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Analysis of Haunt Experiences at a Historical Illinois Landmark

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ABSTRACT: Previous questionnaire and field research shows that the report and phenomenology of haunt experiences correlate with a number of perceptual-personality variables, suggesting that processes related to a shifting and focusing of attention mediate who will have an experience and who will not. There is additional evidence to suggest that Psychological Experiences and the perception of Physical Manifestations in haunts are mediated by different perceptual-personality variables. An investigation of a reported haunt at a historic mansion was conducted to conceptually replicate these findings, as well as to determine the relation of haunt experiences to aesthetic and environmental factors at the site. Twenty ‘experimentally-blind’ participants completed a battery of psychological measures and then visited three target and seven control areas. For each area, participants documented any anomalies they experienced on a checklist. The location of participants’ experiences corroborated independent witness accounts at the site, although participants also reported experiences at control areas. Consistent with earlier findings, the number of discrete experiences and the number of different categories of experience both correlated strongly with Participant Expectation and Traditional Paranormal Beliefs. However, Psychological Experiences and Physical Manifestations were not mediated by different sets of psychological factors. Basic features of the test areas showed no association with the cumulative pattern of participants’ reports. The probability of having a haunt experience might therefore derive from a noise-to-signal ratio. In this sense, perceptual-personality variables merely facilitate the perception of stimuli that produce haunt experiences, rather than inspiring witness reports. The haunt stimuli themselves in this case remain unidentified, but seem to be distributed probabilistically throughout the site.

From my perspective, the lack of funding for haunt and poltergeist research is disturbing for two main reasons. On the scientific level, the field loses valuable opportunities to study episodes of potentially strong evidential value when they become available. This is unfortunate because these large-scale phenomena stand in stark contrast to the typically small statistical effects obtained in the laboratory. On the social level, parapsychology is further marginalised when the plethora of media programs on the paranormal turn to self-styled “ghost-hunting” groups for research demonstrations and academically irresponsible commentary on the nature of ghost experiences (for discussions, see Houran, 2001, 2002). Without financial backing for bona fide field research, parapsychology will neither make theoretical strides in understanding haunts nor be able to combat the sensationalism associated with the topic that derives from individuals and enterprises with commercial interests.

One productive solution to both of these problems is for parapsychologists to follow the examples of researchers like Radin and Roll (1994) and Michaela Mahler (Maher, 2000; Maher & Hansen, 1995) who have enlisted the financial assistance of television producers who are interested in filming legitimate investigations for television documentaries. This approach has permitted serious studies of sites that may have otherwise been unfeasible, as well as brought an accurate portrayal of parapsychological fieldwork and its findings to the public. I was fortunate to adopt this approach when Mona Lisa Productions (Lyon, France) contacted me in August of 2001 to participate in a television documentary on haunt investigations. A suitable site was found locally, a historic mansion known as the Edwards Place, but unfortunately visitation policies at this site prohibited detailed photographic testing and the use of advanced instrumentation that can simultaneously measure and allow cross-correlations of various physical variables. A host of scientific and detection instruments has been used to document physical changes in the environment during haunts and poltergeist-like experiences (for a review, see Houran & Lange, 1998), so it was a deficit in this study not to be able to compare the findings from such applications at the Edwards Place to previous research. For instance, some haunt and poltergeist-like episodes seem related to the effects of electromagnetic radiation on the physical environment and human brain functioning (e.g., Persinger & Koren, 2001; Persinger, Koren, & O'Connor, 2001), but several authors note that not all cases can be conceptualised this way (e.g., Cornell, 2001, 2002; Maher, 2000; Mulacz, 1999).

Meaningful data can nevertheless be collected in the absence of instrumentation for the measurement of physical energies. In particular, most authorities agree that haunts are multivariate in nature (Houran &

Lange, 1996, pp. 1312-1313; 2001b). This view acknowledges that psychological factors are equally as important as potential physical energies in producing haunt experiences. For instance, Roll (1977) observed that “. . . only certain individuals hear or see anything while others who are present experience nothing” (p. 399), and readers are referred to Cornell (2000) for an informative illustration of this dilemma. Accordingly, understanding what perceptual-personality variables facilitate haunt experiences may help explain their aetiology and phenomenology. Indeed, Cornell (2002) underscores the fact that “one of the mysterious aspects of ghosts is why some people see them and others do not” (p. 79). Towards this end, my primary research program has been to investigate haunt experiences using other types of instruments—psychological tests. This approach has yielded interesting findings of theoretical importance.

In particular, during a recent field study of Edinburgh’s reputedly haunted “South Bridge Vaults,” Houran, Wiseman, and Thalbourne (in press-b) found that Paranormal Belief (New Age Philosophy and Traditional Paranormal Beliefs), Participant Expectation, Transliminality, Somatic-Hypochondriacal Tendencies, Synesthesia, and Hyperesthesia (specifically, heightened sensitivity to acoustic and visual stimuli) significantly distinguished haunt experiences from non-experiences¹. Multiple regression analyses further indicated that scores on Participant Expectation and “New Age Philosophy” (paranormal beliefs associated with interpersonal control) predicted the *number* of reported haunt experiences, whereas scores on Participant Expectation and Hyperesthesia predicted the number of different *categories* of haunt experience. These findings are consistent with the notion that the detection of haunt stimuli follows from a *shifting* of attention, while the content of haunt experiences derives from a *focusing* of attention. Increased *transliminality*—the tendency for psychological material to cross thresholds into or out of consciousness (see Lange, Thalbourne, Houran, & Storm, 2000b)—was associated with both of these processes.

Houran et al. (in press-b) also found preliminary evidence to suggest haunts comprise two distinct classes of phenomena with possibly different causes—Psychological Experiences that are grounded partly in psychophysiological mechanisms and Physical Manifestations which are perceived due to cognitive and motivational biases on the part of the

¹ Other questionnaire research by the author on self-reported paranormal beliefs and experiences (Houran & Thalbourne, 2001; Houran, Ashe & Thalbourne, in press-a; Houran, Kumar, Thalbourne, & Lavertue, 2002) conceptually replicates some of these findings.

experient. It was proposed that the two classes of haunt experience constitute a unidimensional, probabilistic hierarchy of events (Houran & Lange, 2001a; Houran et al., in press-b) due to a cognitive-labelling process regulated by belief in the paranormal. In other words, believers in the paranormal (especially those with beliefs indicative of a need for control over the environment) perceptually and cognitively link Psychological Experiences and Physical Manifestations together in a synesthetic-like fashion due to an enhanced associative network (Brugger, 2001).

