The construct validity of the Schutte Emotional Intelligence Scale in light of psychological type theory: A study among Anglican clergy

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Abstract

This study explores the construct validity of the Schutte Emotional Intelligence Scale in the light of psychological type theory that hypothesises a bias in item content to favour extraverts over introverts, sensing types over intuitive types, feeling types over thinking types, and perceiving types over judging types. Data provided by 364 Anglican clergy serving in the Church in Wales, who completed the Schutte Emotional Intelligence Scale alongside the Francis Psychological Type Scales, confirm higher scores among extraverts (compared with introverts), intuitive types (compared with sensing types), and feeling types (compared with thinking types), but found no significant difference between judging types and perceiving types. These data are interpreted to nuance the *kind* of emotional intelligence accessed by the Schutte Emotional Intelligence Scale and to encourage future scale development that may conceptualise emotional intelligence in ways more independent of psychological type preferences.

Keywords: emotional intelligence, Schutte Scale, clergy, psychology of religion

Introduction

The notion of emotional intelligence, introduced by Salovey and Mayer (1990) and Mayer and Salovey (1993, 1995) and developed by Goleman (1995, 1998) has gained significance in the field of occupational psychology in view of its potential value in understanding and predicting individual differences in work-related performance across a range of fields (Kafetsios, Maridaki-Kassotaki, Zammuner, Zampetakis, & Vouzas, 2009). For example, recent studies have explored emotional intelligence in relation to nurses (Gerits, Derksen, Verbruggen, & Katzko, 2005; Heffernan, Quinn-Griffin, McNulty, & Fitzpatrick, 2010; Snowden, Stenhouse, Young, Carver, Carver, & Brown, 2015), teachers (Chan, 2004, 2006; Yin, Lee, Zhang, & Jin, 2013; Hen & Sharabi-Nov, 2014; Vesely, Saklofske, & Nordstokke, 2014; Yin, 2015), religious professionals (Billard, Greer, Merrick, Sneck, & Scheers, 2005; Boyatzis, Brizz, & Godwin, 2011; Francis, Ryland, & Robbins, 2011; Randall, 2014, 2015; Hendron, Irving, & Taylor, 2014; Francis, Robbins, & Ryland, 2015; Vicente-Galindo, López-Herrera, Pedrosa, Suárez-Álvarez, Galindo-Villardón, & García-Cueto, 2017), and managers (Carmeli, 2003; Downey, Papageorgiou, & Stough, 2006; Angelidis & Ibrahim, 2011; Siegling, Sfeir, & Smyth, 2014).

In spite of its popularity and apparent utility, the notion of emotional intelligence is also a highly contested concept (Dulewicz, Higgs, & Slaski, 2003). The two main problems with the notion of emotional intelligence concern, on the one hand, the definition and conceptualisation of the construct and, on the other hand, the operationalisation and measurement of the construct. In terms of conceptualisation, different research traditions have advanced diverging definitions of emotional intelligence, to the point that some commentators have argued that this lack of clarity and agreement renders emotional intelligence an elusive construct (Davies, Stankov, & Roberts, 1998, p. 989), no longer a viable concept (Becker, 2003) or even an invalid and unacceptable concept (Locke, 2005). In

terms of operationalisation the major instruments in the field seem to be accessing diverging phenomena, to the point that some commentators have argued that emotional intelligence has "proven resistant to measurement" (Becker, 2003, p. 194). For example, only relatively small correlations can be predicted between measures like the Bar-On Emotional Quotient Inventory (Bar-On, 1997), the Mayer-Salovey-Caruso Emotional Intelligence Inventory (Mayer, Salovey, & Curuso, 2002), and the Schutte Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998). It is for these reasons that it becomes important to give detailed attention to the construct validity of such instruments to test what in fact it is they are measuring.

