

Neuropsychological and Cognitive-perceptual Characteristics of Mediums and Psychics

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AIM

The present project examined individuals who claim to possess paranormal abilities. Historically, the study of this area (via consideration of mediums, psychics, spiritualists, etc) is important because it has influenced the development of parapsychological/psychological concepts. Although healthy/well-adjusted subjects often report supernatural experiences, previous research indicates that experiencers differ in subtle cognitive/perceptual ways. Accordingly, three-phases examined whether individuals with self-professed paranormal ability possess a unique psychological profile.

Background, Present Study & Method

PHASE 1

PHASE 1 - Identified neuro/psychological differences as a function of self-ascribed paranormal ability. This method was innovative because it classified differences in anomalous experience. Three groups emerged differing in personal ascription of paranormal powers: no ability, self-professed ability, and paranormal practitioners (i.e., Mediums, Psychics, Spiritualists, and Fortune-Tellers).

- To identify heterogeneous, experience-based latent profiles a cross-sectional design was used. Profiles comprised paranormal experience, paranormal practitioner visiting, and paranormal ability.
- A sample of 917 respondents (329 males (36%), and 588 females (64%)) completed online self-report measures.

PHASE 2

PHASE 2 - This study investigated relationships between inter-class variations in paranormal experience and executive functions of mediums/psychics, experiencers & normal population.

- A sample of 516 adults (226 males (44%), and 290 females (56%)) completed self-report measures assessing personal encounter-based paranormal occurrences (i.e., Experience, Practitioner Visiting, & Ability), Executive Functions (i.e., General Executive Function, Working, and Everyday Memory, Decision Making, and Emotion Regulation), and Belief in the Paranormal.
- The authors hypothesised that the self-professed ability group would demonstrate greater belief in the paranormal and higher levels of executive function disruption than the no ability group. A sample of 499 (219 males (44%), 279 females (56%), 1 non binary) respondents completed the measures online. Multivariate analysis of variance (MANOVA) found a large effect size, alongside significant differences on all variables apart from Cognitive Reappraisal.

PHASE 3

PHASE 3 - This study examined personal perceptions (involvements) and comprehensions (interpretations) of self-ascribed paranormal abilities across 12 semi-structured interviews.

- Interview transcripts were analysed using reflexive thematic analysis (RTA), a qualitative method that identifies patterns within data.
- Four major themes emerged: Formative Influences (sub-themes: Gifted family members and anomalous occurrence), Subjective paranormal experience (sub-themes: Transcendental/mystic, communication with deceased/spirits, and extra-sensory perception/ESP), Processes (sub-themes: Mediation and Channelling, and Control) and Perception of Reality (sub-themes: Self-awareness and fantastic/surreal perceptions).
- Consideration of themes revealed an inextricable link between perception, interpretation, and faith in ability.

Key References

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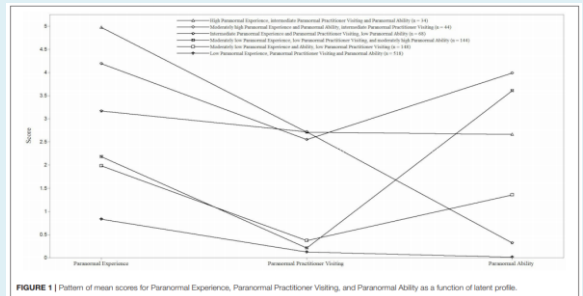
Conclusions

- PHASE 1 - Provided categorisation of sample subpopulations based on heterogeneous paranormal histories. These reflected the fact that people accrue experience in quantitatively and qualitatively different ways. Findings revealed subclinical delusion formation and thinking style varied as a function of self-professed paranormal ability.
- PHASE 2 - Revealed differences between self-professed ability groups on Belief in the Paranormal, Proneness to Reality Testing Deficits, and Emotion-Based Reasoning. Specifically, paranormal practitioners possessed higher scores on these variables compared with self-professed ability and no ability groups. Overall, inter-class comparisons identified subtle differences in executive functions related to experience. Further research is necessary to confirm these outcomes, since the present study was exploratory, sampled only a limited subset of executive functions, and used subjective, self-report measures.
- PHASE 3 - Narratives and interviewees accounts reflected individual attempts to rationalize and understand self-ascribed paranormal abilities.

