PERSONALITY TRAITS ASSOCIATED WITH PREMONITION EXPERIENCE: NEUROTICISM, EXTROVERSION, EMPATHY AND SCHIZOTYPY

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ABSTRACT

Premonition is a feeling that something is about to happen when no normal information is available, and in which the target cannot be deduced from normally known data in the present. The main aim was to estimate the proportion of people who claim to have had various kinds of premonition experiences, and to explore any association between these experiences and personality variables such as neuroticism, extroversion, empathy and schizotypy. Respondents completed a questionnaire on premonitions, and the Eysenck Personality Questionnaire, Interpersonal Reactivity Index, and Oxford–Liverpool Inventory of Feelings and Experiences. Personality measures data were compared on dream-related premonition experiences for experients ($N = 80$) vs. non-experients ($N = 271$), and on non-dream-related premonition experiences for experients ($N = 184$) vs. non-experients ($N = 167$). Participants who reported premonitions had higher scores on empathy and schizotypy, but were not significantly higher on neuroticism and extroversion, although they did endorse more positive indicators of schizotypy (unusual experiences) and cognitive empathy, such as emotional comprehension. Although schizotypy personality traits were associated with premonition experience, experients and non-experients did not differ in its negative dimensions.

INTRODUCTION

Premonition is a feeling or impression that something is about to happen, especially something ominous or dire, yet about which no normal information is available; precognition is considered a form of extrasensory perception in which the target is some future event that cannot be deduced from normally known data in the present (Dossey, 2009; Thalbourne, 2003). Although large surveys of spontaneous cases (Green, 1960; Hearne, 1984; Rhine, 1954; Ryback & Sweitzer, 1990; Saltmarsh, 1934), diary studies (Besterman, 1933; de Pablos, 1998; Sondow, 1988), and laboratory studies (Ullman, Krippner, & Vaughan, 1989) have been carried out to study precognitive dreaming, research into factors that might be associated with the reporting of these types of dreams—such as personality dimensions or indicators of psychopathology—is rather scarce (Lester, Thinschmidt & Trautman, 1987; Parra, 2011, 2012; Rattet & Bursik, 2001; Rhine, 1962; Schmeidler & McConnell, 1958; Schredl, 2009; Sunmola & Adejumo, 2000).

There is a relatively high incidence of dreams in precognitive case collections. Rhine (1954) observed 75% of her precognitive cases to be dreams, whereas the form of precognitive experiences are intuitive 19%, hallucinatory 6%, realistic dream 60%, and unrealistic dream 15%. The same trend has been reported for other case collections (Feather & Schmicker, 2005; Green, 1960; Houran & Lange, 1998; Orme, 1974; for review also see Irwin & Watt, 2007). Most precognitive dreams in these collections were realistic; that is, the precognized event was represented in the dream in a fairly realistic way. In a recent study,

Parra (2013a) found that of those who reported premonitions in dreams ($N = 92$, 21%), 7% reported having experienced them at least once and approximately half of those (52%) experienced premonitions that were not related to dreams; their premonitions experience (dream and non-dream) were vivid and clear (36%).

In contrast, premonitions in waking states (i.e. presentiments, hunches, and other physical signs) were reported as being only a little less vivid than dream premonitions (56%).

Carl Jung (1958) viewed precognitive experiences as examples of the principle of synchronicity, a meaningful coincidence of outer and inner events that are not causally connected. According to the principle of synchronicity, inner unconscious knowledge links a physical event with a psychic condition, so that a certain event that appears accidental or coincidental can be personally meaningful. The meaning may be indicated symbolically through dreams that coincide with the event.

According to Eysenck (1967), since psi is a primitive form of perception, conditions of high cortical arousal should be unfavourable to it; introverts are habitually in a state of high cortical arousal; thus extroverts should do better on psi tasks. On the other hand, Lester, Thinschmidt and Trautman (1987) reported that both paranormal belief and precognitive experience were directly related to feeling/intuition scores. They suggested that belief in the paranormal is stronger in feeling, perceiving and intuitive personality types, supporting the view that those who show a high degree of belief in paranormal phenomena are less logical and more open-minded than disbelievers. Rattet and Bursik (2001) found that precognitive experients are more extroverted than non-experients.

