Predicting the Ostensible Paranormal Experiences Canvassed in the Inventory of Childhood Memories and Imaginings (Form C)

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Abstract: Data previously collected by Thalbourne (1998) were re-analysed in order to see whether the five "paranormal" items of the Inventory of Childhood Memories and Imaginings (Form C; ICMIC) could be predicted by any of 18 variables—four from the Eysenck Personality Questionnaire-Revised (administered to a quarter of the sample), and 14 variables that included transliminality, aspects of religiosity, and potential psychopathology (these 14 were administered to the entire sample, *N* = 244). The paranormal ICMIC items are (1) experience of a ghost, (2) experience of precognition, (3) experience of a veridical hunch, (4) out-of-the-body experience, and (5) belief in (and possibly experience of) reincarnation. A correlation matrix displaying the relationships between all five items (plus the Rasch Australian Sheep-Goat Scale) showed, as expected, that all the correlations were positive and significant. Accordingly, factor analysis of the matrix revealed that just a single factor underlay all six variables, and produced a factor-score as an overall measure of the factor called here "Paranormal Experience". Following this, multiple regression analysis was employed to see whether the four Eysenck variables could predict status on the experience items. In general they were not able, but there was evidence that some experients were more "Psychotic" (i.e., more unconventional, possibly more prone to bipolar disorder). The 14 remaining variables were then analysed for their predictive power: there was a marked tendency for the best predictor to be transliminality.

Keywords: paranormal belief, ICMIC, transliminality.

In the early 1980s, Sheryl Wilson and Theodore X. Barber (1981, 1983) reported in detail the results of an interview study of women who were excellent hypnotic subjects. Amongst other characteristics they found that such women were very prone to experiencing (often by self-initiation)

vivid fantasies reaching hallucinatory proportions. Furthermore, they found that these women tended to report psychic experiences, such as telepathy and precognition.

Wilson and Barber subsequently compiled a 52-item true/false inventory of all the characteristics of fantasy-prone people, calling it the Inventory of Childhood Memories and Imaginings (ICMI). It was never published, but was circulated to interested researchers. Myers (1983) edited this scale, shortened it to 48 items, and called it the ICMIC (that is, the ICMI, Form C, for children). In both versions of the questionnaire there are five items pertaining to the paranormal: (1) seeing a ghost, (2) having an out-of-body experience, (3) experiencing precognition, (4) experiencing a veridical hunch, and (5) belief in (and possible experience of) reincarnation.

Researchers on belief in the paranormal have sometimes asserted that there are multiple relevant factors—seven in the case of the widely used Paranormal Belief Scale of Tobacyk and Milford (1983). At the other extreme it has been concluded that there is only *one* factor underlying many apparently different paranormal beliefs. For example, the Rasch scale devised by Lange and Thalbourne (2002), measuring belief in, and alleged experience of, extrasensory perception (ESP) and psychokinesis (PK: mind over matter), is unidimensional. It is an open question, therefore, whether the extrasensory percipient or the psychokinete might also experience such additional phenomena as out-of-the-body experience, and believe in reincarnation. Pearson correlations and factor analysis were to be used to examine which point of view—the unidimensional or the multidimensional—better accounts for the data.

For approximately one-quarter ($N = 83$) of the total sample ($N = 244$), there were available scores on the four measures yielded by the Eysenck Personality Questionnaire-Revised. Thalbourne and Haraldsson (1980) and Thalbourne (1981) showed that higher scores on paranormal belief variables tended to be associated with higher extraversion. Likewise, higher scores on paranormal belief are associated with higher neuroticism (Thalbourne, Dunbar & Delin, 1995; Windholz & Diamant, 1974).

Standard multiple regression analysis was to be used, one for each of the five ICMIC items, in order to see whether the four Eysenck variables, entered simultaneously, could predict a person's status on any of the ICMIC items. Though other predictor variables were potentially available (see below), these were not added to the analysis using the Eysenck variables because (1) the minimally required ratio of one item to 10 participants could not be reached if there were as many as 16 predictor variables (that is, a sample of at least 160 participants would be required); and (2) the sample would be reduced to one-quarter of its original size, since all participants lacking *any* of the predictor variables are excluded from the analysis, and three-quarters of the sample did not take the Eysencks' test.

