

# **PERSONALITY ATTRIBUTES AS DISCRIMINATING FACTORS IN DISTINGUISHING RELIGIO-MYSTICAL FROM PARANORMAL EXPERIENTS\***

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## **ABSTRACT**

In the first section of this paper an operationalized notion of præternatural experience is described which includes two general classes of experience: religio-mystical (Ontic) and paranormal (Perceptual). The exploratory study which follows uses the personality measures of the complete Tellegen Differential Personality Questionnaire taken from 120 Ss who reported having had spontaneous religio-mystical and/or paranormal experiences sometime in the past. The scores on all eleven primary dimensions, three higher order affect factors, and two validity scales were used individually, in univariate ANOVAs, and together, in a Direct Discriminant Function Analysis, to successfully separate two classes of præternatural experient from non-experients and from each other.

## **Theoretical Background**

### THE EXPERIENCE AND EXPERIENT TYPES

Although in the past two decades there have been some quite useful surveys designed to ascertain the distribution of religious and related experiences in the general populations of Western countries [1, 2, 3, 4, 5], these studies, for the most part, have not made any clear empirical or theoretical discrimination between religio-mystical and paranormal experiences and experients. The surveys in question have typically included single catch-all questions, such as that used by Hay and Morisy, which asked respondents whether they ever remember being “aware of, or influenced by a presence or power, whether referred to as God or not, which is different from their everyday selves.” The more detailed phenomenological descriptions of the experiences brought forth as responses to Hay’s later study, for example, range across experiences of awareness of controlling powers, presence of God, nature mysticism, ESP, out-of-the-body experiences, presence of evil and religious conversions. This sort of response set is certainly not atypical, as most of these studies have produced a mixture of what can be

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considered paranormal (ESP, out-of-body-experiences, sensing of non-corporeal presences, etc.) as well as religio-mystical experiences (introvertive and extrovertive mystical states, encounters with the divine, near death experiences, etc.).

The grouping of paranormal experients together with mystics is identified by Stace [6] as being a common occurrence.

...although visions and voices are clearly distinguished by mystics from the higher states which they attain, there is a certain correlation between the types of persons who have mystical experiences and those who see visions and hear voices. That is why they themselves are so careful to distinguish them. [6, p. 50]

And, it is likely that it is for this reason the above cited surveys have tended to bring forth a mixture of religio-mystical and paranormal experiences.

If there is going to be clarity as to what constitutes the unique qualities of religious-mystical experiences and experients, it is essential that an attempt be made to empirically differentiate them from other related experiences and experients. To this end, it has been suggested by Nelson [7] that both types of experience should first be operationally defined under the general rubric of 'praeternatural experience'.<sup>1</sup> Within this general range, experiences then can be empirically separated into what is believed to be an appropriate range of relevant types at collection time by soliciting responses to specific questions designed to isolate each specific type of praeternatural encounter.<sup>2</sup> Following collection, the types collected can be further reduced to two general categories: 'Ontic' (O) and 'Perceptual' (P).<sup>3</sup> Adding to these categories memorable and unique, but non-praeternatural experiences (N), a tripartite classification system for *experiences* can thus be generated. Within this context, the life history of a subject can be

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<sup>1</sup>Præternatural experiences are operationally defined as that class of reported experiential events which are given as responses to either the catch-all questions of Hay [3] and others or the more specific categories of Nelson [8] and, further, by the criterion of having the quality of 'supernatural' givenness as defined by Hultkrantz [9]. He posits a notion of the 'supernatural' as a quality which makes certain events in human life appear to differ sharply from 'normal' perceptions. These praeternatural occurrences are motivated by belief in the possibility of the 'supernatural', viz., they are intentional acts arising from a 'will to believe'" [7, p. 46].

<sup>2</sup>The experience categories are: 1) encounters with God, 2) introvertive and extrovertive mystical experiences, 3) encounters with the numinous and/or sacred, 4) near death encounters of a 'spirit realm', 5) visionary episodes, 6) sensing of non-corporeal presences, 7) out-of-body-experiences, 8) remote perceptions (pre- and post-cognitions and telepathy), 9) a sudden sense of ontological uncertainty or loss of a sense of 'existential self' and 10) shamanistic-like 'other-world' adventures [8].

<sup>3</sup>Experience types 1, 2, 3, 4, and 9 (from footnote 2) are defined here as 'Ontic' and the remaining types as 'Perceptual'. Some types such as 10, for example, can cross over, but in Nelson's [7] study it was decided, after more in-depth interviewing of subjects, to place all respondents to this type in the 'Perceptual' category. 'Perceptual' experients have, like their 'Ontic' counterparts, a sense that something 'supernatural' or non-ordinary is occurring. However, 'Ontic' experients feel that there is an ontological otherness (divine or cosmic source) behind the occurrence and tend to understand their experiences in more directly religious terms than do 'Perceptual' experients.

examined for the occurrence of præternatural experiences and, if found, a further classification of *experients* into either ‘O’ or ‘P’ types can be made based on the predominance of one type or the other over a life-time.