Since the mid-1990s researchers have developed two perspectives in relation to emotional intelligence: *ability EI* (e.g., Mayer & Salovey, 1997) and *trait EI* (e.g., Petrides & Furnham, 2003). Following the initial development of EI measures, two strands developed as researchers began to recognise the fundamental difference between maximal performance (ability EI) and typical performance (trait EI). The construct operationalisation is quite different. Ability EI relates to a cognitive view of EI, and ability tests capture maximal performance, whereas trait EI suggests EI is primarily dispositional and should be tested much as is personality with self-report questionnaires (Mikolajczak & Luminet, 2008). The Mayer-Salovey-Caruso Emotional Intelligence Inventory (Mayer, Salovey, & Caruso, 2002) is an example of an ability EI measure which has a strongly cognitive definition of EI. On the other hand, the Bar-On Emotional Quotient Inventory (Bar-On, 1997) and the Schutte Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998) are trait EI measures that "essentially concern(s) people's perceptions of their emotional world" (Petrides, Mikolajczak, Mavroveli, Sanchez-Ruiz, Furnham, & Pérez-González, 2016, p. 1).

Given the growth in the use of the Schutte Emotional Intelligence Scale, as documented by Schutte, Malouff, and Bhullar (2009), the present study focuses attention on that instrument. While originally established in English, several translations have been made of the Schutte Emotional Intelligence Scale into other languages, including Hebrew (Carmeli, 2003), Polish (Ogińska-Bulik, 2005), Swedish (Sjöberg, 2001), and Turkish (Yurtsever, 2003). It is these translations that are beginning to build up a significant body of international research co-ordinated around the use of the same instrument.

The Schutte Emotional Intelligence Scale (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim, 1998), also known in the literature as the Self-Report Emotional Intelligence Test and the Assessing Emotions Scale (see Schutte, Malouff, & Bhullar, 2009) was rooted in Salovey and Mayer's (1990) original model of emotional intelligence. This model defined emotional intelligence as comprising three categories of adaptive abilities: appraisal and expression of emotion, regulations of emotion, and utilisation of emotions in solving problems. Schutte et al. (1998) define these three categories in the following terms.

> The first category consists of the components of appraisal and expression of emotion in the self and appraisal of emotion in others. The component of appraisal and expression of emotion in the self is further divided into the subcomponents of verbal and non-verbal and as applied to others is broken into the subcomponents of non-verbal perception and empathy. The second category of emotional intelligence, regulation, has the components of regulation of emotions in the self and regulation of emotions in others. The third category, utilisation of emotion, includes the components of flexible planning, creative thinking, redirected attention and motivation. Even though emotions are at the core of this model, it also encompasses social and cognitive functions related to the expression, regulation and utilisation of emotions. (Schutte et al., 1998, p. 168)

The Schutte Emotional Intelligence Scale, as proposed by Schutte et al. (1998), is a 33-item self-report inventory. According to this foundation paper, the 33 items were selected as comprising one principal factor, selected from a pool of 62 items on data provided by 346 participants recruited from a variety of settings in a metropolitan area in the south eastern United States of America. Subsequent factor analyses have produced different preferred solutions. Brackett and Mayer (2003) and Cakan and Altun (2005) supported the one factor solution. Gignac, Palmer, Manocha, and Stough (2005) confirmed a single higher order factor with associated sub-factors. Petrides and Furnham (2000), Ciarrochi, Chan, and Bajgar (2001) and Saklofske, Austin, and Minski (2003) all preferred a four factor solution. Austin, Saklofske, Huang, and McKenney (2004) preferred a three factor solution. Jonker and Vosloo (2008) preferred a six factor solution.

Working with the single factor solution, the foundation paper by Schutte et al. (1998) reported an internal consistency alpha reliability of .90 (Cronbach, 1951) and a two-week test-retest reliability of .78. Schutte, Malouff, and Bhullar (2009) published the alpha coefficients from 27 studies. They report that the mean alpha coefficient from across these studies is .87. Some of the individual studies report alpha coefficients lower than .80, including .76 in a study among 203 adolescents in Malaysia (Liau, Liau, Teoh, & Liau, 2003), .78 in a study among 566 university students in the United States of America (Guastello & Guastello, 2003), and .79 in a study among 226 prospective university students in Sweden (Sjöberg, 2001). Other studies report alpha coefficients of .90 and above, including .95 among 71 university students and 94 university lecturers in Turkey (Yurtsever, 2003), .93 among 207 university students in the United States of America (Brackett & Mayer, 2003), and .90 among 98 seminar managers in Israel (Carmeli, 2003).

