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The psychological type profile of the gatekeepers who book tickets online for cathedral installations: a replication study

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ABSTRACT

Employing the Francis Psychological Type Scales, this study presents the psychological type profile of 493 individuals who booked tickets for a pre-Christmas *son et lumiere* in Liverpool Cathedral. The data replicates the findings of an earlier study among 778 similar participants. Intuitive types and perceiving types were underrepresented, with an over-representation of the Epimethean (SJ) temperament. The implications of these findings are discussed in terms of limiting access to the installation.

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Introduction

Psychological type theory has played an interesting part in the development of the science of cathedral studies as conceptualised by Francis (2015). Studies profiling cathedral congregations have shown that cathedrals are reaching types of people underrepresented in church congregations as profiled by Francis, Robbins, and Craig (2011). This is the case both for Sunday services (Francis and Lankshear 2021) and even more so for Christmas Carol Services (Francis, Edwards, and ap Siôn 2021; Francis, Jones, and McKenna 2020, 2021; Walker 2012). Studies profiling cathedral visitors have shown that some psychological types are underrepresented in the general profile of cathedral visitors (Francis and Mansfield 2022; Francis et al. 2012). On the other hand, studies profiling those who attend specific events in cathedrals show that such events can attract types of people underrepresented in any general cathedral visitors (Francis et al. 2023).

Psychological type has its roots in the work of Jung (1971) and has been clarified and developed through a series of psychological measures, including the Keirsey Temperament Sorter (Keirsey and Bates 1978), the Myers-Briggs Type Indicator (Myers and McCaulley 1985), and the Francis Psychological Type Scales (Francis 2005; Francis, Laycock, and Brewster 2017). Psychological type theory distinguishes between two core cognitive processes, the perceiving process that is concerned with gathering information and the judging process that is concerned with evaluating information. The perceiving process is expressed through two contrasting functions styled sensing and

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intuition. The judging process is expressed through two contrasting functions styled thinking and feeling. Sensing types (S) focus on the details, while intuitive types (N) focus on the big picture. Thinking types (T) emphasise objective logical analysis, while feeling types (F) emphasise subjective and interpersonal values. Within psychological type theory these two core cognitive processes are nested within two orientations and two attitudes. The orientations are concerned with the source of psychological energy: introverts (I) are energised by their inner world, while extraverts (E) are energised by the outer world. The attitudes are concerned with the orientation within which individuals exercise their preferred perceiving function and their preferred judging function. Judging types (J) employ their preferred judging function in the outer world and appear to others as organised and well-prepared individuals, while perceiving types (P) employ their preferred perceiving function in the outer world and appear to others as flexible and spontaneous individuals. It is these four contrasting characteristics, concerning orientations (I and E), perceiving (S and N), judging (T and F) and attitude toward the outer world (J and P) that carry implications for individual differences in visitor motivation, expectations and experience.

Temperament theory was developed from the basic building blocks of psychological type theory by Keirsey and Bates (1978). Temperament theory gives priority to the perceiving process, distinguishing between sensing and intuition. The two temperaments associated with sensing are distinguished by the attitude toward the outer world: sensing and judging types, the Epimethean temperament (SJ), tend to be the guardians of tradition, while sensing and perceiving types, the Dionysian temperament (SP), tend to be alert to new experiences. The two temperaments associated with intuition are distinguished by the judging function with which intuition is paired: intuitive and feeling types, the Apollonian temperament (NF), tend to quest for authenticity and self-actualisation and display great capacity for empathic listening, while intuitive and thinking types, the Promethean temperament (NT), tend to quest for understanding and interpreting reality and prize their personal competence.

Given the capacity of special events to draw across the threshold into cathedrals a wider range of psychological types, Francis and Village (2025) explored the implications of cathedrals placing such events behind an online booking process. Three observations sparked this question. First, the two psychological types noticeably absent from general cathedral visitors were intuitive types and perceiving types (see Francis and Mansfield 2022). Second, the study of those visiting a jazz festival in a cathedral reported by Francis et al. (2023) reported significantly more intuitive types (41% compared with 28%) and significantly more perceiving types (27% compared with 20%), indicating that such types can be reached by cathedrals. Third, the requirement to plan ahead and to book tickets well in advance sits less comfortably with the preferences of intuitive types and perceiving types. Responding to these observations, Francis and Village (2025) developed three particular hypotheses that could be tested empirically. Advanced online booking is likely to appeal more to judging types than to perceiving types, more to dominant sensing types than to dominant intuitive types, and more to the Epimethean temperament (SJs).

To test these three hypotheses, Francis and Village (2025) conducted a survey among those who had booked tickets online to attend one of the two *son et lumiere* experiences offered by Luxmuralis in Liverpool Cathedral during 2022: the installation, *Space, the Universe and Everything*, during February and the installation, *The Light before*

Christmas: The angels are coming, during early December. Of the 1,261 individuals who completed the main part of the survey, 778 participants (159 men and 619 women) also completed the Francis Psychological Type Scales (Francis 2005; Francis, Laycock, and Brewster 2017).