This paper reports an attempt to conceptually replicate Houran et al.'s (in press-b) findings. This study also afforded the opportunity to administer additional perceptual-personality measures that follow from previous studies. For example, while scores on the *Whiteley Index* (a measure of hypochondriacal tendencies; Pilowsky, 1967) did not show any significant association with the pattern of haunt experiences at Edinburgh's "South Bridge Vaults," other indices of hypochondriasis and somatisation have evidenced positive relationships with self-reported experiences of haunts (Houran et al., 2002). The present study aimed to see if these results could be validated in a naturalistic setting. A measure of "anxiety sensitivity" was also included, i.e., fears of anxiety-related sensations that are based on beliefs that these sensations have harmful consequences. This construct is distinguishable from trait anxiety, which denotes a proneness to respond fearfully to a wide range of stressors.

By contrast, anxiety sensitivity denotes a specific tendency to respond fearfully to one's own bodily sensations. This construct is particularly appropriate to measure in the present context given the argument (Houran et al., 2002; Lange & Houran, 1998, 1999, 2001) that some haunt and poltergeist episodes may be the equivalent of outbreaks of contagious psychogenic illness, fuelled by fearful reactions to ambiguous physiological stimuli. Lastly, it was of interest to determine whether basic aesthetic and environmental features of the various areas within the test site predicted haunt experiences.

METHOD

Participants

A convenience sample of twenty people ($M_{\text{age}} = 35.3$ years, $SD = 13.4$, range = 18-67, 70% women) was identified via a snowball sampling approach to participate in this study. This method was used to assist in identifying participants that were trustworthy and would take the

proceedings seriously. They were randomly divided into two groups of ten people each. Only one group of participants was tested on a given occasion, and there were two consecutive nights of testing. Participants were not informed of the name and location of the test site until a few days prior to the study, which occurred in December of 2001.

Measures

Eight measures of various perceptual-personality variables were administered in random order. These measures are briefly described below, and all have psychometric properties that compare favorably to similar instruments (Borg & Gall, 1973).

1. The *Cognitions About Body and Health Questionnaire* (Rief, Hiller, & Margraf, 1998) contains 31 items to be rated on a 4-point scale (completely right, mostly right, mostly wrong, completely wrong). The items form five subscale scores: Catastrophizing Cognitions (14 items), Autonomic Sensations (4 items), Bodily Weakness (6 items), Intolerance of Bodily Complaints (4 items), and Health Habits (3 items).
2. *Screening for Somatization Symptoms* (SOMS-2) is a questionnaire that includes all items relevant for somatization disorder. Respondents answer “yes” when a symptom is present in the last 2 years, when doctors did not find a sufficient explanation, and when the symptoms significantly bothered the respondent. Although the original version (cf. Rief, Hiller, Geissner, & Fichter, 1995) covered all 35 symptoms from the *DSM-III-R* list of somatization disorder (SD), the modified version used in the present study included all *DSM-IV* SD symptoms, as well as those of *ICD-10* SD and *ICD-10* somatoform autonomic dysfunction (Rief, Hiller, & Heuser, 1997). Thus, the questionnaire consisted of 53 somatization symptoms and 15 inclusion and exclusion criteria mentioned in the classification approaches (such as duration of illness or frequency of doctor visits). The number of positively identified symptoms was totaled for the somatization index. See Rief et al. (1997).
3. The *Revised Transliminality Scale* (Lange et al., 2000b) is a Rasch (1960/1980) scaled version of a 29-item, “true-false” instrument developed by Thalbourne (1998) to measure the concept of transliminality. While all 29 items of the original scale (Form B) are administered, only 17 are scored. Thus, there is a single, linear

dimension underlying these 17 items, which span seven psychological domains: Hyperesthesia, (fleeting) Hypomanic or Manic Experience, Fantasy-Proneness, Absorption, Positive (and perhaps obsessional) Attitude Toward Dream Interpretation, Mystical Experience, and Magical Ideation. Thalbourne (2000) provides a timely review of various correlates of this construct, and recent studies (Lange et al., 2000b; Crawley, French, & Yesson, 2002) support the construct validity of the scale.

4. *Synesthesia*. This index consists of seven true/false items constructed by Tellegen as a result of factor analysis of his Absorption Scale (Tellegen & Atkinson, 1974). Representative items include, "Different colours have distinctive and special meanings for me," "Sometimes I can change a noise into music by the way I listen to it," and "I find that different odours have different colours."

We cautioned elsewhere (Houran et al., in press; Thalbourne, Houran, Alias, & Brugger, 2001) that rather than measuring synesthesia as defined in rigid neurological terms, this scale likely addresses forms of "pseudosynesthesia" as well, e.g., artistic metaphor and experiencing synesthesia through drug use. Therefore, Tellegen's Synesthesia Scale is perhaps best regarded as a measure of "weak" synesthesia, which pertains to cross-sensory correspondences expressed through language, perceptual similarity, and perceptual interactions during information processing (Martino & Marks, 2001).

5. *Hyperesthesia*. This measure is taken from Thalbourne (1996) and consists of six true/false items. These items reflect strong reactions to environmental stimuli and were chosen mainly from the MMPI and the Perceptual Aberration Scale. Three of the test items overlap with items on the Revised Transliminality Scale, so we excluded these items from the scoring of the present scale. Thus, hyperesthesia was indexed by the following three questions: "Ordinary colours sometimes seem much too bright to me (without taking drugs)," "My hearing is sometimes so sensitive that ordinary sounds become uncomfortable," and "At times I hear so well it bothers me." It is important to note that these questions limit the meaningfulness of this index to sensitivity to visual and acoustic stimuli.
6. *Whiteley Index* (Pilowsky, 1967). This 14-item dichotomous (true/false) test is one of the most commonly used and psychometrically sound self-rating scales for hypochondriacal tendencies. Representative items include, "Are you bothered by many

pains and aches?,” “Do you find that you are often aware of various things happening in your body?,” and “Do you find that you are bothered by many different symptoms?”

