

Unusual Perceptual Experiences and ESP under Psychomanteum Stimulation: Imagery/Hallucination Proneness and Schizotypal Personality Measures

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Abstract: Although the psychomanteum, originally designed to facilitate reunion experiences with deceased individuals, is not normally employed to test ESP, it may be that it is psi-conducive. This study aimed to test psi performance in high-scoring participants on measures of unusual perceptual experiences and unusual thinking styles. One hundred twenty eight participants were asked to verbalize their mental impressions as much as possible after psychomanteum stimulation. A number of significant results were found. Participants who scored high on visual imagery, visual, auditory, and tactile hallucination, tended to psi-hit. Only the high-scoring visual imagery, visual and tactile hallucination groups (but not the auditory hallucination group) scored significantly higher than the low-scoring groups. Given that suggestion may have a causal role in the experience of anomalous perception, it is plausible that the incidence of psi in the psychomanteum is a function of explicit suggestions for such experiences presented during the facilitation procedure, which may be augmented by restricted stimulation and dissociation.

Keywords: hallucination proneness, hypnagogic experiences, imagery abilities, psi, psychomanteum, schizotypy, unusual perceptual experiences.

INTRODUCTION

The mirror gazing procedure termed the “psychomanteum” was developed by the world renowned psychiatrist Dr. Raymond Moody. In recent years, a number of researchers have employed psychomanteum chambers to try to facilitate reunions between participants and their deceased loved ones (Hastings et al., 1999; Moody, 1994; Moody & Arcangel, 2001; Moody with Perry, 1993; Radin & Rebman, 1996; Roll & Braun, 1995;). A technique for the facilitation of apparitions is *scrying*, which consists of gazing into a reflective surface, or speculum, or attending to an unstructured auditory stimulus (Kelly & Locke, 1981). Research has

indicated that specula (relative to non-reflective surfaces) act as mediators of hallucinations (Foltin & Alluisi, 1969; Green & McCreery, 1975).

Although the modern psychomanteum is not normally employed to seek ESP information about the future, it may be that the psychomanteum is psi-conductive. For example, there are many similarities between psychomanteum experiences and accounts of hypnagogic/hypnopompic (HG/HP) imagery, which is conducive to ESP. In a previous study (Parra & Villanueva, 2006a), the aim was to explore whether the psychomanteum technique encourages a psi-conductive state of consciousness, which would result in scoring that is significantly above mean chance expectation (MCE). One hundred and thirty participants were recruited by announcements in newspapers and on our website at the Institute of Paranormal Psychology.¹ Two conditions, Psychomanteum and Control (Non-Psychomanteum), were compared. The non-psychomanteum condition was conducted in the psychomanteum room but with no light under the chair, and the mirror covered using a blackboard. In the psychomanteum condition, psi hitting was obtained (30.8%, where $P_{MCE} = 25\%$); but, in the non-psychomanteum condition, a 29.2% hit rate was obtained. The result differed slightly from MCE in the psychomanteum condition ($p = .02$, one-tailed), but no significant difference was found between conditions.

Schizotypy, and Paranormal Beliefs and Experiences

Schizotypy is a personality continuum which may include paranormal beliefs and experiences, and artistic creativity. However, cluster analysis has indicated that there are two types of individuals with high scores on positive schizotypy—one related to mental health, and one more pathological (high schizotypy) (Holt, Simmonds-Moore, & Moore, 2008; Simmonds & Holt, 2007; Simmonds & Roe, 2000). Belief in the paranormal is highly correlated with schizotypy, in particular, positive schizotypy, and it has also been associated with poor critical thinking, suggestibility and psychopathology.

There is also solid empirical support for maintaining the idea of a “happy schizotype” or “benign schizotypy” who is psychologically healthy and exhibits adaptive traits, such as creativity (Brod, 1997). Positive schizotypy has been associated with subjective experiences and beliefs (Jackson, 1997; Wolfradt et al., 1999), which also correlate with psi-scores. For example, the Magical Ideation Scale (Eckblad & Chapman, 1983)—a measure of such experiences and beliefs—predicts above-chance scoring in

¹ www.alipsi.com.ar

ESP and Ganzfeld tests (Lawrence & Woodley, 1998; Parker, 2000). Magical Ideation includes some items pertaining to the paranormal (Eckblad & Chapman, 1983), which may explain why beliefs affect ESP, and which may modulate schizotypal thinking from a multidimensional perspective (Simmonds & Fox, 2004). ESP is also related to the Perceptual Aberration Scale (Chapman, Chapman, & Raulin, 1978; see also, Parker, 2000), which measures distortions in body image perception.