There are a number of paranormal/anomalous experiences which seem to be related to—even sometimes confused with—empathy (Donovan, 1994; Jordan, 2008). Empathy is also an important component of social cognition and personality trait, and it works along with psi, thereby mutually enhancing the strength of these abilities. Many who are unaware of how this actually works have long accepted that they were 'sensitive' to precognitive experiences around others, without being consciously aware of their empathic ability. In fact, precognitive experiences would tend to be relatively detailed and to concern serious events, and being empathic also contributes to one's ability to understand and respond adaptively to others' emotions (Parra, 2013a).

A number of studies might lead to the conclusion that precognitive dreaming is associated with pathology; for example, somatic problems, dissociation and having a thin boundary dimension. 'Healthy' schizotypy represents a departure from the quasi-dimensional, pathological model for schizotypy and suggests an extension into a fully dimensional model (Claridge, 1997; McCreery & Claridge, 1995, 2002) with health as a starting point. Moreover, some of the experients seemed to be healthy not only despite their experiences but also because of them (Parra, 2006, 2012). For example, Hearne (1984) found elevated scores of neuroticism in persons who responded to a newspaper announcement asking for precognitive dreams and Sunmola and Adejumo (2000) found an association between precognitive dreaming and a somatisation scale including symptoms. On a theoretical level, it seems plausible that persons who are sensible and

open to unusual experiences and who carefully monitor their experiences might report more precognitive dreams simply because they can find more matches between waking-life experiences (such as the premonition experiences) and dreams they have had (Sondow, 1988).

The main aim of the present report is to explore correlations between these experiences and personality variables, such as neuroticism, extroversion, empathy and schizotypy. I predict that in comparison with non-experients, experients will (1) be more extroverted and tend to be more emotionally unstable, (2) be more empathic, and (3) have higher positive (but not negative) schizotypy scores compared with non-experients.

METHOD

Participants

From a total of 513 undergraduate students recruited from the Psychology Department of the Universidad Abierta Interamericana (South Campus), Buenos Aires, Argentina, I received 351 usable questionnaires (68%). Participation was voluntary and no payments were made to teachers or participants for their participation. The sample comprised 175 females and 176 males, ranging in age from 17 to 54 years (M = 34 years; SD = 13).

Materials

Premonition Experiences Questionnaire (PEQ). Items on this measure were inspired by the collection of cases from our own Counselling Service (more than 2,000 paranormal/anomalous experiences) at the Institute of Paranormal Psychology (Gómez Montanelli & Parra, 2004; Parra & Corbetta, 2013), and workshops on dreamwork at Buenos Aires (Parra, 2009, p. 291). The first part, "Premonition in dreams", involves: Frequency; Content; Symbols, Vividness, Clarity, Emotional intensity, Discernment as a premonitory dream, Time range, People involved, and the second part, "Premonition not related to dreams" (i.e. presentiments) also involved Frequency, Vividness, Clarity, Discernment as a premonitory dream, Time range and People involved, plus Relatives who had premonition experiences ("if yes, who"). Participants could also describe the types of premonitory experiences they had, such as unusual success in gambling, avoiding accidents, anticipating states of health, assaults/robberies, major accidents, death of someone close, and others; they could also give responses to items covering four sensory modalities of the premonition experiences: visual experiences, sudden feelings (i.e. pre-feelings), hearing voices, and physical signs. Part 2 also covered characteristics of the experiences, such as Negative/Positive Emotions (see Parra, 2013b for details).