7. *Anxiety Sensitivity Index-11* (Blais, Otto, McNally, Zucker, McNally, Schmidt, Fava, & Pollack, 2001) is an 11-item amended version of Reiss, Peterson, Gursky, and McNally's (1986) 16-item Anxiety Sensitivity Index. The revised version taps two primary aspects of anxiety sensitivity: fears of somatic sensations (8 items) and fears of loss of mental control (3 items). Representative items of these two subscales are “It scares me when I become short of breath” and “It scares me when I am unable to keep my mind on a task,” respectively.
8. *Revised Paranormal Belief Scale* (RPBS; Tobacyk, 1988). This measure consists of 26 statements that are to be rated on seven-point Likert-type scales, and it is perhaps the most widely used measure of paranormal belief. Lange, Irwin, and Houran (2000a) showed that the long-standing controversy surrounding the RPBS' factor structure was partly due to differential item functioning, i.e., sex and age bias. Once these psychometric issues are remedied via a statistical Rasch (1960/1980) “top-down purification” procedure (Lange et al., 2000a) that assesses the scaling properties and dimensionality of the test items, we find the RPBS comprises only two moderately correlated subscales. One is interpreted as “New Age Philosophy” (NAP; beliefs that seem to instill more a sense of control over interpersonal and external events and therefore benefit individuals, e.g., psi, reincarnation, astrology; 11 items) and the other is interpreted as “Traditional Paranormal Beliefs” (TPB; beliefs that are more culturally transmitted and socially beneficial, e.g., the devil, Heaven and Hell, witchcraft; 5 items). Several studies (Houran, Thalbourne, & Ashe, 2000; Houran & Lange, 2001c; Houran, Irwin, & Lange, 2001) support the construct validity of these interpretations. It is also important to note that Lange and Thalbourne (in press) recently found that the Australian Sheep-Goat Scale (ASGS; Thalbourne & Delin, 1993) is Rasch scalable as well. Moreover, belief items preceded items referring to paranormal experiences in the ASGS' Rasch item hierarchy, while the items' fit patterns provided additional support for the existence of Traditional Paranormal Beliefs and New Age Philosophy related factors.
9. *Haunt Experiences Checklist*. This measure (see Appendix) was designed specifically for this study by collating (i) items from the Anomalous Experiences Inventory (Kumar, Pekala, & Gallagher, 1994)

that deal with entity encounter experiences (cf., Houran & Thalbourne, 2001; Kumar & Pekala, 2001); (ii) descriptions of various anomalous experiences reported by experiencers during the Edinburgh study (Houran et al., in press-b); and (iii) reports of anomalous experiences from the spontaneous case collection used by Lange, Houran, Harte, and Havens (1996). The coefficient alpha (measure of internal consistency) for this checklist in the present sample is .83, which exceeds Kline's (1986) criterion of .70.

Background on the Test Site

Built in 1833 by Thomas Houghan, this is the oldest house in Springfield, Illinois (USA) still on its original foundation (see Figure 1). In Abraham Lincoln's time it was set in a 14-acre grove of elm, walnut, and maple trees on the northern edge of town. Benjamin and Helen Dodge Edwards bought the residence in 1843 and enlarged it to 15 rooms, with enough space to host the entire Illinois Legislature for dinner.



Figure 1. Built in 1833, the Edwards Place is the oldest house in Springfield, Illinois (USA) still on its original foundation. The mansion was deeded to the Springfield Art Association in 1913 and now provides visitors with an interesting blend of historical tours and a gallery filled with contemporary art. The site is associated with many credible reports of haunt and poltergeist-like phenomena.

The couple made their home a centre of Springfield's early social and political life, and Abraham and Mary Todd Lincoln frequently visited. Lincoln reportedly once addressed a gathering from an upstairs window, and his rival Stephen Douglas held a political rally there.

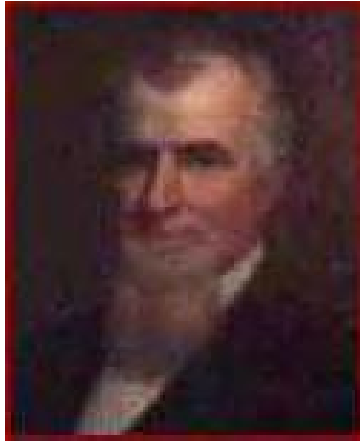


Figure 2: Benjamin Edwards, born ten years after Lincoln, was the son of Ninian Edwards, first Territorial Governor of Illinois. His older brother, also named Ninian, married Elizabeth Todd, who was Mary Todd Lincoln's oldest sister. Both Benjamin (Yale Law School) and Ninian (Transylvania University) became lawyers and moved to Springfield.

The house also contains artifacts connected to the Lincolns, such as the black horsehair sofa from their courting days (which belonged to Ninian Edwards, whose house no longer stands), and a wooden picture frame made of floorboards from the Lincoln home. Now owned by the Springfield Art Association, the beautifully preserved mansion offers historical tours and a gallery filled with contemporary art.



Figure 3: The Edwards Place contains seven portraits by George P. A. Healy, former court painter to King Louis Phillippe of France, who lived with the Edwards family for a year in the 1850s. Healy, of course, is famous for his Lincoln portraits that hang in places such as the White House, National Portrait Gallery, and the Chicago Historical Society. As one walks around the first-floor rooms of the mansion, one sees his oil likenesses of Benjamin and Helen, Ninian and Elizabeth, and others from Springfield. This portrait depicts Elizabeth Edwards, apparitions of whom have been reported by several independent witnesses at the Edwards Place.

The Edwards Place is registered as a historical landmark in Illinois, but surprisingly its significance does not seem to be appreciated by the general public. According to the administration of the Springfield Art Association, the ghostly folklore associated with the site is even less well known (and is not publicised in tourism information about the mansion). Dean Adkins, former Executive Director of the Springfield Art Association, provided detailed information about witness accounts after the study was completed. These accounts reportedly came from former staff and spanned many years and involved apparent psychokinetic-like phenomenon (erratic functioning of mechanical and electrical devices and object movements), visual apparitions, anomalous odours and sounds, as well as sensed

presences. Mr. Adkins himself reported several experiences, including a vivid sighting of a visual apparition of Elizabeth Edwards on the upper level and repeated movements of various objects. Some object movements were apparently perceived collectively by his staff. He also confided that around the time prior to this investigation the Springfield Art Association received numerous telephone calls from their security company, which was frequently registering movements of several feet in height in certain areas of the mansion well after the house was closed and secured for the night. Upon inspection, the security company found no mechanical malfunction of the various motion detectors. Mr. Adkins stated that unusual experiences were more commonly reported in previous years when caretakers actually resided in the house, and thus spent long hours on the premises. Today, no one resides or typically spends long, continuous hours in the mansion. Moreover, the premises are open to visitors only during art show events or guided, public tours. These factors might contribute to the paucity of contemporary reports.

In order to expose participants efficiently to a representative sample of areas within the mansion, we asked Dean Adkins to select ten test areas that included locations where anomalous events occurred. Based on past and recent reports, Mr. Adkins identified three areas in which experiences reliably clustered and then selected seven control sites in which experiences were not historically reported. The author and assistant experimenters had no advance knowledge of how many target areas there were or where these were situated in the mansion.

Procedure

Participants took part in one of two sessions held over the course of two consecutive days. Again, each session involved a group of ten people. The first part of each testing session took place in a central parlour room. Participants arrived at the mansion at the predetermined time, sat down on a row of chairs, and listened to a brief introduction. Face Sheets asking about demographics (age, gender) were attached to clipboards, and participants were allowed to choose their own seats. Participants were instructed that they would visit ten rooms in the Edwards Place, which were clearly marked "1" through "10." Participants were initially assigned to rooms according to their seating arrangement, which randomised the participants in each session across the ten test areas. Neither Dean Adkins nor any of his personnel (who potentially could have cued participants about the test areas) facilitated the experimental proceedings in any way.