Francis and Village (2025) compared the profile of these 778 individuals who booked tickets online for the *son et lumiere* in Liverpool Cathedral with the profile of 1,082 visitors to four cathedrals (three in England and one in Wales) reported by Francis and Mansfield (2022), and this is what they found. Comparison with the normative data for cathedral visitors draws attention to the ways in which the dichotomous preferences of those who book the tickets differ from those norms. While 80% of cathedral visitors preferred judging, the proportion rose to 88% among those who booked tickets online. While 72% of cathedral visitors preferred sensing, the proportion rose to 77% among those who booked tickets online. While 51% of cathedral visitors preferred feeling, the proportion rose to 59% among those who booked tickets online. In terms of dominant type preferences, while 43% of cathedral visitors were dominant sensing types, the proportion rose to 49% among those who booked tickets online. In terms of temperament theory, while 62% of cathedral visitors were Epimethean temperament, the proportion rose to 72% among those who booked tickets online. These findings clearly supported the three hypotheses.

Research aim

A clear commitment within the science of cathedral studies as conceptualised by Francis (2015) is to the patient replication of studies. Following the so-called ‘replication crisis in psychology’ as recently summarised by Pennington (2023), the specific aim of the present study is to re-run the analysis reported by Francis and Village (2025) on a new set of data. The opportunity to do this was provided by the Luxmuralis pre-Christmas *son et lumiere* in Liverpool Cathedral during early December 2024. Once again the installation was managed by online booking.

Method

Procedure

When people purchased tickets to attend the 2024 *son et lumiere* in Liverpool Cathedral, *The Light before Christmas: Starlight*, they were invited to give assent to receiving a follow-up survey from the Cathedral team to assess their experience. The first part of this follow-up survey was completed by 660 people, of whom 493 proceeded also to complete their psychological type profile.

Instrument

Psychological type was assessed by the Francis Psychological Type Scales (FPTS: Francis 2005; Francis, Laycock, and Brewster 2017). This 40-item instrument comprises four sets of 10 forced-choice items covering 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, Craig, and Hall (2008) have demonstrated that this instrument functions well in church-related contexts, reporting alpha coefficients of .83 for the EI scale, .76 for the SN scale, .73 for the TF scale and .79 for the JP scale. For each pair of characteristics, participants were asked 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. You need to complete every question, even if you find it hard to decide.

Participants

Of the 493 individuals who provided data on their psychological type, 130 were male, 361 were female and two preferred not to say; 116 were under the age of 50, 265 were in their fifties or sixties, 111 were aged seventy or over and one preferred not to say.

Analysis

A highly distinctive method for analysing, handling and displaying statistical data in the form of 'type tables' has been developed within the empirical investigation of psychological type. This convention has been adopted in the following presentation to enable integration of these new data within the existing literature and to provide sufficient detail to aid secondary analysis and further interpretation within the rich theoretical framework afforded by psychological type theory. The 16 discrete psychological types, the four dichotomous preferences, the six sets of pairs and temperaments, the dominant types and the introverted and extraverted Jungian types are all incorporated in the design of the type tables. Only commentary pertinent to those aspects of the data strictly relevant to the research question will be provided.

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, $\alpha = .78$; sensing and intuition, $\alpha = .64$; thinking and feeling, $\alpha = .71$; judging and perceiving, $\alpha = .75$.

Table 1 presents the psychological type profile of 493 individuals who used the online provider to book tickets to attend a *Luxmuralis son et lumiere* in Liverpool Cathedral. These data demonstrate that there were more introverts (63%) than extraverts (38%), more sensing types (83%) than intuitive types (17%), more feeling types (55%) than thinking types (45%) and more judging types (92%) than perceiving types (9%). In terms of dominant type preferences half of all participants were dominant sensing types (52%), almost a quarter were dominant feeling types (22%), 14% were dominant thinking types and 12% were dominant intuitive types. The most prevalent complete types were ISTJ (26%), ISFJ (24%), ESFJ (17%) and ESTJ (12%). In terms of temperament theory, the most prevalent temperament was SJ (79%), followed by NF (11%), NT (6%) and SP (5%).

