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Perceptual-Personality Variables Associated With Entity Encounter Experiences

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Abstract: This study evaluates data from two independent samples, active paranormal believers (Study 1, N = 239) and undergraduate students (Study 2, N = 554), to find psychological variables related to self-reported Entity Encounter Experiences (EEE)—specifically, Sense of Presence, Apparitional Experience, and Spirit Possession, Sense of Presence (75%), Apparitional Experience (29%), and Spirit Possession (19%), were more frequent in S1 compared to S2 (34%, 5%, and 5%, respectively). For S1, respondents with a high frequency of EEEs tended to be extroverted, have a high propensity for unusual experiences (a schizotypy factor), and score high on 'thin' boundary and transliminality. For S2, respondents with a high frequency of EEEs tended to be neurotic and fantasy-prone, have cognitive-perceptual schizotypy, dissociative tendencies, and score high on absorption factors. For paranormal believers, the 'thin' boundary variable predicted EEE group membership. For students, EEE group membership was predicted by schizotypy, absorption, and dissociation.

Keywords: absorption, apparitional experiences, dissociation, entity encounter experiences, paranormal belief, schizotypy, sense of presence, spirit possession, thin boundaries, transliminality.

INTRODUCTION

Definitions and Descriptions of Entity Encounter Experiences

'Entity encounter experience' (EEE) refers to times when individuals believe that they have communicated with, or have been under the control of, a deceased person or other nonmaterial being, or are believed by others to have done so (Evans, 2001; Houran, 2000; Klimo, 1998). Houran (2000) noted that "... it may be that EEEs are a singular though dynamic phenomenon which occurs only when conditions are suitable and whose content is formed by the physical, psychological, and sociocultural aspects of the percipient" (p. 142). Sometimes EEE may include other experiences

that can be considered *pre*-mediumship or "seminal" mediumship, such as seeing and feeling ghosts (Parra, 2006), having a sense of presence (Cheyne, Newby-Clark, & Rueffer, 1999), and undergoing spontaneous spirit possession or a sense of being controlled by entities (Cohen & Barrett, 2008). This definition of EEE of course likely also encompasses, in some ways, the notion of "mystical experiences" (see for example, Wulff, 2014), which is difficult to define, but ranges "from meditation to psychedelic drugs" as a non-pathological state of consciousness (p. 369).

Evans (2001) places apparitions in the broader context of the 'entity experience'. The apparitional experience—which refers to seeing or hearing spirits of the dead (or ghosts)—is usually associated with a particular building (haunting), or a crisis where the witness supposedly sees a figure of another person (known or unknown, sometimes as a shadow, a light, or a weak voice) at another locality.

Two phenomena that are worthy of study in their own right, like other aspects of human experience, are a 'sense of presence', which is an increased level of suggestibility fulfilling a need within the generally depressed, elderly, widowed percipient, and pertains to an apparent cognitive set that may involve an illusion where there is a special perceptual stimulus that is misinterpreted (Cheyne, Newby-Clark, & Rueffer, 1999) and 'spirit possession', whereby a person's body is apparently taken over by another personality or entity.

There are several surveys relating to apparitional experience or EEEs (Evans, 2001; Houran, 2000), which often include a sense of presence and spirit possession. The earliest large collection in a pioneer study was that of the Society for Psychical Research (SPR) in its "Census of Hallucinations" (Sidgwick, 1894), which was about apparitions of passed individuals around their time of death. Another was Tyrrell's (1942/1963) *Apparitions*—a classic in its field—based on a smaller number of cases intensively investigated by the SPR.

In Palmer's (1979) survey of Charlottesville, Virginia (USA), 17% of respondents (residents *and* students), had the impression of an apparition, and of these about three-quarters acknowledged more than one such experience. Comparable figures were 20% of a sample of Australian university students (Irwin, 1985), 31% in a poll of Icelandic adults (Haraldsson, 1985), 32% in Canada (Persinger & Valliant, 1985), 20% in the UK (Green & McCreery, 1975, p. 143), and 44% in Argentina (Gómez Montanelli & Parra, 2008). Tyrrell (1942/1963, p. 35) also proposed a *taxonomy* of apparitions including experimental, crisis, post mortem, and ghosts or haunting apparitions.

Conventional Views of Entity Encounter Experience

Mainstream accounts of EEE have characterized it as a dissociative-type event that involves hallucinations, feelings of being controlled by an external power, personality shifts, and alleged post-trance amnesia (Hageman et al., 2010), producing a phenomenology that is consistent with criteria implicated in certain psychiatric conditions such as Dissociative Identity Disorder (DID), as described in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* DSM-5 (American Psychiatric Association, 2013).

Essentially, the meanings and the underlying esoteric and cultural beliefs involved in the EEEs are embedded within different cultures to varying degrees (e.g., Evans, 2001). However, dissociation and absorption capabilities and experiences may play a pivotal role in combination with the neurobiology of the mind/brain relationship (Hageman, Krippner, & Wickramasekera, 2011), and a biological/anthropological approach that suggests an adaptive and genetic predisposition to these types of anomalous experiences (e.g., see McClenon, 2004; Winkelman, 2004).