At the start of the experiment, the author briefly outlined the purpose of the study, and then asked participants to complete the questions

on the Face Sheet. Among these questions was an index of the participants' expectations of having an experience during the session: "Do you expect to experience any unusual phenomena in Edwards Place today?" This index of Participant Expectation had five response formats: Definitely Yes (scored 2), Probably Yes (scored 1), Uncertain (scored 0), Probably No (scored -1), and Definitely No (scored -2). We also asked participants to rate their Prior Knowledge about the Edwards Place before taking part in the session via two questions: (i) "Have you heard about the Edwards Place (e.g., from acquaintances, books or newspaper articles) and (ii) "Have you heard (e.g., from acquaintances, TV shows or newspaper articles) *where* in the Edwards Place people have reported experiencing unusual phenomena?" These questions also had five response formats: Definitely Yes (scored 2), Probably Yes (scored 1), Uncertain (scored 0), Probably No (scored -1), and Definitely No (scored -2).

Participants were informed in writing that their responses were confidential. As part of the participants' informed consent, it was made clear that anyone could terminate their participation in the study at anytime without penalty (Note: no participants withdrew from the study). After answering these initial questions, participants completed the eight perceptual-personality measures and returned these immediately in a sealed envelope. All experimenters were blind as to the participants' responses on the Face Sheet and these additional measures. Participants were subsequently instructed:

You will spend approximately ten minutes alone in each of ten different areas in this mansion. While you are in each room, you are asked to complete a questionnaire about any unusual experiences you have. Your responses are anonymous, so please answer honestly. You may withdraw from these proceedings at anytime. To do so, simply inform one of our facilitators. Clinicians are available to talk with you privately about any experiences that have troubled you. We will all gather for a debriefing after the proceedings.

Assistant experimenters escorted each participant individually to his or her assigned room, while other assistant experimenters monitored these actions. After each participant visited the ten test areas and completed the Haunt Experience Checklist for each room, the group was reassembled in the central parlour room. There, Dean Adkins made a presentation about the historical significance of the home.

After the two testing sessions were completed, Michael Jawer (an independent researcher who is interested in the relation between paranormal

experiences and sensitivity to environmental stimuli, see e.g., Jawer, 2000, 2002) visited each of the ten test areas and assessed each in terms of number of pieces of artwork, temperature, humidity, and number of vents. Mr. Jawer had no advance knowledge of ghostly reports at the Edwards Place or the participants' responses to the research measures.

RESULTS

Participants' Advance Knowledge of Site

The participants reported that they were not familiar with the Edwards Place site prior to participating in this study ($M = -1.80$, $SD = .69$; scores on this index can range from 2 to -2) and that they had virtually no conscious knowledge about details concerning where in the mansion previous witnesses reported experiences ($M = -1.95$, $SD = .22$; scores on this index can range from 2 to -2).

Patterns in the Reported Haunt Experiences

Thirteen out of twenty people (65%) reported at least one anomalous experience, with the mean number of experiences for experiencers being 11.8 ($SD = 11.9$, range = 1–40) and the mean number of different categories of experiences being 4.9 ($SD = 4.3$, range = 1–15). Upon reflection this is an enormously high rate, which suggests the possibility of statistically significant effects in terms of perceptual-personality variables even with the small sample size.

Table 1 gives the distribution of the various categories of experience reported during the study. By far, most experiences involved unpleasant odours, sensations of cold, negative emotions, and bodily sensations. The least reported experiences concerned apparitions, voices, and physical manifestations in the form of erratic functioning of appliances.

Previous researchers report that haunt experiences tend to focus or cluster in certain areas within a location and that the areas people report as being the centers of this activity remain consistent over time (e.g., Maher, 1999; Wiseman et al., in press). This trend was only partially observed in the present data. In particular, ten of the twenty-five varieties of haunt experience showed trends to occur predominantly in certain test areas (see right column, Table 1).

Table 1.
Frequency Distribution of Experiences from the Haunt Phenomena Checklist

Category of Haunt Experience	Number of Discrete Experiences	Location of Most Reports Where Applicable	Spatial Location of Clustered Reports
Nondescript visual images	8	---	---
Ghost or apparition	1	---	---
Pleasant odour	7	Area 6	Ground Level
Unpleasant odour	27	Areas 1, 2, 10	Upper Level
Objects (dis)appearing	0	---	---
Voices	2	---	---
Erratic functioning of mechanical/electrical devices	3	---	---
Sounds	11	---	---
Sensation of cold	19	Areas 9, 10	Ground Level
Sensation of heat	6	Area 1	Upper Level
Non-threatening physical touches	1	---	---
Positive emotion	7	Areas 7, 9	Ground Level
Negative Emotion	14	Area 3	Upper Level
Bodily sensations	17	Area 4	Upper Level
Unusual taste in mouth	4	Area 7	Ground Level
Possessed by outside force	0	---	---
Physical body/objects levitating	0	---	---
Angels or demons	0	---	---
Elves, fairies, or little people	0	---	---
Communicated with the dead	0	---	---
Feeling of being watched	12	Areas 3, 7, 9	Upper Level
Déjà vu	3	---	---
Feeling of breeze or wind	3	---	---
Unseen presence	7	Areas 1, 2	Ground Level
Physically injured	0	---	---

Historically, Areas 1, 2, and 4 in the Edwards Place are associated with reports of anomalous phenomena, so these areas are termed “active” spots. For the purposes of the present study, our test areas were categorised as either “active” ($N = 5$) or “inactive” ($N = 5$) according to the total number of participants’ experiences associated with each area during this study. According to this ranking, the participants validated Areas 1 and 2 as centers of activity, while Area 4 was not confirmed as an active spot.

The distinction used here between “active” and “inactive” areas seems justified. In particular, the difference in number of experiences between the active ($M = 21.0$, $SD = 4.06$) and inactive rooms ($M = 10.20$, $SD = 5.67$) was significant, $t(8) = -3.46$, $p = .009$. This classification is further validated by the fact that four of the five “active” rooms were also areas in which the most experiences were reported across participants as well (M for active rooms = 5.8 , $SD = .84$; M for inactive rooms = 4.2 , $SD = .84$). This difference is also statistically significant, $t(8) = -3.02$, $p = .016$.

However, our participants reported experiences in every test area, including the inactive (control) areas. In the case of the Edwards Place at least, it seems that haunt experiences (and hence the stimuli responsible for them) are clearly not relegated exclusively to certain rooms. It might be that we are dealing with variances in perceptions due to differences in the *distribution* of the instigating stimuli throughout the site—much in the same way that the *content* of haunt experiences forms a probabilistic hierarchy (Houran & Lange, 2001a; Houran et al., in press). Aesthetic and environmental cues, which naturally tend to vary across areas within a given site, might unwittingly serve as such instigating stimuli for a haunt experience. Therefore, in a later section the aesthetic and environmental aspects of the active and inactive areas of the Edwards Place are compared.

