24% in their 50s, 27% in their 60s and 11% aged 70 years and over. The participants comprised both churchgoers and nonchurchgoers: 24% never attended church services, while 31% attended church services nearly every week; of the remaining 45%, 28% attended at least once a year, 10% at least six times a year and 7% at least once a month. In terms of religious affiliation, the majority of the visitors described themselves as Christian (78%), 18% as religiously unaffiliated and the remaining 4% as affiliated with other religions or spiritual traditions. In terms of the following five options, 35% of the participants regarded themselves as holiday-makers, 34% as occasional visitors to the city, 13% as regular visitors to the city, 5% as people who were studying or working in the city and 14% as people who lived in the city. Over half (53%) were visiting the cathedral for the first time, 19% were visiting the cathedral for the second time and a further 6% were visiting the cathedral for the third time; the remaining 22% were more frequent visitors to the cathedral. Some of the participants had made quite a fleeting visit, while others had been much more leisurely in their approach: 12% had spent under 15 min on their visit, 34% had taken 15–29 min, 21% had taken 30–44 min, 16% had taken 45–60 min and the remaining 17% had

spent over an hour in the cathedral. The majority of visitors were residents within the United Kingdom (91%), with 5% from Europe and 5% from the rest of the world. Two in every five visitors (42%) had travelled over 40 miles to visit the cathedral, compared with 18% who had travelled less than 5 miles. In terms of self-assessment of their present or most recent work, the majority of visitors (78%) regarded themselves as engaged in professional or semiprofessional occupations.

Analysis

The research literature concerning the empirical investigation of psychological type has developed a highly distinctive method for analysing, handling and displaying statistical data in the form of 'type tables'. This convention has been adopted in the following presentation in order to integrate these new data within the established literature and to provide all the detail necessary for secondary analysis and further interpretation within the rich theoretical framework afforded by psychological type. Type tables have been designed to provide information about the 16 discrete psychological types, about the 4 dichotomous preferences, about the 6 sets of pairs and temperaments, about the dominant types and about the introverted and extraverted Jungian types. Commentary on these tables will, however, be restricted to those aspects of the data strictly relevant to the research question. In the context of type tables, the statistical significance of the difference between two groups is established by means of the selection ratio index (I), an extension of the chi-square (McCaulley 1985).

Results

The four scales of the Francis Psychological Type Scales achieved satisfactory internal consistency reliabilities in terms of alpha coefficients (Cronbach 1951): extraversion and introversion, $\alpha = .79$; sensing and intuition, $\alpha = .69$; thinking and feeling, $\alpha = .69$; and judging and perceiving, $\alpha = .75$.

Figure 1 presents the psychological type profile of the 1082 visitors to the four cathedrals. These data demonstrate that there were more introverts (60%) visiting these cathedrals than extraverts (40%), more sensing types (72%) than intuitive types (28%), more judging types (80%) than perceiving types (20%) and a balance between thinking types (49%) and feeling types (51%). This profile remains consistent with the profiles generated by earlier studies among cathedral visitors.

Figure 1 also compares the profile of these 1082 cathedral visitors with the normative data provided for the United Kingdom by Kendall (1998). For copyright reasons, Kendall's table of the UK population is not published here, but key figures from that table will be employed in the following commentary. Comparison with the population norms draws attention to the two main self-selected characteristics that distinguish the psychological type profile of cathedral visitors from the wider population from which they are

drawn. While 60% of cathedral visitors prefer introversion, the proportion falls to 48% in the population as a whole. While 80% of cathedral visitors prefer judging, the proportion falls to 58% in the population as a whole. On the other hand, the ratio between preferences for sensing and for intuition is not greatly different between the two groups. While 72% of cathedral visitors prefer sensing, so do 77% of the population as a whole. Also the ratio between preferences for thinking and for feeling is not greatly different between the two groups. While 51% of cathedral visitors prefer feeling, so do 54% of the population as a whole.

In order to complete the picture, Figure 2 represents the profile of 2327 visitors to St Davids Cathedral published by Francis et al. (2012), but this time set against the population forms published by Kendall (1998). The overall picture presented here is not dissimilar from the one presented in Figure 1.