Much of Western research is premised upon ethnocentric, egocentric, and dogmatic perspectives regarding belief in spirit communication, a foundational commonality in mediumship. Consequently, although mediumistic-like practices have been predominantly examined as a manifestation of mental disorders by the Western scientific community throughout most of the nineteenth and twentieth centuries (Moreira-Almeida, Almeida, & Lotufo Neto, 2005), recent research findings indicate that individuals involved in mediumship or mediumistic-like practices often do not suffer from mental disorders (Cardeña, Lewis-Fernández, Beahr, Pakianathan, & Siegel, 1996; Krippner, 1997; Martinez-Taboas, 1995; Moreira Almeida, Lotufo Neto, & Greyson, 2007). In fact, there is support for the notion that EEE (e.g., hearing spirit voices, seeing spirits, passivity, embodiment) have dissociative components (Ross & Joshi, 1992), but differ significantly from formal DID (for examples, see Gingrich, 2005; Moreira-Almeida, Lotufo Neto, & Cardeña, 2008).

Alternative Views of Entity Encounter Experience

The psychopathological perspective, or, at the very least, the rejection of the possibility of spirit communication, serves to denigrate the experience of mediumship and/or mediumistic trance as well as the persons who practice these so-called psychopathological behaviors (Johnson, 2007). The EEE may turn out to be life-affirming rather than pathological (Krippner, 1997; Lynn, 2005; Moreira-Almeida et al., 2005) relative to cultural norms (Hageman et al., 2011; Hageman et al., 2010). Indeed, recent

research (e.g., Cardeña, Lynn, & Krippner, 2013; Krippner, 1997; Lynn, 2005; Martinez-Taboas, 1995; Moreira-Almeida, Lotufo Neto, & Greyson, 2007; Moreira-Almeida et al., 2008; Negro, Palladino-Negro, & Louz, 2002) presents an alternative view indicating that the experience of mediumship is not necessarily pathological (Bastide, 1978; Lewis-Fernández & Kleinman, 1995) and may even be adaptive, dependent upon the circumstances. Indeed, in Brazil for example, the practice of spiritistic mediumship (i.e., Candomblé, Umbanda, & Kardecismo, cited in Krippner, 1997) provides support for community members suffering from various afflictions such as anxiety and depression.

Furthermore, it is thought that defining one's identity in terms of the mediumship role might serve a therapeutic function (Seligman, 2005). Social conditions and symptoms involving bodily distress (headaches, burning of the stomach) may lead individuals to identify with the mediumship role, making them dissociation-prone, but not to the degree that they may be regarded as pathological by the experients or their community. Similarly, Roxburgh (2011) found that UK mediums who spoke about having distressing experiences, such as hearing voices after the death of a loved one, later normalized these experiences within a spiritual framework; thus no support was required from mental health services.

There is a prevalence of nonpathological dissociative and mediumistic states throughout history, popularly identified as *channeling* in the United States (Brown, 1997; Klimo, 1998). Nevertheless, some hold to the notion that spirit possession (embodiment) is DID reframed in a cultural context (Castillo, 1994). Since dissociation and absorption are related constructs in dissociative experience (Frischholz et al., 1991), a more definitive explanation is needed for their role in mediumship, mediumistic-like practices, and ecstatic religious, esoteric, and spiritual practices that incorporate a mediumistic-like trance experience.

Measuring Entity Encounter Experience

Some of the most frequent measures used to examine the psychological health of individuals who practice mediumship or have EEE are Eysenck's (1947) three factors of Extraversion, Psychoticism, and Neuroticism (now typically referred to as *negative affect*); Tellegen's (1977) Absorption Scale, now referred to as the Multidimensional Personality Questionnaire; and Carlson and Putnam's (1993) Dissociative Experiences Scale, among others.

Multicultural studies (e.g., Hageman et al., 2010; Hageman et al., 2011; Hageman, Krippner, & Wickramasekera, 2008; Krippner, 1997) have shown that participants all had in common an ability to become absorbed—

that is, "to narrow and broaden their attentional focus and to restructure the phenomenal self and the world", and to dissociate; that is, "to disconnect from their sensory experience, sense of self, or personal history" (Hageman & Krippner, 2014, p. 112). Specifically, evidence suggests that dissociation is associated with mediumship-type experiences (Ross & Joshi, 1992).

Reinsel (2003) focused on dissociation along with absorption, temporal lobe epilepsy symptoms (i.e., strange sensations and changes in body image and perceptions), and mental health in mediums. Participants were recruited from among attendees at a conference on mediumship and classified as either mediums or controls, depending on how they answered the question, "Do you consider yourself a medium? Yes/No." However, this binary classification could not be applied to the entire sample, as some respondents, even though they had contact with spirits, would not describe themselves as mediums. To overcome this problem, Reinsel added a category called sensitives to accommodate respondents who believed they could communicate with spirits, but did not offer their services publicly. Reinsel found that mediums and sensitives scored higher than controls on the Depersonalization Severity Scale (DSS), which measures the intensity and frequency of depersonalization experiences such as feeling detached or unreal. High scores on this measure are characteristic of DID (Simeon et al., 1997). There were no significant differences on the Somatoform Dissociation Questionnaire (SDQ-20), which measures physical symptoms that are reported more frequently in patients with DID compared to other psychiatric diagnoses. Mediums scored significantly higher than controls on absorption and temporal lobe symptoms. Reinsel suggests that the lack of high scores on the SDO-20 for mediums could be interpreted thus: (a) dissociation among mediums is not clinically severe; and/or (b) the etiology of mediumship is not related to childhood trauma (p. 215).