The other 14 variables available for analysis included: (1) the original Transliminality Scale (Thalbourne, 1998); (2) Unusual Experiences; (3) General Belief in Life After Death; (4) Religiosity; three variables from the research of Haraldsson (1981) that have been used in six subsequent studies (a review of which is in progress), namely, (5) Vivid Spiritual or Religious Experience, (6) Bible-reading, (7) Reading About Eastern Religions, the first and third of which paranormal believers tend significantly to report; (8) the Dissociative Experiences Scale; (9) the Questionnaire on Experience of Dissociation; (10) Schizotypal Personality (STA); (11) the Magical Ideation Scale; (12) the Launay-Slade Hallucination Scale; (13) Manic Experience; and (14) Depressive Experience. The demographic variable gender was also included because Haraldsson and Houtkooper (1991) reported that women tend to claim psychic experience to a greater extent than men in 11 out of 12 countries in Western Europe, as well as in Europe as a whole and also the U.S.

The question can be raised, to what extent can the participants' status on the ICMIC's five psychic items be predicted by any of these 14 variables considered simultaneously in standard regression analysis? The variables range from transliminality, to religiosity, to potential psychopathology (such as hallucination-proneness and dissociation). Though some of these predictor variables are correlated with each other (see two matrices of inter-correlations, one given by Bentall, Claridge, & Slade, 1989, the other, by Claridge, McCreery, Mason, Bentall, Boyle, Slade & Popplewell, 1996), the regression analysis takes these intercorrelations into account, selecting a variable only if it adds significantly to the predictive power of the regression equation over and above the contribution of other predictors already selected.

Some relevant research has been reported, in relation to personality characteristics of OB experients: McCreery and Claridge (1995) compared experients with OB non-experients on some of the same variables as have been mentioned above: for example, OB experients were particularly high on the Magical Ideation Scale and the Launay-Slade Hallucination Scale. However, in that study the variables were not subjected to multiple regression analysis, and so some of their significant results may be redundant.

Some research has been conducted on the relation between reincarnation belief and paranormal belief. For example, Thalbourne, Silva and Razente (2006) used two questions about belief in reincarnation in their Portuguese population sample, and both these and a third on claimed recall of a previous life correlated to a moderate degree with a Portuguese version of the Australian Sheep-Goat Scale (Thalbourne, 1995). Thus, given belief in reincarnation, we expect respondents to also tend to be believers in and experients of the paranormal.

METHOD

Participants

Participants numbered 244 persons, mainly students at various levels of psychology at the University of Adelaide. Of these participants, 28% were male. Age ranged from 17 to 63 years, with a mean of 25 years (SD = 9.93), the distribution being heavily weighted on the younger ages.

Procedure

Two-thirds of the participants were volunteers who filled in the questionnaires in an hour time-slot following their psychology lecture; one-third of participants were asked to fill in the questionnaires as part of their course on computing and statistics, and did so in their own time.

Materials

The five items taken from the ICMIC were, verbatim: (1) Apparition: "I have felt, heard, or seen a ghost or spirit"; (2) OBE: "I have had an out-of-body experience; that is, I have felt as if 'I' (my mind or my spirit) left my body and lived for a while without my body; (3) Precognition: "I have known something would happen before it happened even though there was no **real** way I could have known; (4) Veridical hunch: "I have at times felt that I **just had** to go somewhere or to do something I wouldn't usually do (such as call someone I wouldn't usually call) and then later found out there was a reason for this feeling. (For instance, the person I called really needed me at that time.); and (5) Reincarnation: "I believe being born again in a different life is possible, and I think I may have lived more than one life."

The 17 predictor variables were: (1) E (Extraversion); (2) N (Neuroticism); (3) P (Psychoticism); and (4) the Lie Scale, all four predictors being measured by the Eysenck Personality Questionnaire-Revised (Eysenck & Eysenck, 1991); (5) the 29-item (true-false) Revised Transliminality Scale, Rasch-scaled by Lange, Thalbourne, Houran and Storm (2000); see also Houran, Thalbourne & Lange, 2003); (6) General Belief in Life After Death; (7) the 8-item multi-valued-response scale devised by Haraldsson (1981; Appendix A, Items 1 through 8) to measure religiosity in a broad sense; plus three of his additional religiosity items, namely, (8) Vivid Religious or Spiritual Experience; (9) Bible-reading; and (10) Reading About Eastern Religions or Theosophy; (11) the Manic Experience Scale and (12) the Depressive Experience Scale (Thalbourne &

Bassett, 1998); (12) Riley's Questionnaire on Experiences of Dissociation (Riley, 1988); (13) the Magical Ideation Scale (Eckblad & Chapman, 1983); (14) the Launay-Slade Hallucination Proneness Scale (Launay & Slade, 1981); (15) the STA Scale for schizotypal personality (Claridge & Broks, 1984); (16) a slightly shortened version of the Unusual Experiences subscale (one of four measuring schizotypal personality), taken from the Oxford-Liverpool Inventory of Feelings and Experiences (the O-LIFE: Claridge, 1997), containing 24 of the 30 items normally administered; and lastly, (17) gender. Also administered, but not used in the regression analyses, was the Rasch Australian Sheep-Goat Scale (Lange & Thalbourne, 2002), "sheep" being the believers and "goats" the disbelievers. Descriptive statistics for all the scalar variables may be found in Table 1.