Table 1. Psychological type profile of those who book the tickets

The Sixteen Complete Types						Dichotomous Preferences		
ISTJ <i>n</i> = 127 (25.8%) +++++ +++++ +++++ +++++ +++++ +++++ +	ISFJ <i>n</i> = 119 (24.1%) +++++ +++++ +++++ +++++ +++++	INFJ <i>n</i> = 25 (5.1%) +++++	INTJ <i>n</i> = 19 (3.9%) ++++	E <i>n</i> = 185 (37.5%) I <i>n</i> = 308 (62.5%) S <i>n</i> = 409 (83.0%) N <i>n</i> = 84 (17.0%) T <i>n</i> = 221 (44.8%) F <i>n</i> = 272 (55.2%) J <i>n</i> = 451 (91.5%) P <i>n</i> = 42 (8.5%)				
ISTP <i>n</i> = 6 (1.2%) +	ISFP <i>n</i> = 7 (1.4%) +	INFP <i>n</i> = 4 (0.8%) +	INTP <i>n</i> = 1 (0.2%)	Pairs and Temperaments				
				IJ <i>n</i> = 290 (58.8%) IP <i>n</i> = 18 (3.7%) EP <i>n</i> = 24 (4.9%) EJ <i>n</i> = 161 (32.7%) ST <i>n</i> = 193 (39.1%) SF <i>n</i> = 216 (43.8%) NF <i>n</i> = 56 (11.4%) NT <i>n</i> = 28 (5.7%) SJ <i>n</i> = 387 (78.5%) SP <i>n</i> = 22 (4.5%) NP <i>n</i> = 20 (4.1%) NJ <i>n</i> = 64 (13.0%) TJ <i>n</i> = 210 (42.6%) TP <i>n</i> = 11 (2.2%) FP <i>n</i> = 31 (6.3%) FJ <i>n</i> = 241 (48.9%) IN <i>n</i> = 49 (9.9%) EN <i>n</i> = 35 (7.1%) IS <i>n</i> = 259 (52.5%) ES <i>n</i> = 150 (30.4%) ET <i>n</i> = 68 (13.8%) EF <i>n</i> = 117 (23.7%) IF <i>n</i> = 155 (31.4%) IT <i>n</i> = 153 (31.0%)				
ESTP <i>n</i> = 1 (0.2%)	ESFP <i>n</i> = 8 (1.6%) ++	ENFP <i>n</i> = 12 (2.4%) ++	ENTP <i>n</i> = 3 (0.6%) +					
ESTJ <i>n</i> = 59 (12.0%) +++++ +++++ +++++ ++	ESFJ <i>n</i> = 82 (16.6%) +++++ +++++ +++++ +++++ ++	ENFJ <i>n</i> = 15 (3.0%) +++	ENTJ <i>n</i> = 5 (1.0%) +					
Jungian Types (E)			Jungian Types (I)		Dominant Types			
	<i>n</i>	%		<i>n</i>		<i>n</i>	%	
E-TJ	64	13.0	I-TP	7	1.4	Dt.T	71	14.4
E-FJ	97	19.7	I-FP	11	2.2	Dt.F	108	21.9
ES-P	9	1.8	IS-J	246	49.9	Dt.S	255	51.7
EN-P	15	3.0	IN-J	44	8.9	Dt.N	59	12.0

Note: *N* = 493 (NB: + = 1% of *N*).

Discussion

The profile presented in Table 1 is highly similar to the profile published by Francis and Village (2025), who drew attention to three specific hypotheses. The first hypothesis was that online booking would appeal more strongly to judging types. The first study reported that 88% of the participants preferred judging, and so did 92% in the present study. The second hypothesis was that online booking

would appeal more strongly to sensing types. The first study reported that 77% of the participants preferred sensing, and in the present study even more did so (83%). The third hypothesis was that online booking would appeal more strongly to the Epimethean temperament (SJs). The first study reported that 72% of the participants reported the Epimethean temperament, and the proportion rose further to 79% in the second study. In other words, the replication study supported the findings of the original study.

Conclusion

As a replication study, the present study was designed to check the findings of the original study reported by Francis and Village (2025). The theory being tested was that the gatekeepers for attendance at cathedral installations, namely those who book tickets online, may display specific preferences as identified by psychological type theory and by temperament theory. The data provided both by the original study and by the replication suggest that, in psychological type categories, these gatekeepers tend to be sensing types and judging types with consequent underrepresentation of intuitive types and perceiving types. In temperament theory categories, these gatekeepers tend to be Epimethean (SJ) with consequent underrepresentation of the other three temperaments.

These findings lead to the conclusion that, while innovative installations, exhibitions and events, like the *son et lumière* immersive experiences designed by Luxmuralis, may have a wider psychographic appeal to extend the range of psychological types visiting cathedrals, the need to regulate attendance at such installations by means of advanced online booking may exercise a counter trend of narrowing the psychographic appeal. What is not known, however, from these two studies is anything about the psychological diversity of those for whom these gatekeepers purchased tickets in addition to the tickets purchased for themselves. Many of the gatekeepers purchased multiple tickets for family and friends. A different (and more costly) research design would be required to reach this wider range of participants including both those who purchased tickets and those for whom tickets were purchased.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability

Data are available from the corresponding author upon reasonable request.

Ethics approval

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-05-22-01). All participants had to affirm they were 18 or over and give their informed consent by clicking a box that gave access to the rest of the survey.

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