Working with the single factor solution, the foundation paper by Schutte et al. (1998) reported a significantly higher mean scale score among women than among men. Subsequent

studies that have reported means and standard deviations on total scale scores for men and for women separately have either supported this original finding, reporting significantly higher scores among women (Carmeli & Josman, 2006; Ciarrochi, Chan, & Bajgar, 2001; Pau & Croucher, 2003; Van Rooy, Alonso, & Viswesvaran, 2005; Saklofske, Austin, Galloway, & Davidson, 2007; Jonker & Vosloo, 2008) or have found no significant difference between the two sexes (Saklofske, Austin, & Minski, 2003; Schutte et al. 2001; Wing, Schutte, & Byrne, 2006). No study has reported a significantly higher mean score among men.

In the foundation paper of Schutte et al. (1998) the finding that women recorded significantly higher scores of emotional intelligence than men was interpreted to support the construct validity of that measure. A second aspect of the construct validity of the measure was supported by the finding that a group of psychotherapists recorded significantly higher scores than a group of prisoners. In the foundation paper, construct validity of the measure was further established alongside a range of instruments, including the Toronto Alexithymia Scale (Taylor, Ryan, & Bagby, 1985), the Attention, Clarity and Mood Repair subscales of the Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), the Optimism subscale of the Life Orientation Test (Scheier & Carver, 1985; Marshall, Wortman, Kusulas, Hervig, & Vickers, 1992), the Zung Depression Scale (Zung, 1965), and the Barratt Impulsiveness Scale (Patton, Stanford, & Barratt, 1995).

Following the foundation study of Schutte et al. (1998), further pointers to construct validity are offered by the correlations reported in subsequent studies. These include a more empathic perspective taking, greater self-monitoring in social situations, greater closeness and warmth in relationships, and greater marital satisfaction (Schutte, et al., 2001), greater co-operation in a prisoner's dilemma situation (Schutte, et al., 2001), stronger persistence under frustrating circumstances (Schutte, Schuettpelz, & Malouff, 2001), better adjustment to beginning university life (Schutte & Malouff, 2002), better mood repair after a negative

mood induction (Schutte, Malouff, Simunek, McKenley, & Hollander, 2002), less debilitating fatigue (Brown & Schutte, 2006), better supervisor rated task performance, and better organised citizenship (Carmeli & Josman, 2006), less depression (Ogińska-Bulik, 2005), greater life satisfaction (Wing, Schutte, & Byrne, 2006), better psychological wellbeing (Carmeli, Yitzhak-Halevy, & Weisberg, 2009), and greater compassion satisfaction, higher levels of problem-focused coping, and more positive mood states (Zeidner & Hadar, 2014). Another aspect of validity was proposed by Kirk, Schutte, and Hine (2008) who found that scores on the Schutte Emotional Intelligence Scale were not associated with scores on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

The distinctive position held by the Schutte Emotional Intelligence Scale is demonstrated by the relatively low correlations recorded with other established measures of emotional intelligence. Brackett and Mayer (2003) reported significant correlations of .43 with the Bar-On Emotional Quotient Inventory (Bar-On, 1996), and .18 with the Mayer-Salovey-Caruso Emotional Intelligence Test (Mayer, Salovey, & Caruso, 2002). Bastian, Burns, and Nettelbeck (2005) did not find scores on the Schutte Emotional Intelligence Scale to be significantly correlated with scores on the Mayer-Salovey-Caruso Emotional Intelligence Test.