Schizotypy is also related to hypnagogic experiences manifesting in waking life. The schizotype may think more *hypnagogically* while awake, implying less focused thinking, more internally directed attention, and more hallucinatory imagery (Mavromatis, 1987; Schacter, 1976). Several authors consider that cognitive and perceptual anomalies relate to a continuum of schizophrenia in the general population, which, in one extreme, results in a psychotic outbreak, and in the other, exhibits a gradual measure of few psychotic traits (Claridge, 1997; Goulding, 2004, 2005; Jackson, 1997).

A possible explanation for anomalous experiences in the psychomanteum is that the psychomanteum elicits hypnagogic imagery whose content could be completely influenced by needs, motivations and expectations of the participants, since HG/HP imagery occurs during the transitional states between dreaming and wakefulness (see Mavromatis, 1987; Schacter, 1976). Unlike HG/HP imagery, however, psychomanteum experiences may not elicit non-verbal auditory imagery. Psychomanteum experiences also appear to be emotional and have greater impact for the participants (see Sherwood, 1998).

Psi and Imagery

Only a few studies have investigated the relationship between psi scores and imagery abilities. The most popular measure of imagery vividness in parapsychology has been Betts Questionnaire of Mental Imagery (QMI; Richardson, 1969). For example, Palmer and Vassar (1974) administered this scale as part of a free-response clairvoyance study primarily examining the effect on psi scoring of an out-of-body (OBE) induction procedure. A significant positive correlation between psi scores and Betts scores was reported ($p < .01$, two-tailed). Honorton, Tierney, and Torres (1974) used the Betts scale to divide their subjects, via a median split, into high- and low-imagery. High-imagery scored significantly above MCE ($p < .001$, two-tailed), with no differences between task conditions.

Irrespective of whether the psychomanteum technique induces a quasi-hallucinatory psi-conducive state, we might learn from the work of the early English psychical researchers in the 1880's and 90's. They came to see a new meaning and interpretation in psi hallucinations. Hallucinatory

parapsychical experiences can be defined as the expression of the sensory equivalent of impressions received by extrasensory means. Hallucinations are one of the four forms of spontaneous experiences, the others being intuitions, and unrealistic and realistic dreaming (Rhine, 1963).

Objectives

This study aimed to address differences in psi performance between low/high group of sensorial modalities of imagery and hallucination proneness (unusual perceptual experiences) and Magical Ideation, Perceptual Aberration and Schizotypal Proneness (unusual thinking styles). The following hypotheses were proposed: Participants who psi-hit score (1) higher visual, auditory, and tactile imagery, (2) higher visual, auditory, and tactile hallucination proneness, (3) higher Magical Ideation and Perceptual Aberration (Chapman's scales), and (4) higher Schizotypal proneness (the total score and Cognitive-Perceptual factor).

METHOD

Participants

The sample included 128 participants, of which there were 91 females (72%) and 37 males (28%). Ages ranged from 19 to 75 years ($M = 47$ years; $SD = 12$ years). Participants were recruited by advertisements placed on our website, requiring an admission interview for the psychomanteum session. An explanation of the experiment was given to participants. They did not receive information about characteristics related to the hypotheses of the experiment.

As a part of the recruiting procedure, participants filled out a consent form. AP acted as experimenter and JV acted as sender (information about the sender and the target/decoys procedure are published elsewhere—see Parra & Villanueva, 2006a).

Design and Materials

Six questionnaires were used to measure imagery/hallucination proneness and cognitive style experiences:

1. *Imagery Questionnaire* is a 35-item self-report measure for individual differences in imagery ability (Cronbach's $\alpha = 0.77$, Argentine version). Items relate to several sensory modalities.

Sample items are: “How vividly and lively can you imagine the taste of salt?” and “How vividly can you imagine the meowing of a cat?” Participants respond using 7-point Likert scales (1 = “as perfectly clear as if real”; 7 = “I think about it but I cannot imagine it”). Scores are summed to obtain a total score, such that a low total score implies high self-reported imagery ability.

