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Psychometric properties of the Francis Scale of Attitude to Christianity
among Australian Christians

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Abstract

This paper describes and discusses the psychometric properties of the 24-item Likert-type Francis Scale of Attitude toward Christianity among a sample of Australian Christians. A total of 104 Christian undergraduate students attending Sydney University completed the scale together with indicators of religious behaviour and experiences. Findings confirm the reliability and construct validity of the scale and commend it for further use.

Keywords: Religion; Attitudes; Christianity; Psychometric; FSAC

Introduction

Self-report measures of religiosity are a vital part of ongoing research in the psychology of religion. In the early 1970s, Francis set out to promote the study of the attitudinal dimension of religion and to enhance its contribution to the integration and testing of coherent psychological theories by proposing a new measure of attitude toward Christianity (Francis, 1978a) and by arguing for a programme of interrelated studies employing that instrument (Francis, 1978b). Kay and Francis (1996) drew together the fruits of 26 years' work and over 100 independent studies using the Francis Scale of Attitude toward Christianity (FSAC). Since Kay and Francis' review in the mid-1990s, more than 100 further studies have been added to this corpus.

The psychometric properties of the 24-item adult English language edition of the FSAC (Francis & Stubbs, 1987) have been supported in a variety of countries including a general sample of Australian undergraduates (Francis, Lewis, Philipchalk, Lester, & Brown, 1995). In the latter study, the construct validity of the FSAC as a measure of religious attitude in Australia, the UK, USA and Canada was supported by its prediction of religious behaviours, as indicated by self-reported frequency of prayer and worship attendance.

The development of a cross-cultural body of research has been further facilitated by FSAC translations available in a variety of languages (see Francis & Katz, 2007 for review), and adaptations of the FSAC measuring attitudes towards Judaism (Francis & Katz, 2007), Islam (Sahin & Francis, 2002), and Hinduism (Francis, Santosh, Robbins, & Vij, 2008).

Building upon this work, emerging evidence suggests that some psychological and other correlates of attitude toward religion vary across religions and cultures (Lesmana & Tiliopoulos, 2009; Francis, Lewis, Philipchalk, Brown, & Lester, D., 1995; Johnstone & Tiliopoulos, 2008). For example, female gender is associated with increased religiosity in British Christians but decreased religiosity in British Jewish and Israeli populations

(O'Connor, Cobb, & O'Connor, 2003; Francis & Wilcox, 1998; Loewenthal, MacLeod, & Cinnirella, 2001), and predicts attitude to Hinduism in Balinese Hindus (Lesmana & Tiliopoulos, 2009) but not attitude to Islam in international Muslims (Johnstone & Tiliopoulos, 2009). The demographic, behavioural, personality and social correlates of religious attitude in specific cultures and religious populations are evidently an important and intriguing field of enquiry. However, the psychometric properties of the FSAC remain to be established in many such populations.

The aim of the present study, therefore, was to examine the reliability and construct validity of the FSAC in a sample of Australian Christian undergraduates.

Method

Materials

The Francis Scale of Attitude toward Christianity (adult) (FSAC; Francis & Stubbs, 1987). A 24-item questionnaire assessing attitude toward key aspects of the Christian faith, such as Jesus, the bible, church and prayer, on a single dimension. Each item is measured on a five-point Likert scale, with higher scores indicating a more positive attitude.

Religious indicators. Frequency of prayer, church attendance, religious experience, and feelings of being guided by God were measured on a five-point scale, from 1 = Never or almost never, to 5 = Twice daily.

Demographics. Information regarding gender, age, and religion of parents was also collected.

Participants and Procedure

Participants were 104 first year psychology students at the University of Sydney, Australia, who identified themselves as Christian. Mean age was 19.04 years ($SD = 2.65$, range 17 to 37). Of 102 who indicated gender, 78 (76.5%) were female. Four-fifths (81.3%) reported that both parents were Christian.

Questionnaires were completed online for course credit. Two students who did not specify frequency of prayer or worship were excluded.

Data were analysed through SPSS 16; other than two cases for gender, no missing values were present in the final dataset.

Results

Prayer at least weekly was reported by 48.1% of participants, while 52.9% attended church at least monthly; 44.2% reported having a religious experience at least monthly, and 53.4% experienced feeling guided by God at least twice a week. Mean FSAC total (84.6; *SD* 23.0) was consistent with scale norms.

As shown in Table 1, the scale is characterised by homogeneity, unidimensionality and internal consistency reliability in the present sample.

-Table 1 -

The FSAC showed the expected positive correlations with frequency of religious behaviours and experiences (see Table 2).

- Table 2 -

A one-way ANOVA found no sizeable influence of gender on attitude to Christianity ($F_{1,102} = 3.21$, n.s., partial $\eta^2 = .031$).

Discussion

Results supported the unidimensionality and internal consistency reliability of the Francis Scale of Attitude toward Christianity among Christian undergraduate students in Australia. Furthermore, its construct validity as a measure of positive attitude towards Christianity among Australian Christians was supported by positive associations with frequency of religious behaviours (prayer and worship attendance) as well as experiential religious indicators (frequency of feeling guided by God and of religious experiences).