Introducing a special issue of *Personality and Individual Differences* on emotional intelligence, Austin and Saklofske (2014) argue that “an important aspect of the study of EI is establishing its association with cognition and personality” (p. 1). Personality theories may provide a stable and coherent framework within which scores on the Schutte Emotional Intelligence Scale can be located and the construct critiqued. One such established model of personality is the Big Five Factors as operationalised by Costa and McCrae (1985) and as discussed by Goldberg (1993) and by John and Srivastava (1999). These five factors are generally characterised as extraversion, agreeableness, conscientiousness, emotional stability,

and openness. One group of studies has explored the correlations between the big five factors of personality and trait emotional intelligence as assessed by various editions of the Trait Emotional Intelligence Questionnaire (TEIQue; Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides, 2009), including work reported by Vernon, Villani, Schermer, and Petrides (2008), Petrides, Vernon, Schermer, Ligthart, Boomsma, and Veselka (2010), Russo, Mancini, Trombini, Baldaro, Marroveli, and Petrides (2012), van der Linden, Tsaousis, and Petrides (2012), Pérez-González, and Sanchez-Ruiz (2014), and Siegling, Furnham, and Petrides (2015).

More specifically a second group of studies has explored the correlations between the big five factors of personality and the Schutte Emotional Intelligence Scale, including work reported by Schutte, Malouff, Hall, Haggerty, Cooper, Golden, and Dornheim (1998), Brackett and Mayer (2003), Zeng and Miller (2003), and Bastian, Burns, and Nettelbeck (2005). The general consensus from these studies is that emotional intelligence, as assessed by the Schutte Emotional Intelligence Scale is associated with higher level of extraversion (correlations ranging between .28 and .61), higher levels of agreeableness (correlations ranging between .09 and .26), higher levels of emotional stability (correlations ranging between .19 and .37), higher levels of conscientiousness (correlations ranging between .21 and .32), and higher levels of openness (correlations ranging between .43 and .54). Some of these correlations pose a critique of the *kind* of emotional intelligence being accessed by the Schutte Emotional Intelligence Scale. For example, the high correlation with openness poses the question regarding the extent to which this *kind* of emotional intelligence may not be independent of this dimension of personality. A more serious question may be posed by the high correlations with extraversion, suggesting that this *kind* of emotional intelligence may be unwittingly discriminating against introverts.

Some useful work has also been undertaken in locating emotional intelligence within the context of the rather different model of personality proposed by psychological type theory. For example, Higgs (2001) has explored the connection between the components of psychological type theory as operationalised by the Myers-Briggs Type Indicator (Myers & McCaulley, 1985) and the six elements of emotional intelligence proposed by the Emotional Intelligence Questionnaire (EIQ; Dulewicz & Higgs, 1999) among a sample of 177 managers. Leary, Reilly, and Brown (2009) employed the Myers-Briggs Type Indicator (Myers & McCaulley, 1985) alongside the Emotional Quotient Inventory (EQ-i; Bar-On, 1997) among 529 managers. Pearman (2002) has theorised about ways in which emotional intelligence may be expressed differently by different psychological types. Francis, Robbins, and Ryland (2015) have specifically subjected the items of the Schutte Emotional Intelligence Scale to scrutiny in light of psychological type theory.

Psychological type theory, as originally proposed by Jung (1971) and developed and operationalised by the Myers-Briggs Type Indicator (Myers & McCaulley, 1985), together with a range of other type indicators, temperament sorters and type scales, distinguishes between two orientations, two perceiving functions, two judging functions, and two attitudes toward the outer world. Conceptually psychological type theory holds a highly distinctive position within the field of personality assessment. While the majority of models, like the Big Five Factors, operate in terms of personality continua, psychological type theory operates in terms of discrete personality types.

The two orientations are concerned with where energy is drawn from; energy can be gathered either from the outside world or from the inner world. Extraverts (E) are orientated toward the outside world; they are energised by the events and people around them. They enjoy communicating and thrive in stimulating and exciting environments. They prefer to act in a situation rather than to reflect on it. They are usually open people, easy to get to know,

and enjoy having many friends. In contrast, introverts (I) are orientated towards their inner world; they are energised by their inner ideas and concepts. They may feel drained by events and people around them. They prefer to reflect on a situation rather than to act on it. They enjoy solitude, silence, and contemplation, as they tend to focus their attention upon what is happening in their inner life. They may appear reserved and detached as they are difficult to get to know, and they may prefer to have a small circle of intimate friends rather than many acquaintances.