Using the Dissociative Experience Scale (DES), Laria (2000) compared Cuban Spiritist mediums, controls, and individuals with mental health problems. Psychopathology did not occur amongst participants whose normal dissociative experiences were high in intensity and frequency. Those with mental health problems had high levels of dissociation compared to mediums and controls. Trait boundary-thinness (defined by openness, sensitivity, and ease of entering and an altered states of consciousness (Hartmann, 1991) was also tested. Mediums and those with mental health problems had significantly *thinner* boundaries than controls.

Many studies profile EEE percipients as generally having thinner mental boundaries, which support the idea that these types of experiences are linked to thin mental boundaries, as measured by schizotypy, Hartmann's Boundary Questionnaire, or Transliminality (e.g., Houran, Ashe & Thalbourne, 2003; Houran, Kumar, Thalbourne & Lavertue, 2002;

Houran & Thalbourne, 2001a, 2001b; Houran, Wiseman & Thalbourne, 2002; Parra, 2015c, 2017). Negro et al. (2002) found that pathological dissociation negatively correlated with age, mediumship activity, and social support. Also found were relationships between years of formal training and *sense* of mediumship control (though not *production* of mediumship).

In a previous study, Parra (2006) found that, from the dominant proneness to schizotypy, a second dimension (absorption) may underlie the differentiation of the two groups of participants (experients vs. non-experients)—that is, apparitional and other apparition-like experiences were related to higher levels of reports of absorption and imaginative-fantasy experiences (Irwin, 2015; Irwin, Dagnall, & Drinkwater, 2012). Visions of ghosts may be related to cognitive processes involving fantasy and cognitive perceptual schizotypy proneness, so that many therapists still regard clients who report apparitions as mentally ill; however, these people often do not tell anyone about their experiences.

It is often claimed that schizotypy is an attenuated form of schizophrenia, but contemporary researchers (e.g., Lenzenweger, 2010) do not take this view and instead view it as a set of personality traits or characteristics that represent a latent personality construct or liability to develop schizophrenia. This personality continuum may include paranormal beliefs and experiences, and artistic creativity—in particular, positive schizotypy—and it has also been associated with poor critical thinking and suggestibility, also called 'happy schizotypy' or 'benign schizotypy', which describe those who are psychologically healthy and exhibits adaptive traits, such as creativity (Brod, 1997; Goulding, 2004). Other studies show an with transliminality association and other perceptual-personality characteristics related to thin boundary functioning.

Predictions

It is not clear to what extent EEEs occur in the general population or in specific groups since EEEs are usually associated with mediums. However, previous databases from other studies of extrasensory perception (see Parra & Argibay, 2009a, 2009b, 2009c), and the author's doctoral dissertation (see Parra, 2009) using undergraduate students, encourage further inquiry into EEEs. Thus, this two-part study looks for EEE correlates in two samples: paranormal believers and undergraduate students. Specifically, the aim was to find correlations between three types of EEEs, on the one hand, and personality and perceptual variables, on the other.

The two independent samples differed in their respective recruitment procedures: (1) paranormal believers were classed as people interested in reading New-Age/esoteric topics, many of them from Spiritualist/New-Age

groups in Buenos Aires, Argentina; and (2) undergraduate students, of whom many were also paranormal believers, though not cognitively involved in reading New-Age/esoteric topics.

For Study 1 (active paranormal believers), it was predicted that EEE-experients (i.e., experients who have had an EEE) have higher scores than EEE-non-experients on: (1) Neuroticism (Emotional instability), (2) Extraversion, (3) Schizotypy-proneness (mainly "Positive" or 'healthy' schizotypy—i.e., includes creativity, openness to experience, fantasy-proneness, etc.), (4) Vividness of Visual Imagery, (5) Transliminality, and (6) "Thin" Boundary. These six variables were expected to correlate (positively) with frequency of EEE.

For Study 2 (undergraduate students), it was predicted that, EEE-experients have higher scores than non-EEE-experients on: (1) Neuroticism (Emotional instability), (2) Extraversion, (3) Schizotypy-proneness (mainly "Positive" or 'healthy' schizotypy), (4) Dissociation, (5) Absorption, and (6) Fantasy proneness. These six variables were expected to correlate (positively) with frequency of EEE.

EEEs are ordinarily found in many mediums (at least in the initial stage of their mediumship development) who share their spontaneous experiences in ritual "settings" such as churches, Spiritualist schools, and 'terreiros' (meeting places for Afro-Brazilian cults). Such experiences are closely interwoven with many other psychological and perceptual processes. (Note, however, that there was no intention in this study to examine psychological variables in mediumship practitioners.)