#### PERSONALITY FACTORS

As for ‘P’ experients, Irwin [10, 11] found that personality variables which have correlated positively with extrasensory perception performance include extroversion, lack of neuroticism, hypnotic susceptibility, low levels of defensiveness, high levels of arousal, spontaneity of response, ability to become psychologically absorbed, and differential reliance on visual and verbal encoding processes. Myers et al [12] confirm Irwin’s [13] earlier findings concerning the prevalence of higher levels of “Absorption” associated with out-of-body-experiences (OBEs) and that individuals who are concerned with their own mental processes may be more open to OBEs.<sup>4</sup> Adding to this list of personality characteristics is Hearne’s [15] study, which concludes that those who claim to have paranormal abilities show prominent levels of “self-sufficiency,” but are “undisciplined,” and “affected by feelings.” A further observation made by Wilson and Barber [16] is that good hypnotic Ss report numerous telepathic, precognitive, and other psychic experiences.

In studies of mixed groups of præternatural experiences (both ‘O’ and ‘P’ categories), Hay’s [3] Ss demonstrate higher levels of positive affect than non-experients while Thomas and Cooper [17] find that præternatural experients show significantly lower levels of intolerance to ambiguity than do their ‘N’ counterparts. In a more in-depth personality study of præternatural experients Nelson [18] found that they show a direct linear relationship between levels of ‘Absorption’, measured on the Tellegen Differential Personality Questionnaire (DPQ) [19], and frequency of experience taken over a life-time. It was also observed that those who have greater numbers of experiences also have higher levels of both positive and negative affect than those with fewer or no præternatural experiences.<sup>5</sup> Less marked, but still significant, this study found

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<sup>4</sup>Tellegen and Atkinson [14] framed the “absorption domain” as a definite personality construct (“Openness to Absorbing and Self-Altering Experiences” or “Absorption”) from their empirical, factor-analytic studies of personality. They argue that this type of personality phenomenon, while generally overlooked in academic treatments of attention, perception and memory, is referred to widely in the literature on meditation, altered states and peak experiences. They suggest that the attention described by the items of the Absorption scale “is a ‘total’ attention, involving a *full commitment of available perceptual, motoric, imaginative and ideational resources to a unified representation of the attentional object*” [14, p. 274]. This experience is characterized by: 1) A heightened sense of the reality of the attentional object; 2) Imperviousness to normally distracting events; 3) An altered sense of reality in general and of the self in particular. “These object identifications have mystical overtones. And, indeed, one would expect high-absorption persons to have an affinity for mystical experience, even if true *unio mystica* is, itself, a rare attainment” [14, p. 275].

<sup>5</sup>On the DPQ positive and negative affect are orthogonal and, thus, Ss can be high or low in both simultaneously.

that the higher rate experiencers had higher levels of well being and lower levels of both Harmavoidance and attachment to traditional values than their lower experience rate counterparts.

Much of the earlier work on religio-mystical experience ('O' types) emphasized its relationship to pathological personality traits. Dittes [20], for example, in line with the psychoanalytic position of Freud [21], speculates that religious experiences are more common amongst individuals who have the pre-dispositional characteristic of what he calls a "weak ego". Similar psychoanalytic reductive theorizing has attempted either to 'explain' mystical experience as being "regression in service of the ego" [22] or to associate these experiences with schizophrenic episodes and other forms of major psychopathology [23, 24, 25].

Countering the position of the analytic psychologies, but still essentially speculative, is the work of Maslow [26, 27] who has written forcefully and extensively on the integrating power of these experiences and their subsequent positive effect on personality. He concludes that persons who report such experiences frequently are of the 'self-actualizing' personality type which is identifiably more mature and creative. Although the mystic, in many classical descriptions, appears to best fit Maslow's model of the 'self-actualized' individual, Clark [28] believes that this individual is also a lonely person forced to keep his "pearl of great price" [28, p. 228] within himself.

In more recent years there have been attempts to examine mystical experiencers employing more objective empirical methods [29, 30]. Using the Myers-Briggs Type Indicator [31] Campbell [32] found that high scores on 'feeling' and 'intuition' were associated with high scores on the Hood Mysticism Scale [33] and that neither scores on the introversion/extroversion dimension nor gender were capable of discriminating mystical experiencers from non-experiencers. In a more recent study, Caird [34] observed no significant correlations between self-perceived mysticism, as measured on the Hood Mysticism Scale, and the scales of the Eysenck Personality Questionnaire [35] which measures introversion/extroversion, neuroticism, and psychoticism. This is also congruent with Fulgosi's [36] earlier factor-analytic study in which he observed that it is entirely possible to have a high inclination toward mysticism in parallel with a high inclination toward realism.