2. *Barrett Hallucinations Questionnaire* consists of 22 short descriptions rated on a 0 to 5 scale (Barrett, 1993; Barrett & Etheridge, 1992, 1994; Parra, 2007; Cronbach’s alpha = .93, Argentine version). It measures the propensity toward hallucinating in six sensory modalities, of which three (auditory, visual and tactile) were used in this research.
3. *Perceptual Aberration Scale* (PAS; Chapman et al., 1978). The PAS has been used for the assessment of perceptual distortions associated to body image (e.g., “I sometimes have had the feeling that my body is abnormal”). It is composed of 35 items in a dichotomous *True/False* format. Its internal consistency ranges from .84 to .90 and the test-retest reliability from .43 to .84. The validity of the PAS is sustained by a wide diversity of data (Chapman et al., 1995; Edell, 1995; Fonseca-Pedrero, Paino et al., 2008).
4. *Magical Ideation Scale* (MIS; Eckblad & Chapman, 1983). It is a scale used for the assessment of superstitious and magical beliefs and thoughts as well as of the capacity of thought reading or broadcasting (e.g., “I have sometimes felt strangers were reading my mind”). It is composed of 30 items in a dichotomous *True/False* format. Its internal consistency ranges from .78 to .92 and its test-retest reliability from .41 and .84 (Chapman et al., 1995; Edell, 1995; Fonseca-Pedrero, Paino et al., 2008). There is a Spanish version of the scale (Fonseca-Pedrero; Paino; Lemos-Giráldez; García-Cueto; Villazón-García, & Muñiz, 2009).
5. *Schizotypal Personality Questionnaire* (SPQ) which consists of 74 yes/no items, measures three components of schizotypy (cognitive-perceptual, disorganized, and interpersonal; Raine, 1991, 1992; Raine & Baker, 1992; Raine & Benishay, 1995). We used only the cognitive-perceptual factor and SPQ’s total score because both factors measures perceptual abnormalities (e.g., “Have you ever seen things invisible to other people?”).

The paper-and-pencil questionnaires were completed before the psychomanteum session. AP recorded questionnaire scores on paper forms, and entered the data on computer.

Psychomanteum Chamber

The psychomanteum chamber is described elsewhere (Parra & Villanueva, 2006a). Briefly, the chamber is a space of 396 cm × 365 cm with a ceiling approximately 243 cm high. The chamber is built within this larger room, with dimensions of 182 cm × 243 cm and a 243 cm ceiling, with no windows. The ceiling and two walls were not adjoined to other rooms. The room is located above a storage room. To help create an isolated, undisturbed setting, the selected chamber room is in a remote second-floor area of our laboratory building at the Institute of Paranormal Psychology in Buenos Aires. The walls and ceiling of the lab are painted matte black to reduce light reflections. The chamber itself is electromagnetically shielded.

To form a rudimentary electromagnetic shield inside the chamber, the floor, walls and ceiling are completely covered with aluminium insulation, and then checked throughout for electrical conductivity. The insulation consisted of a sheet of 1/16, 99% pure aluminium, a ¼ inch air spacing consisting of plastic bubble wrap, and then another sheet of 1/16 aluminium. The walls and ceiling of the chamber are covered in black velveteen fabric to create a dark, featureless interior, and the floor is covered by a black carpet.

A reclining chair and a wall mirror (100 cm × 150 cm) were placed inside the chamber and positioned for optimum comfort and viewing angles. Because the chamber is essentially a darkroom, a dim incandescent reclining chair-lamp was placed behind the reclining chair, facing down, to provide some illumination so the participant could see the mirror. A dimmer control for this lamp can be operated outside the chamber to adjust illumination levels.

A chronometer was used to time the session period, and a caller (a sound gadget which emits a single beep to indicate the beginning and the end of the viewing period) was also used to indicate the target-viewing period to the experimenter.

Targets, Target Selection, and Target Presentation

A CD pool containing 3,500 high-resolution color pictures (jpg format) were created from collections of Microsoft Clip-Art CDs. There were nine groups of irregular, well differentiated pictures, such as animals,

icons, foods, people, landscapes, religion, scenic pictures, structures, and humorous cartoons. A personal computer was used to present the pictures (Pentium V, 2.4 GHz, 512 RAM, 30 Gb. hard disc with SVGA color screen, PC-system video 8Mb, 3D AGP and a CD ROM reader 56X owned by the Institute of Paranormal Psychology).

For each participant one randomly-selected picture-target was used. AP selected approximately 200 pictures from each group according to the original clustering of the product. He designed a pool where all pictures of each subgroup were numbered from 1 onward. An individual who had no contact with the participants and the sender, and with the experimenter, used a random number generator to separately and sequentially select pictures within each subgroup. After this, AP delivered the CD to JV with the pictures re-clustered and divided by groups, who then randomly selected one picture (as target) and after that three decoys. The picture target came from different subgroups to distinguish the decoys from the target (for example, a horse from the subgroup animals, a baby sleeping with his mother from the subgroup people, a church from the subgroup religion, and Popeye and Olive from the subgroup humorous cartoons).

