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## **The Scale Properties of the Adolescent Form of the Francis Psychological Type Scales (FPTSA) Among Canadian Baptist Youth**

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**Abstract** A sample of 755 religiously committed young people between the ages of 12 and 18 attending Tidal Impact (a weeklong youth mission and service event sponsored by the Convention of Atlantic Baptist Churches in Eastern Canada) completed a trial 80-item form of the Francis Psychological Type Scales designed for use among adolescents. These data were employed to refine four ten-item forced-choice scales to distinguish between preferences for the two orientations (extraversion and introversion), the two perceiving processes (sensing and intuition), the two judging processes (thinking and feeling) and the two attitudes (judging and perceiving). The scale properties of the new instrument commend the 40-item Adolescent form of the Francis Psychological Type Scales (FPTSA) for future use.

**Key words** Psychological type, assessment, Francis Psychological Type Scales, religion, youth, Canada.

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## Introduction

The notion of psychological type, as developed initially by Jung (1971) in his classic study *Psychological Types* and as modified and extended by studies like *Gifts Differing* (Myers & Myers, 1980) has provided an attractive model for studying individual differences within the fields of practical, pastoral, and empirical theology. The notion of psychological type has been employed to illuminate, for example, theological reflection on areas like prayer (Duncan, 1993), ministry and leadership (Oswald & Kroeger, 1988), congregations (Baab, 1998), evangelism (Butler, 1999), and preaching (Francis & Village, 2008). Through the development of well-calibrated psychometric instruments designed to operationalize psychological type theory, theological reflection informed by such theory can be properly subjected to empirical investigation.

As currently presented, psychological type theory distinguishes between two different expressions of four key aspects of the human psyche. Functioning as a typology these pairs of expressions are clearly differentiated as opposing preferences. Although individuals are regarded as capable of employing both expressions of the psyche associated with each of the four key aspects, it is maintained that one aspect will always be preferred (and consequently developed) over the other. While the language used to describe these four aspects of psychological type theory remains somewhat fluid in the wider literature, Francis (2005) argues that there are advantages in agreeing on the following nomenclature: the two orientations, the two perceiving processes, the two judging processes, and the two attitudes toward the outer world.

The orientations are concerned with the ways in which people gather psychological energy. Extraverts (E) draw their energy from the outer world of events, people, and things, and focus their attention on that outer world. Introverts (I) draw their energy from the inner world of thoughts and reflections, and focus their attention on that inner world.

The perceiving processes are concerned with the ways in which people receive information. Sensing types (S) focus on perceptions received through the five senses, and are concerned with facts, details, and practical realities in the here and now. Intuitive types (N) focus on perceptions received through intuition, and are concerned with inspirations, meanings, and possibilities for the future.

The judging processes are concerned with the ways in which people make decisions and judgements. Thinking types (T) make judgments based on objective, impersonal logic,

and tend to value truthfulness and fairness. Feeling types (F) make judgments based on subjective, personal values, and tend to value harmony and compassion.

The attitudes toward the outer world are concerned with which process (Judging T/F or Perceiving S/N) is preferred for dealing with the outside world. Judging types (J) are orderly, decisive, and organised, as they judge stimuli from the outer world in order to reach conclusions and make decisions swiftly. Perceiving types (P) are open, spontaneous, and flexible, as they perceive stimuli from the outer world in order to continue gathering information as long as possible before reaching conclusions and making decisions.

These four dichotomous indices combine to produce 16 discrete psychological types from which it is possible to define an individual's dominant and auxiliary functions and whether these functions are introverted or extraverted. The dominant function is the function that is most preferred and the auxiliary function is the second preferred function, which may be consciously used when the dominant function is insufficient or inappropriate. Each of the perceiving processes (sensing and intuition) and each of the judging processes (thinking and feeling) can be extraverted (used in the outer world) or introverted (used in the inner world). Whichever of the two perceiving processes is extraverted, the other is introverted. Likewise, whichever of the two judging processes is extraverted, the other is introverted. Judging types extravert their judging function (that is, thinking or feeling) and perceiving types extravert their perceiving function (that is, sensing or intuition). Introverts employ their dominant function in their inner world and use their auxiliary function in the outer world. In contrast, extraverts employ their dominant function in their outer world and use their auxiliary function in their inner world.