Results & Conclusions

PHASE 1 - Multivariate analysis of variance (MANOVA) revealed an overall main effect. Discriminant analysis indicated that paranormal practitioners scored higher on proneness to reality testing deficits, paranormal belief, and emotion-based reasoning.

- Latent profile analysis (LPA) identified discrete classes that categorised important variations in paranormal experience and ability. These represented common differentiations in the frequencies of Paranormal Experience, Paranormal Practitioner Visiting, and Paranormal Ability. An additional advantage of LPA was the ability to compare emergent classes on levels of paranormal belief and measures of thinking style.
- Each profile grouped individuals based on mutually exclusive relationships between experiential indices. For instance, not all experiencers visited paranormal practitioners, nor did they profess supernatural ability. In addition, individuals reported multiple experiences and visited paranormal practitioners, but claimed little or no paranormal ability.



PHASE 2 - Latent profile analysis (LPA) combined experience-based indices into four classes, whilst multivariate analysis of variance (MANOVA) then examined interclass differences.

Practitioner Group	Ability		Status		Total	Ability Ratings			
	Yes	No	Practising	Non-practising		M	SD	M	SD
Mediumship	285 (31.1)	632 (68.9)	17 (6.0)	268 (94.0)	285	40.59	33.81	35.52	26.21
Psychic	299 (32.6)	618 (67.4)	19 (6.4)	280 (93.6)	299	61.58	28.73	35.96	25.91
Spiritualist	255 (27.8)	662 (72.2)	22 (8.0)	233 (91.4)	255	59.55	34.15	35.92	25.73
Fortune-Teller	244 (26.6)	673 (73.4)	14 (5.7)	230 (94.3)	244	55.71	28.48	31.98	23.71

- Results revealed breadth of paranormal experience was associated with higher levels of Executive Functioning difficulties for General Executive Function, Working Memory, Decision Making, and Paranormal Belief.

Ability	N	Variable							
		Paranormal belief		Belief in science		Reality testing		Emotion-based reasoning	
		M	SD	M	SD	M	SD	M	SD
Practising	35	226.14	43.02	36.05	11.32	61.34	18.50	10.0	2.12
Ability	373	200.65	43.38	36.88	10.12	48.64	13.52	9.09	2.25
No ability	509	151.63	52.08	40.80	11.84	36.26	10.91	7.53	1.73

- On the Everyday Memory Questionnaire, scores differed on Attention Tracking (focus loss) and Factor 3 (visual reconstruction), but not Retrieval (distinct memory failure). In the case of the Emotion Regulation Scale, class scores varied on Expressive Suppression (control), however, no difference was evident on Cognitive Reappraisal (reframing).

Outcome variable	Reliability (α)	Ability					
		No ability (n=206)		Ability (n=197)		Practising (n=96)	
		M	SD	M	SD	M	SD
Paranormal belief	0.96	45.55	28.36	83.17	26.30	101.54	18.24
Executive function	0.89	10.82	3.65	12.88	4.54	13.31	4.36
Working memory	0.96	23.20	20.25	39.98	24.71	41.41	28.78
Decision-making	0.72	26.56	5.04	25.76	5.57	25.98	6.03
Retrieval	0.91	6.56	5.78	10.17	7.31	8.58	7.76
Attention tracking	0.85	2.36	2.95	4.71	4.11	4.70	4.52
Factor 3	0.69	0.80	1.37	1.86	2.05	1.76	2.21
Cognitive reappraisal	0.63	27.20	5.28	26.53	5.63	27.45	5.79
Expressive suppression	0.56	18.15	3.59	18.34	4.15	19.88	4.29

PHASE 3 - Within narratives, interviewees outlined and established the validity of their powers. Explicitly, they drew upon supporting evidence and discounted conventional explanations.

- Analysis revealed that self-ascription is a complex process. Interviewees narrated rich and detailed accounts that made sense of declared capabilities. They contextualised, rationalised, and provided evidence to support claims.