The target was randomly selected using a computer-generated list of numbers once the experimenter (AP) and participant had entered the psychomanteum chamber. The three decoys were selected before AP and the participant came into the sender's room. During this procedure, the sender remained alone in his room.

A randomization procedure was used by JV for displaying the three decoys and the target picture, which were blind to AP. The target pictures were never printed on paper. This procedure was employed for five reasons: (i) picture subgroups are easily clustered; (ii) it facilitated the randomization process; (iii) target pictures were characterized by their diversity and visual attractiveness to serve as a good target for a GESP experiment; (iv) this avoided any sensory (visual) cues, and (v) this avoided any manipulation of the target, mainly during the target-viewing and judging stages.

Target Security

Prior to each session, JV made the random selection of the targets for each participant individually, and he kept a paper-and-pencil register of the names of each participant and picture-target selection, which was never made known to AP (a security copy was kept by JV in a safe place unknown to the experimenter). JV kept the register in a sealed envelope with him. Before psychomanteum started, JV remained alone in the sender's room, when he prepared each target. This procedure protected against the (unlikely) possibility of any leaking of target information to AP. The

experimenter did not access the sender's room (JV) before and during the psychomanteum session. Both were separately isolated in different rooms (see Figure 1).

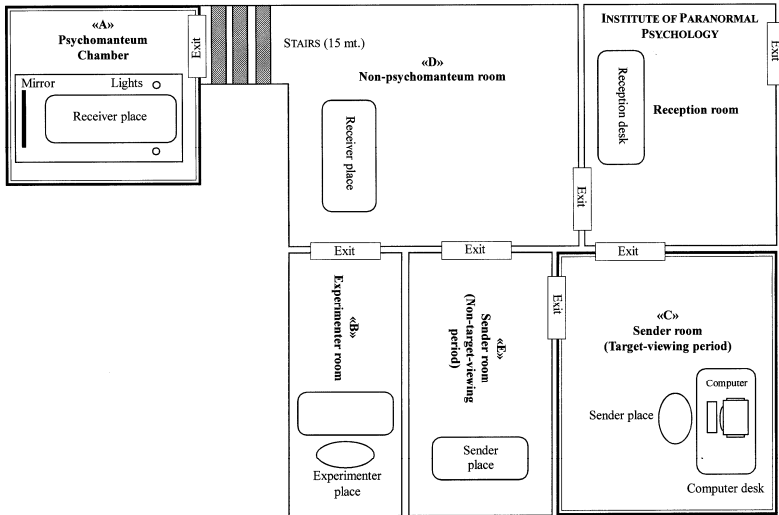


Figure 1. Laboratory layout, including psychomanteum chamber (top-left corner).

Also, the experimenter did not show the sender's room to the participant prior to the psychomanteum test. The experimenter had no contact with the sender during picture-target viewing period, as he left the room prior to the selection of the target picture by the sender. The distance between the sender and participant, as well as the walls of the Institute, and the design of the Psychomanteum chamber is optimal and safely isolated. As such, there could not have been any communication of sensorial clues either intentionally or unintentionally.

Test Instructions

Descriptions of the experiment were given to the participants. Participants were told that the experiment was a telepathy experiment. The psychomanteum was said to stimulate psychic abilities in people. They were told that various situations were being explored in this research project,

such that the relative importance of each for stimulating psychic abilities could be investigated.

Altered State Manipulation

All participants underwent a nine-minute recorded relaxation exercise before the target-viewing period, which included autogenic phrases (e.g., “relax your body”). The exercise was recorded using the voice of one of the experimenters (AP). The participant was positioned in the reclining chair directly in front of the wall mirror. The instructions and relaxation exercises were delivered in a slow, soothing but confident manner with classical music [Antonio Vivaldi's *Double concerto*, Largo in G Minor] in the background. The auditory stimulation was a 33-minute, white-noise, CD created especially for this experiment. All randomization procedures were carried out using a Random Event Generator (REG).

Testing Procedure

Participants received an information pack before the session. It included a four-item previous psi experience questionnaire designed by the authors. General information on the research program was also delivered. AP greeted participants at the door when they arrived and attempted to create a friendly and informal social atmosphere. AP engaged in conversation with the participants before the session. The experimenters sought to encourage a positive mood in participants during the selection of the target picture.