Psychological type theory has been operationalized by a number of instruments designed for use among adults. These type indicators include the Gray-Wheelwright Jungian Type Survey (Gray & Wheelwright, 1946), the Keirsey Temperament Sorter (Keirsey & Bates, 1978), the Singer-Loomis Inventory of Personality (Loomis, 1982), the Myers-Briggs Type Indicator (Myers & McCaulley, 1985), the Personal Style Inventory (Ware, Yokomoto, & Morris, 1985), the Type Differentiation Indicator (Mitchell, 1991), the Cambridge Type Inventory (Rawling, 1992), the PET Check (Cranton & Knoop, 1995), the Jung Type Indicator (Budd, 1997), the Personal Preferences Self-description Questionnaire (Kier, Malancon, & Thompson, 1998), and the Francis Psychological Type Scales (Francis, 2005). The three instruments that have been used most frequently within the context of empirical theology and the psychology of religion are the Myers-Briggs Type Indicator, the Keirsey Temperament Sorter, and the Francis Psychological Type Scales.

The Myers-Briggs Type Indicator has been used, for example, in studies among church congregations (Ross, 1993, 1995; Francis, Duncan, Craig, & Luffman, 2004), adult churchgoers (Francis & Jones, 1998, 1999, 2000; Francis, Butler, Jones, & Craig, 2007), Anglican clergy (Francis, Payne, & Jones, 2001; Francis, Craig, Whinney, Tilley, & Slater, 2007), Bible College students (Francis, Penson, & Jones, 2001; Kay, Francis, & Craig, 2008; Kay & Francis, 2008), students studying religion (Francis, Jones, & Craig, 2004), evangelical missionary personnel (Craig, Horsfall, & Francis, 2005), evangelical lay church leaders (Francis, Craig, Horsfall, & Ross, 2005), Roman Catholic priests (Craig, Duncan, & Francis, 2006), Christian youthworkers (Francis, Nash, Nash, & Craig, 2007), and seminarians (Francis, Craig, & Butler, 2007).

The Keirsey Temperament Sorter has been used, for example, in studies among churchgoers (Jones & Francis, 1999; Francis & Louden, 2000), church congregations (Village & Francis, 2005; Village 2005), students studying religion (Fearn, Francis, & Wilcox 2001), and Anglican clergy (Francis & Robbins 2008).

The Francis Psychological Type Scales have been used, for example, in studies among Evangelical church leaders (Francis & Robbins, 2002; Craig, Francis, & Robbins, 2004), students studying religion (Francis, Robbins, Boxer, Lewis, McGuckin, & McDaid, 2003), church congregations (Craig, Francis, Bailey, & Robbins, 2003; Craig 2005; Francis, Robbins, Williams, & Williams, 2007; Francis, Craig, & Hall, 2008), members of a student Christian Union (Craig, Bigio, Robbins, & Francis, 2005), visitors staying at a Benedictine retreat center (Francis, Village, Robbins, & Ineson, 2007), and cathedral visitors (Francis, Williams, Annis, & Robbins, 2008).

Although the Myers-Briggs Type Indicator, the Keirsey Temperament Sorter, and the Francis Psychological Type Scales are all designed to operationalize the same fundamental psychological constructs, each of these instruments has distinctive strengths appropriate for different applications. The Myers-Briggs Type Indicator was designed for administration and interpretation by specially trained and licensed practitioners and is especially helpful in one-on-one consultations. The Keirsey Temperament sorter was designed for self-completion and is especially helpful in exercises of self-examination. The Francis Psychological Type Scales were specifically designed for research purposes and are particularly useful in large-scale surveys in which participation is generally anonymous and the participants anticipate no individual feedback.

The measurement of psychological type is much less well established among children and adolescents. The main instrument available in the field is the Murphy-Meisgeier Type

Indicator for Children. The original form of this instrument, published in 1987, was designed for children in grades 2 through 8 (Meisgeier & Murphy, 1987). The revised form, published in 2008, extended the age range upwards to grade 12 (Murphy & Meisgeier, 2008). Apart from the two manuals (1987, 2008), there is very little published research literature on this instrument.

Against this background, the aim of the present study is to build on the success of the Francis Psychological Type Scales as a research instrument and to test the development of a comparable instrument for use among adolescents.