The perceiving functions are concerned with the way in which people receive and process information. Sensing types (S) focus on the realities of a situation as perceived by the senses. They tend to focus on specific details, rather than the overall picture. They are concerned with the actual, the real, and the practical and tend to be down to earth and matter of fact. They may feel that particular details are more significant than general patterns. They are frequently fond of the traditional and conventional. In contrast, intuitive types (N) focus on the possibilities of a situation, perceiving meanings and relationships. They may feel that perception by the senses is not as valuable as information gained from the unconscious mind; indirect associations and concepts impact their perceptions. They focus on the overall picture, rather than specific facts and data. They can appear to be up in the air and may be seen as idealistic dreamers. They often aspire to bring innovative change to established conventions.

The judging functions are concerned with the way in which people make decisions and judgements. Thinking types (T) make judgements based on objective, impersonal logic. They value integrity and justice. They are known for their truthfulness and for their desire for fairness. They consider conforming to principles to be of more importance than cultivating harmony. They are often good at making difficult decisions as they are able to analyse problems to reach an unbiased and reasonable solution. They are frequently referred

to as ‘tough-minded’. They may consider it to be more important to be honest and correct than to be tactful, when working with others. In contrast, feeling types (F) make judgements based on subjective, personal values. They value compassion and mercy. They are known for their tactfulness and for their desire for peace. They are more concerned to promote harmony, than to adhere to abstract principles. They may be thought of as ‘people-persons’, as they are able to take into account other people’s feelings and values in decision-making and problem-solving, ensuring they reach a solution that satisfies everyone. They are often thought of as ‘warm-hearted’. They may find it difficult to criticise others, even when it is necessary. They find it easy to empathise with other people and tend to be trusting and encouraging of others.

The attitudes towards the outside world are concerned with the way in which people respond to the world around them, either by imposing structure and order on that world or remaining open and adaptable to the world around them. Judging types (J) have a planned, orderly approach to life. They enjoy routine and established patterns. They prefer to follow schedules in order to reach an established goal and may make use of lists, timetables, or diaries. They tend to be punctual, organised, and tidy. They may find it difficult to deal with unexpected disruptions of their plans. They prefer to make decisions quickly and to stick to their conclusions once made. In contrast, perceiving types (P) have a flexible, open-ended approach to life. They enjoy change and spontaneity. They prefer to leave projects open in order to adapt and improve them. They may find plans and schedules restrictive and tend to be easygoing about issues such as punctuality, deadlines, and tidiness. Indeed, they may consider last minute pressure to be a necessary motivation in order to complete projects. They are often good at dealing with the unexpected. Indeed, they may welcome change and variety as routine bores them. Their behaviour may often seem impulsive and unplanned.

Psychological type theory builds on these four components (two orientations, two perceiving functions, two judging functions, and two attitudes) in a variety of ways. Of particular interest is the application of type dynamics to identify an individual's dominant type preference. In this application dominant sensing characterises the practical person, dominant intuition the imaginative person, dominant feeling the humane person, and dominant thinking the analytical person. Taking this notion one step further, type dynamics distinguishes between the introverted and extraverted expressions of these four functions, thus defining eight dominant functions: extraverted sensing, introverted sensing, extraverted intuition, introverted intuition, extraverted feeling, introverted feeling, extraverted thinking, and introverted thinking.

When the items of the Schutte Emotional Intelligence Scale are reviewed critically in light of these definitions advanced by psychological type theory it becomes evident how the assumed definition of emotional intelligence operationalised by this instrument has the potential for advantaging some psychological types and at the same time disadvantaging other psychological types.

In terms of the two orientations, the model of emotional intelligence proposed by the Schutte Emotional Intelligence Scale tends to favour extraverts. Extraverts are more likely to speak about personal problems with others (item 1), to express optimism (items 2, 10, 23) to share their feelings with others (item 11), to arrange events for others (item 13), to seek out activities (item 14), and to compliment others (item 24). There are few items that favour introverts. Introverts are more likely to deal with obstacles through reflection (item 2). These data lead to the first hypothesis that extraverts will record higher scores than introverts on the Schutte Emotional Intelligence Scale.