The experimenter left the room once the experiment began and returned when the target viewing period ended. The experimenter remained silent in Room B, and timed the session period using a chronometer. The participant stayed in the session room and the experimenter indicated the target-viewing period twice to the sender using a caller (i.e., beeper). The target picture remained on the computer screen for twenty-three minutes. Each participant was asked to verbalize his mental impressions (i.e., mentation) as much as possible after he/she exited the psychomanteum. Mentations were tape-recorded by the experimenter.

Many participants felt better speaking after, rather than during, the time they were in the psychomanteum (see Moody & Arcangel, 2001). As participants did not have to verbalize during the session, the collection of mentation was easier as it could be transcribed directly from the tape recording. Then, both experimenter and participant went into the sender's room. When the participant was seated in front of the computer screen, the judgment procedure began. Immediately after the psychomanteum session,

each participant was asked to verbalize his/her impressions as much as possible. They were audio-taped by the experimenter (see Parra & Villanueva, 2006a, for details).

Judgment Procedure

Participants viewed the four potential targets (the actual target and three decoys on the computer screen), which were randomly presented on computer screen. According to perceived similarities between the presented items and the impressions experienced in the psychomanteum, ranks were allocated as follows: rank 1 represents the highest correspondence with the potential target and 4 represents the lowest (or null) correspondence. Scores 2 and 3 indicate partial correspondence. The judgment procedure lasted between five and ten minutes depending on the participant. The record sheets were individually signed by each participant.

RESULTS

The aim of the Parra and Villanueva study (2006a) was to explore whether the psychomanteum technique is a psi-conductive state of consciousness. The *Z*-score test was used to determine if there were significant differences between psychomanteum and non-psychomanteum conditions (see Parra & Villanueva, 2006a, for details). It was hypothesized that this experiment would offer support in a positive direction for the psychomanteum condition.

In the psychomanteum condition ($N = 128$), 30.5% (40 hits) was obtained, where $P_{MCE} = 25\%$ (Binomial Exact $z = 1.33$, $p = .09$). In this study, participants were then split into high- and low-score groups, according to the mean of each variable. We show the mean, median, *SD*, and min-max observed scores of our sample of 128 receivers (see Table 1).

As can be seen from Table 2, the high Visual Imagery group exhibited psi-hitting (36%, Binomial Exact $p = .03$), and the high/low group difference was marginally significant ($p = .07$, one-tailed, Fisher's Exact Test [FET]). However, the hits rates for the high-scoring Auditory Imagery group (Exact $p = .180$), and Tactile Imagery group were not significant, though each was at 31% (Exact $p = .180$).

Forty-one percent who scored high on Visual Hallucination exhibited psi-hitting (Exact $p = .011$), and the high/low difference was significant ($p = .037$, one-tailed, FET; see Table 3). The high-scoring Tactile Hallucination group also psi-hit (42%, $p = .006$), and the high/low group difference was significant (one-tailed, FET, $p = .032$). There was a significant ESP effect

for the high-scoring Auditory Hallucination group (33%; Exact $p = .049$), but the high/low difference was not significant ($p = .19$, one-tailed, FET).

The 14 participants who scored high on Magical Ideation did not psi-hit as a group (hit rate = 20%, Exact $p = .836$, one-tailed). The hit rate for the high-scoring Perceptual Aberration group was also not significant (32%, $p = .405$, one-tailed; see Table 4).

Table 5 shows that the 23% of participants who scored high on Schizotypy Proneness did not exhibit psi-hitting (Exact $p = .426$, one-tailed). The 33% of participants who made up the high-scoring Cognitive-Perceptual Schizotypy (C-P SPQ) group did not psi-hit ($p = .255$).

Table 1
Descriptive Statistics: Visual, Auditory and Tactile Imagery, Visual, Auditory and Tactile Hallucination, Magical Ideation, Perceptual Aberration, Schizotypy Personality Proneness (Total Score, Cognitive-Perceptual)

Variable	Descriptive Statistics		
	Mean (<i>SD</i>)	Median	Min.-Max.
Imagery			
Visual	11.73 (6.30)	10.50	3–35
Auditory	12.54 (6.40)	11.00	3–35
Tactile	11.33 (6.16)	10.00	3–35
Hallucination			
Visual	5.89 (5.14)	1.00	0–22
Auditory	1.41 (1.79)	4.00	0–9
Tactile	2.18 (2.16)	2.00	0–12
Chapman's Scale			
Magical Ideation	0.45 (0.13)	0.46	0.30–0.77
Perceptual Aberration	0.25 (0.15)	0.22	0.02–0.77
SQP-Score			
Total Score	29.70 (10.84)	29.50	7–56
Cognitive-Perceptual	13.00 (4.30)	13.50	1–21

