### Contemporary examinations of Ghosts

# "Do ghosts exist?": A summary of parapsychological research into apparitional experiences

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### **Synopsis**

"Apparitions are wavering, uncertain, semi-intelligent things, and the majority of people still regard it as ludicrous to spend time in examining them, while science thrusts them aside as empty stories."

Tyrrell's "Apparitions" (1973), p. 40

This paper was written in order to provide a summary of research into people's contemporary experiences of apparitions. The material presented here is different to material presented in other papers at the conference in two main respects: firstly, the majority of material examines experiences from a psychological or parapsychological perspective; and secondly, most of the material covered here, whether it is from an experiment or an account of an experience, is from present-day sources, as opposed to the early modern period that most of the papers from the conference were covering. The aim of this was to provide the delegates at the conference with an idea of how present-day apparitional experiences are actively researched, in the hope that this might provide fresh perspective on historical and literary accounts of apparitional experiences.

#### Introduction

The first major research into the existence of apparitional experiences and the explanations of the causes of apparitions was a census conducted by some of the earliest members of the Society for Psychical Research (SPR)<sup>1</sup>, and the traditions of scientific enquiry that they used to research this continues today. However, apparitional research has always been an area fraught with difficulty when trying to approach it from a parapsychological perspective. When researching cases parapsychologists often encounter two separate problems; emotion and belief. No matter what the perceived cause might be, a person who experiences an "apparition" associates a certain emotional significance with it. This might be fear due to an unexplainable event or pleasure at seeing a loved one. Whatever the emotional significance might be, the emotional aspects of the experience often influence the reporting of events that the individual experienced. This idiosyncratic influence on the reporting of the event also extends to the personal belief that the individual has applied to the event, which further clouds any "objective facts" that might be gained from the experience. The beliefs that individuals hold about apparitional phenomena are particularly pertinent here as the commonly held belief is that they are "the spirits of dead people", often referred to as the spirit hypothesis.<sup>2</sup> However, as will be shown here, there have been a number of different explanations offered by researchers to explain the phenomena known as "apparitions", of which the spirit hypothesis represents only one.

Parapsychological research into apparitions has been primarily concerned with defining apparitions, investigating the phenomenological characteristics of the apparitional experience, and constructing theories about the causes of apparitions. Also outlined here are some of the techniques that have been used in order to investigate the nature of apparitional experiences.

### Defining apparitions and related phenomena

Braude has suggested that it is difficult to describe apparitions without using a particular theoretical framework.<sup>3</sup> He initially highlights Price's definition,<sup>4</sup> which he criticised because it used the terms "non-physical", which implies that it has no objective reality, and the term "human being", which can be criticised not only from the perspective that there are a number of reported cases of the apparitions of inanimate objects (e.g. Tyrrell's "Pillow Case"<sup>5</sup>), but also from the perspective that many apparitions reported by people are wearing clothes. The second definition Braude criticises is that proposed by Broad<sup>6</sup>, where he defines all apparitions as being hallucinations, which is a theoretical assumption and automatically dismisses all of the other theories of apparitions, many of which are covered in a later section. By doing this Broad's definition places restrictions on the extent to which apparitional experiences can be discussed. For Broad, they are always hallucinations, and therefore only the nature of the hallucination can be discussed.

For the purposes of this paper, an adapted version of Thalbourne's definition of apparitions will be used. This "working definition" is as follows, "A *sensory*<sup>7</sup> experience in which there appears to be present a person or animal (deceased or living) who is in fact out of sensory range of the experient...". In this definition, there is an attempt to offer a purely descriptive definition of the phenomena experience, which is removed from theoretical constraints. As a consequence of this, the definition is very broad.

Although it is not strictly a definition of apparitions, one of the most influential categorisations of the different types of apparitions experienced was proposed by Tyrrell, who divided them into four separate categories; experimental apparitions, crisis apparitions, post-mortem apparitions and finally, ghosts. Tyrrell's first category, experimental apparitions, refers to cases where a living person has attempted to deliberately make an apparition of themselves appear to another. One of the most famous examples of an experimental apparition was performed and documented by S. H. Beard, in Gurney *et al.*'s "Phantasms of the Living". In December 1882, Beard attempted to project an apparition of himself into the house of his fiancée, Miss L. S. Verity. At 9.30 pm he felt as if he had slipped into a "mesmeric sleep", where he found himself unable to move. At 10 pm he regained full consciousness and made a note of his experience, determined to reattempt the experience at 12 pm in an effort to make the residents of the house aware of his presence. He went to the house the following day and spoke to the married sister of Miss Verity, who was staying in the house at the time. During their conversation she informed him that;

"At about half-past nine she had seen me [Beard] in the passage, going from one room to another, and at 12 pm, when she was wide awake, she had seen me enter the bedroom and walk around to where she was sleeping, and to take her hair... into my hand."

After hearing this account, Beard shocked the people present even further by producing the note he had made the night before from his pocket. This experience has to be examined in light of the fact that we do not know what motivations S. H. Beard had for reporting this case, and to the degree he had to prompt Miss Verity to report her experiences of the previous night. These types of cases are rare,<sup>12</sup> and it has been suggested that they are very similar to, or possibly the same phenomena as, out-of-body experiences<sup>13</sup>.