Experients vs. Non-Experients

Descriptive statistics (mean and standard deviation) for the measures are given in Table 2. Experients ($N = 13$) scored higher than Non-Experients ($N = 7$) on nearly every perceptual-personality variable, but only two of these effects reached statistical significance. In particular, Experients reported significantly more Expectation (of having an anomalous experience) and Traditional Paranormal Beliefs than Non-Experients. A Bonferroni correction (.05) for multiple analyses indicated that these findings were robust. It could also be argued that there was a suggestive trend for Experients to score higher on the Revised Transliminality Scale than Non-Experients.

Table 2.

Descriptive Statistics on the Research Measures for the Complete Sample ($N = 20$), Haunt Experiencers ($N = 13$), and Non-Experiencers ($N = 7$).

	Full Sample		Experiencers		Non-Experiencers		$F(1, 18)$	p
Variable	M	SD	M	SD	M	SD		
Transliminality	23.01	3.60	23.99	3.26	21.19	3.73	3.07	.09
Whitely Index	3.75	2.27	4.08	2.43	3.14	1.95	0.76	.39
Somatization Index (SOMS-2)	6.60	6.64	7.62	7.23	4.71	5.38	0.86	.37
Catastrophising Cognitions	11.20	4.91	11.00	5.51	11.57	3.95	0.06	.81
Autonomic Sensations	5.10	1.48	5.38	1.33	4.57	1.72	1.40	.25
Bodily Sensations	6.00	2.69	5.77	2.52	6.43	3.15	0.26	.62
Intolerance of Bodily Complaints	4.95	1.43	5.23	1.48	4.43	1.27	1.46	.24
Fears of Somatic Sensations	7.95	5.91	9.08	6.91	5.86	2.67	1.38	.25
Fears of Loss of Mental Control	1.15	1.69	1.31	1.93	0.86	1.22	0.31	.56
Health Habits	4.55	1.19	4.54	1.27	4.57	1.13	0.00	.96
Synesthesia	4.10	1.89	4.46	1.76	3.43	2.07	1.39	.25
Hyperesthesia	0.55	0.76	0.62	0.78	0.43	0.79	0.27	.61
New Age Philosophy	25.21	4.18	26.27	2.71	23.26	5.79	2.56	.13
*Traditional Paranormal Beliefs	26.95	4.19	28.69	3.92	23.71	2.44	9.21	.00
*Participant Expectation	0.10	0.79	0.46	0.66	-0.57	0.53	12.58	.00

Note: *two-tailed test, statistically significant after Bonferroni correction (.05) for multiple analyses

Associations Among the Perceptual-Personality Variables and Their Relation to Reported Haunt Experiences

Correlational analyses summarised in Table 3 show that the number of individual haunt experiences reported by our participants and the categories of experience were related only to the Participants' Expectation of having an experience and their scores on Traditional Paranormal Beliefs. These findings partially replicate patterns found by Houran et al. (in press-b). The effect of participant age on the global patterns of the haunt reports were not robust, and this agrees with the conclusions from previous studies

that age and gender are not significant mediators of paranormal ideations (see e.g., Lange, Irwin, & Houran, 2001).

Table 3.

Spearman Rank-Order Correlations Between Number of Reported Discrete Experiences and Number of Different Reported Categories of Experience and Perceptual-Personality Variables for Complete Sample ($N = 20$)

Variable	Number of Discrete Experiences	Number of Different Categories of Experience
Age	-0.51*	-0.50*
Gender (men = 1, women = 2)	-0.14	-0.08
Transliminality	0.15	0.21
Whitely Index	0.16	0.12
Somatization Index (SOMS-2)	0.29	0.21
Catastrophizing Cognitions	-0.09	-0.09
Autonomic Sensations	0.21	0.25
Bodily Sensations	-0.01	-0.06
Intolerance of Bodily Complaints	0.19	0.23
Health Habits	-0.01	-0.09
Fears of Somatic Sensations	0.08	0.14
Fears of Loss of Mental Control	0.03	-0.07
Synesthesia	0.18	0.23
Hyperesthesia	0.36	0.29
New Age Philosophy	0.13	0.18
Traditional Paranormal Beliefs	0.57***	0.66***
Participant Expectation	0.83***	0.83***

Note: * $p < .05$, *** $p < .001$ and significant using a Bonferroni correction (.05) for multiple analyses

A separate paper will report and discuss the results of Rasch (1960/1980) scaling analyses on the collective responses to the Haunt Experience Checklist. As in Houran and Lange (2001a) and Houran et al. (in press-b), Rasch scaling can be used to obtain a linear measure of the occurrence of the anomalous experiences. Specifically, the frequency by which each experience was reported is modelled as the outcome of a Poisson process. Rather than just an analysis of the categories of experience in terms of their observed frequencies, Rasch scaling assesses the

psychometric scaling properties and dimensionality of a set of items (in this case the reported categories of experiences) in relation to extraneous variables, such as age and gender biases.

“A Room with a Clue?” Environmental and Aesthetic Characteristics of the Test Areas in Relation to Reported Haunt Experiences

It was of interest to test for differences between the active and inactive rooms in terms of some of their salient environmental and aesthetic characteristics. Table 4 shows that there were no statistically significant differences between the active and inactive areas in terms of the number of pieces of artwork (specifically paintings and sculptures), temperature, humidity, and the number of vents per each room. Consequently, there is no evidence that these obvious environmental features served as contextual variables to prime or stimulate the experiences reported by the participants.

Table 4.

Descriptive Statistics on the Environmental and Aesthetic Characteristics of the Active ($N = 5$) and Inactive ($N = 5$) Areas of the Edwards Place.

Characteristic	Active Rooms		Inactive Rooms		$F(1, 8)$	p
	M	SD	M	SD		
Number of Art Works	1.40	1.67	2.40	2.30	0.62	.46
Temperature	66.94	0.52	67.64	0.86	2.40	.16
Humidity	53.20	0.84	53.70	2.22	0.22	.65
Number of air Vents	2.20	1.48	2.40	1.14	0.06	.82

Convergent Evidence for Two Distinct Classes of Experience?

The twenty-five items from the Haunt Experiences Checklist were divided into two Classes of Experience (Psychological Experiences vs. Physical Manifestations). Following the rationale outlined in Houran et al. (in press-b), Psychological Experiences comprised the summed total of visual apparitions (and related visual imagery), bodily sensations, emotional responses, and sensed presences (i.e., items #3, 4, 5, 6, 7, 8, 9, 10, 23, 25). The Physical Manifestations class consisted of the summed total of temperature changes, auditory experiences, physical manifestations, and olfactory experiences (i.e., items #1, 2, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24).