Table 2
Number and Percentage of Hits and Misses for Low/High Scores of Visual, Auditory and Tactile Imagery

Variable	Hits		
	No	Yes	Total
Visual Imagery			
Low	48 (75%)	16 (25%)	64
High	41 (64%)	23 (36%)	64
Total	89	39	128
Auditory Imagery			
Low	49 (70%)	21 (30%)	70
High	40 (59%)	18 (31%)	58
Total	89	39	128
Tactile Imagery			
Low	49 (70%)	21 (30%)	70
High	40 (69%)	18 (31%)	58
Total	89	39	128

Table 3
Number and Percentage of Hits and Misses for Low/High Scores of Visual, Auditory and Tactile Hallucination

Variable	Hits		
	No	Yes	Total
Visual Hallucination			
Low	62 (76%)	20 (24%)	82
High	27 (59%)	19 (41%)	46
Total	89	39	128
Auditory Hallucination			
Low	41 (69%)	14 (31%)	55
High	48 (67%)	25 (33%)	73
Total	89	39	128
Tactile Hallucination			
Low	58 (77%)	17 (23%)	75
High	31 (58%)	22 (42%)	53
Total	89	39	128

Table 4
Number and Percentage of Hits and Misses for Low/High Scores of
Magical Ideation and Perceptual Aberration

Variable	Hits		
	No	Yes	Total
Magical Ideation			
Low	35 (58%)	25 (42%)	60
High	54 (80%)	14 (20%)	68
Total	89	39	128
Perceptual Aberration			
Low	43 (66%)	22 (34%)	65
High	46 (68%)	17 (32%)	63
Total	89	39	128

Table 5
Number and Percentage of Hits and Misses for Low/High Scores of SPQ
(Total) and Cognitive-Perceptual Schizotypy

Variable	Hits		
	No	Yes	Total
SPQ (Total)			
Low	36 (61%)	23 (39%)	59
High	53 (76%)	16 (24%)	69
Total	89	39	128
CP SPQ			
Low	32 (67%)	16 (33%)	48
High	57 (71%)	23 (29%)	80
Total	89	39	128

DISCUSSION

We hypothesized that there are psi performance differences between high and low groups on the variables (i) auditory, visual and tactile imagery, and (ii) auditory, visual and tactile hallucination-proneness, but we were only interested in group differences where it was the case that the high-scoring groups actually psi-hit. This additional criterion would help confirm

that positive affect (i.e., imagery and hallucinatory-proneness) is psi-conducive. Also, we hypothesised that psi performance differences exist between high and low groups on the variable Schizotypal Proneness and Cognitive-Perceptual, provided that the high-scoring groups also psi-hit.

A number of significant results were found: Participants who scored high on visual imagery, visual hallucination, auditory hallucination, and tactile hallucination, tended to psi-hit. However, no significant psi scoring was found for high-scoring groups on auditory and tactile imagery, magical ideation, perceptual aberration, schizotypy proneness, and cognitive-perceptual schizotypy.

A marginally significant difference was found between the high/low visual imagery groups ($p = .07$), but significant differences were found between the high/low visual hallucination groups ($p = .037$), and the high/low tactile hallucination groups ($p = .032$). The high/low auditory hallucination groups were not significantly different ($p = .19$).

From the study, we are under the impression that the mentation provided by ganzfeld receivers is similar, and possibly indistinguishable in nature from psychomanteum mentation and therefore that this approach may be of use in the investigation of ESP from the perspective of visual and tactile imagery/hallucination. Also, casual observations in relation to the protocol, such as the need for a relaxation period to help in the transition between every-day alertness and an ESP mentality, have provided pointers that may assist in the development of a protocol that is psi-conducive. We note that 7 out of 20 tests (35%) were significant, which is 30% more than we might attribute to chance by the 5% rule.

Previous research indicates that participants' perceptual (cognitive and motivational) biases and the implicit demands of a procedure act to influence the induction of hallucinations (Bentall, 1990, 2000). Given that suggestion can exhibit a causal role in the experience of anomalous perceptions, it is plausible that the incidence of psi in the psychomanteum is a function of explicit suggestions for such experiences presented during the facilitation procedure. This effect may be augmented by enhanced suggestibility, which has been observed during drowsiness, restricted environmental stimulation, and dissociation (Cardeña & Spiegel, 1991). The clear optical depth of the mirror may possess greater perceptual malleability such that percepts may be open to greater (unconscious) alteration in accordance with one's beliefs, motivations, and expectations (Hilgard, 1986, p. 88). Thus, paranormal belief may inflate reports of anomalous experiences by biasing participants toward belief-congruent interpretations of ambiguous or unstable perceptions. Be that as it may, inflated reports do not in themselves explain the psi hitting in the 'high'-scoring groups.