METHOD

Instruments

The following nine measures were used for both studies:

Eysenck Personality Questionnaire Revised (EPQ-R; Eysenck & Eysenck, 1975; Sandin, Valiente, Chorot, Olmedo, & Santed, 2002). This is a well-known 94-item self-report inventory, with a 'yes' or 'no' response that measures two personality dimensions: Neuroticism (higher scores tend to have higher Neuroticism and those with lower scores tend to have lower Neuroticism) and Extroversion-Introversion (higher scores tend to be Extroverts and lower scores tend to be Introverts). The internal reliability of the EPQ-R is good for the Spanish version, with a Cronbach's α of .84 (Sandin et al., 2002). The Cronbach α was .78 for Neuroticism and .82 for Extroversion-Introversion, in the present study.

Schizotypal Personality Questionnaire (SPQ; Raine, 1991, 1992; Raine & Baker, 1992; Raine & Benishay, 1995). This measure has 74 yes/no items which produce a score that indicates those with higher scores tend to have higher schizotypy and those with lower scores tend to have lower schizotypy. It measures three factors of schizotypy: Cognitive-Perceptual schizotypy, Interpersonal schizotypy, and Disorganized schizotypy. The internal reliability of the SPQ is good for the Spanish-Argentine sample, with a Cronbach's α of .93 (e.g., see Parra, 2006).

Oxford-Liverpool Inventory of Feelings and Experiences (O-LIFE; Mason, Claridge, & Jackson, 1995; Mason, Claridge, & Williams, 1997) is a 150-item questionnaire with a yes/no response in terms of four dimensions: Positive Schizotypy, which is assessed by Unusual Experiences and Cognitive Disorganization—a tendency for thoughts to become derailed, disorganized, or tangential (thought disorder); Negative Schizotypy; Introvertive Anhedonia; and Impulsive Nonconformity (Mason et al., 1995, 1997). Psychometric evaluation of the O-LIFE has shown good test-retest reliability ($\alpha = 0.80$), as well as acceptable internal consistency ($\alpha = .77$). Cronbach α for internal consistency was .91 in the Argentine version of O-LIFE (see Parra, 2015b).

Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986; Carlson & Putnam, 1993; Carlson & Armstrong, 1994; Montes, Ledesma, & Martín Poó, 2011). This measure is a 28-item self-report instrument with a 0-100% response scale that produces a score indicating those with higher scores tend to have higher dissociative tendencies, and those with lower scores tend to have lower dissociative tendencies. The scale has good construct validity. The internal reliability of the DES is good for the Spanish-Argentine sample, with a Cronbach's α of .87 (Parra & Argibay, 2012).

Tellegen Absorption Scale (TAS; Tellegen & Atkinson, 1974). This measure is a 34-item self-report inventory. Each item on this scale requires a 'true' or 'false' response, and produces a score that indicates those with higher scores tend to have psychological absorption, and those with lower scores tend to have lower absorption. The internal reliability of the TAS is good for the Spanish-Argentine sample, with a Cronbach's α of .90 (Parra & Argibay, 2012).

Creative Experiences Questionnaire (CEQ) (Merckelbach, Horselenberg, & Muris, 2001). This measure is a 25-item self-report measure of fantasy proneness. Each item on this scale requires a 'true' or 'false' response and produces a score that indicates those with higher scores tend to have higher fantasy proneness, and those with lower scores tend to have lower fantasy

proneness. Findings indicate that the CEQ demonstrates adequate test-retest reliability, as well as internal consistency. A Pearson product-moment correlation of 0.61 was found for fantasy proneness (Merckelbach, Horselenberg, & Muris, 2001). The internal reliability of the CEQ is good for the Spanish-Argentine sample, with a Cronbach's α of .82 (Parra & Argibay, 2012).

Revised Transliminality Scale (RTS; Lange, Thalbourne, Houran & Storm, 2000; cf. Houran, Thalbourne & Lange, 2003) is a Rasch-scaled version of Thalbourne's (1998) original scale and presents 17 true/false items to participants, all of which are scored in a raw-score to Rasch-score transformation. The RTS has a reliability of .82, and produces a score that indicates those with higher scores tend to have higher transliminality, implying (alleged) paranormal experience, mystical experience, creative personality, fleeting manic experience, magical ideation, high absorption, fantasy proneness, hyper-sensitivity to sensory stimulation, and positive attitude towards dream interpretation. The RTS in its various forms has been administered to a large number of people in a variety of contexts, so that we now have correlations ranging from weak to strong. The internal reliability of the CEQ is good for the Spanish-Argentine sample, with a Cronbach's α of .76 (Parra, 2017).