Auditory and olfactory experiences were designated as Physical Manifestations due to the way participants described these experiences. In other words, these phenomena seemed to reflect actual environmental stimuli available to the participants, as opposed to hallucinatory-type stimuli. For instance, the auditory phenomena primarily consisted of ambiguous sounds rather than intelligible phrases. Likewise, the olfactory experiences corresponded to potentially natural stimuli in the mansion. Despite a striving for objectivity and consistency with previous work, these demarcations are obviously somewhat subjective in nature as they reflect the author's interpretation.

Consistent with the observation that haunt experiences can incorporate many modalities and different types of phenomena, there is a strong positive correlation between Psychological Experiences and Physical Manifestations ($\rho = .86, p < .001$). Table 5 gives the correlations between these two classes of experience and the perceptual-personality variables.

Table 5.

Spearman Rank-Order Correlations Between Class of Experience (Psychological Experience vs. Physical Manifestations) and Perceptual-Personality Variables for Complete Sample ($N = 20$).

Variable	Psychological Experiences	Physical Manifestations
Age	-0.39	-0.44
Gender (men =1, women =2)	-0.02	-0.22
Transliminality	0.15	0.10
Whitely Index	0.05	0.09
Somatization Index (SOMS-2)	0.19	0.26
Catastrophizing Cognitions	0.32	0.18
Autonomic Sensations	0.25	0.26
Bodily Sensations	0.11	0.14
Intolerance of Bodily Complaints	0.05	0.02
Health Habits	-0.09	-0.33
Fears of Somatic Sensations	0.19	0.04
Fears of Loss of Mental Control	-0.09	0.04
Synesthesia	0.15	0.15
Hyperesthesia	0.24	0.35
New Age Philosophy	0.05	-0.02
Traditional Paranormal Beliefs	0.50*	0.32
Participant Expectation	0.78***	0.67***

Note: * $p = .02$, *** $p < .001$ and significant using a Bonferroni correction (.05) for multiple analyses

Unlike the moderate patterns found by Houran et al. (in press-b), the two classes of experience were not differentiated effectively based on scores on the perceptual-personality measures. In fact, the only variables that significantly correlated with the two classes of experience were Participant Expectation and perhaps Traditional Paranormal Beliefs.

Interestingly, comparing the distribution of Psychological Experiences and Physical Manifestations spatially in the Edwards Place (cf. Table 1), we see that both classes of experience (when reported) were evenly distributed between the Ground and Upper Levels.

DISCUSSION

Contrary to Houran et al. (in press-b), these two perceptual-personality variables showed stronger associations with Psychological Experiences as compared to Physical Manifestations, but tests of difference on these correlations (Hinkle, Wiersma, & Jurs, 1988, p. 279) were non-significant. Assuming the distinction made here is valid concerning two classes of experience, these data suggest that the perceptual-personality variables did not differentially mediate the perception and/or report of Psychological Experiences versus Physical Manifestations. This finding contrasts with conclusions by Houran et al. (in press-b).

Conceptually replicating previous studies (e.g., Maher, 1999; Wiseman et al., in press), the participants had experiences primarily at the locations specified by previous independent witnesses according to administration at the Edwards Place. However, *control* areas were associated with some experiences as well, and this speaks to Houran and Brugger's (2000) argument that anomalous experiences do not uniquely differentiate target from control areas. This suggests that stimuli which mediate or are directly responsible for haunt experiences are distributed probabilistically throughout a site—similar to the finding that haunt and poltergeist-like experiences involve a probabilistic hierarchy of events (Houran & Lange, 2001a; Houran et al., in press-b). The question now is whether the data can provide insights concerning the nature of the instigating stimuli at the Edwards Place.

Validating the basic findings from Houran et al. (in press-b), scores on Traditional Paranormal Beliefs and Participant Expectation strongly predicted whether a participant reported an experience or not, as well as the number of discrete experiences reported by a participant and the number of different categories of experience perceived. However, the other perceptual-personality variables individually had no significant effect on the patterns of

the haunt experiences. There is inadequate statistical power to estimate the collective effect of these variables through multiple regression analyses, but we can conclude that the experiences at the Edwards Place cannot be attributed to the isolated influence of strong somatic-hypochondriacal tendencies, heightened visual and acoustic sensitivity to the environment, or the ability to experience environmental stimuli in a cross-modal fashion (weak synesthesia). Higher levels of transliminality also failed to correlate with the phenomenology of the experiences, although it could be argued that this variable did suggestively distinguish experiencers from nonexperiencers. These cumulative results are consistent with previous work implying that individuals initially have an experience due to a shifting of attention, i.e., they are primed and motivated to detect stimuli that form the basis of an anomalous experience (Houran et al., in press-b). This could mean that experiencers attempt to find “evidence” for their paranormal beliefs by searching for and interpreting ambiguous stimuli in the environment in accordance with these beliefs, or it could mean that experiencers were in a state of arousal that was conducive for facilitating the perception of psi. Unlike my earlier results at the Edinburgh Vaults, however, the perceptual-personality variables that relate to environmental and bodily sensitivity do not seem to play a significant role in how experiencers perceive or filter the stimuli that define haunt experiences.

I have suggested that contextual factors—such as the physical features of the location in which the experience occurs—help shape the content of haunt experiences (for a review of my work in this area, see: Houran, 2000; Lange & Houran, 2001). Experiencers may not be consciously aware of such cueing, but in the case of the Edwards Place witnesses may be reacting to the physical atmosphere including variations in temperature, humidity, subtle smells or tactile sensations mediated by the number of air vents in a test area, or even how various types of artwork displayed throughout the mansion affect one’s mood. This idea received no support from the present data for the participants’ experiences, but the influence of physical variables not measured in this study such as localised electromagnetic fields (Persinger & Koren, 2001) or infrasound (Tandy & Lawrence, 1998; Tandy, 2000) cannot be ruled out.

My interpretation is that the basic environmental features of the Edwards Place did not serve as context effects for the participants’ experiences, and neither did any advance conscious knowledge of the site that the participants might have had. There was no systematic influence of the perceptual-personality variables on the patterns of reported experiences, except for the consistently strong effects of Participation Expectation and Traditional Paranormal Beliefs. This latter effect is important, because this

psychological set likely motivated experiencers to notice and give credence to certain stimuli.

Furthermore, it is possible that experiencers were responding to the same set of stimuli in the respective test areas, because reports clustered in locations where the reports of previous, independent witnesses also clustered. This clustering of reports included control sites as well, which again reinforces the idea that haunt experiences are instigated by stimuli that are distributed probabilistically throughout a site. This may explain why anomalous experiences are not unique to “haunted” sites (Houran & Brugger, 2000)—the raw materials or stimuli for a haunt may be found in any environment, but the relative distribution of those stimuli determines whether or not an individual will perceive it in the absence of a personality structure that predisposes an individual to be sensitive to the physical environment and changes in his or her physiology. This hypothesis—which addresses Cornell’s (2002) question of why some people have experiences and others do not—applies to either conventional or parapsychological stimuli and basically equates the probability of having a haunt experience to the concept of a noise-to-signal ratio. In other words, perceptual-personality variables seem to merely facilitate the perception of stimuli that produce haunt experiences, as opposed to being the cause of haunt experiences.