Table 1
Descriptive Statistics for 16 Scalar Measures Used in This Study

Scale	Minimum	Maximum	*M*	*SD*
E (Extraversion)	4	23	15.27	4.97
N (Neuroticism)	1	24	14.40	5.05
P (Psychoticism)	0	16	6.47	3.39
L (Lie)	0	16	6.33	3.72
Transliminality Scale	1	29	15.15	6.17
General Belief in an Afterlife	1	44	29.68	11.73
Haraldsson's Religiosity Scale	8	30	18.89	5.58
Manic Experience Scale	1	9	5.30	1.62
Depressive Experience Scale	0	9	4.54	1.86
Magical Ideation Scale	0	18	6.20	3.94
Questionnaire on Exper. of Dissociation	0	24	11.46	4.80
Launay-Slade Hallucination Scale	0	10	4.04	2.53
STA (Schizotypal Personality)	0	35	17.64	7.42
Unusual Experiences	0	23	10.09	5.47
Rasch Australian Sheep-Goat Scale	8.13	43.39	24.84	6.58

RESULTS

Frequency Data

We first note that 38% of the sample claimed to have seen a ghost, 24% to have had an OBE, 63% to have experienced precognition, 57% a veridical hunch, and 44% said they believed in reincarnation.

Regarding the three single religiosity questions, 35% claimed a vivid spiritual or religious experience (65% did not); 5% said that they read the Bible often, 11% said "now and again", 35% said "seldom", and 48% said "never"; reading about Eastern religions or theosophy was slightly more frequent: 6% said "often", 26% said "now and again", 29% said "seldom", and 39% said "never".

Correlational Data and Factor Analysis

The inter-correlations between the five ICMIC items (where "true" = 1, and "false" = 0) and the Rasch measure of paranormal belief are given in Table 2.

Table 2
Inter-Correlations for the Five ICMIC Items and the ASGS

	Ghost	OBE	Precog.	Hunch	Reincarn.	RASGS
Sensed a ghost	—	.35	.23	.26	.35	.45
Had an OBE		—	.23	.21	.39	.47
Experienced precognition			—	.41	.34	.53
Veridical hunch				—	.28	.44
Reincarnation					—	.50

Note: All correlations are significant at the $p \leq .001$ level

It can be seen that, as thought likely, all the correlations were positive and significant. Therefore, a principal components factor analysis was considered for the correlation matrix. First, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was calculated, and was found to be 0.80, which Kaiser (1974) characterises as "meritorious". Moreover, Bartlett's test of sphericity gives a value that is large and significant: 338.71, $df = 15$,

$p < .001$, so it appears unlikely that the population correlation matrix is an identity. Therefore, the data are appropriate for factor analysis.

The analysis yielded a single factor, with an Eigenvalue of 2.83, and accounting for 47.1% of the variance. The factor loadings and communalities may be found in Table 3.

Table 3
Factor Loadings and Communalities for Five ICMIC Items and the Rasch ASGS

	Loading	h^2
Rasch Australian Sheep-Goat Scale	.846	.716
Reincarnation	.699	.488
Experienced precognition	.664	.441
Sensed a ghost	.641	.410
Had an OBE	.629	.396
Experienced veridical hunch	.612	.374

It seems fitting to name the factor "Paranormal Experience". A single factor-score was generated to represent levels obtained by participants on this factor, and was used in later analyses.

Standard Multiple Regression Analyses

The Four Eysenck Variables

1. *Apparition*: the four Eysenck variables were unable to predict a participant's status on this item;

2. *OBE*: in this case the Eysenck variables had some (weak) ability to predict a person's status: $R = .34$, $R^2 = .12$, $F(4, 76) = 2.56$, $p = .044$; however, the only significant standardized regression coefficient was for Psychoticism, beta = .29, $p = .012$.

3. *Precognition*: there was no overall significant R; however, there was again a significant beta for Psychoticism, beta = .24, $p = .043$.

4. As in the case of Precognition, *Veridical Hunch* gave no overall significant *R*, but a significant beta for Psychoticism, beta = .29, *p* = .014.

5. None of the Eysenck variables were able to predict *Reincarnation*.

6. None of the Eysenck variables was able to predict *the factor-score* representing paranormal experience.

Conclusion

Neither extraversion nor neuroticism turned out to be significant predictors in any of the six analyses. However, high Psychoticism was correlated with higher belief in the paranormal in three of the six analyses, namely, those for out-of-the-body experience, veridical hunch and precognition.