Tyrrell's second class of apparitions, crisis apparitions, refer to the apparitions of people who are experiencing a crisis event. Death is often the crisis event, and in order to qualify as this class of apparition, the apparition has to have occurred no more than 12 hours before or after the event, this "12-hour limit" being arbitrarily drawn by Gurney (as reported by Tyrrell). Tyrrell noted that crisis apparitions have two common features; they appear so similar to real human beings that they are often mistaken for that person until they vanish, and they normally occur when people are engaged in everyday activities.

Tyrrell's third class of apparition is the post-mortem apparition. This refers to an apparition of a person who has been dead for at least 12 hours, and Tyrrell notes that its characteristics are similar to the crisis apparition in the respect that the figure is often life-like and appears suddenly. The apparition commonly tries to convey information unknown to the witness. One of the most frequently cited post-mortem apparitions is the "Chaffin Will" case. 14 James Chaffin was a farmer living in North Carolina in the early 1900's. In 1905 he wrote a will leaving his entire estate to his third son, Marshall, which was attested by two witnesses. In 1919, he appeared to have changed his mind about his will and wrote a second will leaving all of his property equally amongst his four sons. Although this was not witnessed, it was a valid will under North Carolina law, provided that the handwriting could be verified to be his. He hid this copy of the will in the family diary, and wrote a note referring to the will and sewed it into the inside pocket of an overcoat belonging to him, apparently telling no one of either the second will or the note. In September 1921, James Chaffin died due to a fall and all of his property went to his third son, as per the instructions of the original will. In June 1925, James Chaffin's second son, began to have vivid dreams of his father visiting him at his bedside. In one dream his father appeared to him dressed in his overcoat, pulled it back and said, "'You will find my will in my overcoat pocket.' "15 The son then went to his oldest brother's house, where he found his father's old overcoat. After undoing the stitching he found the note, and went to his mother's house with three witnesses, where he found the second will in the family bible.

The case then went to court, but the situation was amicably settled out of court prior to the judgement after twelve witnesses, including the wife and son of Marshall (Marshall had died within a year of his father) agreed that the handwriting of the will matched the handwriting of James Chaffin. One unusual feature of this particular case is that it occurred during a dream, although it should be noted that there is the possibility that Chaffin's second son may have forged the note and lied about his experience.

Tyrrell's final class of apparitions are simply called ghosts. Ghosts appear to "haunt" places, where they are commonly seen in the same locality on a number of instances, often by different people. Ghosts appear to demonstrate less awareness of their surroundings than other classes of apparition, and seem to have a more limited degree of interaction with witnesses. Tyrrell noted that, "...ghosts are more somnambulistic than other classes of apparition, and seem to be less informed by a definite purpose." Tyrrell's taxonomy of apparitions has generally received acceptance amongst the parapsychological community, although he is quick to note that many apparitional cases might fit into multiple classes, and elements of each individual class can be found in others. Bayless, amongst others, has pointed out that non-human apparitions are also reported, such as animals and luminous lights. For example, the apparition of the "black dog" has a long tradition in British folklore.

Defining apparitions is one of the most difficult aspects of apparitional research. Many apparitional experiences have to be taken on a case-by-case basis, as the characteristics of the experience seem to defy the taxonomies and definitions that might be employed. Employing a particular taxonomy or definition is thwarted further by the addition of a particular theoretical framework in order to explain the cause of the experience. The phenomenological characteristics of apparitional experiences are an area that is more easily explored as the characteristics can be more easily catalogued from the different case studies.

## Incidences of Belief and Phenomenological characteristics of apparitional experiences

Incidents of belief in the existence of apparitions or ghosts (as the two terms are often used interchangeably in questionnaires and do not follow the taxonomy outlined by Tyrrell shown above) vary considerably. Palmer's survey of residents and students in Charlottesville, Virginia, found that 17 percent of the sample believed that they have had an apparitional experience.<sup>21</sup> Irwin found that 20 percent of the Australian university students in his sample believed in ghosts.<sup>22</sup> Haraldsson et al. discovered that 31 percent of Icelandic adults in his sample believed they had seen the apparition of a dead person, and that 11 percent believed they had seen the apparition of a living one.<sup>23</sup> One of the highest instances of belief in the existence of ghosts was found by Persinger, who found that 32 percent of the Canadians in his sample had seen an apparition of a person or an animal.<sup>24</sup> A recent Gallup Poll of a randomly selected, national sample of 1,012 Americans found that 38 percent of the sample believed that, "Ghosts or...spirits of dead people can come back in certain places and situations." It should be noted that the incidences of belief in apparitions have to be moderated by the way that the questionnaires and surveys ask about apparitional belief, as it is difficult to avoid any reference to a particular theoretical framework.

There is a serious problem when investigating people's belief in apparitions. There is a difference between having the experience and interpreting the experience (although the two can be interrelated). When discussing apparitions there is a predisposition to assume that you are interpreting all apparitional experiences in terms of the spirit hypothesis (this theory is discussed later). However, this places an *interpretation* of the experience when *describing* the experience. This is a problem because it dictates what people report in apparitional cases and how they respond to

apparitional belief questionnaires. For example, if a person feels that a particular experience that they had was not an "apparition" (i.e. the spirit of a dead person), but it had a more conventional explanation, then they are less likely to report it as an apparitional experience. This compounds the problems faced by investigators into apparitional experiences because it means that generally it is only people who believe that they have seen the spirit of a dead person who report an apparitional experience. The result of this is that they are more likely to alter the narration of their experience to better fit the interpretation they have placed on the experience, with useful pieces of evidence that might lead another person to an alternative interpretation of the experience being intentionally or unintentionally left out of the narration of the experience. Therefore, when evaluating the evidence of people's belief in the existence of apparitions, one needs to remember that the people surveyed will be placing their own interpretations on the apparitional experiences that others have had.<sup>26</sup>

Research into the phenomenological characteristics of apparitional experiences is concerned with, amongst other areas, surveying and cataloguing how different aspects of the apparitional experience can be broken down into duration, realisation by the witness that they are having an experience, what different sensory modalities are activated during an experience.