Unfortunately, this study does not elucidate the nature of the stimuli that instigate haunt experiences at the Edwards Place. It might be that people respond differently to a host of ambiguous (albeit conventional) stimuli that can be interpreted as ghostly under the right context (Houran, 1997), in which case we should not always expect systematic interactions among environmental variables, anomalous experiences, and perceptual-personality variables. On the other hand, the fact that independent witnesses across many haunt cases—including the Edwards Place—report phenomena reliably in certain areas and not others implies that the instigating stimuli for a given haunt site are likely consistent over time. The continued application of advanced instrumentation will be necessary to determine if the nature of the instigating stimuli in good cases can be understood in terms of conventional energies or physical processes. After reflecting on the present data and previous work, I speculate that the most promising cases for making progress in our understanding of haunt stimuli using instrumentation are ones not corroborated by “psychics” (who might be individuals with a sufficient perceptual-personality structure to perceive the stimuli above the ambient “noise”) but rather locations where the instigating stimuli are so strong or the ambient “noise” so low that even non-sensitive individuals can reliably detect and experience the stimuli vividly.

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REFERENCES

- Blais, M. A., Otto, M. W., Zucker, B. G., McNally, R. J., Schmidt, N. B., Fava, M., & Pollack, M. H. (2001). The Anxiety Sensitivity Index: Item analysis and suggestions for refinement. *Journal of Personality Assessment*, 77, 272-294.
- Borg, E. R., & Gall, M. D. (1973). *Educational research* (2nd ed.). New York: McKay.
- Brugger, P. (2001). From haunted brain to haunted science: A cognitive neuroscience view of paranormal and pseudoscientific thought. In J. Houran & R. Lange (Eds.), *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 195-213). Jefferson, NC: McFarland.
- Cornell, A. D. (2000). The seen and unseen ghost. *International Journal of Parapsychology*, 11, 143-150.
- Cornell, A. D. (2001). *Ghosts and electromagnetism*. Paper presented at the 25th Annual Conference of the Society for Psychical Research. Clare College, Cambridge University, Sept. 14-16.
- Cornell, A. (2002). *Investigating the paranormal*. New York: Helix Press.
- Crawley, S. E., French, C. C., & Yesson, S. A. (2002). Evidence for transliminality from a subliminal card guessing task. *Perception*, 31, 887-892.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1988). *Applied Statistics for the Behavioral Sciences* (2nd ed.). Boston, MA: Houghton Mifflin.
- Houran, J. (1997). Ambiguous origins and indications of "poltergeists." *Perceptual and Motor Skills*, 84, 339-344.
- Houran, J. (2001). Review of *The Field Guide to Ghosts and Other Apparitions*. *Journal of Scientific Exploration*, 15, 293-296.
- Houran, J. (2002). Review of *The Encyclopedia of Ghosts and Spirits* (2nd ed.). *Journal of Scientific Exploration*, 16, 295-297.

- Houran, J., Ashe, D. D., & Thalbourne, M. A. (in press-a). Encounter experiences in the context of mental boundaries and bilaterality. *Journal of the Society for Psychical Research*.
- Houran, J., & Brugger, P. (2000). The need for independent control sites: A methodological suggestion with special reference to haunting and poltergeist field research. *European Journal of Parapsychology*, 15, 30-45.
- Houran, J., Irwin, H. J., & Lange, R. (2001). Clinical relevance of the two-factor Rasch version of the Revised Paranormal Belief Scale. *Personality and Individual Differences*, 31, 371-382.
- Houran, J., Kumar, V. K., Thalbourne, M. A., & Lavertue, N. E. (2002). Haunted by somatic tendencies: Spirit infestation as psychogenic illness. *Mental Health, Religion, and Culture*, 5, 119-134.
- Houran, J. & Lange, R. (1996). Hauntings and poltergeist-like episodes as a confluence of conventional phenomena: A general hypothesis. *Perceptual and Motor Skills*, 83, 1307-1316.
- Houran, J., & Lange, R. (1998). Rationale and application of a multi-energy sensor array in the investigation of haunting and poltergeist cases. *Journal of the Society for Psychical Research*, 62, 324-336.
- Houran, J., & Lange, R. (2001a). A Rasch hierarchy of haunt and poltergeist experiences. *Journal of Parapsychology*, 65, 41-58.
- Houran, J., & Lange, R. (2001b). *Hauntings and poltergeists: Multidisciplinary perspectives*. Jefferson, NC: McFarland.
- Houran, J., & Lange, R. (2001c). Support for the construct validity of the two-factor conceptualization of paranormal belief: A complement to Thalbourne. *European Journal of Parapsychology*, 16, 52-61.
- Houran, J., & Thalbourne, M. A. (2001). Further study and speculation on the psychology of "entity encounter experiences." *Journal of the Society for Psychical Research*, 65, 26-37.
- Houran, J., Thalbourne, M. A., & Ashe, D. D. (2000). Testing a psycho-anthropological view of paranormal belief and experience. *North American Journal of Psychology*, 2, 127-138.
- Houran, J., Wiseman, R., & Thalbourne, M. A. (in press-b). Perceptual-personality characteristics associated with naturalistic haunt experiences. *European Journal of Parapsychology*.
- Jawer, M. A. (2000). *The emotional gateway: The dynamics of feeling and their link to paranormal perception*. Unpublished manuscript, Vienna, VA.
- Jawer, M. (2002). Letter to the editor: Environmental sensitivity and psi. *Journal of Scientific Exploration*, 16, 129.
- Kline, P. (1986). *A handbook of test construction*. London: Methuen.