In terms of the two perceiving functions, the model of emotional intelligence proposed by the Schutte Emotional Intelligence Scale tends to favour intuitive types. Intuitive

types are more likely to see new possibilities (item 7) to be adept at problem solving (item 17), to come up with new ideas (items 20, 27) to find new ways in the face of challenge (item 28). There are few items that favour sensing types. Sensing types are more likely to face obstacles, by remembering the past (item 2). These data lead to the second hypothesis that intuitive types will record higher scores than sensing types on the Schutte Scale.

In terms of the two judging functions, the model of emotional intelligence proposed by the Schutte Emotional Intelligence Scale tends to favour feeling types. Feeling types are more likely to be open to the confidences of others (item 4), to appreciate the non-verbal message of others (items 5, 25), to appreciate how others see them (item 15), to show empathy with others (items 8, 26, 29, 32, 33), to affirm others (item 24) and to help other people feel better when they are down (item 30). There are few items that favour thinking types. Thinking types are more likely to have control over their emotions (item 21). These data lead to the third hypothesis that feeling types will record higher scores than thinking types on the Schutte Emotional Intelligence Scale.

In terms of the two attitudes toward the outer world, the model of emotional intelligence proposed by the Schutte Emotional Intelligence Scale tends to favour perceiving types. Perceiving types are more likely to revise their judgements and come to new conclusions in the light of new data (item 6), to be aware of the immediacy of experience (item 8), to seek out experiences (item 14), and to go with the flow (item 18). There are few items that favour judging types. Judging types are more likely to plan and to arrange events (item 13). These data lead to the fourth hypothesis that perceiving types will record higher score than judging types as the Schutte Emotional Intelligence Scale.

Research question

A preliminary study reported by Francis, Robbins, and Ryland (2015) tested the four hypotheses that higher scores would be recorded on the Schutte Emotional Intelligence Scale

by extraverts (compared with introverts), by intuitive types (compared with sensing types), by feeling types (compared with thinking types), and by perceiving types (compared with judging types) among a sample of 154 individuals serving in diverse leadership roles within local churches associated with the Newfrontiers network, including elders, staff, volunteer leaders and highly committed members sharing in leadership. The data supported the first three hypotheses, but not the fourth hypothesis: no significant difference was found between the mean scale scores recorded by perceiving types and by judging types.

The aim of the present study is to replicate and to extend the study reported by Francis, Robbins, and Ryland (2015) among a very different group of church leaders, ordained Anglican priests serving within the Church in Wales. While the first study drew on a mixed group of leaders, the present study focuses on professionally trained clergy.

Method

Procedure

A questionnaire was posted to all licensed Anglican clergy serving in parochial ministry in the Church in Wales. Participation was entirely voluntary and participants were assured of anonymity and confidential. A response rate of 54% produced 364 replies from clergy who had completed the relevant measures that form the basis for the present analyses.

Participants

The 364 participants comprised 264 clergymen, 93 clergywomen, and 7 clergy who did not disclose their sex; 4 clergy under the age of thirty, 23 in their thirties, 59 in their forties, 168 in their fifties, 102 in their sixties, 7 in their seventies, and 1 who did not disclose his or her age. The majority (261) of the participants were married, 60 were single, 17 were divorced, 11 were divorced and remarried, 11 were widowed, 2 were separated, and 2 did not disclose their marital status.

Measures

Psychological type was assessed by the Francis Psychological Type Scales (FPTS; Francis, 2005). This 40-item instrument comprises 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 toward the outer world (judging or perceiving). Craig, Francis, 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.

Emotional intelligence was assessed by the 33-item Emotional Intelligence Scale proposed by Schutte et al. (1998). Each item was assessed on a five-point scale: agree strongly, agree, not certain, disagree, and disagree strongly. Francis, Ryland, and Robbins (2011) reported an alpha reliability coefficient of .81.

Analysis

The data were analysed by the SPSS statistical package drawing on the frequencies, t-test, and ANOVA routines.