Mirror-gazing may facilitate dissociative processes through its generation of a mild form of variation reduction. Narrowing, and passively

constraints of the experiment, but may obey psychological and transpersonal principles rather than physical ones. We are, however, only beginning to conduct research in this area. The point is that the psychomanteum set-up allows us to use, for instance, different target materials and situations which would illuminate these principles.

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REFERENCES

- Brod, J. H. (1997). Creativity and schizotypy. In G. Claridge (Ed.). *Schizotypy: Implications for illness and health* (pp. 274-298). New York: Oxford University Press.
- Cardeña, E. (2005). The phenomenology of hypnosis: Physically active and quiescent. *International Journal of Clinical and Experimental Hypnosis*, 53, 1-23.
- Cardeña, E. & Spiegel, D. (1991) Suggestibility, absorption and dissociation: An integrative model of hypnosis. In J. F. Schumaker (Ed.). *Human suggestibility: Advances in theory, research and*
- Chapman, L. J., Chapman, J. P. & Raulin, M. L. (1978) Body image aberration in schizophrenia. *Journal of Abnormal Psychology*, 87, 399-407.
- Chapman, J.P., Chapman, L.J., and Kwapil, T.R. (1995). Scales for the measurement of schizotypy. In A. Raine, T. Lencz, and S.A. Mednick (Eds.), *Schizotypal Personality* (pp. 79-106). New York: Cambridge University Press.
- Claridge, G. (ed.) (1997). *Schizotypy: Implications for illness and health*. New York: Oxford University Press.
- Eckblad, M. & Chapman, L. J. (1983) Magical ideation as an indicator of schizotypy. *Journal of Consulting and Clinical Psychology*, 51, 215-225.
- Foltin, E. M. & Alluisi, E. A. (1969). Crystal gazing: Subjective responses to one of four unstructured projective media. *Journal of Psychology*, 73, 53-62.
- Fonseca-Pedrero, E; Paino, M, Lemos-Giráldez, S.; García-Cueto, E.; Villazón-García, Ú., & Muñiz, J. (2009). Psychometric properties of the Perceptual Aberration Scale and the Magical Ideation Scale in

- Spanish college students. *International Journal of Clinical and Health Psychology*, 9, 299-312.
- Goulding, A. (2004). Schizotypy models in relation to subjective health and paranormal beliefs and experiences. *Personality and Individual Differences*, 37, 157-167.
- Goulding, A. (2005). Healthy schizotypy in a population of paranormal believers and experiencers. *Personality and Individual Differences*, 38, 1069-1083.
- Green, C. & McCreery, C. (1975). *Apparitions*. Bristol, UK: Western Printing Services.
- Hastings, A., Ferguson, E., Hutton, M., Goldman, A., Braud, W., Greene, E., Bennett, C., Hewett, M., Berk, I., Lind, V., Boynton, T., McLellan, K., Dawn, C., Steinbach-Humphrey, S. (1999). Psychomanteum research: Experiential phenomena and effects on feelings about deceased friends and relatives. *Proceedings of Presented Papers at the 42nd Annual Convention of the Parapsychological Association* (pp. 96-111). Halifax, NS: Parapsychological Association.
- Holt, N. J., Simmonds-Moore, C. A., & Moore, S. L. (2008). Benign schizotypy: Investigating differences between clusters of schizotypy on paranormal belief, creativity, intelligence and mental health. *The Parapsychological Association 51st Annual Convention, Proceedings of Presented Papers* (pp. 82-96), August 13-17, 2008, Winchester.
- Honorton, C.; Tierney, L., & Torres, D. (1974). The role of mental imagery in psi mediation. *Journal of the American Society for Psychological Research*, 68, 385-394.
- Jackson, M. (1997) Benign schizotypy? The case of spiritual experience. In Claridge, G. (Ed.). *Schizotypy: Implications for illness and health* (pp. 227-250). New York: Oxford University Press.
- Kelly, E. F. & Locke, L. (1981). A note on scrying. *Journal of the American Society for Psychological Research*, 75, 221-227.
- Lawrence, T. R. & Woodley, P. (1998). Schizotypy as a predictor of success in a free-response ESP task. *Abstracts from the 22nd International Conference of the Society for Psychological Research*, 14.
- Mavromatis, A. (1987). *Hypnagogia: The unique state of consciousness between wakefulness and sleep*. London: Routledge and Kegan Paul.
- Moody, R. A. (1994). A latter day psychomanteum. In Bierman, D.J. (Ed.) *Proceedings of Presented Papers at the 37th Annual Convention of the Parapsychological Association* (pp. 335-336). University of Amsterdam: Parapsychological Association.
- Moody, R., with Perry, P. (1993). *Reunions: Visionary encounters with departed loved ones*. New York: Ivy Books.
- Moody, R. & Arcangel, D. (2001). *Life after loss*. San Francisco, CA: Harper/San Francisco.