Discussion

The present study built on the three earlier studies reported by Francis et al. (2008), Francis et al. (2010) and Francis et al. (2012) to consolidate research in the psychographic segmentation of cathedral visitors, using the framework of psychological type theory as initially formulated by Jung (1971) and developed by instruments like the Myers-Briggs Type Indicator (Myers & McCaulley 1985), the Keirsey Temperament Sorter (Keirsey & Bates 1978) and the Francis Psychological Type Scales (Francis 2005). There is a clear connection from all four studies regarding the following conclusions:

- There is a higher proportion of introverts among cathedral visitors (57%, 60%, 58% and 60% in the four studies).
- There is a higher proportion of sensing types among cathedral visitors (72%, 68%, 72% and 72% in the four studies).
- There is a higher proportion of judging types among cathedral visitors (81%, 82%, 82% and 80% in the four studies).
- There is a balance between thinking types and feeling types among cathedral visitors, with preference for feeling expressed by 51%, 51%, 54% and 49% in the four studies.

Jungian psychological type theory maintains that psychological type preferences are reflected in distinctive and characteristic behaviours (Ross & Francis 2020). It is these behaviours that are accessed through the way in which type theory is operationalised in the standard type indicators, sorters and scales. For example, the Francis Psychological Type Scales identifies 10 behaviours to characterise each of the 8 core type preferences (introversion or extraversion, sensing or intuition, thinking or feeling and judging or perceiving), as discussed by Francis (2005). Drawing on these behaviours, it is possible to make predictions about the expectations and preferred behaviours of cathedral visitors as shaped by preferences for introversion, sensing and judging, with a balance between thinking and feeling. Taking these preferences into account could help cathedrals to maximise the experience of their core constituency of visitors. It could also help

The sixteen complete types					Dichotomous preferences		
ISTJ $n = 237$ (21.9%) $I = 1.60^{***}$ +++++ +++++ +++++ +++++ ++	**ISFJ** $n = 169$ (15.6%) $I = 1.23^{*}$ +++++ +++++ +++++ +	**INFJ** $n = 54$ (5.0%) $I = 2.91^{***}$ +++++	**INTJ** $n = 70$ (6.5%) $I = 4.60^{***}$ ++	E I	$n = 435$ $n = 647$	(40.2%) (59.8%)	$I = .77^{***}$ $I = 1.25^{***}$
				S N	$n = 778$ $n = 304$	(71.9%) (28.1%)	$I = .94^{**}$ $I = 1.20^{**}$
ISTP $n = 23$ (2.1%) $I = .33^{***}$ ++	**ISFP** $n = 32$ (3.0%) $I = .48^{***}$ +++	**INFP** $n = 42$ (3.9%) $I = 1.22$ ++++	**INTP** $n = 20$ (1.8%) $I = .76$ ++	T F	$n = 530$ $n = 552$	(49.0%) (51.0%)	$I = 1.07$ $I = .94$
				J P	$n = 861$ $n = 221$	(79.6%) (20.4%)	$I = 1.37^{***}$ $I = .49^{***}$
ESTP $n = 15$ (1.4%) $I = .24^{***}$ +	**ESFP** $n = 39$ (3.6%) $I = .41^{***}$ ++++	**ENFP** $n = 33$ (3.0%) $I = .48^{***}$ +++	**ENTP** $n = 17$ (1.6%) $I = .57^{*}$ ++	**Pairs and temperaments**			
				IJ IP EP EJ	$n = 530$ $n = 117$ $n = 104$ $n = 331$	(49.0%) (10.8%) (9.6%) (30.6%)	$I = 1.66^{***}$ $I = .59^{***}$ $I = .41^{***}$ $I = 1.07$
				ST SF NF NT	$n = 390$ $n = 388$ $n = 164$ $n = 140$	(36.0%) (35.9%) (15.2%) (12.9%)	$I = .99$ $I = .89^{*}$ $I = 1.09$ $I = 1.36^{**}$
				SJ SP NP NJ	$n = 669$ $n = 109$ $n = 112$ $n = 192$	(61.8%) (10.1%) (10.4%) (17.7%)	$I = 1.25^{***}$ $I = .37^{***}$ $I = .70^{***}$ $I = 2.01^{***}$
				TJ TP FP FJ	$n = 455$ $n = 75$ $n = 146$ $n = 406$	(42.1%) (6.9%) (13.5%) (37.5%)	$I = 1.48^{***}$ $I = .40^{***}$ $I = .56^{***}$ $I = 1.26^{***}$
ESTJ $n = 115$ (10.6%) $I = 1.02$ +++++ +++++ +	**ESFJ** $n = 148$ (13.7%) $I = 1.08$ +++++ +++++ ++++	**ENFJ** $n = 35$ (3.2%) $I = 1.17$ +++	**ENTJ** $n = 33$ (3.0%) $I = 1.04$ +++	IN EN IS ES	$n = 186$ $n = 118$ $n = 461$ $n = 317$	(17.2%) (10.9%) (42.6%) (29.3%)	$I = 1.96^{***}$ $I = .74^{***}$ $I = 1.09$ $I = .78^{***}$
				ET EF IF IT	$n = 180$ $n = 255$ $n = 297$ $n = 350$	(16.6%) (23.6%) (27.4%) (32.3%)	$I = .76^{***}$ $I = .78^{***}$ $I = 1.16^{*}$ $I = 1.35^{***}$