The pathologizing of praternatural experience has been a major obstacle in many earlier attempts to understand the personalities of experiencers. More recent conceptualizations of personality, on the other hand, recognize that, for the most part, personality is a filter through which experience is constructed [37]. Tart [38] suggests, in his discussion of the creation of experiential worlds, that 'personality' and 'state of consciousness' can be considered as being largely synonymous. It follows, then, that an instrument of personality measurement based on

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the observation of conflict and pathology will naturally filter all self-reported experience in such a manner as to equate a positive struggle toward mystical ‘liberation’ to the negative struggle characteristic of neurotic and psychotic ‘breakdowns’.

The most common and most researched instrument for psychological assessment of personality has been the Minnesota Multiphasic Personality Inventory (MMPI) [39]. Although this instrument is considerably larger and broader in scope than the ‘short-form’ instruments used in most of the studies cited above, it has been criticized for research on religiosity by both Dittes [40] and McConahay [41] because it was standardized on an entirely different population, viz., young university students. MacPhillamy [42] concludes from a survey of the literature that the religious generally respond to the MMPI in a more “pathological” manner than does the average person. In spite of the fact that he was able to distinguish positive changes in personality related to religious practice and ‘awakening’ in Zen Buddhist practitioners with the MMPI, this instrument's orientation, as well as its lack of a direct measure of ‘Absorption’, renders it an inadequate method for exploring personality factors related to mystical and paranormal experiences.

On the other hand, a self-report instrument such as the DPQ [19] would appear to be better suited because of its inclusion of the “Absorption” scale as well as having ten other factor-analytically derived dimensions of personality and three higher-order affect dimensions. These scales were not constructed from a model of psychopathology and can be thought of as filters of traits commonsensically related to qualities of worldview and self-orientation which individuals manifest in their methods of dealing with the world.<sup>6</sup> The employment of such an instrument would also help to overcome some of the shortcomings of some more recent empirical studies, which do not provide as broad a range of personality dimensions as are available on the DPQ.

The object of the present exploratory study is, therefore, to ascertain whether there are personality traits, as measured by the DPQ, which can successfully discriminate between those who are predominantly either ‘O’, ‘P’, or ‘N’ experiencers. In addition, this study hopes to fill in a more detailed picture concerning the character of praternatural experiencers, since most previous work on personality characteristics associated with spontaneous praternatural experiences is either speculative or the result of somewhat abbreviated personality measures.

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<sup>6</sup>The DPQ's eleven primary personality dimensions are: **Wellbeing, Social Potency, Achievement, Social Closeness, Stress Reaction, Alienation, Aggression, Control, Harmavoidance, Traditionalism, and Absorption**. These primary dimensions show substantial communality with other inventories such as the Eysenck Personality Questionnaire and the California Psychological Inventory. The DPQ also generates three higher-order trait factors: **Positive Affectivity, Negative Affectivity, and Constraint** and includes six validity scales, only two of which were used in this study: **Associative Slips and Unlikely Virtues** [19].

## Method

From a previous non-random survey of reported, spontaneous praternatural experiences conducted at two Australian universities, 120 Ss were chosen as a subset for this present study (Cf. Nelson [8, 18] for a description of subject collection methods). From an examination of Ss reported life-time record of spontaneous praternatural experience and from interviews designed to explore the nature of their reported experiences, each S was assigned to one of the three experient types. For example, if an experient had more 'O' than 'P' types of experiences s/he was assigned to the 'O' experient group. For the few (7) experients who reported similar rates of both 'O' and 'P' experience types, assignment into an experient group was made based on their evaluation of the relative importance of either 'O' or 'P' types. For example, for those with equal scores who emphasized 'P' experiences as their primary focus during the interview, assignment was made into the 'P' group.

Following the interview and group assignment, each S was administered a computerized version of the complete (300 items) Tellegen DPQ. The computer used was a Macintosh and Ss were required to choose (click) one of two on-screen 'buttons' as a response to each statement. The program was devised so that Ss could not return to previous statements and were required to make a response to the current statement before being able to go on to the next. This prevented missing data and, when Ss indicated that they were having difficulty in deciding between the two choices given, they were advised to choose the response which was closest, although not exactly on target. All Ss completed the task and were then given the opportunity to ask any questions or provide any feedback.

Following the data collection phase, each of the primary personality scales, higher order affectivity factors, and validity scales were used in both univariate analyses of variance across experient types and all together in a multivariate direct Discriminant Function Analysis (DFA) for experient types.