One of the most extensive surveys into the phenomenological characteristics of apparitional experiences was performed by Green and McCreery, who collected over 850 questionnaires from 1968 to 1974 examining apparitional experiences.<sup>27</sup> They found that the 45 percent of people realised that they were having an apparitional experience immediately, 18 percent did not realise they were having such an experience immediately, but knew before they stopped perceiving it, and five percent realised as the experience ended. 31 percent of Green and McCreery's sample did not realise that they had an apparitional experience until after the event. However, Green and McCreery do not make the distinction between witnesses who realised that it was an apparitional event immediately, and those that did not realise this until sometime after the event.<sup>28</sup> Green and McCreery also examined the perceived duration of the experience and found that 20 percent of witnesses felt that the experience lasted for five minutes or more, and 42 percent of witnesses said the experience lasted for 15 seconds or less. They also found evidence to suggest that the majority of apparitional experiences were visual (84 percent), then auditory (37 percent), tactile (18 percent), thermal (15 percent), olfactory (eight percent) and no sense involved (four percent, presumably related to a sense of presence). The majority of cases involved only one sensory modality (61 percent), but some cases involved two (25 percent), three (nine percent) or more (five percent) senses being stimulated.

As can be seen from the above surveys, people report having apparitional experiences, and although researchers might have difficulty in defining what an apparitional experience is, members of the public each seem to have their own idea of what an apparition is and what experiencing an apparition entails. However, explaining the causes of the apparitional experience is a very different matter.

#### Theories about the causes of apparitional experience

Theories on the causes of apparitional experiences can be tentatively divided into subjectivist theories, those that assume that the individuals generate apparitions internally; and objectivist theories, which assume that apparitions have some form of objective reality.<sup>29</sup> However, it can be argued that some theories can fall into both categories (e.g. an external environmental effect that causes an internal hallucination).

The spirit hypothesis has already been mentioned, and is often assumed to be the primary explanation of the causes of apparitions. In its simplest form, it suggests that an apparition is the part of a person that survives bodily death.<sup>30</sup> A variation of this hypothesis was suggested by Perry, who suggested a theory to explain the motivations of a small proportion of these "unquiet dead" might include; an attachment to the location or a person they are haunting, a call for assistance (perhaps to help the apparition deal with "unfinished business"), or the intent on behalf of the spirit to offer comfort to a loved one.<sup>31</sup>

Only a minority of parapsychologists subscribe to the spirit hypothesis now,<sup>32</sup> but it is the hypothesis that is most readily imagined by members of the public when the words "apparition" or "ghost" are used. The main problem with this theory is its lack of falsifiability, i.e. that it is difficult to disprove that all reported cases of apparitions are not the spirits of dead people without researching every case of apparitions. Another problem with this theory is that many apparitions are reported to be wearing clothes or carrying objects, which creates a problem in explaining whether or not objects can survive bodily "death", however, as apparitions are regularly reported as appearing to have flesh, then it could be equally as easy for the apparition to appear to be wearing clothes too. There are advantages to this explanation, as it might provide great comfort for those that have an apparitional experience. Some witnesses gain satisfaction that a loved one has visited them, and this might be one possible explanation of why many recently widowed persons report seeing their dead spouse.<sup>33</sup>

An alternative paranormal explanation to the spirit hypothesis is the super-ESP (extra-sensory perception) hypothesis, which suggests that apparitions are not the spirits of the dead, but are the result of a telepathic communication from a living person who knew the dead person.<sup>34</sup> Memories about the deceased person are projected by ESP from those who knew them to the person who is having the apparitional experience. The person then sees the apparition, which matches the description of the deceased individual due to the intimate knowledge that was projected by those who knew the deceased. This may well be a variation of Gurney et al.'s idea of "contagious telepathy" where they argue that information about an apparitional experience is transmitted through extra-sensory means, almost like an "infection", which results in others having the same apparitional experience at a later date. Tyrrell examined the idea of telepathic communication of details about a deceased person from a more psychodynamic perspective. He suggested that there was a telepathic communication of an "idea-pattern" into the unconscious mind of the witness, who then used the core material about a deceased person to "flesh-out" their experience, resulting in a dramatic and realistic apparitional experience that can be individualistic, yet the apparition shares enough descriptive characteristics with a deceased person to be able to be recognised as that person.<sup>35</sup> A main problem with

theories that use ESP as a central explanation is that it is still unclear what mechanisms would be employed in order for an individual to acquire information about another's personality in this manner, but they do begin to offer an explanation of how some groups of individuals can see an apparition collectively, and how information unique to the deceased person who appeared as an apparition can still described by witnesses of the apparition.