Jungian Types (E)			Jungian Types (I)			Dominant Types		
	n	%	*Index*		n	%	*Index*	
E-TJ	148	13.7	1.03	I-TP	43	4.0	$.45^{***}$	
E-FJ	183	16.9	110	I-FP	74	6.8	$.74^{*}$	
ES-P	54	5.0	$.34^{***}$	IS-J	406	37.5	1.42^{***}	
EN-P	50	4.6	$.51^{***}$	IN-J	124	11.5	3.67^{***}	

	n	%	*Index*
Dt.T	191	17.7	$.79^{**}$
Dt.F	257	23.8	.96
Dt.S	460	42.5	1.04
Dt.N	174	16.1	1.32^{**}

Note: $N = 1,082$ (NB: + = 1% of N).
$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

FIGURE 1: Psychological type profile of visitors to four cathedrals, compared with UK population norms.

cathedrals to recognise the potential marginalisation of visitors who do not conform to the prevalent type.

Sensing and intuition

Sensing types and intuitive types perceive their environment in very different ways. The predominant preference of cathedral visitors (as of the UK population) is for sensing. According to the characterisation of the Francis Psychological Type Scales, sensing types focus their attention on the present realities as they experience them. They are people who are interested in facts and who are concerned about details. There is a great deal in cathedrals that may catch their attention and about which they may wish to know more. Dates when parts of the cathedral were built may interest them. They may be curious to know the height of pillars, the weight of vaulting and the depth of foundations. Sensing types are down to earth and practical people who may wish to know about the day-to-day details of cathedral life. They tend to be conservationists at heart who tend to keep things as they have been in the past.

On the other hand, a cathedral designed to catch the interest of sensing types may overwhelm intuitive types with lots of information that they may see as largely irrelevant to their own interests and to their way of perceiving the world. Intuitive types are concerned with the meaning of things rather than with the facts about things. Intuitive types go for the bigger picture that links things together, rather than with the individual details. Intuitive types prefer to be inspired by the overall vision rather than by the component parts. Intuitive types are attracted by abstract ideas rather than by concrete plans. For intuitive types, future possibilities catch their imagination better than an account of present realities. Their interests are in improving things rather than in conserving things. Properly managed, there is great potential in cathedrals to inspire and to captivate intuitive types.

The sixteen complete types

ISTJ	ISFJ	INFJ	INTJ
$n = 545$	$n = 343$	$n = 107$	$n = 152$
(23.4%)	(14.7%)	(4.6%)	(6.5%)
$I = 1.71^{***}$	$I = 1.16$	$I = 2.68^{***}$	$I = 4.64^{***}$
+++++	+++++	+++++	++
+++++	+++++		
+++++	+++++		
+++++			
+++			

ISTP	ISFP	INFP	INTP
$n = 61$	$n = 50$	$n = 53$	$n = 35$
(2.6%)	(2.1%)	(2.3%)	(1.5%)
$I = .41^{***}$	$I = .35^{***}$	$I = .72$	$I = .61^{*}$
+++	++	++	++

ESTP	ESFP	ENFP	ENTP
$n = 44$	$n = 63$	$n = 87$	$n = 33$
(1.9%)	(2.7%)	(3.7%)	(1.4%)
$I = .33^{***}$	$I = .31^{***}$	$I = .59^{***}$	$I = .51^{**}$
++	+++	++++	+

ESTJ	ESFJ	ENFJ	ENTJ
$n = 301$	$n = 260$	$n = 104$	$n = 89$
(12.9%)	(11.2%)	(4.5%)	(3.8%)
$I = 1.24^{*}$	$I = .89$	$I = 1.62^{**}$	$I = 1.30$
+++++	+++++	+++++	++++
+++++	+++++		
+++	+		