## Results

After dropping univariate and multivariate outliers ( $\chi^2 = \text{Mahalanobis Distance}^2$ ,  $df = 16$ ,  $p < 0.001$ ), 110 cases remained: 61 females and 49 males with both men and women showing a mean age of about 32.5 years. There is no significant age bias across experient groups and the mean ages for 'N', 'O', and 'P', types are, respectively, 31.8, 35.4, and 30.7 years. Although there are overall more female 'O' (26) and 'P' (28) experients than male and fewer female (7) than male (12) 'N' types, the Chi-Square statistic for gender versus experient type shows no significant dependency ( $\chi^2 = 3.722$ ,  $df = 2$ ,  $p > 0.2$ ).

## UNIVARIATE ANALYSIS

The primary personality dimensions, higher order affectivity factors and validity scale showing significant univariate ANOVA F-statistics ( $p < 0.05$ ) are listed together with group means in Table 1.

**Table 1**  
**Univariate ANOVA's and Means of Personality Variables**  
**Across Factor of Experient Type**

VARIABLES	ANOVA	Prob. P <	None N = 19		Ontic N = 41		Perceptual N = 50	
	F-Statistic df = 2, 107		Mean	S.D.	Mean	S.D.	Mean	S.D.
Absorption	15.27	0.00001	12.89	7.08	22.95	7.61	23.82	7.76
Alienation	9.59	0.00015	1.16	1.38	1.22	1.78	3.32	3.27
Negative Affectivity	8.42	0.0005	118.11	9.20	123.29	10.02	129.82	12.97
Aggression	5.54	0.006	3.11	1.41	3.07	2.16	4.82	3.41
Positive Affectivity	4.74	0.015	147.26	14.39	157.98	11.52	156.16	13.21
Associative Slips	4.13	0.02	1.16	1.42	2.59	2.54	1.62	1.70

Post hoc comparisons for specific effects are shown in Table 2. From these results it is clear that Absorption is the strongest univariate discriminator of non-experients from the combined praternatural experients. This dimension also is capable of separating non-experients from either 'O' or 'P' types taken separately. In addition, 'O' and 'P' experients taken together as a single group show significantly higher scores for both Negative and Positive Affect factors than non-experients, but only 'P' types, alone, significantly discriminate for the 'N' group on both kinds of affect with 'P' experients showing higher levels. On the other hand, 'O' types are significantly higher than 'N' types on Positive Affect scores but, although not significantly greater than 'P' scores on Positive Affect, they are significantly lower than 'P' types on Negative Affect. This difference in Negative Affect between 'O' and 'P' experients is accentuated by the observation that 'P' types have significantly higher scores than 'O' types on both the Alienation and Aggression scales. This same difference pattern for affect, Alienation, and Aggression also is observed when comparing 'P' experients to non-experients.

From the above analysis, it appears as though praternatural experients have a significantly higher capacity for engaging in absorptive and imaginal behaviour. It also is evident that experients tend to live at an overall higher arousal level than their non-experient counterparts, but that 'P' experients appear to have more anxiety and angry feelings existing as

part of a personality which is, in general, more socially alienated and aggressive than either 'O' or 'N' types.

**Table 2**

**Post Hoc Comparisons for Specific Effects Between Experient Types\***

POST HOC COMPARISON> VARIABLES	Non-Expert's vs. All Experients	Non-Expert's vs. Ontic	Non-Expert's vs. Perceptual	Ontic vs. Perceptual
<b>Absorption</b>	<b>N &lt; A</b> F(1,107) = 29.95 p < 0.0001	<b>N &lt; O</b> F(1,107) = 22.77 p < 0.0001	<b>N &lt; P</b> F(1,107) = 28.50 p < 0.0001	<b>O &lt; P</b>
<b>Negative Affect</b>	<b>N &lt; A</b> F(1,107) = 8.70 p < 0.004	<b>N &lt; O</b>	<b>N &lt; P</b> F(1,107) = 14.67 p < 0.0003	<b>O &lt; P</b> F(1,107) = 7.45 p < 0.0075
<b>Positive Affect</b>	<b>N &lt; A</b> F(1,107) = 9.18 p < 0.004	<b>N &lt; O</b> F(1,107) = 9.07 p < 0.004	<b>N &lt; P</b> F(1,107) = 6.63 p < 0.02	<b>O &gt; P</b>
<b>Alienation</b>	<b>N &lt; A</b>	<b>N &lt; O</b>	<b>N &lt; P</b> F(1,107) = 10.06 p < 0.002	<b>O &lt; P</b> F(1,107) = 15.54 p < 0.0002
<b>Aggression</b>	<b>N &lt; A</b>	<b>N &gt; O</b>	<b>N &lt; P</b> F(1,107) = 5.46 p < 0.025	<b>O &lt; P</b> F(1,107) = 9.26 p < 0.003
<b>Associative Slips</b>	<b>N &lt; A</b>	<b>N &lt; O</b> F(1,107) = 6.49 p < 0.015	<b>N &lt; P</b>	<b>O &gt; P</b> F(1,107) = 5.15 p = 0.025

\*Comparisons involving two types per side use average of variables across those types. All post hoc comparisons use the modified Bonferroni Test [43] and are significant when  $p < 0.025$ .