Lack of gender differences in religiosity in the present sample contrasted with prior findings in British Christians (O'Connor, Cobb, & O'Connor, 2003; Loewenthal, MacLeod, & Cinnirella, 2001). Indeed, Loewenthal and colleagues suggest that such differences are culture-specific. The result might reflect less influence of gender on religious attitudes in the Australian Christian context. However, power to evaluate gender differences was limited by the predominantly female composition of this psychology student sample.

The scale can be recommended for further use within Australian Christians and should facilitate valuable cross-cultural and cross-religion comparisons in an empirical psychology of religion. It is now appropriate to organize appropriate databases from which scale norms could be established for the different religious and cultural contexts.

References

- Francis, L. J. (1978a). Attitude and longitude: A study in measurement. *Character Potential*, 8, 119-130.
- Francis, L. J. (1978b). Measurement reapplied: Research into the child's attitude towards religion. *British Journal of Religious Education*, 1, 45-5.
- Francis, L.J., & Katz, Y.J. (2007). Measuring attitude toward Judaism: the internal consistency reliability of the Katz-Francis Scale of Attitude toward Judaism, *Mental Health, Religion and Culture*, 10, 309-324.
- Francis, L. J., Lewis, J. M., Philipchalk, R., Brown, L. B., & Lester, D. (1995). The internal consistency reliability and construct validity of the Francis scale of attitude towards Christianity (adult) among undergraduate students in the UK, USA, Australia and Canada. *Personality and Individual Differences*, 19, 949-953.
- Francis, L.J., Santosh, Y.R., Robbins, M., & Vij, S. (2008). Assessing attitude toward Hinduism: The Santosh–Francis Scale. *Mental Health, Religion & Culture*, 11, 609-621.
- Francis, L. J., & Stubbs, M. T. (1987). Measuring attitudes towards Christianity: From childhood to adulthood. *Personality and Individual Differences*, 8, 741-743.
- Francis, L. J., & Wilcox, C. (1998). Religiosity and femininity: Do women really hold a more positive attitude toward Christianity? *Journal for the Scientific Study of Religion*, 37, 462-469.
- Johnstone, J., & Tiliopoulos, N. (2008). Exploring the relationship between schizotypal personality traits & religious attitude in an international Moslem sample. *Archive for the Psychology of Religion*, 30, 241-253.
- Kay, W. K., & Francis, L. J. (1996). *Drift from the churches: Attitude toward Christianity during childhood and adolescence*. Cardiff, UK: University of Wales Press.

- Lesmana, C.B., & Tiliopoulos, N. (2009). Schizotypal personality traits and attitudes towards Hinduism among Balinese Hindus. *Mental Health, Religion & Culture*, DOI: 10.1080/13674670902930344.
- Loewenthal, K. M., MacLeod, A. K., & Cinnirella, M. (2001). Are women more religious than men? Gender differences in religious activity among different religious groups in the UK. *Personality and Individual Differences*, 32, 133-139.
- O'Connor, D. B., Cobb, J., & O'Connor, R. C. (2003). Religiosity, stress and psychological distress: no evidence for an association among undergraduate students. *Personality and Individual Differences*, 34, 211-217.
- Sahin, A., & Francis, L. J. (2002). Assessing attitude toward Islam among Muslim adolescents: the psychometric properties of the Sahin–Francis scale. *Muslim Education Quarterly*, 19, 35-47.

Table 1

FSAC internal consistency reliability statistics and Principal Components Analysis (unrotated).

Scale item	Item-rest of test correlations	Loading on first factor
I find it boring to listen to the bible*	.578	.591
I know that Jesus helps me	.892	.906
Saying my prayers helps me a lot	.797	.814
The church is very important to me	.788	.803
I think going to church is a waste of my time*	.775	.792
I want to love Jesus	.790	.811
I think church services are boring*	.546	.559
I think people who pray are stupid*	.698	.724
God helps me to lead a better life	.847	.866
I like to learn about God very much	.824	.840
God means a lot to me	.931	.942
I believe that God helps people	.836	.855
Prayer helps me a lot	.758	.778
I know that Jesus is very close to me	.892	.905
I think praying is a good thing	.778	.800
I think the bible is out of date*	.617	.633
I believe that God listens to prayers	.898	.912
Jesus doesn't mean anything to me*	.832	.852
God is very real to me	.861	.880
I think saying prayers does no good*	.734	.758
The idea of God means much to me	.834	.855
I believe that Jesus still helps people	.843	.862
I know that God helps me	.892	.908
I find it hard to believe in God*	.798	.815
Alpha coefficient/percentage of variance**	.977	66.7%

* These negative items were reverse scored

** Percentage of variance explained by the first factor

Table 2

Correlation of religious indicators and age with FSAC total score

	FSAC
Frequency of prayer	.65*
Frequency of worship	.62*
Frequency of religious experience	.51*
Frequency of feeling guided by God	.82*
Age	.04

* $p < .01$, 2-tails