## **Method**

### **Procedure**

The Francis Psychological Type Scales (Francis, 2005) propose 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). These items were discussed with a group of young people and expanded into four sets of 20 forced-choice items in light of the vocabulary understood and preferred by young people. This expanded set of 80 items was arranged for scoring in conventional forced-choice questionnaire format. These items were preceded with the following instructions: “The following list contains pairs of characteristics. For each pair check the box next to that characteristic which is closer to the real you, even if other people see you differently. Please complete every question.”

### **Sample**

The survey was completed by 755 adolescents between the ages of 12 and 18 years who attended Tidal Impact 2002 held in New Brunswick, Canada. Tidal Impact is a weeklong mission and service program sponsored by the Convention of Atlantic Baptist Churches for youth groups from member churches. The event is normally held during alternating summers in Eastern Canada. Of the total respondents, 35% indicated that they were males and 65% indicated that they were female.

### **Analysis**

The data were analyzed by means of the SPSS statistical package.

## **Results**

The first step in data analysis employed correlation, factor and reliability analyses in order to select the ten best pairs of forced-choice items from the original pool of 20 items relevant to the orientations, the perceiving process, the judging process, and the attitudes toward the outside world. Tables 1,2,3 and 4 present the end results of these analyses. All four scales generated alpha coefficients of internal consistency reliability (Cronbach, 1951) in excess of the acceptable threshold of .65 proposed by DeVellis (2003).

- insert tables 1,2,3 and 4 about here -

According to Table 1, the ten qualities defining extraversion among adolescents (ranked from the highest item rest-of-test correlations to the lowest) were: talkative, people get to know you quickly, an open person, an extravert, easy to get to know, easy to talk to new people, like to talk, being with other brings you to life, like parties, and prefer to do things with the crowd. The ten qualities defining introversion (ranked by the same criterion) were: quiet, people get to know you slowly, a private person, an introvert, difficult to get to know, hard to talk to new people, like to listen, being with too many people tires you, dislike parties, and prefer to do things on your own.

According to Table 2 the ten qualities defining sensing among adolescents (ranked from highest item rest-of-test correlation to the lowest) were: practical, prefer tried and trusted paths, matter of fact, like to stick with familiar things, down to earth, like to keep things as they are, like to do one thing at a time, a realist, trust experience, and you see things as they are. The ten qualities defining intuition (ranked by the same criterion) were: inventive, prefer new and novel ways, imaginative, like to try new things, up in the air, like to change things, like to do many things at once, a dreamer, trust inspiration, you see things as they might be.

According to Table 3 the ten qualities defining thinking among adolescents (ranked from highest item rest-of-test correlation to the lowest) were: fair minded, prefer to be firm, find it hard to be sympathetic, care about others' rights, test people, tend to be sceptical, hard, tend to correct others, prefer debate, and prefer thinking. The ten qualities defining feeling (ranked by the same criterion) were: warm hearted, prefer to be kind, find it easy to be sympathetic, care about others' feelings, trust people, tend to be trusting, sensitive, tend to encourage others, prefer agreement, and prefer feeling.

According to Table 4 the ten qualities defining a judging attitude toward the outer world among adolescents (ranked from highest item rest-of-test correlation to the lowest) were: having your time organized is good, find working to timetables helpful, like to be well-

prepared, organized, take deadlines seriously, find making lists helpful, happy with routine, prefer things to be structured, prefer to act on decisions, and you do your best work in advance. The ten qualities defining a perceiving attitude toward the outer world (ranked by the same criterion) were: having your time organized is annoying, find working to time tables irritating, find being too prepared unhelpful, disorganized, feel relaxed about deadlines, find making lists a waste of time, unhappy with routine, prefer things to be open-ended, prefer to act on impulse, and you do your best work at the last minute.