Results

All five scales employed in these analyses achieved Cronbach alpha coefficients (Cronbach, 1951) in excess of the threshold of acceptability proposed by DeVellis (2003): emotional intelligence, $\alpha = .90$; introversion-extraversion, $\alpha = .83$; sensing-intuition, $\alpha = .79$; thinking-feeling, $\alpha = .76$; judging-perceiving, $\alpha = .83$.

- insert table 1 about here -

Table 1 presents the psychological type profile of the 364 Anglican clergy serving within the Church in Wales in terms of dichotomous type preferences. These data demonstrate a greater number of introverts ($N = 229$, 63%) than extraverts ($N = 135$, 37%), a greater number of sensing types ($N = 199$, 55%) then intuitive types ($N = 165$, 45%), a

greater number of feeling types (N = 251, 69%) than thinking types (N = 113, 31%), and a greater number of judging types (N = 286, 79%) than perceiving types (N = 78, 21%).

Table 1 also presents mean scale scores according to psychological type dichotomous preferences. These data demonstrate significantly higher levels of emotional intelligence among extraverts compared with introverts ($p < .001$), among intuitive types compared with sensing types ($p < .05$), and among feeling types compared with thinking types ($p < .05$). There is no significant difference, however, in respect of emotional intelligence among judging types and among perceiving types. These data, therefore, are completely consistent with the findings of Francis, Robbins, and Ryland (2015) among a very different group of church leaders.

Discussion and conclusion

This study set out to build on, to replicate and to extend an initial study reported by Francis, Robbins, and Ryland (2015) that drew attention to potential bias within some of the items of the Schutte Emotional Intelligence Scale that may have inadvertently conceptualised and operationalised emotional intelligence in ways that privileged some psychological types. Specifically conceptual analysis of the 33 items of the Schutte Emotional Intelligence Scale led Francis, Robbins, and Ryland (2015) to hypothesise that higher scores would be recorded by extraverts (compared with introverts), by intuitive types (compared with sensing types), by feeling types (compared with thinking types) and by perceiving types (compared with judging types).

The data provided by Francis, Robbins and Ryland's (2015) initial study among 154 individuals serving in diverse leadership roles within local churches associated with the Newfrontiers network (including elders, staff, volunteer leaders, and highly committed members sharing in leadership) and the data provided by the new study among 364 Anglican clergy serving in the Church in Wales generated precisely the same findings. Both studies

found higher scores recorded on the Schutte Emotional Intelligence Scale by extraverts than by introverts, by intuitive types than by sensing types, and by feeling types than by thinking types. Neither study, however, found a significant difference between scores recorded by perceiving types and by judging types.

These findings could be interpreted in one of two different ways. On the one hand, it could be argued that the best qualities of trait emotional intelligence are precisely those qualities that are associated with the personality predisposition of extraversion, intuition and feeling. On this account the most emotionally intelligent religious leaders are likely to be those who display the psychological type preferences of extraversion, intuition and feeling. This may not be entirely good news, say, for the selection criteria employed for shaping ordination within the Church in Wales where introverts outnumber extraverts and sensing types outnumber intuitive types, although a good majority of these clergy are feeling types. Or it could be the case that emotional intelligence is not after all a prime quality sought among Anglican clergy.

On the other hand, it could be argued that there may be implicit psychological type biases in the minds of test constructors and that there is a tendency for psychological constructs like emotional intelligence to be shaped in the image of the personal qualities prized by the constructors themselves. Certainly in the case of emotional intelligence, Pearman's (2002) careful analysis of how this construct might be differently implemented by and reflected in individuals of different psychological type profiles suggests that there is room for further investigation and research in this field.

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Table 1

Mean scores of emotional intelligence by psychological type dichotomous preferences

type pairs	N	mean	sd	N	mean	sd	*t*	*p* <
extraversion/introversion	135	121.1	11.8	229	115.6	11.9	4.3	.001
sensing/intuition	199	116.3	12.6	165	119.3	11.4	2.3	.05
thinking/feeling	113	115.7	13.6	251	118.5	11.3	2.0	.05
judging/perceiving	286	117.3	12.5	78	118.8	10.9	1.0	NS