Boundary Questionnaire (BQ; Hartmann, 1989, 1991) is a 138-item instrument that includes questions about many different aspects of boundaries (Barbuto & Plummer, 1998, 2000). It is divided into such categories as: Type of boundary, Sleep/wake/dream, Unusual experiences, Thoughts-feelings-moods, Childhood-adolescence-adulthood, Interpersonal, Opinions about organizations, Sensitivity, Neat/exact/precise, Edges/lines/clothing, Opinions about children and others, Opinions about people-nations-groups, and Opinions about beauty and truth. The response format for each question runs from "0" (not at all) to "4" (very much so). The BO produces a score that indicates those with higher scores tend to have "thin" boundaries and those with lower scores tend to have "thick" boundaries. The BQ has good test-retest reliability (over six months r's of about .77 in two samples; see Kunzendorf & Maurer, 1988-1989; Hartmann, Harrison, & Zborowski, 2001). The internal reliability of the BQ is good for the Spanish-Argentine sample, with a Cronbach's α of .79 (Parra & Argibay, 2016).

Vividness of Visual Imagery Questionnaire—Revised (VVIQ-R; Campos & Pérez-Fabello, 2009; Marks, 1999). The VVIQ-R consists of a 32-items referring to different situations where participants have to visualize and score their imagery vividness as if it were 'open-eyes' and 'closed-eyes'

(i.e., "The exact contour of face, head, shoulders and body" or "Characteristic poses of head, attitudes of body, etc.") on a five-point scale 1 (Perfectly clear and as vivid as normal vision) to 5 (No image at all). The two scores (closed- and open-eyes) yield an average score VVIQ-R. Since scoring is inverted, those with lower scores tend to have higher vividness of visual imagery, and higher scores tend to indicate lower vividness. The internal reliability of the VVIQ-R is good for the Spanish-Argentine sample, with a Cronbach's α of .94 (Parra, 2015a).

All measures were administered under the pseudo-title *Questionnaire* of *Psychological Experiences*, in counterbalanced order to encourage unbiased responding. Participant who received information about the study, were then invited to participate voluntarily and anonymously. The *Questionnaire* was enclosed in a single envelope, and presented to participants.

Sense of Presence, Apparitional Experience, and Spirit Possession

The Self-Report Inventory (Gómez Montanelli & Parra, 2005), consisting of 18 items, was designed to gather information on spontaneous paranormal/anomalous experiences such as ESP dreams, telepathy, aura, out-of-body experiences, past lives, recalled sense of presence, remote healing, déjà-vu, mystical experience, and apparitions. The three questions on "entity encounter experiences" used here were:

For Sense of Presence: "In the last six months, I have had the experience, while being awake, of having a vivid impression of a sensation of presence, but nothing was visible where I was."

For Apparitional Experiences: "In the last six months, I have had the experience, while being awake, of hearing voices or seeing apparitions invisible to others, which forewarned me about an impending danger that occurred shortly thereafter."

For Spirit Possession: "In the last six months, I have had the experience of feeling that my body was not my own and I was being controlled by another force besides me."

Each question has a Likert scale: 0 = Never, 1 = One time; 2 = Seldom; and 3 = Multiple times. The questions also tapped positive or negative (emotional) impact (a scale of 1 to 7 for some impact, 1 being the most negative, and 7 being the most positive emotional impact). The

internal reliability of this self-report inventory is high, with a Cronbach's α of .92; the test-retest reliability is acceptable. The questions were inspired by the English version of the *Anomalous/Paranormal Experiences Inventory* (Gallagher, Kumar, & Pekala, 1994).

Categorization Procedure for EEE

For both studies, an index (or count) was constructed of each type of experience based on the frequency it was reported (one time = 1; up to multiple times = 3), so that individuals who reported one type of experience, two types of experience, or three types of experience (whether Sense of presence, Apparitional experience, or Spirit possession, including frequency) were grouped as 1, 2, or 3, respectively. Those who did not report any EEE were categorized as No experience = zero.

Spearman's rho (r_s) tests were run to test the predictions, since scores were not normally distributed, and then Logistic Multiple Regression tests were conducted. Bonferroni corrections were made to counteract the problem of multiple analysis (Bonferroni being considered the simplest and most conservative method to control the family-wise error rate of these analyses). All comparisons were one-tailed.

RESULTS OF THE FIRST STUDY

Participants were 348 in total, of which 239 (68%) completed usable questionnaires (answering at least one out of three questions on EEE): 178 (74.5%) were females and 61 (25.5%) were males, ranging in age from 17 to 72 years (Mean age = 45 years, SD = 13 years). Participants were considered generally well-educated, based on the fact that 92% had completed high school, and a proportion of these had attended college or university; and they could be considered 'believers in psi,' because a high proportion of them were engaged in paranormal and/or New Age pursuits.

Recruitment was through the e-mail mailing list of the Institute of Paranormal Psychology, Buenos Aires, Argentina. An announcement was also placed on the Institute's website (www.alipsi.com.ar). Participation was voluntary; students received no payment. These same participants were also recruited for ESP testing at the Institute.

As Table 1 indicates, of the EEE-Experients, 180 participants (75.3%) reported Sense of Presence (being the highest frequency), 70 (29.3%) reported Apparitional Experience, and 46 (19.2%) reported Spirit Possession.