Eysenck Personality Questionnaire Revised–Abbreviated (EPQR-A) (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 (Low-High) and Extroversion–Introversion. Individuals who score high on Neuroticism are more likely than the average to experience such feelings as anxiety, anger, envy, guilt and depressed mood. They respond more poorly to environmental stress, and are more likely to interpret ordinary situations as threatening, and minor frustrations as hopelessly difficult. People who score high on Extroversion are

usually expansive, impulsive and uninhibited. The other pole is Introversion, described as quiet, shy, and introspective, they show themselves as reserved and distant.

Interpersonal Reactivity Index (IRI) (Davis, 1996; López-Pérez, Fernández, & Abad, 2008). This is a 33-item self-report, using a 5-point Likert response scale, which contains four subscales: two on Cognitive Empathy and two on Emotional Empathy. The first two are Perspective-Taking and Emotional Comprehension, which aims to measure the tendency to try to find out and understand how another person is feeling at a specific point in time (López-Pérez, Fernández, & Abad, 2008). The term empathy has been used to refer to two related human abilities: mental perspective-taking (cognitive empathy) and the vicarious sharing of emotion (emotional empathy). The Spanish version was used in this study (Pérez-Albéniz, de Paúl, Etxebarría, Montes, & Torres, 2003; Cronbach's alpha total score = 0.87, Argentine version).

Oxford–Liverpool Inventory of Feelings and Experiences (O-LIFE) (Mason, Claridge & Jackson, 1995). This is a validated 150-item questionnaire with a 'yes' or 'no' response assessing schizotypy in terms of four dimensions: Positive Schizotypy is assessed by Unusual Experiences and Cognitive Disorganisation — a tendency for thoughts to become derailed, disorganised or tangential (thought disorder) — and Negative Schizotypy by Introvertive Anhedonia and Impulsive Nonconformity. Schizotypy is a theory stating that there is a continuum of personality characteristics and experiences ranging from normal dissociative, imaginative states to more extreme states related to psychosis and in particular, schizophrenia: the disposition to have unusual perceptual and other cognitive experiences, such as hallucinations, magical or superstitious belief and interpretation of events. Norms for the questionnaire are reported by Mason, Claridge and Jackson (1995) and Mason, Claridge and Williams (1997). Psychometric evaluation of the O-LIFE has shown good test–retest reliability ($r = 0.80$), as well as acceptable internal consistency (alpha = 0.77). The Cronbach alpha measure of internal consistency was 0.91 in the Argentine version of O-LIFE.

Procedure

Participants completed the questionnaire battery, which was presented in an envelope along with information about the aims of the study (but not its hypotheses) and they were invited to participate anonymously by completing the scales in a special session that had been agreed with Pychology tutors. Participation was voluntary.

Informed Consent

An appropriate informed consent to the procedure using language reasonably understandable by the recruits was signed. The content of informed consent included that the person (1) had the capacity to consent, (2) had been informed of all significant information concerning the procedure, (3) had freely and without undue influence expressed consent; and that (4) consent had been appropriately documented (Barden, 2001).

Data Analysis

The sample was split according to whether respondents reported (i) premonitions in dreams, or (ii) premonitions not related to dreams. Statistical analysis involved a number of correlations using nonparametric measures (Spearman's *rho* and Mann-Whittney *U*). A co-operator (JV) tallied the scores from the *PEQ*. JV remained blind to participants' group identity. The data were exported to a statistical package (SPSS 20) for analysis. All data entry and analyses were double-checked.

RESULTS

Premonitions Related to Dreams

Hypothesis 1 was that experients of premonitions related to dreams would score higher on extroversion and neuroticism than non-experients, which was not supported ($z = 0.33$, $p = 0.742$, and $z = 1.67$, $p = 0.093$, respectively — see Table 1). Hypothesis 2 was that experients would score higher on empathy than non-experients, which was supported: the mean for experients was significantly higher than for non-experients ($z = 2.89$, $p = 0.004$, one-tailed). Two factors also showed significant differences, namely Perspective-Taking ($z = 2.46$, $p = 0.014$, one-tailed) and Negative Empathy ($z = 2.27$, $p = 0.023$, one-tailed) where experients scored higher than non-experients. Hypothesis 3 was that experients would score higher on schizotypy than non-experients, which was not supported. However, non-experients scored significantly higher on positive schizotypy ($z = 4.69$, $p < 0.001$, one-tailed).