- Palmer, J. & Vassar, C. (1974). ESP and our-of-body experiences: An exploratory study. *Journal of the American Society for Psychological Research*, 68, 257-280.
- Parker, A. (2000) A review of the ganzfeld work at Gothenburg University. *Journal of the Society for Psychological Research*, 64, 1-15.
- Parra, A. & Villanueva, J. (2006a). Exploring psychomanteum as a psi-conducive state of consciousness. In C. Simmonds-Moore (Ed.). *Proceedings of the 49th Annual Convention of the Parapsychological Association* (pp. 141-152). Stockholm, Sweden.
- Parra, A. & Villanueva, J. (2006b). ESP under the ganzfeld, in contrast with the induction of relaxation as a psi-conducive state. *Australian Journal of Parapsychology*, 6, 167-186.
- Radin, D. & Rebman, J. (1995). Are phantasms fact or fantasy? A preliminary investigation of apparitions evoked in the laboratory. *Journal of the Society for Psychological Research*, 61, 65-87.
- Raine, A. (1991). The SPQ: A scale for the assessment of schizotypal personality based on DSM-III-R criteria. *Schizophrenia Bulletin*, 17, 556-564.
- Raine, A. (1992). Sex differences in schizotypal personality in a non-clinical population. *Journal of Abnormal Psychology*, 101, 361-364.
- Raine, A. & Baker, L. (1992). *The Schizotypal Personality Questionnaire: Genetics, Psychophysiology. Neuropsychology and Gender Differences*. Portland, OR: Western Psychological Association.
- Raine, A. & Benishay, D. (1995). The SPQ-B: A brief screening instrument for schizotypal personality disorder. *Journal of Personality Disorders*, 9, 346-355.
- Rhine, L. E. (1963). Auditory psi experiences: Hallucinatory or physical? *Journal of Parapsychology*, 27, 182-198.
- Richardson, A. (1969). *Mental imagery*. New York: Springer.
- Roche, S. M. & McConkey, K. M. (1990) Absorption: Nature, assessment and correlates. *Journal of Personality and Social Psychology*, 59, 91-101.
- Roll, W. G., & Braun, B. A. (1995). Psychomanteum research: A pilot study. *Proceedings of Presented Papers: The Parapsychological Association 38th Annual Convention* (pp. 438-443). Durham, NC: Parapsychological Association.
- Schacter, D. L. (1976). The hypnagogic state, a critical review of the literature. *Psychological Bulletin*, 83, 452-481.
- Sherwood, S. J. (1998). Relationship between the hypnagogic/hypnopompic state and reports of anomalous experiences. *Proceedings of Presented Papers. The Parapsychological Association 41st Annual Convention*, 210-225.

- Simmonds, C. A. & Fox, J. (2004). A pilot investigation into sensory noise, schizotypy and extrasensory perception. *Journal of the Society for Psychical Research*, 68, 253-261.
- Simmonds-Moore, C. & Holt, N. (2007). Trait, state and psi: A comparison of psi performance between clusters of scorers on schizotypy in a Ganzfeld and waking control conditions. *Journal of the Society for Psychical Research*, 71, 197-215.
- Terhune, D. B. & Smith, M. D. (2006). The induction of anomalous experiences in a mirror-gazing facility. Suggestion, cognitive perceptual personality traits and phenomenological state effects. *Journal of Nervous and Mental Disease*, 194, 415-421.
- Wackerman, J., Pütz, P., Büchi, S., Strauch, I., & Lehmann, D. (2002). Brain electrical activity and subjective experience during altered states of consciousness: Ganzfeld and hypnagogic states. *International Journal of Psychophysiology*, 46, 123-146.
- Wolfradt, U., Oubaid, V., Straube, E. R., Bischoff, N. & Mischo, J. (1999) Thinking styles, schizotypal traits and anomalous experiences. *Personality and Individual Differences*, 27, 821-830.

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