Dichotomous preferences

	n	%	Index
E	981	(42.2%)	$I = .81^{***}$
I	1346	(57.8%)	$I = 1.21^{***}$
S	1667	(71.6%)	$I = .94^{***}$
N	660	(28.4%)	$I = 1.21^{***}$
T	1260	(54.1%)	$I = 1.18^{***}$
F	1067	(45.9%)	$I = .85^{***}$
J	1901	(81.7%)	$I = 1.40^{***}$
P	426	(18.3%)	$I = .44^{***}$

Pairs and temperaments

	n	%	Index
IJ	1147	(49.3%)	$I = 1.67^{***}$
IP	199	(8.6%)	$I = .47^{***}$
EP	227	(9.8%)	$I = .41^{***}$
EJ	754	(32.4%)	$I = 1.13^{*}$
ST	951	(40.9%)	$I = 1.12^{**}$
SF	716	(30.8%)	$I = .77^{***}$
NF	351	(15.1%)	$I = 1.08$
NT	309	(13.3%)	$I = 1.39^{***}$
SJ	1449	(62.3%)	$I = 1.26^{***}$
SP	218	(9.4%)	$I = .35^{***}$
NP	208	(8.9%)	$I = .61^{***}$
NJ	452	(19.4%)	$I = 2.20^{***}$
TJ	1087	(46.7%)	$I = 1.64^{***}$
TP	173	(7.4%)	$I = .43^{***}$
FP	253	(10.9%)	$I = .45^{***}$
FJ	814	(35.0%)	$I = 1.17^{***}$
IN	347	(14.9%)	$I = 1.70^{***}$
EN	313	(13.5%)	$I = .91$
IS	999	(42.9%)	$I = 1.10^{*}$
ES	668	(28.7%)	$I = .77^{***}$
ET	467	(20.1%)	$I = .92$
EF	514	(22.1%)	$I = .73^{***}$
IF	553	(23.8%)	$I = 1.00$
IT	793	(34.1%)	$I = 1.42^{***}$

Jungian types (E)				Jungian types (I)				Dominant types			
	n	%	Index		n	%	Index		n	%	Index
E-TJ	390	16.8	1.26^{**}	I-TP	96	4.1	$.46^{***}$	Dt.T	486	20.9	$.94$
E-FJ	364	15.6	1.02	I-FP	103	4.4	$.48^{***}$	Dt.F	467	20.1	$.81^{***}$
ES-P	107	4.6	$.32^{***}$	IS-J	888	38.2	1.44^{***}	Dt.S	995	42.8	1.04
EN-P	120	5.2	$.57^{***}$	IN-J	259	11.1	3.57^{***}	Dt.N	379	16.3	1.34^{***}

Note: $N = 2,327$ (NB: + = 1% of N).
$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

FIGURE 2: Psychological type profile of visitors to St Davids Cathedral compared with UK population norm.

Thinking and feeling

Thinking types and feeling types evaluate their experience and their situation in very different ways. Cathedral visitors (like the UK population) combine quite a close balance between feeling types and thinking types. Properly managed, cathedrals are well placed to stimulate the interest and engagement of both types. According to the characterisation of the Francis Psychological Type Scales, thinking types are guided by their head. They make decisions and form judgements on the basis of logical and independent analysis. Thinking types are people who seek for truth and who are concerned with justice. They tend to be fairminded, critical and sceptical. Here are people who may want to know what the cathedral stands for and what the cathedral does to bring about justice and fairness in the world. Here are people who may be inspired by the God of justice. Principles are important to them, and they may wish to interrogate the principles that underpin the Christian tradition. They may wish to test the authority and context of scripture. They may wish to know about the programmes of teaching that proclaim the God of justice to the world.

According to the characterisation of the Francis Psychological Type Scales, feeling types are guided by their heart. They make decisions and form judgements on the basis of personal values and interpersonal relationships. Feeling types are people who seek for peace and are concerned with harmony. They tend to be warm-hearted, affirming and trusting. Here are people who may want to know what the cathedral does to improve the lives of people and what the cathedral does to bring about harmony and peace in the world. Here are people who may be inspired by the God of mercy. Values are important to them, and they may wish to explore the values that underpin the Christian tradition. They may wish to know about the people who bring the cathedral to life and who witness to the God of mercy in the world.

Introversion and extraversion

Introverts and extraverts have different ways of engaging with public and social events. The predominant preference of cathedral visitors is for introversion. According to the characterisation of the Francis Psychological Type Scales, introverts tend to be private people who may at times seem to be socially detached. They do not welcome crowded gatherings and feel drained and de-energised by having too many people around them. They welcome their own space in which to be reflective. They seem to be reserved and reluctant to join in wider conversations. Introverts need time to think things through before speaking. They are good at listening but dislike being put on the spot to make responses. Introverts are people who develop deep friendships with a small number of people rather than going around with a crowd. These are important characteristics to keep in mind when arranging tours of the cathedral or welcoming visitors on their arrival.

