

**Original citation:**

Yablon, Yaacov B., Francis, Leslie J. and Robbins, Mandy. (2013) The Katz-Francis scale of attitude toward Judaism : internal consistency reliability and construct validity among female undergraduate students in Israel. *Pastoral Psychology*, 63(1), pp. 73-78.

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**Publisher's statement:**

The final publication is available at Springer via <http://dx.doi.org/10.1007/s11089-013-0523-y>

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# **The Katz-Francis Scale of Attitude toward Judaism: Internal Consistency Reliability and Construct Validity among Female Undergraduate Students in Israel**

Yaacov B. Yablon,<sup>1</sup> Leslie J. Francis,<sup>2</sup> Mandy Robbins<sup>3</sup>

**Abstract** The Katz-Francis Scale of Attitude toward Judaism was developed to extend to the Jewish community a growing body of international research concerned to map the correlates, antecedents, and consequences of individual differences in attitude toward religion as assessed by the Francis Scale of Attitude toward Christianity. The internal consistency reliability and construct validity of the Katz-Francis Scale of Attitude toward Judaism were supported by data provided by 284 Hebrew-speaking female undergraduate students

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<sup>1</sup> Y. B. Yablon

Bar-Ilan University, Israel

<sup>2</sup> L. J. Francis (Contact)

Professor of Religions and Education

Warwick Religions & Education Research Unit

Institute of Education

The University of Warwick

Coventry CV4 7AL United Kingdom

Telephone: +44 (0)24 7652 2539

Fax: +44 (0)24 7657 2638

Email: leslie.francis@warwick.ac.uk

<sup>3</sup> M. Robbins

Glyndŵr University, Wales, UK

attending Bar-Ilan University. This instrument is commended for application in further research.

**Keywords** Psychology, Religion, Israel, Judaism, Attitude, Katz-Francis Scale of Attitude toward Judaism.

## **Introduction**

The measurement-based approach to the empirical psychology of religion, as reviewed for example by Spilka, Hood, Hunsberger, and Gorsuch (2003) and Hood, Hill, and Spilka (2009), remains dominated by studies shaped within Christian or post-Christian contexts. Reviews of instruments developed for research within the empirical psychology of religion confirm the paucity of scales designed specifically for application within other religious traditions (Hill and Hood, 1999; Cutting and Walsh, 2008).

One highly productive strand of research within the measurement-based approach to the empirical psychology of religion within Christian or post-Christian contexts has focused on the affective dimension of religion as operationalised through the Francis Scale of Attitude toward Christianity. Developed first in English in the late 1970s, as reported by Francis (1978a, 1978b), the psychometric properties of the Francis Scale of Attitude toward Christianity were confirmed within different parts of the English speaking world, including Australia and Canada (Francis, Lewis, Philipchalk, Brown, and Lester, 1995), England (Francis and Stubbs, 1987; Francis, 1992), Kenya (Fulljames and Francis, 1987), Nigeria (Francis and McCarron, 1989), Northern Ireland (Francis and Greer, 1990; Greer and Francis, 1991), the Republic of Ireland (Maltby, 1994), Scotland (Gibson, 1989; Gibson and Francis, 1989), South Africa (Francis, Kerr, and Lewis, 2005), and the United States of America (Lewis and Maltby, 1995). Translations of the Francis Scale of Attitude toward Christianity

are currently available in Arabic (Munayer, 2000), Czech (Francis, Quesnell, and Lewis, 2010), Chinese (Francis, Lewis, and Ng, 2002), Dutch (Francis and Hermans, 2000), French (Lewis and Francis, 2003), German (Francis and Kwiran, 1999; Francis, Ziebertz, and Lewis, 2002), Greek (Youtika, Joseph, and Diduca, 1999), Norwegian (Francis and Enger, 2002), Portuguese (Ferreira and Neto, 2002), Romanian (Francis, Ispas, Robbins, Ilie, and Iliescu, 2009), Slovenian (Flere, Klanjsek, Francis, and Robbins, 2009), Spanish (Campo-Arias, Oviedo, Dtaz, and Cogollo, 2006), Swedish (Eek, 2001), and Welsh (Evans and Francis, 1996; Francis and Thomas, 2003).

In order to extend this strand of research beyond the confines of the Christian and post-Christian context, three related instruments have been developed for application in Islamic, Hindu, and Jewish contexts: the Sahin-Francis Scale of Attitude toward Islam (Sahin and Francis, 2002), the Santosh-Francis Scale of Attitude toward Hinduism (Francis, Santosh, Robbins, and Vij, 2008), and the Katz-Francis Scale of Attitude toward Judaism (Francis and Katz, 2007). In order to develop the Katz-Francis Scale of Attitude toward Judaism, the 24 items of the original Francis Scale of Attitude toward Christianity were discussed by a group of theologians and religious educators representing both the Jewish tradition from Bar-Ilan University and the Christian tradition from the University of Wales, Bangor. The items were first developed in English, then translated into Hebrew, and then back-translated into English to check the reliability of the translation.

Following the foundation study reported by Francis and Katz (2007) to establish the psychometric properties of the Katz Francis Scale of Attitude toward Judaism, as yet no subsequent independent studies have been reported to confirm the internal consistency reliability and construct validity of this instrument. The aim of the present study is to address this gap in the literature.