The 12 Remaining Predictor Variables

1. *Apparition*: the 13 variables were able to predict significantly the multiple correlation coefficient *R*: *R* = .56, R^2 = .31, *F*(14, 212) = 6.94, *p* < .001; there was just one significant contributor: Vivid Spiritual or Religious Experience, beta = .36, *p* < .001; Transliminality and Belief in Life After Death were marginally significant, with betas of .21 and .14 respectively.

2. *OBE*: the variables were able to produce a significant multiple correlation, *R* = .55, R^2 = .30, *F*(14, 214) = 6.54, *p* < .001; there were three significant contributors: Vivid Spiritual or Religious Experience, beta = .28, *p* < .001; low experience of Mania, beta = -.16; and Transliminality, beta = .34, *p* = .002.

3. *Precognition*: the variables were able to predict a significantly high multiple correlation, *R* = .54, R^2 = .29, *F*(14, 212) = 6.26, *p* < .001; there was only one clearly significant contributor, namely, Transliminality, for which the beta was .48, *p* < .001).

4. *Veridical Hunch*: the variables were able to predict a significantly high multiple correlation coefficient, *R* = .57, R^2 = .33, *F*(14, 214) = 7.37, *p* < .001; just one predictor was significant, namely, Transliminality for which the beta was .46, *p* < .001.

5. *Reincarnation*: the variables in this case produced the highest multiple correlation, $R = .66$, $R^2 = .44$, $F(14, 212) = 11.93$, $p < .001$; there were three significant betas: rarely or never reading the Bible (beta = -.19, $p = .006$); Magical Ideation (beta = .42. $p < .001$), and perhaps rather predictably, Belief in General Life After Death (beta = .29, $p < .001$).

6. *The Factor Scores*: these produced the highest multiple correlation coefficient in the entire study, $R = .81$, $R^2 = .66$, $F(14, 208) = 29.25$, $p < .001$. Four beta values were significant: in order of magnitude they are the Transliminality Scale, beta = .53, $p < .001$; Vivid Spiritual or Religious Experience, beta = .23, $p < .001$; the Magical Ideation Scale, beta = .23, $p = .004$; and Belief in Life After Death, beta = .21, $p < .001$.

<center>DISCUSSION</center>

The first finding to note is that all five of the ICMIC items evidently share the same underlying factor: that is, they are all variants of (or participants in) the common factor Paranormal Experience. This result is not especially surprising because the five ICMIC items are statistically somewhat associated with each other (that is, an experient of one is likely to be an experient of [or believer in] another), and we might therefore expect that analyses with the remaining items would tend to produce similar results. Nevertheless, the results are *not* consistent with the view that paranormal belief is multifactorial.

As regards personality correlates, there was some evidence that a person's degree of P (Psychoticism) can predict that person's status on three of the six items. The reader should be made aware that this finding does *not* mean that experients are *necessarily* more psychotic nor more prone to psychosis; it is generally accepted that Eysenck's P measures degree of unconventionality. At the same time, in two previous studies, P has been found to correlate moderately with a measure of Borderline Personality (called STB: Claridge & Broks, 1984), with correlations of +0.33 and +0.44 reported in first and replication studies respectively; P has also been found to correlate with Hypomanic Personality (Eckblad & Chapman, 1986), +0.49 in the first study, and +0.43 in the replication (Bentall, Claridge, & Slade, 1989; Claridge et al., 1996). It is therefore the case that P *might* be measuring characteristics of bipolar disorder, and therefore a form of psychosis after all. On the other hand, on the one occasion when the Manic Experience Scale made an appearance, it was *low* scorers who claimed an OBE.

The Magical Ideation Scale was used in the expectation of confirming the results of McCreery and Claridge's (1995) study of OB experients, but such ideation turned out to be a predictor of belief in (and alleged experience of) reincarnation. Thalbourne (1998-1999) examined magical ideation in relation to type of afterlife believed in (if any), and found that reincarnationists scored the highest, those who did *not* believe in *any* form of afterlife (the "extinctionists") scored the lowest, and 23% of the variance was accounted for.

Gender was entered in the six whole-sample multiple regression analyses, but on no occasion was it a significant predictor of an ICMIC variable.

Again, with the whole-sample Multiple Regression Analyses we see that Transliminality appeared as a significant predictor on five out of six occasions. This could probably have been predicted given the strong relationship documented between transliminality and the sheep-goat variable (Thalbourne & Houran, 2003), but it is noteworthy that it usually emerged as the best (perhaps the only) predictor despite competition from 13 other variables.

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