Another class of theory suggests that apparitions are just hallucinations originating from the mind of the witness. Podmore suggested that all reported cases of apparitions are the result of misinterpretations of ordinary events and the imagination of the witness (i.e. hallucinations). The Diagnostic and Statistical Manual of Mental Disorders IV, defines hallucinations as, "a sensory perception that has the compelling sense of reality of a true perception but that occurs without external stimulation of the relevant sensory organ."36 However, the DSM IV does note that it is possible to have transient hallucinations without having a mental disorder. This is important as it suggests that almost anyone can have a full hallucinatory experience, and it is not restricted to individuals with mental disorders. This is similar to an argument proposed by Bentall, who has examined the characteristics of hallucinations. His conclusions are particularly relevant to apparitional research, as his extensive literature review found that it is possible to experience hallucinations due to a stressful experience, such as the loss of a spouse, which might explain why many widowed persons reported sightings of the loved one they have lost. He also found that it is possible to hallucinate by hyperventilating, which could lead to a "feedback" model where a person misperceives a conventional event, panics and begins to hyperventilate, which results in a hallucination of an apparition. Bentall also found that hallucinations are related to the personality of the witness, and hallucinators do not hallucinate random events, "... visual hallucinators see visions of dead ancestors and other persons of psychological significance to them." <sup>37</sup>

Bentall also found evidence that suggestion alone can create hallucinations in some participants.<sup>38</sup> This is important to apparitional research, as some investigators have proposed that suggestion alone can produce a paranormal experience. Orne suggested that demands of a social situation could influence a participant's behaviour.<sup>39</sup> He found that when a participant was expecting to be put into an altered state of consciousness, they would behave as if they were in the altered state, even if no attempt was made to put them in such a state. This idea was applied to apparitional research by Lange *et al.*, who analysed 924 reported cases of apparitional experiences and found that nearly 62 percent of the cases were rated as displaying demand characteristics; namely that there was a direct or indirect suggestion to the witness that the environment would produce paranormal phenomena.<sup>40</sup>

Lange and Houran tested this idea by taking 22 participants individually around five different areas of a dilapidated theatre, which was normally closed to the public. Eleven of the participants were told that the research was concerned with investigating paranormal activity at the theatre. The other eleven participants were informed that the premises were under renovation and the research was examining people's reactions to such environments. Participants were asked to report any experiences that they had in the theatre by completing a experiential questionnaire. They found that the "paranormal" group reported significantly more physical, mental, extra-personal and

transpersonal experiences than the "renovation" group, and the "paranormal" group also reported more intense emotional reaction to the location compared to the "renovation" group, even though the only difference between the two groups was what they were told about the place beforehand.<sup>41</sup> This idea was tested by Wiseman et al., who took 678 participants around The Haunted Gallery and Georgian Rooms at Hampton Court. Half of the participants were told that the "haunted" area they were about to visit was associated with a recent increase in reports of unusual phenomena, the other half of the participants were told of no such reports. Wiseman et al. found that this suggestion had no significant effects on the participants' expectations of experiencing unusual phenomena during the experiment, or on the number of unusual experiences they reported, or to the degree they attributed an unusual experience to a ghost. However, Wiseman et al. suggest that this might have been because The Haunted Gallery has a reputation for being haunted, and that the suggestion component was a subtle one.42 When this was combined with the demand characteristics of the participants, it reduced the affect of suggestion given by the experimenters. The issue of group conformity could have also played a part, as it can do when witnesses are describing spontaneous case experiences. Asch found that individual opinion has a tendency to move towards an average opinion held by a group. This is a danger in apparitional reports where an individual's description of the characteristics of an experience might change in order to become more like the experiences reported at the same time by others, rather than retaining the uniqueness of the experience.<sup>43</sup>

As can be seen, there are a complex set of psychological interactions and motivations in apparitional experiences. Another such psychological motivation for reporting an apparitional experience is fraud. Witnesses might decide to put forward fraudulent claims either intentionally or unintentionally, for numerous reasons, but two possible reasons are those that are seeking attention and those that desire profit. An investigation into a reported apparitional experience by academic or non-academic researchers can involve a great deal of work and research, and a considerable amount of time having to be spent with the witness. Whatever the witness's particular psychological need might be, it can often be represented as a need for attention, which is satisfied by the investigators. This can lead to the experience being elaborated and/or reported as occurring on multiple occasions so that the investigator might be required to spend more time with the witness. Profit seekers might be seeking to create an aura of mystery and "paranormal activity" around the location in order to encourage people to go there. This is obviously a tactic that would be primarily used for locations open to the public.

An alternative set of theories examines the environment, instead of the paranormal or psychological, as a possible cause of apparitional experiences. Roll and Nichols<sup>44</sup> are among a number of researchers who have examined electromagnetic causes for apparitional experiences.<sup>45</sup> They investigated 12 sites where, "unexplained footsteps, apparitions, electrical disturbances, strange behaviour by pets and other haunt phenomena were reported."<sup>46</sup> When investigating these sites, they measured electromagnetic fields (EMF), geomagnetic fields (GMF) and ion densities. According to Roll and Nichols, transient EMFs are found in houses with inadequate grounding, and are generated by electronic equipment. GMFs are generally stable, although there are daily fluctuations from the sun, cosmic rays, the weather, etc., and local conductors

(e.g. water and ore bodies) may generate field fluctuations in the local GMF. Persinger, Tiller and Koren have suggested that exposure to bursts of these variations in the magnetic fields may result in apparitional experiences.<sup>47</sup> These experiences might also be tied into concentrations (2,000 cm³ and higher) of positive ions, which are associated with effects on mood, such as "...increased irritability, depressive moods and restricted respiration." Roll and Nichols found that out of 12 of the sites they investigated at which apparitional phenomena had been reported, three sites showed transient EMF increases (of 100 milligauss or more), six sites showed GMF that were higher than the norm (by 200 milligauss or more), and high positive ion levels were found at seven of the 12 sites. These readings tentatively suggest that increased and transient electromagnetic field strengths, combined with the mood altering properties of increase positive ion densities might lead to an apparitional experience, although more comparative research of locations where apparitions have been seen, and places where no paranormal phenomena have been reported needs to be performed.