'<' and '>' indicate direction of magnitude difference between group or type means, but statistically significant only where F-statistic is shown.

Of the two DPQ validity scales used in this study, only Associative Slips shows a statistically significant effect. This scale is characterized by statements designed to ascertain whether the S is reading the questionnaire statements with discriminating accuracy. Scores on this scale are typically low,<sup>7</sup> high scores indicating an unreliable test result. 'N' and 'P' Ss were at or below these levels and only 'O' Ss demonstrated a significantly higher score (albeit still acceptably small) than either 'N' or 'P' experients. Although validity scores are not usually interpreted in a discussion of personality, the higher level of Associative Slips for 'O' experients may be seen as being the result of a perceptual 'set' more typical of these Ss. Their greater

<sup>7</sup>Mean = 1.6 - 1.7 for university students (U.S.) out of a possible score of 14 [19].

religiosity<sup>8</sup> ( $\chi^2 = 16.67$ ,  $df = 2$ ,  $p < 0.001$ ), in combination with an overall more positive emotionally charged worldview, may lead to what one can characterize as a “rose coloured glasses” syndrome. Filtering perceptions through a positively charged personality ‘set’ may lead to the world, people and/or statements on a personality inventory not being evaluated as critically and carefully as by either ‘N’ or ‘P’ types.

#### MULTIVARIATE DIRECT DISCRIMINANT FUNCTION ANALYSIS

A Wilks’ Lambda and associated F-ratio were calculated using all eleven primary personality dimensions, the three higher order affect factors and two validity scales. As can be seen in Table 3, the F-ratio yields a statistically significant probability for separating the three experient groups on overall personality. In addition, two discriminant functions were calculated with associated tests of roots, canonical correlations and loading correlations of variables to functions. Chi-Square test statistics for both roots show statistical significance indicating that the discriminant functions are capable of separating the groups on both dimensions. The canonical correlations indicate the degree of association between discriminant function scores and group membership and are thus connected to the significance of the roots, indicating that both of these correlations are significant.

Examining the canonical loadings ( $R_L$ ) in Table 3 for all variables with correlations greater than 0.300,<sup>9</sup> it is immediately obvious that Absorption is the primary loading on the first factor. Also clustered on this root factor are significant correlations for Negative Affect, Alienation, and Aggression. From this clustering it seems reasonable to name this factor, “Negatively Toned Absorption” (NTA). The second factor also has Absorption as one of the stronger correlations but, in this case, it is grouped with Positive Affect and Associative Slips (all three show the same sign). From this particular grouping the rubric, “Optimistically Toned Absorption” (OTA) was chosen to describe this factor’s functional qualities. The opposite (negative) sign given for Alienation and Unlikely Virtues<sup>10</sup> on factor 2 indicates that these variables discriminate in an inverse manner on Factor 2, which further strengthens its discriminant role as an ‘optimistically toned’ factor.

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<sup>8</sup>Religiosity in this study is self-perceived religiosity and is determined from the original survey questionnaire which asks whether the respondent “sees him/herself as a religious and/or spiritual person.”

<sup>9</sup>This accounts for about 10% of the variance and is the minimum acceptable level usually considered.

<sup>10</sup>Unlikely Virtues reveals the degree to which Ss deny common human faults and foibles. In this sense it is a measure of denial which is often associated with anxiety and, hence, negative affect.

**Table 3**  
**Multivariate Direct Discriminant Function Analysis of**  
**Personality Across Factor of Experience Type**

Wilks' Lambda = 0.411,  $F(32, 184) = 3.217$ ,  $p < 0.000001$

Roots 1 through 2,  $\lambda^2 = 88.43$ ,  $df = 32$ ,  $p < 0.000001$

Roots 2 through 2,  $\lambda^2 = 28.96$ ,  $df = 15$ ,  $p < 0.015$

Canonical Correlations and Percentage Between Group Variance

	(1)		(2)
	0.671		0.503
	75.33%		24.67%

Canonical Factor Loadings -  $R_L^*$

	“Negatively Toned Absorption”	“Optimistically Toned Absorption”
	(1)	(2)
Absorption	0.510	0.464
Negative Affect	0.437	
Alienation	0.412	-0.344
Aggression	0.308	
Positive Affect		0.384
Unlikely Virtues		-0.350
Associative Slips		0.477

\*All loadings represent greater than 10% of between group variance.