Table 1

Comparison of Personality Scores of Participants Who Report Premonitions in Dreams With Those Who Do Not Report Them

	Control (N = 271)		*Experients (N = 80)*				
	Mean	*SD*	*Mean*	*SD*	*z*	*p*	*Cohen's d*
Neuroticism (EPQR-A)	13.47	5.10	14.43	4.89	1.67	0.093	0.19
Extroversion (EPQR-A)	11.91	3.85	12.04	3.98	0.33	0.742	0.03
Empathy (IRI)	105.60	16.75	111.40	17.79	2.89	0.004	0.33
Perspective-Taking	25.97	5.08	27.61	5.41	2.46	0.014	0.31
Emotional Comprehension	28.90	5.40	30.04	5.28	1.75	0.080	0.21
Positive Empathy	22.48	5.38	23.80	5.32	1.85	0.063	0.24
Negative Empathy	28.15	5.27	29.73	5.59	2.27	0.023	0.29
Schizotypy (O-LIFE)	1.50	0.90	1.66	0.72	1.75	0.080	0.19
Positive schizotypy	0.33	0.29	0.52	0.42	4.69	<0.001	0.52
Negative schizotypy	0.39	0.44	0.34	0.15	0.56	0.574	0.15

Premonitions in Waking States

Hypothesis 1 was that waking state experients would score higher on extroversion and neuroticism than non-experients on the EPQ, which also was not supported ($z = 0.75$, $p = 0.448$, and $z = 1.44$, $p = 0.147$, respectively—see Table 2). Hypothesis 2 was that experients would score higher on empathy than non-experients on the IRI, which was supported: the mean for experients was significantly higher than for non-experients ($z = 2.87$, $p = 0.004$, one-tailed). Two factors also showed significant differences, namely Emotional Comprehension ($z = 2.35$, $p = 0.018$, one-tailed) where experients scored higher than non-experients and Positive Empathy ($z = 3.29$, $p = 0.001$, one-tailed). Hypothesis 3 was that experients would score higher on schizotypy than non-experients on the O-LIFE, which was supported ($z = 2.78$, $p = 0.005$, one-tailed). Positive schizotypy (but not Negative) scored was also significantly higher than for non-experients ($z = 4.42$, $p < 0.001$, one-tailed).

Table 2

Comparison of Personality Scores of Participants Who Report Premonitions in Waking States With Those Who Do Not Report Them

	Control (N = 167)		*Experients (N = 184)*				
	Mean	*SD*	*Mean*	*SD*	*z*	*p*	*Cohen's d*
Neuroticism (EPQR-A)	13.96	4.86	13.29	5.34	1.44	0.147	0.15
Extroversion (EPQR-A)	12.00	3.81	11.84	3.99	0.75	0.448	0.01
Empathy (IRI)	108.50	16.64	104.59	17.66	2.87	0.004	0.35
Perspective-Taking	26.59	5.14	25.98	5.28	1.06	0.288	0.22
Emotional Comprehension	26.69	5.04	28.37	5.78	2.35	0.018	0.32
Positive Empathy	29.16	5.41	27.56	5.19	3.29	0.001	0.22
Negative Empathy	22.89	5.35	22.63	5.45	0.52	0.600	0.17
Schizotypy (O-LIFE)	0.41	0.34	0.31	0.31	2.78	0.005	0.30
Positive schizotypy	0.45	0.24	0.43	0.26	4.42	<0.001	0.52
Negative schizotypy	0.32	0.26	0.32	0.35	0.73	0.461	0.15

