

## Replications and Resolutions: Dualistic Belief, Personality, Religiosity, and Paranormal Belief in Australian Students

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IN THE PRESENT STUDY, we have refined and extended Stanovich's (1989) work, using 129 Australian introductory psychology students as subjects. A principal components analysis of the Dualism Scale produced a very similar result to that obtained by Stanovich. We then analyzed the data by the principal axis factor procedure more commonly used to examine the factorial structure of attitude questionnaires, because unique and error variances are removed. For discussion on the merits of each method, see Cliff (1987, 348-349) and Tabachnick and Fidell (1983, 395-397).

Eight factors with eigenvalues greater than 1 were extracted. Factor 1, extracting 19.4% of the variance, was a general mind-body dualism factor, with 10 items loading greater than .4 (Items 1, 2, 4, 5, 11, 14, 16, 21, 23, and 26). Factor 2 accounted for 9% of the variance and was associated with items concerning future advances in our knowledge of the brain and/or computers (Items 6, 8, and 22). The remaining factors were mainly singlet, doublet and triplet factors not readily interpretable. We decided to use the 10 variables associated with Factor 1 as a subscale in further analyses. Alpha reliability for the subscale was .84 compared with the .71 reported by Stanovich (1989) for the full scale.

Stanovich (1989) reported a difficulty with the ESP scale used in his study, in which a principal components analysis revealed two components that

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were not easily interpretable. We therefore decided to use a locally developed psi belief subscale of four items from a larger survey by White (1985) analogous to the psi belief subscale reported by Tobacyk and Milford (1983). The four items, rated on a 5-point Likert scale, concerned attitudes toward clairvoyance, telepathy, psychic phenomena, and precognition. Alpha reliability of the subscale was .90.

The four-item Religiosity Scale used by Stanovich (1989) was found to be unidimensional and reliable and so was used unchanged. We extended the study by including the EPQ(R) of Eysenck, Eysenck, and Barrett (1985), measuring the personality constructs of neuroticism (N), introversion-extraversion (E), and psychoticism (P).

On the basis of studies by Powers (1931), Francis and Pearson (1985a), and Caird (1987), we hypothesized (Hypothesis 1) that no relationship would be found between E and religiosity. We further hypothesized (Hypothesis 2) that a negative correlation would be found between P and religiosity in line with the results of Francis and Pearson (1985b). Hypothesis 3, that there would be a positive relationship between N and psi belief, was based on the findings of Maller & Lundeen (1934) and Plug (1975). We made no hypothesis regarding the relationship between religiosity and psi belief, given discrepant results in previous studies (Persinger & Makarec, 1990; Stanovich, 1989; Williams, Taylor, & Hintze, 1989).

Support was found for Hypotheses 1 and 2, but not for Hypothesis 3. No relationship was found between religiosity and psi belief, providing support for the Williams, Taylor, and Hintze (1989) contention that these attitudes are independent and opposing the Persinger and Makarec (1990) model, which supports the contention that paranormal beliefs serve as religious substitutes. In contrast to Stanovich (1989), significant correlations were found between dualism and both religiosity ( $r = .18, p < .05$ ) and psi ( $r = .45, p < .01$ ) for the full sample. Examination of religious subgroups showed that subjects with no religious affiliation made the largest contribution to the relationship between dualism and psi. A unhypothesized correlation ( $r = .18, p < .05$ ) was found between dualism and N.

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