Table 4 is a contingency table which provides a comparison of actual group membership with membership predicted by the calculated discriminant functions. The highly significant dependency relationship of actual group assignment to predicted group assignment ( $\chi^2 = 84.13$ ,  $df = 4$ ,  $p < 0.001$ ), taken together with an overall classification accuracy rate of 73.6%, indicates that the personality differences amongst ‘N’, ‘O’, and ‘P’ experient groups are capable of reliably distinguishing types of experients. The DFA appears to correctly identify non-experients with a high degree of accuracy (89.5%), but classifies ‘P’ (76%) and ‘O’ (63.4%) decreasingly so. Of course, it must be borne in mind that the ‘O’ and ‘P’ groups are not ‘pure’ representations, each being a mixture which includes the other. However, the percentage of correct classification in these latter two groups still indicates a strong association of dominantly ‘O’ or ‘P’ types to distinctly different clusters of personality factors.

**Table 4**

<b>Personality Prediction of Type Membership</b>				
<b>PREDICTED &gt; Non-Experient</b>		<b>Ontic</b>	<b>Perceptual</b>	<b>Totals</b>
<b>ACTUAL GROUP</b>				
<b>Non-Experient</b>	17 89.5%	1 5.3%	1 5.3%	19 100%
<b>Ontic</b>	8 19.5%	26 63.4%	7 17.1%	41 100%
<b>Perceptual</b>	3 6%	9 18%	38 76%	50 100%
<b>Totals</b>	28	36	46	110

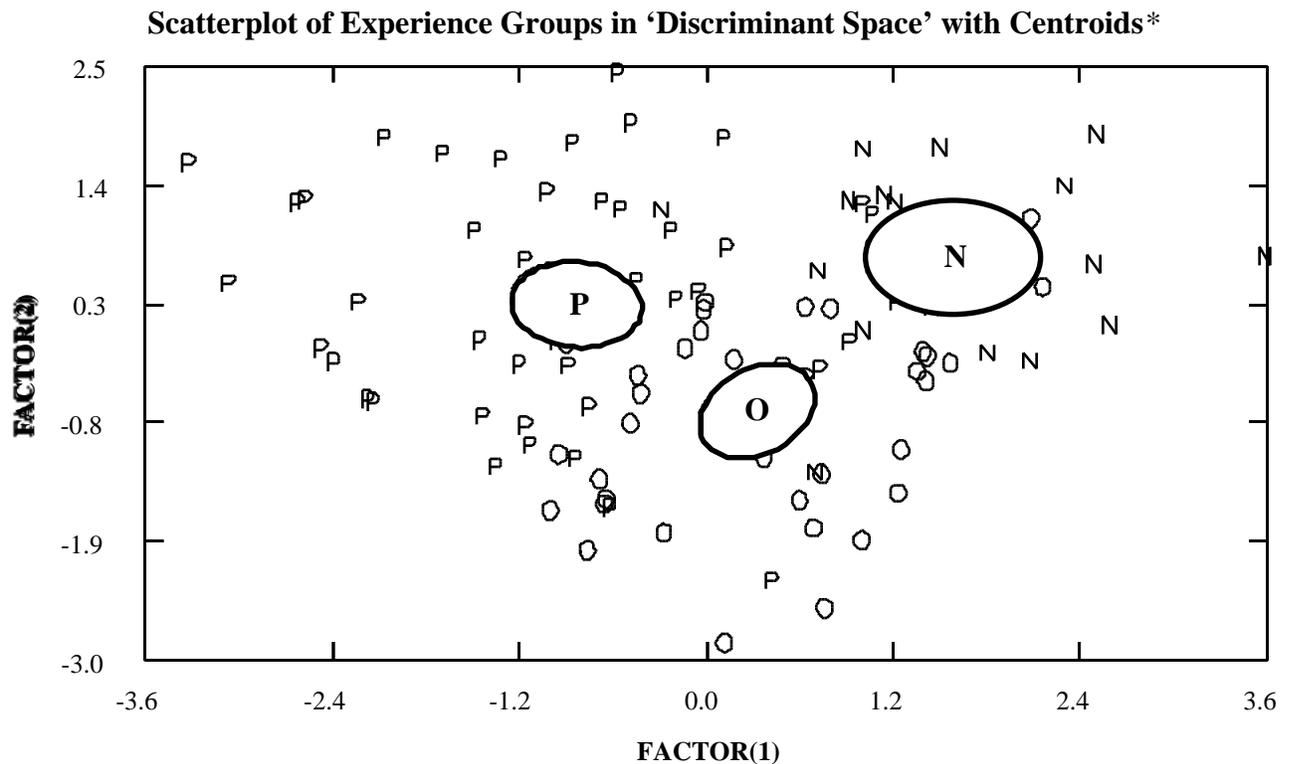
As observed in Table 3, the NTA factor (1) has the highest canonical correlation accounting for three quarters of the between group variance. This makes the NTA factor the primary discriminating function separating experient types and it can be observed in the scatterplot of cases and centroids in 'discriminant space' (Figure 1) that 'N', 'O', and 'P' types clearly separate across NTA. From the univariate analysis and the personality variable loadings obtained for the NTA factor, it must be assumed that Absorption is the primary discriminating personality dimension responsible for the separation of all three types from each other. However, in the case of 'O' and 'P' groups, the difference between Absorption scores, as revealed by the univariate F-statistic, is not significant and the separation of these two in the scatterplot is more likely due to the significant differences in Negative Affect, Alienation, and Aggression levels which add to the discriminant power of the NTA factor.