Of the full sample, 100 (41.8%) had just one EEE, 74 (31.0%) had two EEEs (one or other), and 16 (6.7%) had the three EEEs.

Table 1 Descriptives: Apparitional Experience, Sense of Presence, and Spirit Possession (N = 239)

	Apparitional		Sense of		Spirit		
Had an EEE		Experience		Presence		Possession	
Yes	70	29.3%	180	75.3%	46	19.2%	
No	169	70.7%	59	24.7%	193	80.8%	
					Coı	unts	
Frequency of El	ncy of EEE N		%				
No experiences				-	49 20.5		
One experience					100	41.8	
Two experience	s				74	31.0	
Three experience	es				16 6.7		

Tests of Predictions

The predictions were that EEE experients would tend to have high scores on: (1) Neuroticism (not supported), (2) Extraversion (supported), (3) Schizotypy proneness (supported; also for Unusual Experiences and Introverted Anhedonia), (4) Vividness of Visual Imagery (supported), (5) Transliminality (supported), and (6) "Thin" Boundary (supported; also for Unusual Experiences, Thoughts, Neat, Opinions (childhood), and Paranormal Experiences). (See Table 2 for other findings.)

After Bonferroni correction (p=.002), the following were still significant: Extraversion, Unusual Experiences (in Schizotypy), Transliminality, "Thin" Boundary (including Unusual Experiences, Thoughts, and Paranormal Experiences).

A number of significant correlations between the emotional impact (negative/positive) of mediumship experiences and personality measures and perceptions were found (see Table 3). Apparitional experience correlated positively and significantly with Extraversion, Vivid Imagery, Thin Boundary, and Transliminality; Possession correlated positively and significantly with Schizotypy, Dissociation, Thin boundary, and Transliminality.

Table 2 Correlations Between EEE and Perceptual and Personality Measures

-	EEE		
Variable	Spearman's r _s	<i>p</i> *	
Neuroticism (EPQ-R)	.01	.849	
Extroversion (EPQ-R)	.24	< .001	
F1. Unusual Experiences	.26	< .001	
F2. Cognitive Disorganization	.06	.382	
F3. Introverted Anhedonia	.16	.013	
F4. Non-Conformity, Impulsiveness	.08	.233	
Schizotypy (O-LIFE; factors are F1 to F4)	.17	.011	
Vividness of Visual Imagery	20	.003	
Transliminality	.28	< .001	
1. Sleep/wake/dream	.12	.096	
2. Unusual Experiences	.31	< .001	
3. Thoughts-feelings-moods	.31	< .001	
4. Childhood-adolescence	.09	.183	
5. Interpersonal	.05	.499	
6. Sensibility	02	.707	
7. Edges/lines/clothing	.03	.669	
8. Neat/exact/precise	.15	.040	
9. Opinions (childhood)	.16	.023	
10. Opinions (Organizations)	.08	.234	
11. Opinions (people-nations-groups)	.09	.204	
12. Beauty/truth	.08	.231	
13. Paranormal Experiences	.42	< .001	
"Thin" boundary (factors are 1 to 13)	.32	< .001	

^{*} Bonferroni correction p = .002; df = 237

After Bonferroni correction (p=.002), Apparitional experience still correlated significantly with Transliminality, and Possession still correlated significantly with Schizotypy, Dissociation, and Thin boundary.

Table 3 Correlations Between Negative/Positive Emotional Impact and Personality Measures^a

	Apparitional Experience ^b		Sense of Presence ^b		Spirit Possession ^b	
Variable	$r_{\rm s}$	p	$r_{\rm s}$	p	$r_{\rm s}$	p
Neuroticism (EPQ)	.02	n.s.	.06	n.s.	.01	n.s.
Extraversion (EPQ)	.17	.011	.08	n.s.	.06	n.s.
Schizotypy (SPQ)	.02	n.s.	.07	n.s.	.23	.001
Dissociation (DES)	.12	n.s.	.16	n.s.	.24	< .001
Vivid Imagery	.15	.023	.09	n.s.	.03	n.s.
Thin boundary	.15	.024	.20	n.s.	.22	.001
Transliminality	.24	.001	.15	n.s.	.16	.027

^a Bonferroni correction p = .002; ^b Emotional Impact of the experience: Range 1 = very positive, to 5 = very negative.

Logistic Multiple Regression

Logistic multiple regression was performed to determine differences between groups on EEE. The dependent variable (four groups) was converted to two group (Experiencers vs. Non-Experiencers). The independent variables were the total scores on Neuroticism, Extraversion, Schizotypy, Dissociation, Vivid imagery, Thin boundary, and Transliminality.

The regression was significant: $\chi^2(1, N = 190) = 6.83$, p = .009; Log of Likelihood Function = 183.10. The only variable that significantly predicted group membership was Thin boundary (Wald = 6.18; p = .013).

RESULTS OF THE SECOND STUDY

From a total of 678 undergraduate students recruited from the Faculty of Psychology and Human Relations, Inter-American Open University, Buenos Aires, Argentina; 554 were usable (81.7%). Participation was voluntary, and the students received no payment. Those who returned the questionnaires included 430 (77.6%) females and 124 (22.4%) males, ranging in age from 17 to 57 (Mean Age = 26 years; SD = 7 years).