- Kumar, V.K., & Pekala, R. J. (2001). Relation of hypnosis-specific attitudes and behaviors to paranormal beliefs and experiences: A technical review. In J. Houran & R. Lange (Eds.), *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 260-279). Jefferson, NC: McFarland.
- Kumar, V. K., Pekala, R. J., & Gallagher, C. (1994). *The Anomalous Experiences Inventory*. Unpublished psychological test. West Chester, PA: West Chester University.
- Lange, R., & Houran, J. (1998). Delusions of the paranormal: A haunting question of perception. *Journal of Nervous and Mental Disease*, 186, 637-645.
- Lange, R., & Houran, J. (1999). The role of fear in delusions of the paranormal. *Journal of Nervous and Mental Disease*, 187, 159-166.
- Lange, R., & Houran, J. (2001). Ambiguous stimuli brought to life: The psychological dynamics of hauntings and poltergeists. In J. Houran & R. Lange (Eds.), *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 280-306). Jefferson, NC: McFarland
- Lange, R., Houran, J., Harte, T. M., & Havens, R. A. (1996). Contextual mediation of perceptions in hauntings and poltergeist-like experiences. *Perceptual and Motor Skills*, 82, 755-762.
- Lange, R., Irwin, H. J., & Houran, J. (2000a). Top-down purification of Tobacyk's Revised Paranormal Belief Scale. *Personality and Individual Differences*, 29, 131-156.
- Lange, R., Irwin, H. J., & Houran, J. (2001). Objective measurement of paranormal belief: A rebuttal to Vitulli. *Psychological Reports*, 88, 641-644.
- Lange, R., & Thalbourne, M. A. (in press). Rasch scaling paranormal belief and experience: The structure and semantics of Thalbourne's Australian Sheep-Goat Scale. *Psychological Reports*.
- Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000b). The Revised Transliminality Scale: Reliability and validity data from a Rasch top-down purification procedure. *Consciousness and Cognition*, 9, 591-617.
- Maher, M. C. (1999). Riding the waves in search of the particles: A modern study of ghosts and apparitions. *Journal of Parapsychology*, 63, 47-80.
- Maher, M. C. (2000). Quantitative investigation of the General Wayne Inn. *Journal of Parapsychology*, 64, 365-390.
- Maher, M. C., & Hansen, G. P. (1995). Quantitative investigation of a 'haunted castle' in New Jersey. *Journal of the American Society for Psychical Research*, 89, 19-50.
- Mulacz, P. (1999). Eleonore Zugun: The re-evaluation of a historic poltergeist case. *Journal of Parapsychology*, 63, 15-45.

- Persinger, S. A., & Koren, S. A. (2001). Experiences of spiritual visitation and impregnation: Potential induction by frequency-modulated transients from an adjacent clock. *Perceptual and Motor Skills*, 92, 35-36.
- Persinger, M. A., Koren, S. A., & O'Connor, R. P. (2001). Geophysical variables and behavior: CIV. Power-frequency magnetic field transients (5 MicroTesla) and reports of haunt experiences within an electronically dense house. *Perceptual and Motor Skills*, 92, 673-674.
- Pilowsky, I. (1967). Dimensions of hypochondriasis. *British Journal of Psychiatry*, 113, 89-93.
- Radin, D. I., & Roll, W. G. (1994). A radioactive ghost in a music hall. In D. J. Bierman (Ed.), *Proceedings of the 37th Annual Convention of the Parapsychological Association* (pp. 337-346). New York: Parapsychology Foundation.
- Rasch, G. (1960/1980). *Probabilistic models for some intelligence and attainment tests*. Chicago, IL: MESA Press.
- Reiss, S., Peterson, R. A., Gursky, D. M., & McNally, R. J. (1986). Anxiety sensitivity, anxiety frequency and the prediction of fearfulness. *Behavior Research and Therapy*, 24, 1-8.
- Rief, W., Hiller, W., Geissner, E., & Fichter, M. M. (1995). A two-year follow-up study of patients with somatoform disorders. *Psychosomatics*, 36, 376-386.
- Rief, W., Hiller, W., & Heuser, J. (1997). *SOMS- Das Screening für Somatoforme Störungen. Manual zum Fragebogen* [SOMS- The Screening for Somatoform Symptoms. Manual]. Bern, Switzerland: Huber.
- Rief, W., Hiller, W., & Margraf, J. (1998). Cognitive aspects of hypochondriasis and the somatization syndrome. *Journal of Abnormal Psychology*, 107, 587-595.
- Roll, W. G. (1977). Poltergeists. In B. B. Wolman (Ed.), *Handbook of parapsychology* (pp. 382-413). New York: Van Nostrand Reinhold.
- Tandy, V. (2000). Something in the cellar. *Journal of the Society for Psychical Research*, 63, 129-140.
- Tandy, V., & Lawrence, T. R. (1998). The ghost in the machine. *Journal of the Society for Psychical Research*, 62, 360-364.
- Tellegen, A., & Atkinson, G. (1974). Openness to absorbing and self-altering experiences ("absorption"), a trait related to hypnotic susceptibility. *Journal of Abnormal Psychology*, 83, 268-277.
- Thalbourne, M. A. (1996). An attempt to predict precognition scores using transliminality-relevant variables. *Journal of the Society for Psychical Research*, 61, 129-140.

- Thalbourne, M. A. (1998). Transliminality: Further correlates and a short measure. *Journal of the American Society for Psychical Research*, 92, 402-419.
- Thalbourne, M. A. (2000). Transliminality: A review. *International Journal of Parapsychology*, 11, 1-34.
- Thalbourne, M. A., & Delin, P. S. (1993). A new instrument for measuring the sheep-goat variable: Its psychometric properties and factor structure. *Journal of the Society for Psychical Research*, 59, 172-186.
- Thalbourne, M. A., Houran, J., Alias, A. G., & Brugger, P. (2001). Transliminality, brain function, and synesthesia. *Journal of Nervous and Mental Disease*, 189, 190-192.
- Tobacyk, J. J. (1988). *A Revised Paranormal Belief Scale*. Unpublished manuscript, Louisiana Tech University, Ruston, LA.
- Wiseman, R., Watt, C., Stevens, P., Greening, E., & O'Keefe, C. (in press). An investigation into alleged 'hauntings.' *British Journal of Psychology*.

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APPENDIX

Haunt Experiences Checklist (developed by J. Houran and R. Lange)

**PLEASE INDICATE HOW MANY TIMES YOU HAD THE
FOLLOWING EXPERIENCES IN AREA**

Enter a number 0, 1, 2, . . .

1. I saw nondescript visual images _____
2. I clearly saw a ghost or apparition _____
3. I smelled a mysterious pleasant odor _____
4. I smelled a mysterious unpleasant odor _____
5. I experienced objects appearing or disappearing around me _____
6. I clearly heard mysterious voices _____
7. Electrical or mechanical appliances operated erratically _____
8. I heard mysterious sounds (tapping, footsteps, music) _____
9. I felt a mysterious sense of cold _____
10. I felt a mysterious sense of heat _____
11. I felt like I was physically touched in a non-threatening manner _____
12. I felt a sudden onset of positive emotion _____
13. I felt a sudden onset of negative emotion _____
14. I felt unusual sensations in my body (dizziness, tingling, nausea) _____
15. I experienced an unusual taste in my mouth _____
16. I felt possessed by an outside force _____
17. I experienced my physical body or objects floating in the air _____
18. I saw mystical beings such as angels or demons _____
19. I saw elves, fairies, and other types of little people _____
20. I communicated with the dead _____
21. I had a strange feeling of being watched _____
22. I experienced a sense of déjà vu _____
23. I felt an unusual breeze or a rush of air or wind _____
24. I felt there was an unseen 'presence' by me _____
25. I felt cut, scratched, bitten or otherwise physically injured _____