One of the most recent theories of the causes of apparitions involves the effects that infrasound has on the human body. Back in 1998, Vic Tandy (a researcher at Coventry University), reported on an experience he had when working as an engineering designer.<sup>49</sup> When working one night in a laboratory that had a history of being haunted, he began to feel increasingly uncomfortable and depressed, and he was sweating and felt as though there was something else in the room. After having a brief break, he continued to write at his desk, and saw a figure appear in the periphery of his vision which was grey and made no sound. He was terrified, but turned to face the apparition. When he did it disappeared.

The next day he returned to the lab to fix a foil blade for a fencing competition he was entering. When he placed the foil in his bench-vice, it began to frantically vibrate up and down. He began to feel frightened again, but realised for the foil to vibrate it must be receiving energy from somewhere. By experimentation with the blade it was possible to show that low frequency sound (infrasound) was present, specifically a standing wave with a frequency of 18.98 Hz. This frequency is too low for the human ear to hear<sup>50</sup>, so Tandy could not hear this sound wave. Tandy then proceeded to find out that an infrasound wave of this frequency can vibrate the whole body, which can cause hyperventilation and panic attacks, and can vibrate the eyes, which can cause a blurring of sight, particularly in the peripheral vision, all of which is consistent with his experience. Tandy also managed to trace the cause of the infrasound wave to a faulty fan, and when the fan was repaired the infrasound wave and the ghost seemed to disappear. Tandy has suggested that infrasound waves might account for certain apparitional sightings, but infrasound waves can be transient and are difficult to detect.<sup>51</sup> Tandy is continuing this research and is trying to develop an infrasound detector which is affordable and takes valid measurements of infrasound, the initial tests of the detector seem promising and are necessary in order to test this theory further.<sup>52</sup>

Only a small number of the proposed causes of apparitions are shown here, but it can be seen that the suggestion that apparitions are the "spirits of the dead", is only one possible theory amongst many. It is unlikely that one individual theory can explain all reported cases of apparitional phenomena, and each case needs to be evaluated

individually. It is possible that a combination of different theories needs to be employed in order to understand why people experience apparitions. For example, a person might see an apparition because they are in a nervous state in a location that is reportedly haunted, and yet unconsciously they want to see an apparition. After misperceiving a sound behind them, they turn around and see a hallucination of a person due to their emotional state. They then proceed to tell others about their experience, moderating the report so it more closely matches what others have reported.

### Approaches to researching apparitional experiences from a parapsychological perspective

Researching apparitional experiences is difficult. Witnesses are often emotional, can forget important details about a case and often frame the experience in terms of the spirit hypotheses. As the spirit hypothesis is very difficult (if not impossible) to test, researchers into apparitional experiences must therefore gain data on the experiences and examine testable hypotheses on the causes of apparitions. Often, the testable hypotheses are those hypotheses that suggest apparitional phenomena are caused by conventional means. Research into apparitional experiences appears to have generally taken the form of four different types of methodology: survey research, laboratory-based replications, field-based experiments, and "ghost hunter" type investigations. These four methodologies are summarised below:

### Survey Research

Survey research into apparitional experiences takes general information from a large number of witnesses and combines them in order to give a general impression of the characteristics of the apparitional experience. There is normally little or no attempt at trying to see if the phenomena can be explained by conventional causes in this type of research. However, data on the phenomenology and belief that surveys collect can be analysed to see if there are common themes to most experiences.

One of the most extensive surveys performed on apparitional experiences was done by Green and McCreery.<sup>53</sup> From 1968 to 1974 they had a number of postal and radio appeals for first-hand accounts of apparitional experiences. They ended up with 850 completed questionnaires as a product of these appeals. Their questionnaires investigated a number of issues about apparitional experiences, such as: emotional response, time of experience, activity the witnesses were engaged in, what sensory modalities the experience activated, number of experiences, how the experience began and ended, and also about apparitions of the living, dead, animals and objects. Their research provided a great deal of information about the phenomenology and correlates of the apparitional experience.