## **Method**

### **Sample**

A sample of 284 Hebrew-speaking female undergraduate students attending a university in the centre of Israel completed a short questionnaire as part of their routine coursework. They were assured of complete confidentiality and anonymity and given the option not to participate in the project. All students attending the coursework sessions willingly participated. The majority of the participants were in their twenties (93%), with 3% under the age of 20, and 4% aged 30 or over. The majority of participants described themselves as Religious Jews (67%), 12% as Secular Jews, 11% as Traditional Jews, and 9% as Ultra-Orthodox Jews; 1% failed to answer this question.

### **Instrument**

The Katz-Francis Scale of Attitude toward Judaism is a 24-item Likert-type instrument concerned with an affective response toward God, the Bible, prayer, synagogue, and the Jewish religion. Each item was assessed on a five-point response: agree strongly, agree, not certain, disagree, and disagree strongly.

Synagogue attendance was assessed on a five-point scale: never, at festive and special events, sometimes, every Saturday, and every day.

Personal prayer was assessed on a five-point scale: never, once or twice a year, sometimes, at least once a week, and daily.

## **Results**

The participants demonstrated a high level of commitment to religious practice. Half of the participants prayed daily (51%), and a further 18% prayed at least once a week, leaving 19% who prayed sometimes, 6% who prayed once or twice a year, and 5% who never prayed; just

one participant failed to answer the question. Half of the participants attended synagogue every Saturday (50%, including 3% who attended daily). Of the remaining half, 24% attended synagogue on festive and special occasions, and 21% more often than this but less often than weekly. Just 4% of the participants never attended synagogue, and one participant failed to answer this question.

**Table 1. Item rest of test correlations and factor loadings**

	r	factor
I find it boring to learn the bible*	.45	.46
I know that my religion helps me	.72	.76
Saying my prayers helps me a lot	.69	.73
The synagogue is very important to me	.60	.64
I think going to synagogue is a waste of my time*	.70	.74
I want to love G_d	.49	.51
I think synagogue services are boring*	.56	.60
I think people who pray are stupid*	.33	.37
G_d helps me to lead a better life	.76	.79
I like to learn about G_d very much	.50	.52
G_d means a lot to me	.81	.85
I believe that G_d helps people	.78	.83
Prayer helps me a lot	.79	.83
I know that I am very close to G_d	.71	.74
I think praying is a good thing	.80	.84
I think the bible is out of date*	.41	.45
I believe that G_d listens to prayers	.73	.78
G_d doesn't mean anything to me*	.67	.73
G_d is very real to me	.45	.37
I think saying prayers does no good*	.61	.66
The idea of G_d means much to me	.65	.70
I believe that my religion still helps people	.63	.67
I know that G_d helps me	.77	.82

I find it hard to believe in G_d*	.64	.68
alpha/percent of variance	.94	47%

Note: \*These items were reverse coded

In the first column of statistics, Table 1 presents the item rest of test correlation coefficients in respect to all 24 items, together with the alpha coefficient. In the second column of statistics, Table 1 presents the loadings on the first factor of the unrotated solution proposed by principal component analysis, together with the percentage of variance explained. Both sets of statistics support the conclusion that the scale is characterised by homogeneity, unidimensionality, and internal consistency reliability within the sample. The alpha coefficient is established as 0.94, while the proportion of variance accounted for by the first factor is established as 47%.

The construct validity of the Francis family of attitudinal measures of religiosity is generally tested by examining the correlation between attitude and both personal religious practice (prayer) and public religious practice (worship attendance). While attitudes may not be regarded as a simple or direct predictor of behaviour (Ajzen, 1988; Eiser and van der Pligt, 1988), it is reasonable to hypothesise a stronger link between attitude and personal religious practice (uncontaminated by contextual factors) than between attitude and public religious practice (potentially contaminated by contextual factors). The present data support this hypothesised pattern of relationships, with a significant positive correlation between attitude scores and synagogue attendance ( $r = .37, p < .001$ ) and an even stronger positive correlation between attitude scores and personal prayer ( $r = .60, p < .001$ ).

The 24-item instrument assessed on a five-point scale can generate scores between 24 and 120. The mean scale score for the 284 female undergraduate students was 106.7 (SD = 14.4), indicating overall a very positive attitude toward Judaism among the sample.

## **Conclusion**

These data provide further evidence for the unidimensionality, internal consistency reliability, and construct validity of the Katz-Francis Scale of Attitude toward Judaism, specifically among Hebrew speaking undergraduate students in Israel. The scale can, therefore, be commended for further empirical examination in this context and for use alongside other instruments in order to begin to map the personal and social correlates of a positive attitude toward Judaism among students in Israel. Such work has been initiated by two studies concerned with the relationship between attitude toward Judaism and happiness among undergraduates (Francis and Katz, 2002; Francis, Katz, Yablon, and Robbins, 2004). Future studies can now build on these foundations. Further work is now also needed to examine the reliability and validity of the Hebrew language scale of attitude toward Judaism among samples of schoolchildren and adults in Israel and to examine the reliability and validity of other language editions of the scale.

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