As Table 4 indicates, of the EEE-Experients, 187 (33.8%) participants reported Sense of Presence (being the highest frequency), 27 (4.9%) reported Apparitional Experience, and 26 (4.7%) reported Spirit Possession.

Of the full sample, 164 (29.6%) had just one EEE, 29 (5.2%) had two EEEs (one or other), and 6 (1.1%) had the three EEEs.

Table 4 Descriptives: Apparitional Experience, Sense of Presence, and Spirit Possession (N = 554)

	Apparitional		Sense of		Spirit	
Had an EEE	Experience		Pre	sence	Possession	
Yes	27	4.9%	187	33.8%	26	4.7%
No	527	95.1%	367	66.2%	528	95.3%
					Counts	
Frequency of EEE					N	%
No experiences			355	64.1		
One experience					164	29.6
Two experiences					29	5.2
Three experiences					6	1.1

Tests of Predictions

The predictions were that EEE experients would tend to have high scores on: (1) Neuroticism (supported), (2) Extraversion (unsupported), (3) Schizotypy proneness (supported, also for all three factors), (4) Dissociation (supported; also, for all three factors), (5) Absorption (supported; also for six factors), and (6) Fantasy proneness (supported). (Table 5 lists specific findings.)

After Bonferroni correction (p=.003), the following were still significant: Neuroticism, Schizotypy proneness (including Cognitive-perceptual), Dissociation (including Absorption and Derealization), Absorption (including all six factors), and Fantasy proneness.

Four significant correlations between the emotional impact (negative/positive) of mediumship experiences and personality measures and perceptions were found (see Table 6). However, after Bonferroni correction (p = .003), there were no significant correlations.

Table 5
Correlations Between EEE and Personality-Perceptual Measures^a

	EEE			
Variables	Spearman's r _s	p		
Neuroticism (EPQ)	.14	.001		
Extraversion (EPQ)	003	.947		
F1. Cognitive-perceptual	.40	< .001		
F2. Interpersonal	.12	.003		
F3. Disorganized	.12	.004		
Schizotypy (SPQ; factors are F1 to F3)	.28	< .001		
F1. Amnesia	.12	.003		
F2. Absorption	.19	< .001		
F3. Derealization/depersonalization	.23	< .001		
Dissociation (DES; factors are F1 to F3)	.21	< .001		
F1. Responsiveness to engaging stimuli	.18	< .001		
F2. Synesthesia	.21	< .001		
F3. Expanded awareness	.29	< .001		
F4. Dissociation	.20	< .001		
F5. Vivid memories	.19	< .001		
F6. Expanded Consciousness	.17	< .001		
Absorption (Total; factors are F1 to F6)	.26	< .001		
Fantasy proneness (CEQ)	.26	< .001		

a. Bonferroni correction p = .003; df = 552

Logistic Multiple Regression

Logistic multiple regression was performed to determine differences between groups on EEE. The dependent variable (four groups) was converted to two group (Experiencers vs. Non-Experiencers). The independent variables were the total scores on Neuroticism, Extraversion, Schizotypy, Dissociation, Absorption, and Fantasy proneness.

The regression was significant: $\chi^2(6, N=199)=53.70$, p<.001; and Log of Likelihood Function = 602.65. The variables that significantly predicted group membership were Schizotypy (Wald = 12.30; p<.001), Absorption (Wald = 7.91; p=.005), and Dissociation (Wald = 6.05; p=.014).

Table 6
Correlations Between Negative/Positive Emotional Impact and Personality Measures^a

	Apparitional Experience ^b		Sense of Presence ^b		Spirit Possession ^b	
Variable	$r_{\rm s}$	p	$r_{\rm s}$	p	$r_{\rm s}$	p
Neuroticism (EPQ)	.34	.008	.12	.046	.15	n.s.
Extraversion (EPQ)	.02	n.s.	02	n.s.	01	n.s.
Schizotypy (SPQ)	.06	n.s.	.05	n.s.	.42	.003
Dissociation (DES)	.22	n.s.	02	n.s.	.19	n.s.
Absorption (TAS)	01	n.s.	10	n.s.	.29	.041
Fantasy proneness (CEQ)	07	n.s.	04	n.s.	.23	n.s.

 $^{^{\}rm a}$ Bonferroni correction p=.003; $^{\rm b}$ Emotional Impact of the experience: Range 1 = very positive, to 5 = very negative.

DISCUSSION

Conclusions of the First Study (Paranormal Believers)

Regarding the perceptual and personality measures, after Bonferroni correction, four of the six predictions were confirmed—individuals with a high frequency of EEE: (i) tend to be more extroverted; (ii) tend to have a propensity for Unusual experiences—a schizotypy factor in the O-LIFE); (iii) tend to score high on transliminality; and (iv) tend to have "thin" boundary (with an emphasis on Unusual Experiences, Thoughts, and Paranormal Experiences).