Another area of survey research is examining how many people believe in the existence of ghosts. One of the most recent surveys was the Gallup Poll, where a telephone survey of 1,012 American adults revealed that 38 percent of the sample believed in the existence of ghosts.<sup>54</sup>

### Laboratory-based replications

Trying to replicate an apparitional experience under laboratory conditions is difficult and problematical at best due to the spontaneous nature of the phenomena and the ethical issues in performing research of this type. However, it is possible to place an individual into a "psychomanteum", where they might have an apparitional experience. The term "psychomanteum" has been defined as, "spirits of the dead are summoned as a means of divination so that they can be asked questions about the future or other hidden knowledge."55 However, in the laboratory the psychomanteum is a booth or chamber which has black curtains all around it. Inside the booth there is a comfortable chair and a mirror on one of the walls. The mirror is angled so that the person sitting in the chair cannot see their own reflection. A candle is normally placed behind the person to create subdued light. The individual then sits in the chair and relaxes, and begins to stare at the mirror. Some studies have found that over half of the participants who have been in the psychomanteum report experiencing the visual appearance of a deceased person, 56 and that this encounter can be very vivid and in different sensory modalities, with some participants being convinced that the person is there. This method can be helpful in the grieving process<sup>57</sup> and the experience can be enhanced by the suggestion that the individual will see a deceased person. Sherwood has suggested that this experimental set-up could result in the participant experiencing hypnogogic or hypnopomic imagery<sup>58</sup>, which might help to explain why, in Green and McCreery's sample, approximately a quarter of the apparitional experiences they analysed occurred when the witness was waking up.<sup>59</sup>

### Field-based Experiments

Experiments that are based at a reportedly haunted location obviously lack the degree of control that is possible when an experiment is performed in the laboratory. However, by omitting or manipulating the information that participants receive, it is possible to uncover some of the psychological and environmental cues that make an individual more likely to have an apparitional experience.

A key example of a field-based experiment was the experiment performed by Lange and Houran in a disused theatre which was mentioned earlier,<sup>60</sup> but another example was the experiment conducted by Maher and Hansen.<sup>61</sup> Their experiment involved taking a group of "sensitives" (those that felt they could sense an apparition) and "skeptics" (those who felt that they could not sense an apparition)<sup>62</sup> individually around a reportedly haunted residential building in New York City. Both groups were asked to note down where in the building they felt that a ghost might be. Maher and Hansen found no significant different between the accuracy of the sensitives and skeptics guesses when comparing both groups to previously reported sightings.<sup>63</sup> These field experiments are useful for further understanding the apparitional experience, but in these types of experiment very little attempt is made to find out what the cause of previous reports of apparitional experiences might be.

### "Ghost hunter" Type Investigations

This is probably the most traditional form of research into apparitional experiences, and is also the best known. The techniques are reviewed by a number of popular books, <sup>64</sup> and a number of local and national organisations actively research cases in this manner

Although individual investigators have their own, distinctive styles, in general the investigation proceeds in the following order after the case has come to the attention of the investigators; initial interview of witnesses, visit the site of the experiences and examine it, take photographs and make a plan of the site, perform a thorough investigation of the site, including locations of any objects (e.g. hidden pipes) that might offer a conventional explanation of the experiences. Then the investigation might extend to staying at the location during the day or overnight so that the investigators can witness the phenomena first-hand. Different types of equipment might be used, such as cameras, camcorders, electromagnetic-field measuring equipment, night-vision goggles and flour (for footprints). The equipment and the procedure used often depend upon the types of hypotheses that the investigators might be examining. For example, if the investigators feel from the initial interview with the witnesses that the cause of the phenomena might be due to misinterpretation of conventional events on behalf of the occupiers, they might try to show how this might have happened. Unfortunately, investigations are rarely this straightforward. Because of the fact that spontaneous case investigations take place in the "real-world" and not the laboratory, it is difficult for the investigators to limit the amount of variables that they are to measure and test, and it is therefore difficult to conclude anything definitive from a single-case investigation, unless it has a very clear conventional explanation. This difficulty is further compounded by the fact that many cases are brought to the attention of investigators because the witnesses feel that the location is haunted by the spirit of a dead person. This means that the witnesses' interpretation moderates their reported experience and their expectations of the findings of the investigators. This can potentially lead to an ethical problem for the investigators if they find a conventional cause for the phenomena that the witnesses feel is comforting and paranormal in origin; do the investigators report their actual findings and risk upsetting the witness? Or do they lie and confirm the witnesses' expectations?

#### Do ghosts exist? - Summary and Conclusions

This paper summarises only a fraction of the literature on researching apparitional experiences from a parapsychological perspective. However, it does present some of the difficulties in researching apparitional experiences. Not only is the term "apparition" difficult to define, but also the fact that "ghost" and "apparition" are so easily associated with the spirit hypothesis creates further difficulties in trying to tease out the experience from the interpretation. Hopefully the problems and issues highlighted here will provide researchers who are examining material from the early modern period with more tools and a wider perspective. Interdisciplinary interactions are very useful, and hopefully parapsychologists and other researchers examining contemporary reports can learn a lot from the techniques that are used to research historical cases, such as the methods that are employed and the types of conclusions that can be drawn.

This paper has highlighted the difficulty in answering the question, "Do ghosts exist?" People have apparitional experiences and appear to believe in the existence of ghosts, but there are other possible explanations apart from the spirit hypothesis for explaining the causes of these experiences.