Logistic Regression Analysis

In addition, the comparison of the matrix with the correlation coefficients with the results of a Logistic Regression indicated that it is important to enter all variables into the analysis because the effect of personality variables on the two experience variables (Premonition Experiences in Dreams and waking experiences) should control for age and gender as well as psychological variables (e.g. Neuroticism, Extroversion, Empathy, Negative/Positive Schizotypy). This was necessary as the findings presented might be confounded by age and

gender (e.g. women report more non-dream-related premonitions and usually show higher scores for empathy, so the reported findings might be an artefact). For premonition in Dreams (yes/no), the results of the best model found that Empathy was the best predictor ($R^2 = 0.056$, ß = 0.027, $p = 0.005$), and Positive Schizotypy also turned out to be a predictor (ß = 0.72, $p = 0.008$). For premonition experiences in waking states (yes/no), the results of the best model also found that Empathy was the best predictor ($R^2 = 0.034$, ß = 0.020, $p = 0.005$). This suggests that empathy may underlie the two groups of experiences, while the gender and age variables contributed nothing further to the prediction.

DISCUSSION

The aim of this survey study was to explore comparisons between personality variables, such as neuroticism, extroversion, empathy and schizotypy. In agreement with numerous research findings (Claridge, 1997; McCreery & Claridge, 1995, 2002; Parra, 2006, 2011, 2012, 2013a), results show a strong association of empathy and (positive) schizotypy with premonitions, both in dreams and in waking states. Being cognisant of others' emotions and having positive empathy towards them represent the main difference between experients and non-experients.

It is interesting, however, that experients were not significantly higher on the neuroticism and extroversion scales of the EPQ-R, but did endorse content areas assessing more positive indicators of schizotypy, such as anomalous perceptual experiences, and cognitive empathy, such as emotional comprehension. Hearne (1984) and Reed (1988) also found the number of experiences reported to be inversely related to neuroticism, but I didn't find this association. Perhaps this last finding may help to explain the conflicting pattern of results relating psi experiences to neuroticism, such as those reported by Haight (1979).

Jung believed that if these meaningful coincidences can be said to occur, then it may be that there is a vital necessity for an individual to know about, for example, a relative's death, or some lost possession. Jung (1958) explains that such synchronistic phenomena occur when an inwardly perceived event (e.g. a dream, vision or premonition) is seen to have a correspondence in external reality; thus the inner image of the premonition has come true. In fact, Rattet and Bursik (2001) yielded findings supportive of Eysenck, although partial support was also found for Jung's model of psychological types. While extroversion was directly related to subjective precognitive experience, those reporting precognition were also higher in intuition. Thus, it was the extroverted intuitive personality type who was more likely to experience precognition. This finding cannot, however, be supported in this study.

Although schizotypal personality traits were associated with premonition experience, experients and non-experients did not differ in the negative dimensions of schizotypy. In agreement with previously reported findings (McCreery & Claridge, 1995, 2002) stronger scores of experiences were associated with higher levels of cognitive empathy and positive or 'healthy' schizotypy (Parra, 2011, 2012). Premonition experience also involves the transfer of emotions from one individual to another by paranormal means; in fact, empathy is the ability to 'put oneself into another's shoes', or experience

the outlook or emotions of another being within oneself, a sort of emotional resonance. Dossey (2009, p.131) argued that compassion and empathy are associated with premonitions for the same reason that a sense of connectedness with others keeps company with foreknowledge. The ability to use cognitive and emotional empathy in an integrated way seems important in many precognitive experiences, such as the experiences of healing practitioners or in aura vision experiences (Parra, 2013a).

It may well be problematic to endorse unusual beliefs, such as those present on the schizotypy scores, when one has little or no personal experience with this type of phenomenon. Schizotypy may result from incongruence between one's subjective experiences and one's belief system. Precognitive experiences supported by corroborating subjective experience provide people with a rationale for their beliefs; thus belief becomes congruent with experience. Future research with additional clinical indicators may shed light on whether congruence of personality traits, such as transliminality or thin boundaries, and alleged premonition experience are associated with enhanced psychological adjustment. Thus, such experiences should be understood as within the psychological realm, thus enabling continued research to understand their relation to human personality and behaviour, and may provide a greater understanding of these occurrences and of the people who experience them.

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