The second step in data analysis employed the continuous scale scores recorded on the eight scales to assign each individual to discrete psychological types: either introvert or extravert; either sensing or intuitive; either thinking or feeling; either judging or perceiving. Following the precedent established by the Francis Psychological Type Scales, scores on the opposing continuous scales were weighted in favour of introversion, intuition, feeling, and perceiving. Using this scoring mechanism 51% of the sample were classified as extraverts and 49% as introverts; 31% were classified as sensors and 69% as intuitives; 10% were classified as thinkers and 90% as feelers; and 53% as judges and 47% as perceivers. These findings are generally consistent with what is known about leaders across a broad spectrum of Christian denominations where there are particularly strong preferences for intuition over sensing and for feeling over thinking (see for example Francis, Craig, Whinney, Tilley, & Slater, 2007).

## **Conclusion**

The present study set out to develop groups of forced-choice items that would render the principles operationalized by the Francis Psychological Type Scales (Francis, 2005) accessible to adolescents within the age range of 12 to 18 years. Data drawn for a group of 755 religiously committed young people attending the Tidal Impact youth mission and service event sponsored by the Convention of Atlantic Baptist Churches in Eastern Canada have generated four sets of ten items each designed to distinguish between preferences for extraversion and introversion (the orientations), between preferences for sensing and intuition (the perceiving process), between preference for thinking and feeling (the judging process), and between preferences over judging and perceiving (the attitude toward to outer world).

Internal consistency reliability for the four sets of items has been supported by alpha coefficients in excess of the threshold of 0.65 proposed by DeVellis (2003). Face validity has been supported by the way in which the ten qualities associated with each of the eight constructs map onto the theoretical constructs being operationalized by the measures.



Construct validity has been supported by the way in which the type profile recorded by the religiously committed group of adolescents broadly reflects what is known from other research about the type profile of church leaders, especially in terms of the strong preferences for feeling over thinking and for judging over perceiving. On this basis the adolescent form of the Francis Psychological Type Scales (FPTSA) can be commended for further use.

The present study is nonetheless limited in important ways that need to be addressed by future research. The present study was limited to religiously committed Baptist youth. Future research needs to complement this sample by concentrating on other religious groups and on non-religious groups of young people. The present study was limited to exploring internal consistency reliability. Future research needs to complement this approach by exploring test-retest reliability which is capable of examining the reliability not only of the continuous scale scores but also of the assignment to discrete type categories. The present study was limited to exploring only one aspect of construct validity, in terms of similarity of type profile with what is known from other studies concerned with religious leaders. Future research needs to complement this approach by examining how data recorded on this instrument functions in relation to other theoretical formulations regarding the correlates of type preferences.

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Table 1 Orientation: item rest-of-test correlations and percentage endorsements

Item	r	agree %
<i>Extraversion</i>		
Talkative	.59	64
An extravert	.52	65
An open person	.54	58
Easy to get to know	.51	82
Like parties	.43	76
Like to talk	.48	57
Being with others brings you to life	.47	77
Prefer to do things with the crowd	.40	57
Easy to talk to new people	.49	60
People get to know you quickly	.56	65
<i>Introversion</i>		
Quiet	.59	36
An introvert	.52	35
A private person	.54	42
Difficult to get to know	.51	19
Dislike parties	.43	24
Like to listen	.48	43
Being with too many people tires you	.47	24
Prefer to do things on your own	.40	43
Hard to talk to new people	.49	41
People get to know you slowly	.56	35
Alpha = 0.82		



Table 2 Perceiving process: item rest-of-test correlations and percentage endorsements

Item	r	agree %
<i>Sensing</i>		
Practical	.41	55
Prefer tried and trusted paths	.40	50
Like to keep things as they are	.30	44
A Realist	.28	43
Down to earth	.31	78
Matter of fact	.40	37
You see things as they are	.27	51
Like to stick with familiar things	.37	38
Like to do one thing at a time	.30	56
Trust experience	.28	73
<i>Intuition</i>		
Inventive	.41	45
Prefer new and novel way	.40	50
Like to change things	.30	56
A dreamer	.28	57
Up in the air	.31	22
Imaginative	.40	63
You see things as they might be	.27	49
Like to try new things	.37	62
Like to do many things at once	.30	44
Trust inspiration	.28	27
Alpha = 0.67		

Table 3 Judging process: item rest-of-test correlations and percentage endorsements