### **Notes**

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- <sup>1</sup> For information on the census see E. Gurney, F. W. H. Myers, & F. Podmore, *Phantasms of the Living* (vols. I & II) (London, 1886; 1970 reprint); and E. M. Sidgwick, *Phantasms of the Living* (New York, 1922; reprinted 1962).
- <sup>2</sup> This term appears to have been primarily referred to by both H. Hart *et al.*, 'Six Theories About Apparitions.' *Proceedings of the Society for Psychical Research*, 50 (1956) pp.153-239; and R. Crookhall, *Out-of-Body Experiences: A Fourth Analysis* (New York, 1970).
- <sup>3</sup> See S. E. Braude, *The Limits of Influence: Psychokinesis and the Philosophy of Science.* (London, 1986).
- <sup>4</sup> See H. H. Price, 'Apparitions: Two Theories.', *Journal of Parapsychology*, 24 (1960). pp.110-128.
- <sup>5</sup> G. N. M. Tyrrell, Science and Psychical Phenomena (New York, 1938; reprinted 1961).
- <sup>6</sup> C. D. Broad, Lectures on Psychical Research (London, 1962).
- <sup>7</sup> This was changed from "visual" to "sensory" to reflect the different sensory modalities that can be involved in an apparitional experience.
- <sup>8</sup> Adapted from M. A. Thalbourne, A Glossary of Terms Used in Parapsychology (London, 1982), p. 2.
- <sup>9</sup> See G. N. M. Tyrrell, *Apparitions* (London, 1943; reprinted 1973).
- <sup>10</sup> Gurney *et al.*, p. 85.
- <sup>11</sup> S. H. Beard, reported in Gurney *et al.*, p. 86.
- <sup>12</sup> Suggested in H. J. Irwin, An Introduction to Parapsychology (Jefferson, NC,1999).
- <sup>13</sup> H. Hart et al., 'Six Theories About Apparitions.' Proceedings of the Society for Psychical Research, 50 (1956) pp.153-239.
- <sup>14</sup> 'Case of the Will of James L.Chaffin', *Proceedings of the Society for Psychical Research*, 36 (1927), pp. 517-524; which had been cited in Irwin, *An Introduction to Parapsychology* amongst others.
- <sup>15</sup> Ibid., p. 519
- <sup>16</sup> G. N. M. Tyrrell, *Apparitions* (London,1943; reprinted 1973).
- <sup>17</sup> Ibid., p. 39.
- <sup>18</sup> See Irwin, An Introduction to Parapsychology.
- <sup>19</sup> See R. Bayless, Voices from Beyond. (NJ, 1976).
- <sup>20</sup> See J. & C. Bord, *Alien Animals* (London, 1985).
- <sup>21</sup> J. Palmer, 'A. community mail survey of psychic experiences.', *Journal of the American Society for Psychical Research*, 73 (1979) pp.221-251.
- <sup>22</sup> H. J. Irwin, 'Parapsychological phenomena and the absorption domain.', *Journal of the American Society for Psychical Research*, 79 (1985) pp.1-11.
- <sup>23</sup> E. Haraldsson, E., A. Gudmundsdottir, A., A. Ragnarsson, A., J. Loftsson, J., & S. Jonsson, S. 'National survey of psychical experiences and attitudes towards the paranormal in Iceland.' (1977) in, *Research in Parapsychology* edited by J. D. Morris, W. G. Roll, & R. L. Morris (Metuchen, NJ,1976) pp. 182-186.
- <sup>24</sup> M. A. Persinger, *The Paranormal. Part I. Patterns* (New York, 1974).
- <sup>25</sup> F. Newport & M. Strausberg, 'Americans' Belief in Psychic and Paranormal Phenomena is Up Over Last Decade.' (2001). On line at http://www.gallup.com/Poll/releases/pr010608.asp
- <sup>26</sup> This is related to the debate over what constitutes research into apparitions, as it is possible to argue that if a researcher is interpreting apparitional experiences from conventional, as opposed to paranormal, perspectives then they are not researching parapsychology but another area of science. However, this debate on the nature of parapsychological research is beyond the scope of this paper.
- <sup>27</sup> C. Green, & C. McCreery, *Apparitions* (London, 1975). This survey was not concerned with belief in apparitions.
- <sup>28</sup> An important omission from Green and McCreery's (1975) survey is the exploration of how long it took witnesses to realize that they had seen an apparition and what made them come to that conclusion.
- <sup>29</sup> S. E. Braude, *The Limits of Influence: Psychokinesis and the Philosophy of Science.* (London, 1986).
- <sup>30</sup> See H. Hart *et al.*, 'Six Theories About Apparitions. pp. 153-239; and R. Crookhall, *Out-of-Body Experiences: A Fourth Analysis*. (New York, 1970) for more details about this theory.
- <sup>31</sup> M. Perry, *Deliverance*. (Second Edition.), (London, 1996), p. 43.
- <sup>32</sup> Irwin, An Introduction to Parapsychology.
- <sup>33</sup> P. Marris, *Widows and Their Familes* (London, 1958). Cited in S. H. Wright 'Experiences of spontaneous psychokinesis after bereavement.', *Journal of the Society for Psychical Research*, 62 (1998) pp. 385-395; S. H. Wright, 'Experiences of spontaneous psychokinesis after bereavement.' *Journal of the Society for Psychical Research*, 62 (1998) pp. 385-395.
- <sup>34</sup> H. Hart et al., 'Six Theories About Apparitions.'
- <sup>35</sup> Tyrrell, *Apparitions*, p. 147.
- <sup>36</sup> Diagnostic and Statistical Manual of Mental Disorders IV (American Psychological Association, 1994), p767. This definition of hallucinations could also be incorporated into other explanations of the causes of apparitions, and does not necessarily preclude the possibility of the spirit hypothesis.
- <sup>37</sup> R. P. Bentall, 'The illusion of reality: A review and integration of psychological research on hallucinations.', *Psychological Bulletin*, 107 (1990) p. 91.