On the other hand, a cathedral designed to welcome introverts may feel somewhat aloof and unfriendly to the more extraverted visitors. Extraverts enjoy being sociable, they enjoy being part of a group and they enjoy being socially involved. In fact, extraverts are energised by being around others. Extraverts need to talk through their experiences and to process them outwardly, in stark contrast with the introverts' preference for processing things internally, in silence and alone. In group contexts, extraverts find it easy to take over the conversation and to determine the direction of discussion. Tour guides that allow this to happen will observe the introverts slipping into the background and seeking escape from the planned tour.

Judging types and perceiving types

Judging types and perceiving types have very different ways of dealing with their engagement in the external world. The predominant preference of cathedral visitors is for judging. According to the characterisation of the Francis Psychological Type Scales, judging types like to live in an ordered and structured environment. They like to be in control of what they are doing and to plan well in advance. Judging types are unlikely to arrive at the cathedral unprepared. They may well have visited the website, sought out the options and have a clear schedule in their head as to what can be achieved within the time that they have allocated for the visit. Judging types tend to dislike having their plans unsettled. If the cathedral website says that the cathedral opens at 9.00 AM, but in reaility the doors remain locked up until 10.00 AM, judging types will notice. If the cathedral website says that the tower is open on Tuesdays, but when they arrive the day has been changed to Wednesday, they will notice. Judging types are unhappy with uncertainty. They respect a well-run ship.

On the other hand, a cathedral designed to welcome judging types may feel somewhat overstructured and too inflexible to perceiving type visitors. Perceiving type visitors enjoy turning up unexpectedly and being surprised by what they find. They may need time and space to wander round before they discover something that fires their interest. Then they may welcome flexible and spontaneous welcomers to be there to address their curiosity and to point them in the right direction. Perceiving types are easy-going and adaptable. They like to be free to act on impulse and to explore options. They go away disappointed if a structured organisation cannot be flexible enough to listen to them and to accommodate their newly sparked interests.

Conclusion

The present study has placed the science of cathedral visitor studies within the wider context of empirical research concerned with visitor studies, heritage studies, tourism analysis and the leisure and hospitality industries. The science of cathedral visitor studies is complex, given the distinctive nature and mission of cathedrals themselves. As religious foundations, cathedrals may well wish to prioritise the religious or spiritual quest of its visitors. At the same time, as an integral part of the leisure and tourism industries within their local communities, cathedrals may also wish to draw on the wider segmentation theories employed by those cognate sciences. The sociographic segmentation of cathedral visitors has been addressed by a number of studies reviewed in the introduction of this article. Alongside the variables addressed by sociological analyses, such as gender, age and social class, the present study has drawn attention to the additional insights afforded by psychographic segmentation.

Psychographic segmentation respects the individuality of each visitor, but at the same time it recognises that there are established patterns among individuals that may characterise distinctive behaviours and expectations. It is simply unrealistic to expect introverts and extraverts to behave in the same way and to respond well to the same experience. Awareness of psychological type preferences can encourage cathedrals to not only cater well for preferences of their core constituency of visitors but also to make provision for an inclusive welcome to be extended to those visitors who do not fit the core constituency.

At the same time, research concerned with the psychographic segmentation of cathedral visitors has drawn attention to the way in which there are sections of the population that are less likely to access cathedrals, for example, extraverts and perceiving types. This is the kind of problem with which churches are well familiar in terms of those who attends Sunday worship (see Francis, Robbins, & Craig 2011; Francis & Robbins 2012). In order to extend the reach of Sunday worship, churches have initiated alternative forms of worship and fresh expressions of church (see Francis, Clymo, & Robbins 2014; Village 2015). In similar ways, cathedrals are trying to extend their reach into the visitor market with a range of installations and events during the peak tourism season (see Ecorys 2021). The next task for research in the tradition of the present study is to explore whether such

initiatives may or may not be successful in opening cathedral doors to the psychological type profile of those who are currently more reluctant to enter.

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Authors' contributions

L.J.F. took responsibility for overall conceptualisation of the paper. S.M. oversaw the involvement of the cathedral in the project and the design of the survey instrument. Both authors contributed to the writing and agreed to the final text.

Ethical considerations

This study received ethical approval from the Glyndwr University for doctoral research.

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Data availability

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Disclaimer

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