Regarding emotional and cognitive impact of each EEE, those who indicated experience of Apparitions tended to score high on Transliminality. Those who indicated experience of Possession tended to show greater propensity for Schizotypy, Dissociation; and 'Thin' boundary (i.e., the apparent ability to pass through different states of consciousness). In fact, 'Thin' boundary was the only predictor of EEE membership.

Conclusions of the Second Study (Undergraduate Students)

Regarding the perceptual and personality measures, after Bonferroni correction, five of the six predictions were confirmed—individuals with a high frequency of EEE: (i) tend to be more neurotic (emotionally unstable); (ii) are prone to cognitive-perceptual schizotypy; (iii) tend to have capacity

to dissociate (with emphasis on Absorption and Derealization); (iv) to have a greater capacity to absorption (with emphasis on all six factors—see Table 5); and (v) tend to be fantasy prone.

Regarding emotional and cognitive impact of each EEE, there were no indicators after Bonferroni correction. However, Schizotypy, Absorption, and Dissociation were predictors of EEE membership.

General Findings

These difference, which are quite marked in some instances, suggest the two samples (paranormal believers and undergraduate students) come from very different populations, although the tests were mostly non-parametric (Spearman's *rho*), so we cannot make too many inferences about the respective populations.

In both samples, schizotypy was a tendency for those with a high counts of EEEs. It is noted that the schizotypy factors, unusual experiences (in paranormal believers) and cognitive disorganisation (in undergraduate students) have been linked to creativity and artistic achievement, indicating positive schizotypy (Brod, 1997; Goulding, 2004).

The Logistic Multiple Regression test, which is parametric, does allow one to make inferences about the relevant populations: first, paranormal believers who have one or more EEEs, tend to have thin boundaries compared to their non-EEE cohorts; and second, students who have one or more EEEs, tend to demonstrate characteristics of schizotypy, absorption, and dissociation compared to their non-EEE cohorts. (It is important to point out that this study only presents findings from within-subjects comparisons; not between-subjects comparisons, results of which will be presented in a follow-up paper.)

Although the extent to which EEEs are culturally-induced is unclear, it is possible that paranormal believers have a high degree of involvement in paranormal/spiritual beliefs and experiences. They possibly resolve their schizotypy and emotional instability with spiritual practices (such as meditation, relaxation, etc.). Notable, therefore, was the fact that paranormal believers showed a relationship between socialization (i.e., extraversion) and EEEs, whereas for the student group, there was a relationship between emotional instability (i.e., neuroticism) and EEEs. Also, we cannot be sure that these beliefs and experiences for paranormal believers take the form of feeling presences, seeing ghosts or apparitions, or even having the sensation of falling under the control of such entities (see Table 3).

High transliminality and 'thin' boundaries were found for paranormal believers; dissociation and fantasy-proneness (also associated with positive

schizotypy) was high in students who experienced EEEs. The students also showed a tendency to absorption perhaps because of the unexpected effect of their EEEs.

From a scientific standpoint, the suggestion that EEEs are just forms of fantasy proneness or creative imagination is not sufficiently demonstrated in this study—only the student sample were tested on fantasy-proneness, which did show a significant relationship between EEEs and fantasy-proneness. As for the believers, the correlation between EEE and vividness of visual imagery was actually negative, but was not strong enough to pass the test on multiple analysis.

In the past, a number of studies have been presented, with supportive documentation, indicating that channeling and mediumship-like practices across a wide variety of circumstances (e.g., meditative, ecstatic, religious, esoteric, indigenous, shamanic, spiritual) do not automatically equate to maladaptive mental health. What is most informative is that culturally embedded beliefs and practices influence the medium's role, acceptance, and psychological health in his or her respective culture, which aligns with the biopsychosocial paradigm. In the present study, it appears that paranormal belief does provide an adaptive advantage which the students lacked.

In relation to clinical factors, the mental health field has a history of, and a tendency towards, pathologizing spirituality (Lukoff, Lu, & Turner, 1992). Mediumship researchers disagree on whether the pathology applies to psychic phenomena, or actual contact with the deceased. Neither of these explanations may indicate psychopathology. However, EEEs of the type described here may have important clinical applications. Many therapists still regard as mentally ill or deluded those clients who report apparitions, and we see that paranormal believers produced the greater number of correlates in regard to apparitions and related variables such as possession but, when EEEs are frequent, they seem better able to manage the experiences compared to students. In some cases, however, EEE and mediumship in general, or related issues, may be misdiagnosed as, or be concurrent with dissociative disorders (Moreira-Almeida et al., 2008; van Duiji et al., 2005). There is, however, generally a greater degree of volition and sense of self in the EEE that is free from psychopathology (Seligman, 2005).

Future studies might examine the 'grey area' between spontaneous EEEs and the use of 'controlled' mediumship in ritual and/or other contexts. Numerous biographies of mediums, psychics, and sensitives mention seminal experiences in childhood or adolescence that were transformative, including learning or self-learning, voluntary control, and positive evaluation of the experiences, and these factors might also provide avenues for further research.

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