- <sup>38</sup> e.g. T. X. Barber & D. S. Calverley, 'An experimental study of "hypnotic" (auditory and visual) hallucinations.', *Journal of Abnormal and Social Psychology* 63 (1990) pp.13-20; and H. F. Young, R. P. Bentall, P. D. Slade, & M. Dewey, 'The role of brief instructions and suggestibility in the elication of auditory and visual hallucinations in normal and psychiatric subjects.', *Journal of Nervous and Mental Disease*, 175 (1987) pp.41-48, both cited in ibid.
- <sup>39</sup> M. T. Orne, 'On the social psychology of the psychological experiment: with particular reference to demand characteristics and their implications.', *American Psychologist*, 17 (1962) pp.776-783.
- <sup>40</sup> R. Lange, J. Houran, T. M. Harte, & R. A. Havens, 'Contextual mediation of perceptions in hauntings and poltergeist-like experiences.' *Perceptual and Motor Skills*, 82 (1996) pp.755-762.
- <sup>41</sup> R. Lange, & J. Houran, 'Context-induced paranormal experiences: Support for Houran and Lange's model of haunting phenomena.', *Perceptual and Motor Skills*, 84 (1997) pp.1455-1458.
- <sup>42</sup> R. Wiseman, C. Watt, E. Greening, P. Stevens, & C. O'Keefe, 'An Investigation Into The Alleged Haunting Of Hampton Court Palace: Psychological Variables And Magnetic Fields.' in *The Parapsychological Association 44th Annual Convention*, edited by C. S. Alvarado (New York, 2001) pp. 393-407.
- <sup>43</sup> S. E. Asch, 'Opinions and social pressure.' *Scientific American, November 1955*, pp. 1-8.
- <sup>44</sup> W. G. Roll, & A. Nichols, 'Psychological and Electromagnetic Aspects of Haunts.' in *The Parapsychological Association* 43rd Annual Convention: Proceedings of Presented Papers (2000) pp. 364-378.
- <sup>45</sup> See M. A. Persinger, *ELF and VLF electro-magnetic field effects* (New York, 1974); and M. C. Maher, & G. P. Hansen, 'Quantitative investigation of a reported haunting using several investigation techniques.', *Journal of the American Society for Psychical Research*, 86 (1992) pp. 347-374.
- <sup>46</sup> Roll and Nichols, p.34.
- <sup>47</sup> M. A. Persinger, S. G. Tiller, & S. A. Koren, 'Experimental simulation of a haunt experience and elicitation of paroxysmal electroencephalographic activity by transcerebral complex magnetic fields: Induction of a synthetic "ghost"?', *Perceptual and Motor Skills*, 90 (2000) pp. 659-674.
- <sup>48</sup> Roll and Nichols, p. 366.
- <sup>49</sup> V. Tandy & T. Lawrence, 'The Ghost in the Machine.', *Journal of the Society for Psychical Research*, 62 (1998) pp. 360-364.
- <sup>50</sup> The term reserved for sounds too low for the human ear to hear are "infrasound", frequencies too high for the human ear to hear are called "ultrasound". The human ear can generally hear frequencies from 20 Hz to 22,000 Hz, although there are differences between individuals.
- <sup>51</sup> Ibid.
- <sup>52</sup> V. Tandy, 'Something in the Cellar.', Journal of the Society for Psychical Research, 64.3 (2000) pp. 129-140.
- <sup>53</sup> See Green, and McCreery, *Apparitions*.
- <sup>54</sup> See Newport, and Strausberg, 'Americans' Belief in Psychic and Paranormal Phenomena is Up Over Last Decade.'
- <sup>55</sup> R. Moody, with P. Perry, Reunions: Visionary encounters with departed loved ones (London, 1993).
- <sup>56</sup> See the review by S. J. Sherwood, 'A comparison of the features of psychomanteum and hypnogogic/hypnopompic experiences.' in *The Parapsychological Association 43rd Annual Convention: Proceedings of Presented Papers* (2000) pp. 262-275.
- <sup>57</sup> e.g. W. D. Rees, 'The hallucinations of widowhood.', *British Medical Journal*, 210 (1971). pp. 37-41.
- <sup>58</sup> Hypnogogic imagery occurs naturally when a person is between wakefulness and sleep, and hypnopompic imagery occurs between sleep and wakefulness. An excellent review of the imagery experienced during these states is supplied by A. Mavromatis, *Hypnogogia: The Unique State of Consciousness Between Wakefulness and Sleep* (London, 1987).
- <sup>59</sup> See Green, and McCreery, *Apparitions*.
- <sup>60</sup> See Lange, and Houran, 'Context-induced paranormal experiences: Support for Houran and Lange's model of haunting phenomena.'
- <sup>61</sup> M.C. Maher, & G. P. Hansen, 'Quantitative investigation of a reported haunting using several investigation techniques.', *Journal of the American Society for Psychical Research*, 86 (1992) pp. 347-374.
- <sup>62</sup> These are Maher and Hansen's (1992) operational definitions of a "sensitive" and a "skeptic".
- <sup>63</sup> Maher, and Hansen, 'Quantitative investigation of a reported haunting using several investigation techniques.'
- <sup>64</sup> E. Peach, *Things that go Bump in the Night: How to Investigate and Challenge Ghostly Experiences.* (London, 1991); I. Wilson, *In Search of Ghosts.* (London, 1995).

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