Item	r	agree %
<i>Thinking</i>		
Prefer thinking	.21	48
Tend to correct others	.33	25
Tend to be sceptical	.36	23
Hard	.35	16
Fair minded	.50	20
Test people	.37	27
Care about others' rights	.39	14
Prefer to be firm	.40	15
Prefer debate	.27	33
Find it hard to be sympathetic	.40	19
Prefer feeling	.21	52
Tend to encourage others	.33	75
Tend to be trusting	.36	77
Sensitive	.35	84
Warm hearted	.50	80
Trust people	.37	73
Care about others' feelings	.39	86
Prefer to be kind	.40	85
Prefer agreement	.27	68
Find it easy to be sympathetic	.40	81
Alpha = 0.69		

Table 4 Attitude toward the outside world: item rest-of-test correlations and percentage endorsements

Item	r	agree %
<i>Judging</i>		
Organized	.49	63
Take deadlines seriously	.46	61
Find working to timetables helpful	.52	65
Happy with routine	.43	73
You do your best work in advance	.38	60
Prefer things to be structured	.43	59
Prefer to act on decisions	.40	63
Find making lists helpful	.44	68
Like to be well prepared	.50	82
Having your time organized is good	.54	71
<i>Perceiving</i>		
Disorganized	.49	37
Feel relaxed about deadlines	.46	39
Find working to timetables irritating	.52	35
Unhappy with routine	.43	27
You do your best work at the last minute	.38	40
Prefer things to be open-ended	.43	41
Prefer to act on impulse	.40	37
Find making lists a waste of time	.44	32
Find being too organized unhelpful	.50	18
Having your time organized is annoying	.54	29
Alpha = 0.79		

The following list contains pairs of words. For each pair check (✓) **ONE** box next to the words that are **closer** to the real you, even if you feel both characteristics apply to you. Check the words that reflects the real you, even if other people see you differently.

**PLEASE COMPLETE EVERY QUESTION**

**Do you tend to be more...**

talkative  **or**  quiet

**Do you tend to be more...**

practical  **or**  inventive

**Do you prefer...**

feeling  **or**  thinking

**Are you...**

organised  **or**  disorganised

**Are you...**

an extravert  **or**  an introvert

**Do you prefer...**

tried and trusted paths  **or**  new and novel ways

**Do you tend to...**

encourage others  **or**  correct others

**Do you...**

take deadlines seriously  **or**  feel relaxed about deadlines

**Are you more...**

an open person  **or**  private person

**Are you...**

a realist  **or**  a dreamer

**Do you tend to be...**

trusting  **or**  sceptical

**Do you find working ...**

to timetables helpful  **or**  to timetables irritating

**Are you...**

easy to get to know  **or**  difficult to get to know

**Do you like to...**

keep things as they are  **or**  change things

**Are you...**

sensitive  **or**  hard

**Are you...**

happy with routine  **or**  unhappy with routine

- Do you like to...**  
talk  **or**  listen
- Are you...**  
down to earth  **or**  up in the air
- Are you...**  
warm-hearted  **or**  fair-minded
- Do you do your best work...**  
in advance  **or**  at the last minute
- Do you find that being with...**  
others brings you to life  **or**  too many people tires you
- Do you tend to be more...**  
matter of fact  **or**  imaginative
- Do you...**  
trust people  **or**  test people
- Do you prefer things to be...**  
structured  **or**  open-ended
- Do you...**  
like parties  **or**  dislike parties
- Do you see things...**  
as they are  **or**  as they might be
- Do you care about...**  
others' feelings  **or**  others' rights
- Do you prefer to act ...**  
on decisions  **or**  on impulse
- Do you prefer to do things...**  
with the crowd  **or**  on your own
- Do you like to...**  
stick with familiar things  **or**  try new things
- Do you prefer...**  
agreement  **or**  debate
- Do you find making lists...**  
helpful  **or**  a waste of time
- Do you find it...**  
easy to talk to new people  **or**  hard to talk to new people
- Do you like to do...**  
one thing at a time  **or**  many things at once
- Do you prefer to be...**  
kind  **or**  firm
- Do you...**  
like to be well prepared  **or**  find being too prepared unhelpful

**Do you feel that people...**  
get to know you quickly  **or**  get to know you slowly

**Do you trust...**  
experience  **or**  inspiration

**Do you find it...**  
easy to be sympathetic  **or**  hard to be sympathetic

**Do you feel that having your...**  
time organised is good  **or**  time organised is annoying