On the second factor (OTA), the 'O' group is most clearly differentiated from either the 'P' or 'N' types. Although Absorption has a significant loading on this factor, the significant combined loadings of Associative Slips and Positive Affect appear to discriminate 'O' types from the other two groups. 'O' and 'P' groups show only a small, non-significant difference for Absorption on the univariate test, therefore, it is probably their significant difference on Associative Slips which causes the observed difference in 'discriminant space'. However, the additional effect of significant univariate differences in Positive Affect and Absorption between the 'O' and 'N' groups is probably the source of the slightly greater displacement of the 'N' group positively on the OTA factor.

In summary, 'N' types tend to have considerably less absorptive capacity and probably engage in absorptive activity far less than 'O' or 'P' experients. In addition to having higher capacity for absorptive behaviour, 'O' and 'P' experients probably live at a higher level of overall arousal characterized by higher levels of both positive and negative affect. However, 'P' experients are, on average, considerably higher than 'O' types in negative feelings and attitudes,

so, it is likely that their absorptive behaviour will be toned in such a way as to make their resulting perceptions less contributory to a sense of well being. In contrast, 'O' experients will have a greater tendency to find 'goodness' and 'light' from experiences resulting from absorptive concentration which could generate salvific feelings and hence a sense of 'reward' given. It is only a small step, then, for an individual to unconsciously transmogrify a sense of 'giftedness' into something given by an ontological 'other'. This, of course, would be greatly influenced by previous religious background and training.

**Figure 1**



Groups: N = Non-Experient; O = Ontic Experient; P = Perceptual Experient.

\*Centroids represent 95% bivariate confidence intervals.

## Discussion

The growing body of scientific evidence, to which this current research contributes, suggests that the older, more speculative psychological analysis of religion and religious experience as pathological is, at best, misguided. Earlier conjectural work defining praternatural experiences as neurotic or regressive also are contradicted by this current study. This work confirms those previous findings which indicate that praternatural experiencers show overall

higher levels of both Absorption and Positive Affect than non-experients and that they are realistic, tolerant and, in general, well adapted in their lives [34, 32, 29, 36, 3, 15, 30, 10, 11, 42, 18, 5]. Nelson's previous study demonstrated that greater levels of Negative Affect were capable of discriminating higher level praternatural experients from non-experients and this current analysis further reveals that Negative Affect, and associated feelings of alienation and aggression, enable us to discriminate between religious ('O') and paranormal ('P') experients as well.

The results presented here also suggest that self-perception and sense of belonging interact in some complex way with affect and absorptive behaviour to allow for the occurrence of different types of praternatural experience. However, more highly controlled experimental research would be required to sort out the exact nature of this interaction and its role in generating paranormal and religio-mystical experiences. Nevertheless, some speculation on the possible psychological mechanisms involved is still appropriate.

The observation that Perceptual experients tend to show significantly more aggression and alienation than Ontic experients would seem logical in the light of the religious overtones and values usually associated with those who have primarily Ontic experiences. The value system and support network which accompany religious outlook and membership tend to emphasize a sense of belonging, contributing, in part, to the development of salvific feelings in these experients. From within the protected confines of group identification there is likely to arise a heightened sense of well being and hence positive feelings about oneself and others. The maintenance of this membership and group reinforcement requires, no doubt, increased self-control, particularly of aggressive behaviour and negative emotions which have the potential to alienate others and terminate feelings of security.

On the other hand, the generally higher levels of negative affect for all experients may lead to some considerable interoceptive absorption of attentional resources in attempts to reduce anxiety.<sup>11</sup> In the case of 'O' experients this negatively toned absorption, inwardly focused, may lead to 'dark night of the soul' (DNS) experiences so characteristic of mystics in which negative affect is highly intensified before being terminated by the positive feelings and sense of release of a religious 'breakthrough'. The catharsis following the DNS, which is often accompanied by blissful feelings and a sense of cosmically given well being, becomes a powerful, positive reinforcement. In the end, this positive reinforcer serves to further enhance positive affective qualities in Ontic experients as well as contributing to the formation of an optimistically coloured picture of the world around them as given through 'grace'.

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<sup>11</sup>Those with higher capacity for Absorption will be more practiced at it and, thus, more likely to engage in introspection as a method of solving personal problems which generate negative affective states.

Although Perceptual experients may engage in similar negatively charged interoception, the lack of positive resolution and a satisfactory religious framework for their experiences may leave these experients more highly negatively 'charged', affectively speaking. This, in combination with being unable to find acceptance, intra- or inter-personally, in a confirmatory group membership, may lead many 'P' experients to have increased feelings of being 'strange' and, therefore, come to view themselves as permanent outsiders. This growing alienation would likely lead to more aggressive behaviour and reinforcement of a general negative affectivity.

Starting with the fact that Absorption is the critical capacity for the occurrence of præternatural experience, Irwin [10] makes a case that opportunity (circumstances conducive to absorptive behaviour) and need (motivation to engage in absorptive behaviour) are also necessary. However, to this formulation should be added the necessity that absorptive activity occurs against a background of affective charge - negative and/or positive, which, in turn, may contribute to both motivation (a need to introspect) and circumstance (spending more time alone in order to do so). In this conceptualization, absorptive activity allows for the possibility of entering into alternate experiential worlds, but it is the quality of the high background level of affect which, in part, opens the experient to the type of experience to unfold.

Of course, in the case of 'O' experients, many either already practice interoceptive absorption, in the form of meditation and/or prayer, or commence such activities following a perceived religious experience. This would lead, naturally, to more similar experiences which will, in time, increase the overall level of background positive affect leading to yet more of the same. From this analysis, however, it is not entirely clear what would induce 'P' experients to continue to engage in practices which contribute to their growing alienation and heightened levels of Negative Affect. Perhaps, the capacity for Absorption is a 'talent' whose practice is intrinsically rewarding in and of itself. Additionally, the continuing higher levels of negative emotion may, as suggested above, provide sufficient motivation to spend more time than non-experients 'searching within' for resolution. Only more controlled research would be capable of delineating these mechanisms more precisely.

The notion of affect charged absorption, being proposed herein, also helps to more clearly link hypo-arousal (meditation, prayer) and hyper-arousal (chanting, trance dancing) techniques traditionally used for religious experience induction [44, 45]. Both trance-dancers and contemplatives start by bringing into their daily religious practices an already intensified affect reflective of spiritual striving. A Dervish trance-dancer, for example, will, through continuously repetitive movement, simultaneously increase both absorption and overall arousal, hence, further raising the level of affectively charged absorption. Contemplatives, on the other hand, find their level of emotive arousal is further augmented by affect generated through an increasingly heightened sensitivity to the inner cognitive and emotive 'landscape' which

naturally occurs during quietist practice. In other words, the contemplative's absorbed interoceptive focus yields increased awareness, which opens inner emotional 'doors' with a subsequent increase in affect. This type of experience is often reported by Buddhist practitioners of "insight meditation" [46]. In both cases - Dervish and contemplative - the result may be a state of affectively charged absorption capable of triggering Ontic experiences.

This notion of affectively charged absorption also is useful for explicating praternatural experiences from the perspective of altered states of consciousness (ASC) theory. Deikman's [29] model of mystical experience posits the notion that such experiences arise as a result of entering into a receptive state of consciousness (absorption), which is then followed by the deautomatization of the usual cognitive and affective functional relationships leading to an altered experience. Tart [47], in his discussion of ASCs, argues that states of consciousness are quantum-like structures and thus are discontinuous and non-contiguous with one another. Energy of some type is required to drive the state change and, as such, an experient cannot merely 'slide' between states, but is either wholly 'in' or wholly 'out' of a given ASC. It is being suggested here that emotively charged arousal possibly could supply, against a background of absorptive activity, the energy required. Katz [48], elaborating on Tart's model, theorizes that the relational shifts in cognitive schemata associated with entry into an ASC generate additional emotional charge which then feeds back into the altering process, driving an individual further into a given altered state experience. From this perspective an experiential state will stabilize in the new configuration as long as both absorptive focus and affective charge, and hence arousal, remain at the required levels.

Although this discussion has been somewhat mechanistically psychological in its attempt to explicate the 'how' of praternatural experience, it is not intended that these described mechanisms be taken as an ontological description of the praternatural. It is the sole intention of this paper to relate personality characteristics and hence underlying cognitive/affective mechanisms to the operation of a functional 'choice', or filtering, which can cause an alteration in conscious state and thus open an individual to a different world of experience. Attempting to explicate the nature of these worlds is far beyond the scope of this paper.

Since this study is of an exploratory nature, the lack of control over experience type mix within Ss does not allow for an examination of pure 'O' and 'P' types, which places limits on all of the above ascriptions of personality to type. However, future research, conducted in a laboratory setting under more controlled conditions, may help to resolve this issue, thereby sharpening our understanding of the role personality plays in an individual's entry into different worlds of experience.

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